

ANNUAL PROGRESS REPORT

January 2023 to December 2023

KVK- SATNA

Year of sanction: 1993

1.1 Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Office	Mobile	Email
Dr.Rajendra Singh Negi	Deendayal Research Institute, Krishi Vigyan Kendra Satna MP	9425887138	rsnegi007@reiffmail.com

1.2 Staff Position on (31th Dec.2023)

S. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic (Rs.)	Date of Joining	Date of joining this KVK (Year)	Contact No.	Email ID	Photo
1.	Senior Scientist & Head	Dr. R.S. Negi	Sr. Scientist & Head	Horticulture	Rs.37400-67000+RGP Rs.9000 (present basic Rs.161600)	01.10.2014	01.10.2011	9425887138	rsnegi007@rediffmail.com	
2.	SMS	Mr.Akhilesh Jagre	SMS	Plant Protection	Rs.15600-39100+GP Rs.5400 (present basic Rs.61300)	08.02.2019	08.02.2019	9425942368	akhileshjagre123@gmail.com	
3.	SMS	Dr. Ajay Chourasiya	SM S	Agronomy	Rs.15600-39100+GP Rs.5400 (present basic Rs.61300)	15.02.2019	15.02.2019	9407018060	ajaychourasiya09@gmail.com	
4.	SMS	Sh. Hemraj Diwevdi	SMS	Home Science	Rs.15600-39100+GP Rs.5400 (present basic Rs.59500)	15.10.2020	15.10.2020	8770534764	hemraj8691@gmail.com	
5.	SMS	-	-	-	-	-	-	-	-	-
6.	SMS	-	-	-	-	-	-	-	-	-
7.	Computer Programmer/ Programme Assistant	Er. Harendra Kumar	PA	Computer Science & Engineering	Rs.9300-34800+GP Rs.4200 (present basic Rs.37600)	16.10.2020	16.10.2020	9807434457	harendra1692@gmail.com	
8.	Programme Assistant	Sh. Ashok Sharma	PA	Lab. Technician	Rs.9300-34800+GP Rs.4200 (present basic Rs.42300)	08.10.2016	08.10.2016	9425735157	Simpysharma01@gmail.com	
9.	Farm Manager	Sh. Satyam Chauriha	PA	Agronomy	Rs.9300-34800+GP Rs.4200 (present basic Rs.35400)	29.03.2022	29.03.2022	9713040704	satyam15992@gmail.com	

S. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with present basic (Rs.)	Date of Joining	Date of joining this KVK (Year)	Contact No.	Email ID	Photo
10.	Assistant	Sh.R.P. Pandey	Accountant		Rs.9300-34800+GP Rs.4200 (present basic Rs.44900)	01.06.2014	01.06.2014	9407288631	-	
11.	Jr. Stenographer / Comp. Operator	Sh. A.K. Singh	Stenographer		Rs.5200-20200+GP Rs.2400 (present basic Rs.48900)	01.12.1993	01.12.1993	9425887328	-	
12.	Supporting staff	Smt. Rita Singh	Jr. Clerk	-	Rs.5200-20200+GP Rs.2000 (present basic Rs.38300)	07.09.1996	07.09.1996	9425887136		
13.	Supporting staff	Sh. Virendra Singh	Attendant	Agronomy	Rs.5200-20200+GP Rs.1800 (present basic Rs.33400)	01.05.1994	01.05.1994	9755086164		
14.	Supporting staff	Sh. Kamlesh. Pathak	Attendant	Animal Science	Rs.5200-20200+GP Rs.1800 (present basic Rs.32400)	01.04.1995	01.04.1995			
15.	Supporting staff	Sh. R. L. Baheliya	Cook		Rs.5200-20200+GP Rs.1800 (present basic Rs.32400)	01.04.1996	01.04.1996			
16.	Supporting staff	Sh.B .G. Joshi	Attendant	Horticulture	Rs.5200-20200+GP Rs.1800 (present basic Rs.33400)	01.12.1993	01.12.1993			

1.3 Total land with KVK (in ha): 25.20

S. No.	Item	Area (ha)
1	Under Buildings	1.8
2	Under Demonstration Units	0.43
3	Under Crops	12.6
4	Orchard/Agro-forestry	1.3
5	Others (specify)	9.07
Total		25.20

1.4 Infrastructural Development:

A) Buildings

S. No.	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	1998	500				
2	Farmers Hostel	ICAR	2003	300				
3	Staff Quarters (6)	ICAR	2005	440				
4	Demonstration Units (2)	ICAR						
5	Solar Fencing	Mandi Board	2023	15000m	40 lakh			
6	Rain Water harvesting system	ICAR	2018	11526				
7	Threshing floor	ICAR		-				
8	Farm godown	ICAR		67.5				

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor (Power Tiller)	2024	8.7 lakh	10.8 hr.	Working
Motor Cycle 2	2008	46000	12885	Working
Bolero(Jeep)	2018	9 lakh	139253	Working
Other (Pl. specify)				

C) Equipment & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Xerox machine	2016	69165	Working
Air conditioner -4	2008,2009,2016,2023	109079	Working
TV	2021	93600	Good Condition
Projector	2023	32627	Good Condition
Power generator	2020	380000	Good Condition

1.5.(A). Details of SAC meeting to be conducted in the year

KVK Name	Date of SAC meeting 2023	No. of SAC members (only) attended	Major action points*
Satna	09.02.2024	54	- Climate resilient technology - Promotion of millets - Crop diversification - Create awareness and promotion of natural Farming

2. DETAILS OF DISTRICT

Major farming systems / enterprises (based on the Agro-ecological situation analysis made by the KVK) Add AES if needed

S. No.	Farming system/enterprise	Description
1	AES – 1	Lands are sloppy and undulating topography, sils are shallow in depth, poor water holding capacity, Soil pH ranges from 7.0-7.5 Organic carbon 0.20- 45%, Available nutrients status shows low nitrogen, very low to low phosphorus and medium potassium. Boron and zinc micronutrients deficient soils.
2	AES - 2	Medium water holding capacity and optimum drainage, Soil pH ranges from 7.2 to 7.8 organic carbon 0.40 – 0.60 %, available nutrients status shows low to medium nitrogen, low to medium phosphorus and medium to high potassium, boron and zinc micronutrients deficient soils
3	AES – 3	High water holding capacity, poor drainage capacity, Soil pH ranges from 7.1 to 8.2, organic carbon 0.45-0.65%, available nutrients status shows low to medium nitrogen, low phosphorus and very high potassium and also high in calcium and magnesium, boron and zinc micronutrients deficient soils

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

S. No.	Agro-climatic Zone	Characteristics
1	AES – 1	Lands are sloppy and undulating topography, sils are shallow in depth, poor water holding capacity, Soil pH ranges from 7.0-7.5 Organic carbon 0.20- 45%, Available nutrients status shows low nitrogen, very low to low phosphorus and medium potassium. Boron and zinc micronutrients deficient soils.
2	AES - 2	Medium water holding capacity and optimum drainage, Soil pH ranges from 7.2 to 7.8 organic carbon 0.40 – 0.60 %, available nutrients status shows low to medium nitrogen, low to medium phosphorus and medium to high potassium, boron and zinc micronutrients deficient soils
3	AES – 3	High water holding capacity, poor drainage capacity, Soil pH ranges from 7.1 to 8.2, organic carbon 0.45-0.65%, available nutrients status shows low to medium nitrogen, low phosphorus and very high potassium and also high in calcium and magnesium, boron and zinc micronutrients deficient soils

SWOT Analysis of each Agro-Ecological Situations of district AES-1 (name)

Strength	Weakness	Opportunities	Threats
- Less use of chemical fertilizers - Good production of Nutri cereals due suitable agro ecological situation. - Sloppy lands provide good potential for growing cash crop like vegetables during rainy season. - Easily Availability of man power - Abundance of available minor forest produce	- Soil erosion due to sloppy lands - Soils are shallow and poor in fertility - Reluctance of farmers towards adoption of modern agricultural technologies. - Insufficient government credit institution and its linkage with farming community - Lack of organized market channel	- Scope of promotion of organic and natural farming - Promotion of Horticultural crops especially minor fruits like , Aonla, Bael, ber and chirojee - Favorable conditions for cultivation of medicinal plants. - Opportunity to promote micro irrigation technology during the drought and dry spell. - Higher production potential for growing rainy season vegetables(off season tomatoes and chillies) - Good scope for establishing processing units for value addition of minor forest produce - Good scope for goat rearing due to forest area	- Agriculture is highly vulnerable to climate change - Heavy and long spell of rains cause soil erosion - Frost during winter month cause crop loss particularly to Pigeon pea and mustard - Migration of farm families in to the urban areas. - Crop damage by wild animal - Increasing trend of land degradation due to dependence of people of forests

AES-2 (name)

Strength	Weakness	Opportunities	Threats
Soil and climatic conditions are favourable for raising varied crops.	Low erratic and uncertain rainfall and its skewed distribution affect the crop production.	- Ample scope exist for opportunities for agro processing units - Scope for small agri business entrepreneurs in custom hiring	Over stress on groundwater and faster depletion of ground water

• wide range of crops cereals ,pulses and oilseeds are cultivated • A well establish warehousing system due to closure proximity to district head quarter.	• Shortage of green fodder • Lack of knowledge among the dairy farmers on scientific rearing of livestock • Inadequate grazing facilities	services. due to non availability of labour	• Deterioration of soil health • Over use of chemical fertilizers and depletion of organic matter • Over dependence of farmers on hybrid seeds, highly vulnerable to climate change. • Declining trend of net sown area due to urbanization
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AES-3 (name)

Strength	Weakness	Opportunities	Threats
• The area has very good potential of high valued vegetables and spices.	• Low level of resource management due to low farm power availability • High cost of cultivating high valued crops • High perishable nature of horticultural crops • Lack of adequate cold storage facilities for perishable vegetables lead to heavy post harvest losses. • Large number of marginal and small farmers	• Crop diversification from low return field crops to high valued horticultural crops • Good Opportunity for promoting horticultural crops • Excellent opportunity for the agro –m processing entrepreneurs • Good scope for strengthening the existing marketing channel. • Strengthening storage system at farm level especially pack house	• Low level of farm mechanization • High cost of high tech cultivation of horticultural crops and low financial capabilities of majority of farmers. • In adequate availability of post harvest facilities • Highly fluctuating prices of horticultural commodities

Land Use Pattern

Particulars	Area “000 ha”
Total Geographical area	7. 42
Forest	2.04
Waste Land	0.41
Other than cultivated area	0.26
Cultivable waste and alkaline land	0.23
Pastures	0.07
Bushes	-
Current Fallow	0.76
Other Fallow	0.12
Agricultural Land	
Area Sown	3.41
Kharif	2.54
Rabi	2.86
Zaid	0.26
Cropping Intensity	176.90 %

Irrigated Area with Different Sources:

S. No.	Description	Area (ha)
1	Canal	5.872
2	Well	38.075
3	Tube well	72.111
4	Ponds	3.66
5	Others	19.104

Soil types

S. No.	Soil type	Characteristics	Area “000 ha”
1	Coarse Red Soils	Poor water holding capacity, Soil pH ranges from 7.0-7.5 Organic carbon 0.20- 45%, Available nutrients status shows low nitrogen, very low to low phosphorus and medium potassium. Boron and zinc micronutrients deficient soils.	21.34
2	Mixed Red and Black soils	Medium water holding capacity and optimum drainage Soil pH ranges from 7.2 to 7.8 organic carbon 0.40 – 0.60 %, available nutrients status shows low to medium nitrogen, low to medium phosphorus and medium to high potassium, boron and zinc micronutrients deficient soils	42.43
3	Black soils	High water holding capacity, poor drainage capacity, Soil pH ranges from 7.1 to 8.2, organic carbon 0.45-0.65%, available nutrients status shows low to medium nitrogen, low phosphorus and very high potassium and also high in calcium and magnesium, boron and zinc micronutrients deficient soils	36.23

Note: Figure. In parenthesis denotes the percentage of total area.

Area, Production and Productivity of major crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qt.)	Productivity (Q /ha)
1	Rice	226.20	1173.79	44.76
2	Pigeonpea	8.70	6.02	6.9
3	Blackgram	50.20	46.25	9.21
4	Green Gram	2.5	1.53	6.1
5	Soyabean	2.8	2.05	7.34
6	Sesame	11.90	8.9	7.5
7	Wheat	319.36	1373.26	43.0
8	Barley	1.73	5.0	29.0
9	Chickpea	21.49	39.98	18.6
10	Lentil	6.03	7.84	13.0
11	Mustered	13.86	16.64	12.0

Weather data (Jan, 2023- Dec., 2023)

Month /Year	Rainfall (m.m.)	Temperature (° C)	
		Maximum	Minimum
Jan, 2023	5.2	19.8	9
Feb, 2023	16.4	23.6	10.6
Mar, 2023	0.0	30.2	11
Apr, 2023	0.0	34.7	21.7
May, 2023	4.8	38.2	25.2
Jun, 2023	28.0	38.6	28.4
July, 2023	261	33.5	26.9
Aug., 2023	210	32.2	25.9
Sept., 2023	203.3	32.5	24.4
Oct. 2023	25.8	32.5	19.8
Nov. 2023	17.0	28	14.7
Dec. 2023	0.0	22.7	9.6

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

Category	Population	Production	Productivity
Cattle			
Crossbred/ Indigenous	579903	608.90 MT.	0.75 - 1..25 liter per day
Buffalo	224464	392.81 MT.	1.5 - 2.0 liter per day
Sheep			
Crossbred/ Indigenous	19005	MT	 Kg
Goats	270633	100.13 MT	0.25 - 0.5 liter per Day
Pigs Crossbred/ Indigenous	4231	---	---
Rabbits			
Poultry			

Hens	42678	-	120 eggs/ bird/yr
Turkey and others			-
Category	Area	Production	Productivity
Fish	45 (ha),	540.Q/ month	12 Q/ ha.

Details of Operational area / Villages (2023).

Sl. No.	Tehsil	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Majhgawan	Majhgawan	Baka Piparawan Baruwa Tikara Lotni	Rice, Wheat and Mustard	Low productivity of crops Use of long duration varieties Imbalance use of fertilizers Heavy weed infestation High incidence of gundhi bug , leaf folder, hopper, False smut Moisture stress during crop growth period	Crop,Diversification Promotion of Horticultural crops,Water Conservation and Management

Priority / Thrust areas

S. No.	Particulars
1.	Enhancing the productivity and profitability of farming
2.	Water Conservation and Management
3.	Seed replacement- use of high yielding varieties tolerant to biotic and abiotic factors
4.	Promotion of Integrated farming system
5.	Crop Diversification
6.	Frost and Drought management
7.	Promotion of Horticultural crops
8.	Utilization of Kharif and Rabi fallow lands
9.	Livestock up gradation and Management
10.	Employment generation for rural youths through agri. enterprises
11.	Strengthening of marketing network
	Crop production
12.	Seed replacement- use of high yielding tolerant to biotic and abiotic factors
13.	Seed treatment
14.	Sowing technique
15.	Direct seeding in paddy
16.	Alternate cropping system
17.	Promotion of Integrated farming system
18.	Seed production through group approach
19.	Water Management in wheat
20.	Frost and Drought management
21.	Rain water harvesting for recycling and ground water recharge
22.	In-situ moisture conservation through better agronomic practices
23.	Weed Management in Kharif crops (Rice, Blackgram, Redgram and Soybean)
24.	Nutrient management in Kharif crops (Rice, soybean , sesame, mustard, blackgram, and redgram)
25.	Nutrient management in Rabi crops (Wheat, mustard, lentil and gram)
26.	Drudgery reduction - Use of improved agriculture implements and tools

27.	Wilt and Pod borer management in gram and redgram
28.	Safe seed and grain storage
29.	Diversification of crops
	Horticulture
30.	Promotion of Horticultural crops
31.	Improved varieties of vegetables and spices
32.	Nursery Management in vegetables and fruit plants
33.	Layout and planting technique in horticultural crops
34.	Nutrients Management in onion
35.	Wasteland Development through fruit culture
36.	Disease and insect pest management in onion
37.	Disease and insect pest management in cucurbits
38.	Disease and insect pest management in tomato & chillies
39.	Management of early shoot and fruit borer in tomato and brinjal
40.	Protective cultivation
41.	Water saving methods- use of sprinkler and drip irrigation
	Livestock
42.	Livestock up gradation
43.	Improvement of fat and milk production in cows
44.	Introduction of new breeds in goat and poultry
45.	Management of disease in cows and buffaloes
46.	Control measures for ecto and endo parasites in cattle
	Extension
47.	Strengthening of marketing network
48.	Timely inputs, services and advisory to the farming community
49.	Promotion of group organization
50.	Linkage development
51.	Employment generation for rural youths

TECHNICAL PROGRAMME

A. Details of targeted mandatory activities by KVK

OFT		FLD and CFLD	
1		2	
Number of OFTs	Number of Farmers	Number of FLDs	Number of Farmers
25	241	22	245

Training		Extension Activities	
3		4	
Number of Courses	Number of Participants	Number of activities	Number of participants
87	2018	1603	43638

Seed Production (Qtl.)	Planting material (Nos.)
111.84	459566

B. Abstract of interventions undertaken

S . N o .	Thrust area	Crop/ Enterpri se	Identified Problem	Interventions					
				Title of OFT	Titl e of FLD	Title of Training	Title of training for extension personnel	Extensio n activities	Supply of seeds, planting materials etc.
1	Integra ted nutrient manage ment	Bitter gourd	Productivity of bitter gourd is adversely affected by micronutrient deficiencies	Assessment of foliar application of micronutrien ts on Yield and quality of Bitter gourd.	-	Improved Production and management practices in Bittergourd cutlivation	Recent technologies in high valued horticultural crops for enhancing farmers income.	Field day Krishak Sangosthi Group meeting Kisan Mobile advisory	Improved variety Seed
2	Chemic al free Natural Farmin g	Tomato	Increasing cost of inputs and decreasing soil fertility status		Demonstrati on of Chemical free Natural farming practices in tomato.	Improved production and management practices in Kharif tomato production	Recent technologies in high valued horticultural crops for enhancing farmers income.	Field day Krishak Sangosthi Group meeting Kisan Mobile advisory	Microbial formatio n Gan jeevamrit, Liquid Gan jeevamrit, Beejamrit, Biopestici de, Improved variety seed
3	Chemi cal Free Natural Farmin g	Potato	Farmers generally use locally available tubers as planting material, which is not suitable for processing purpose Increasing cost of inputs and decreasing soil fertility status .Indiscriminat e use of inorganic fertilizers has brought threat to soil health in respect of physical, chemical and biological properties of soil.	Assessmen t of processing varieties of potato for their growth and yield parameters in Satna District.	Demonstrat ion of Chemical free Natural farming practices in Potato.	Improved production and management practices in onion and potato cultivation	Natural Farming in Horticultural Crops	Field day Krishak Sangosthi Group meeting Kisan Mobile advisory	Microbial formatio n Gan jeevamrit, Liquid Gan jeevamrit, Beejamrit, Biopestici de, Improved variety seed

4	Crop Diversification and intensification	Cabbage	Low returns from Cabbage due to market price fluctuations.		Demonstration of vegetable intercropping (Cabbage +Pea) for ensuring higher returns under Okra-Cabbage-Onion cropping sequence.			Field day Krishak Sangosthi Group meeting Kisan Mobile advisory	Improved Variety seeds
	Chemical free natural farming	Onion	The cost of inorganic fertilizers is Increasing enormously to the extent that they are out of reach of small and marginal farmers.	Assessment of natural farming practices in Onion		Improved production and management practices in onion and potato cultivation		Field day Krishak Sangosthi Group meeting Kisan Mobile advisory	Microbial formulation n Gan jeevamrit, Liquid Gan jeevamrit, Beejamrit, Biopesticide, Improved variety seed

Technologies assessed

A.1 Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	-	-	2	-	-	-	-	2
Natural Farming		1	2	-	2	-	-	-	-	5
Integrated Nutrient Management	1	-	-	-	1	-	-	-	-	2
Integrated farming system	1	-	-	-	-	-	-	-	-	1
Integrated pest management	1	1	2	-	1	-	-	-	-	5
Value addition	-	-	-	-	-	2	-	-	-	2
Nutritional security	-	-	-	-	1	-	-	-	-	1
Extension management	1	-	-	-	-	-	-	-	-	1
TOTAL	4	2	4	0	7	2	0	0	0	19

Abstract on the number of technologies assessed in respect of livestock/enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Breed evolution	-	1	-	-	-	-	-	1
Feed management	1	-	-	-	-	-	-	1
Disease management	1	-	-	-	-	-	-	1
TOTAL	2	1	-	-	-	-	-	3

Detailed Information about OFT-1 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Integrated Weed Management technology for management of weeds in Kodon millet
Year/Season:	Kharif 2023-24
Farming situation:	Rainfed

Problem diagnosis:	Yield loss upto 30 % due to heavy infestation of weeds
Thematic area:	Weed Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	No use of weedicide for weed management
T2 –Recommended Practice-	Bensulfuron ethyl 0.6 + Pretilachlor 6.0 G at 0.33 kg ha ⁻¹ (within 3 DAS) fb one inter-cultivation at 25-30 DAS
T3- Recommended Practice-	Bispyribac sodium 10 SC 0.01 lit/ha (within 15-20 DAS) fb one inter-cultivation at 35-40 DAS
Date of sowing:	05-06 July 2023
Date of harvesting:	29-30 Oct 2023
Source of technology:	ICAR-DWR, Jabalpur (2020)
Characteristics of technology:	Integration of chemical weed management along with hand weeding minimizes the weeds infestation, there by increases the yield
Name of Crop/Enterprises:	Kodo millet
Recommendations for Farmers	Bensulfuron ethyl 0.6% + Pretilachlor 6.0% G at 0.33 kg ha ⁻¹ (within 3 DAS) fb one inter-cultivation at 25-30 DAS and Bispyribac sodium 10 SC 0.01 or 0.015 kg/ha (within 15-20 DAS) fb one inter-cultivation at 35-40 DAS options were found to be the feasible option due to control of the broad spectrum of weeds more efficiently and thereby increasing the grain, straw yield and economics of kodo millet.
Recommendations for Deptt. Personnel	Herbicide weed control appears to be the viable measure to reduce a wide variety of weeds in a short time and economically.
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1-No use of weedicide	Grain yield	q./ha	7.86	23440	30218	6778	1.29
T2-Bensulfuron ethyl 0.6 + Pretilachlor 6.0 G at 0.33 kg ha ⁻¹ (within 3 DAS) fb one inter-cultivation at 25-30 DAS	Grain yield	q./ha	18.74	25340	72086	46746	2.84
T3-Bispyribac sodium 10 SC 0.01 or 0.015 kg/ha (within 15-20 DAS) fb one inter-cultivation at 35-40 DAS	Grain yield	q./ha	18.20	25040	69997	44957	2.80

Detailed Information about OFT-2 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Integrated Farming System Module for higher and sustainable income under Rice – wheat cropping system
Year/Season:	Kharif, Rabi & zaid 2022-23
Farming situation:	Irrigated
Problem diagnosis:	80.68 % of farmers in Satna district are small and marginal farmers

	possessing only 42.86 % of the total operational land. Rice- wheat cropping system followed by majority of small and marginal famers has failed to provide sufficient income to farm families.
Thematic area:	Integrated Farming System
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Rice- Wheat cropping system
T2 –Recommended Practice-	One ha integrated Farming System (IFS) model comprising of cropping systems (Rice-Wheat-Green gram) in 0.4 ha + Vegetables (Tomato-Cauliflower-Cowpea, Cowpea-Tomato-Okra, Chillies-Onion-Coriander, Okra-Pea-Bottle guard) in 0.4 ha + Dairy (1 cow and 1 buffalo) including vermicompost unit in 0.2 ha
T3- Recommended Practice-	-
Date of sowing:	03-05 July 2022
Date of harvesting:	15-20 June 2023
Source of technology:	IIFSR, Jhansi (UP)
Characteristics of technology:	It is an intensive farming model involving more than 2 enterprises to achieve economic & sustained agricultural production to meet diverse requirement of farm household while preserving the resource base & maintain high environmental quality. Taken care of soil fertility and heat, more economic yield per unit are reduced cost of production, multiple income source, energy saving and recycling of resources.
Name of Crop/Enterprises:	Field Crops + Vegetables + Livestock
Recommendations for Farmers	Integrated Farming System Module was found suitable for higher and sustainable income under Rice – wheat cropping system
Recommendations for Deptt. Personnel	Integrated Farming System Module was found suitable for higher and sustainable income under Rice – wheat cropping system
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	87.02	71004	181084	110080	2.55
T2(Recommended Practice)	Yield	q/ha	347.47	141117	427596	286478	3.03

Detailed Information about OFT-3 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Integrated Farming System Module for higher and sustainable income under Rice – wheat cropping system
Year/Season:	Kharif, Rabi & Zaid 2023-24
Farming situation:	Irrigated
Problem diagnosis:	80.68 % of farmers in Satna district are small and marginal farmers possessing only 42.86 % of the total operational land. Rice- wheat cropping system followed by majority of small and marginal famers has failed to provide sufficient income to farm families.
Thematic area:	Integrated Farming System

No of trials:	05
No. of farmers involved	05
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Rice- Wheat cropping system
T2 –Recommended Practice-	One ha integrated Farming System (IFS) model comprising of cropping systems (rice-wheat-green gram) in 0.4 ha + Vegetables (Tomato, Brinjal, Potato, Cabbage, Cauliflower, okra, peas, spinach, Coriander, Fenugreek, Green chilies, Onion) in 0.4 ha + Dairy (1 cow, 1 buffalo) including vermicompost unit in 0.2 ha
T3- Recommended Practice-	-
Date of sowing:	05-07 July 2023
Date of harvesting:	
Source of technology:	IIFSR, Jhansi (UP)
Characteristics of technology:	It is an intensive farming model involving more than 2 enterprises to achieve economic & sustained agricultural production to meet diverse requirement of farm household while preserving the resource base & maintain high environmental quality. Taken care of soil fertility and heat, more economic yield per unit are reduced cost of production, multiple income source, energy saving and recycling of resources.
Name of Crop/Enterprises:	Field Crop + Vegetables + Livestock
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	Awaited	Awaited	Awaited	Awaited	Awaited

Detailed Information about OFT-4 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Natural Farming practices on growth and yield contributing attributes in Mustard
Year/Season:	Rabi 2022-23
Farming situation:	Rainfed
Problem diagnosis:	Indiscriminate use of inorganic fertilizers has brought threat to soil health in respect of physical, chemical and biological properties of soil.
Thematic area:	Natural Farming
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	

T1 – Farmers Practice-	Seed treatment with Carboxin+ thiram @ 2 g/kg seed, Application of NPKS (32:16:12:8) Kg/acre, Application of Pendimethalin 38.7 % CS @ 700 ml/acre PE for weed control and application of Thiamethoxam @ 100 g/acre for aphid control
T2 –Recommended Practice-	Seed treatment with Beejamrit @ 20 ml/kg seed, Jeevamrit (Soil application of 200 kg /acre Ghan Jeevamrit before cum up irrigation + Taral Jeevamrit @ 500 litre/acre at cum-up irrigation + Four foliar application of liquid Jeevamrit @ 85 litre/acre at 21 days interval each spray), Straw mulching for weed management and moisture conservation) and two foliar application of Neemastra @ 12 litre/acre for aphid management.
T3- Recommended Practice-	-
Date of sowing:	15/10/2022
Date of harvesting:	30/03/2023
Source of technology:	Gurukul Natural Farming Farm, Kurukshetra (Haryana) (2019)
Characteristics of technology:	Jeevamrit, a promising liquid manure which act as a good soil tonic, enhances the soil physical, chemical and biological properties. Application of Jeevamrit at very low rate act as a tonic to so improving soil health. straw mulching reduce weeds and increase the soil moisture available for plant use. and Neemastra use as foliar spray over one acre, useful against sucking pests
Name of Crop/Enterprises:	Mustard
Recommendations for Farmers	Natural farming practices enhance net monetary return and reduction in cost of cultivation
Recommendations for Deptt. Personnel	Seed treatment with Beejamrit @ 20 ml/kg seed, Jeevamrit (Soil application of 200 kg /acre Ghan Jeevamrit before cum up irrigation + Taral Jeevamrit @ 500 litre/acre at cum-up irrigation + Four foliar application of liquid Jeevamrit @ 85 litre/acre at 21 days interval each spray), Straw mulching for weed management and moisture conservation) and two foliar application of Neemastra @ 12 litre/acre for aphid management recorded net return (Rs 51092/ha) and B:C ratio (4.50) as compared to control. Thus, from the present study, it can be concluded that natural farming practices enhance net monetary return and reduction in cost of cultivation
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	13.03	20204	70986	50783	3.52
T2(Recommended Practice)	Yield	q/ha	12.06	14624	65716	51092	4.50

Detailed Information about OFT-5 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Natural Farming practices on growth and yield contributing attributes in Mustard
Year/Season:	Rabi 2023-24
Farming situation:	Rainfed
Problem diagnosis:	Indiscriminate use of inorganic fertilizers has brought threat to soil health in respect of physical, chemical and biological properties of soil.

Thematic area:	Natural Farming
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Seed treatment with Carboxin+ thiram @ 2 g/kg seed, Application of NPKS (32:16:12:8) Kg/acre, Application of Pendimethalin 38.7 % CS @ 700 ml/acre PE for weed control and application of Thiamethoxam @ 100 g/acre for aphid control
T2 –Recommended Practice-	Seed treatment with Beejamrit @ 20 ml/kg seed, Jeevamrit (Soil application of 200 kg /acre Ghan Jeevamrit before cum up irrigation + Taral Jeevamrit @ 500 litre/acre at cum-up irrigation + Four foliar application of liquid Jeevamrit @ 85 litre/acre at 21 days interval each spray), Straw mulching for weed management and moisture conservation) and two foliar application of Neemastra @ 12 litre/acre for aphid management.
T3- Recommended Practice-	-
Date of sowing:	16.10.2023
Date of harvesting:	
Source of technology:	Gurukul Natural Farming Farm, Kurukshetra (Haryana) (2019)
Characteristics of technology:	Jeevamrit, a promising liquid manure which act as a good soil tonic, enhances the soil physical, chemical and biological properties. Application of Jeevamrit at very low rate act as a tonic to so improving soil health. straw mulching reduce weeds and increase the soil moisture available for plant use. and Neemastra use as foliar spray over one acre, useful against sucking pests
Name of Crop/Enterprises:	Mustard
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT-6 Agronomy

Name of Discipline	Agronomy
Title of on-farm trial:	Assessment of Agri drone sprayer for chemical weed control in Wheat
Year/Season:	Rabi 2023-24
Farming situation:	Irrigated
Problem diagnosis:	Manual spraying is more laborious and time taking and some times not more effective due to poor distribution of spray material
Thematic area:	Precision Farming
No of trials:	10
No. of farmers involved	10

Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Application of Metribuzin 70% WP @ 0.175 kg a.i. ha-1 POE by Knapsack Sprayer
T2 –Recommended Practice-	Application of Metribuzin 70% WP @ 0.175 kg a.i. ha-1 POE by Agri Drone Sprayer
T3- Recommended Practice-	-
Date of sowing:	15.11.2023
Date of harvesting:	-
Source of technology:	Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV), Parbhani (2021)
Characteristics of technology:	-
Name of Crop/Enterprises:	Wheat
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about (OFT-1) Horticulture

Name of Discipline	Horticulture
Title of on-farm trial:	Assessment of processing varieties of potato for their growth and yield parameters in Satna District.
Year/Season:	2022
Farming situation:	Irrigated
Problem diagnosis:	Farmers generally use locally available tubers as planting material, which is not suitable for processing purpose
Thematic area:	Varietal Evaluation
No of trials:	10
No. of farmers involved	10
Type of OFT :	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Locally available seed as
T2 –Recommended Practice-	Kufri Chipsona 1
T3- Recommended Practice-	Kufri Kufri Chipsona 3
Date of sowing:	27.10.2022
Date of harvesting:	07-10 February, 2023
Source of technology:	CPRI(2019)
Characteristics of technology:	Varieties having high dry matter content (21-23 %), acceptable reducing sugar level between 60-140 mg/100g fresh weight, Good for processing (chips and namkeen making

Name of Crop/Enterprises:	Potato
Recommendations for Farmers	Based on the performance of the varieties, Kufri Chipsona 3, that recorded, higher number of tuber per plant, tuber size and yield of tubers and higher percentage of grade A and grade B tubers meeting all desirable parameters of processing varieties can be recommended for cultivation in Satna district
Recommendations for Deptt. Personnel	Kufri Chipsona 3 should be promoted for cultivation in Satna for processing purpose
Feedback	Farmers showed their preference for growing Kufri Chipsona 3 as it gave higher yield of grade A and grade B tubers having attractive colour of tubers

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	187.5	102300	225000	132700	2.19
T2(Recommended Practice)	Yield	q/ha	246.45	124500	295740	171240	2.38
T3(Recommended Practice)	Yield	q/ha	278.29	124500	333948	209448	2.68

Detailed Information about (OFT-2) Horticulture

Name of Discipline	Horticulture
Title of on-farm trial:	Assessment of Natural farming practices in onion.
Year/Season:	2022 (Rabi)
Farming situation:	Irrigated
Problem diagnosis:	The cost of inorganic fertilizers is Increasing enormously to the extent that they are out of reach of small and marginal farmers.
Thematic area:	Natural Farming
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Recommended dose of fertilizer NPK @ 120:80:60 Kg/ha
T2 –Recommended Practice-	FYM 25 T + Soil application of Jeevamrit @ 500 litre/ha at planting + vegetative + bulb initiation stage +two sprays of neemastra@ 0.3%
T3- Recommended Practice-	Ghan Jeevamrit @ 500 kg/ha + Soil application of Jeevamrit @ 500 litre/ha at planting + vegetative + bulb initiation stage +two sprays of neemastra@ 0.3%
Date of sowing:	29.12.2022
Date of harvesting:	15- 22.04.2023
Source of technology:	University of Agricultural Sciences, banglore(2017)
Characteristics of technology:	Microbial preparation Jeevamrit promotes immense biological activity in soil and enhances nutrient availability and uptake by the crop besides improving soil health. Being rich in nutrients, auxins, gibberellins, and microbial load, acts as a tonic to in rich soil induced plant vigour with quality production. Application of Bio enhancer improves the production, productivity and quality of onion.
Name of Crop/Enterprises:	Onion
Recommendations for Farmers	Application of Ghan Jeevamrit @ 500 kg/ha before transplanting followed by soil application of Jeevamrit @ 500 litre/ha at planting + vegetative + bulb initiation stage +two sprays of neemastra@ 0.3% can be recommended to farmers for natural farming of onion

Recommendations for Deptt. Personnel	Base on the results observed under natural farming it is evident that onion production is feasible by following natural farming practices showing the possibility of substituting the synthetic fertilizers effectively by ghan jeevamirt , which can provide yield along with improved quality attributes
Feedback	Jeevamrit is easy to prepare at home ,Farmers reported yield loss upto 10-15 %, however, the cost of cultivation has also decreased by 10.46 %

Result : (Economic Performance of OFT

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	219.59	83892	252529	168636	3.01
T2	Yield	q/ha	208.69	85717	239994	154276	2.80
T3	Yield	q/ha	190.17	75117	218696	143578	2.91

Detailed Information about (OFT-3) Horticulture

Name of Discipline	Horticulture
Title of on-farm trial:	Assessment of foliar application of micronutrients on Yield and quality of Bitter gourd.
Year/Season:	2023/ (Kharif)
Farming situation:	Irrigated
Problem diagnosis:	Productivity of bitter gourd is adversely affected by micronutrient deficiencies
Thematic area:	Integrated nutrient management
No of trials:	10
No. of farmers involved	10
Type of OFT :	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Recommended dose of fertilizer NPKS Zn @ 150:60:40 : 20 :12.5 Kg/ha
T2 –Recommended Practice-	RDF+Foliar application of urea 0.5 % along with boric acid @ 25 ppm at 15 days interval after 25 days after planting
T3- Recommended Practice-	RDF+ Foliar application of urea 1.0 % along with boric acid @ 25 ppm at 15 days interval after 25 days after planting.
Date of sowing:	12.7.23
Date of harvesting:	15.09.2023-29.11.2023
Source of technology:	IIHR, Bangalore (2018)
Characteristics of technology:	Boric acid at 25 ppm concentration applied as foliar spray thrice prior to early fruiting stage helps in improving pollen health and also results in marked increase in vigor of the vine, fruit set and size of fruit leading to enhance yield over 25 – 35 %. Adding urea at 0.5 % or 1.0 % improves the absorption of boron by leaves.
Name of Crop/ Enterprises:	Bitter gourd
Recommendations for Farmers	Foliar application of urea 1.0 % along with boric acid @ 25 ppm at 15 days interval after 25 days after planting increases yield of bitter gourd by 19.66
Recommendations for Deptt. Personnel	Vegetable growing farmers should be advised to spray 1.0 % urea along with boric acid @ 25 ppm at 15 days interval after 25 days after planting for improving fruit set in Bittgourd and improving the male to Female flower ratio.
Feedback	Farmers greatly appreciated the technology as it very cheap and readily available. The results of using boric acid are quite promising.

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	143.65	79320	229840	150520	2.90
T2(Recommended Practice)	Yield	q/ha	165.45	84480	264720	180240	3.13
T3(Recommended Practice)	Yield	q/ha	171.34	85560	274140	188800	3.20

Detailed Information about (OFT-4) Horticulture

Name of Discipline	Horticulture
Title of on-farm trial:	Assessment of processing varieties of potato for their growth and yield parameters in Satna District.
Year/Season:	Rabi 2023-24
Farming situation:	Irrigated
Problem diagnosis:	Farmers generally use locally available tubers as planting material, which is not suitable for processing purpose
Thematic area:	Varietal Evaluation
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Locally available seed
T2 –Recommended Practice-	Kufri Chipsona 4
T3- Recommended Practice-	Kufri Frysona
Date of sowing:	27.11.2023
Date of harvesting:	
Source of technology:	IIHR, Bangalore (2018)
Characteristics of technology:	
Name of Crop/Enterprises:	Potato
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited

Detailed Information about OFT-5 Horticulture

Name of Discipline	Horticulture
Title of on-farm trial:	Assessment of natural farming practices on growth and yield of Onion

Year/Season:	Rabi 2023-24
Farming situation:	Irrigated
Problem diagnosis:	The cost of inorganic fertilizers is Increasing enormously to the extent that they are out of reach of small and marginal farmers
Thematic area:	Varietal Evaluation
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Recommended dose of fertilizer NPK @ 120:80:60 Kg/ha
T2 –Recommended Practice-	FYM 25 T + Soil application of Jeevamrit @ 500 litre/ha at planting + vegetative + bulb initiation stage + two sprays of neemstra(0.3%)
T3- Recommended Practice-	GhanJeevamrit + Soil application of Jeevamrit @ 500 litre/ha at planting + vegetative + bulb initiation stage+ two sprays of neemstra(0.3%)
Date of sowing:	03.12.2023
Date of harvesting:	
Source of technology:	University of Agricultural Sciences, Bangalore (2017)
Characteristics of technology:	
Name of Crop/Enterprises:	Onion
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited

Detailed Information about OFT -1 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of integrated module of Fusarium wilt management in chickpea
Year/Season:	Rabi 2022 -23
Farming situation:	Rainfed
Problem diagnosis:	Yield loss up to 40% due to severe infestation of Fusarium wilt
Thematic area:	Integrated Disease Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Seed treatment with Carbendazim + Mancozeb @ 2 gram per kg seed .
T2 –Recommended Practice-	Integrated module- Deep ploughing + Soil application of Trichoderma viride @ 4 kg/ha + Seed treatment (FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of

	tebuconazol @ 625 ml/ha at 25 and 45 DAS
T3- Recommended Practice-	-
Date of sowing:	22 Oct. 2022
Date of harvesting:	-
Source of technology:	JNKVV, Jabalpur (2015)
Characteristics of technology:	Integrated module of wilt management is more effective in managing <i>Fusarium</i> wilt. Integrated module- Deep ploughing + Soil application of Trichoderma viride @ 4 kg/ha + Seed treatment (FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of tebuconazol @ 625 ml/ha at 25 and 45 DAS.
Name of Crop/Enterprises:	Chickpea
Recommendations for Farmers	Use in Integrated module- Deep ploughing + Soil application of Trichoderma virde @ 4 kg/ha + Seed treatment(FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of Tebuconazol @ 625 ml/ha at 25 and 45 DAS at vegetative growth stage in control of fusarium wilt disease in chickpea crop.
Recommendations for Deptt. Personnel	Soil application of Trichoderma virde @ 4 kg/ha + Seed treatment(FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of Tebuconazol @ 625 ml/ha at 25 and 45 DAS at vegetative growth stage in control of fusarium wilt disease in chickpea crop.
Feedback	Effective control of fusarium wilt disease in farmer field use in Use in Integrated module- Deep ploughing + Soil application of Trichoderma virde @ 4 kg/ha + Seed treatment(FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of Tebuconazol @ 625 ml/ha at 25 and 45 DAS at vegetative growth stage in control of fusarium wilt disease in chickpea crop.

Result : (Economic Performance of OFT- 2022-23)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	11.5	20309	58650	38341	1.8
T2(Recommended Practice)	Yield	q/ha	13.8	23670	78380	54710	2.3
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT - 2 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of efficacy bio pesticide against aphid (Sucking pest) in Mustard
Year/Season:	Rabi /2022 -23
Farming situation:	Rainfed
Problem diagnosis:	Loss of crop up to 30-35% yield due to severe infestation of sucking pests(Aphids)
Thematic area:	Integrated pest Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment

Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Foliar application of Thiamethoxam 25 wg @ 100 gram/ acre .
T2 –Recommended Practice-	Foliar application of Neemastra biopesticide @ 6 % at 25,40& 50 DAS
T3- Recommended Practice-	Foliar application of Aganistra biopesticide@ 6 % at 25,40 & 50 DAS
Date of sowing:	20 Oct. 2022
Date of harvesting:	-
Source of technology:	Tamil Nadu Agricultural University, Coimbatore (2017).
Characteristics of technology:	Spraying of Aganistra @ 6 % very effectively check sucking pest (Aphid) up to three foliar application after 15 days interval. Biopesticide application which are effective and biodegradable and do not leave any harmful effect on soil.
Name of Crop/Enterprises:	Mustard
Recommendations for Farmers	Use in foliar spray in bio-pesticide Aganistra @ 6 % at 25,40& 50 days after sowing against Sucking pest in Mustard.
Recommendations for Deptt. Personnel	Application of foliar spray in bio-pesticide Aganistra @ 6 % % at 25,40& 50 days after sowing against Sucking pest in Mustard
Feedback	Effective result in Aganistra @ 6 % at 25,40& 50 days after sowing best result against Sucking pest in Mustard

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	10.47	19125	52960	33835	2.76
T2(Recommended Practice)	Yield	q/ha	11.62	20212	61005	40793	2.01
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT -3 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of efficacy of bio pesticide against, Pod borer and Bihar hairy caterpillar in Black gram
Year/Season:	2023/Kharif
Farming situation:	Irrigated
Problem diagnosis:	Loss of crop yield due to insects in black gram up to 25-30 %. Several insecticides recommended for management of Pod borer & Bihar hairy caterpillar are showing resistance to insecticide
Thematic area:	Natural Farming
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Foliar application of Indoxacarb 14.5 SC @150 ml per acre.
T2 –Recommended Practice-	Foliar application of Brahmastra bio pesticide @ 6 % at 25,40& 50 DAS
T3- Recommended Practice-	-
Date of sowing:	18 July 2023
Date of harvesting:	26 Sep-2023

Source of technology:	Tamil Nadu Agricultural university, Coimbatore(2017).
Characteristics of technology:	Spraying of Brahmastra @ 6% effectively check Pod borer and hairy caterpillar in Black gram up to seventh day after application. Bio-pesticide application which are effective and biodegradable and do not leave any harmful effect on environment.
Name of Crop/Enterprises:	Black gram
Recommendations for Farmers	Use in foliar spray in bio-pesticide Bramastra @ 6 % at 25,40& 50 days after sowing against Pod borer and Bihar hairy caterpillar in Black gram.
Recommendations for Deptt. Personnel	Application of foliar spray in bio-pesticide Bramastra @ 6 % at 25,40& 50 days after sowing against Pod borer and Bihar hairy caterpillar in Black gram.
Feedback	Effective result in Bramastra @ 6 % at 25,40& 50 days after sowing best result against Pod borer and Bihar hairy caterpillar in Black gram.

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	9.2	20610	57960	37350	1.81
T2(Recommended Practice)	Yield	q/ha	10.6	18250	68040	49790	2.72
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT -4 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of integrated module of Fusarium wilt management in chickpea
Year/Season:	Rabi 2023 –24
Farming situation:	Rainfed
Problem diagnosis:	Yield loss up to 40% due to severe infestation of Fusarium wilt
Thematic area:	Integrated Disease Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Seed treatment with Carbendazim + Mancozeb @ 2 gram per kg seed .
T2 –Recommended Practice-	Integrated module- Deep ploughing + Soil application of Trichoderma viride @ 4 kg/ha + Seed treatment (FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of tebuconazole @ 625 ml/ha at 25 and 45 DAS
T3- Recommended Practice-	-
Date of sowing:	29Oct. 2023
Date of harvesting:	-

Source of technology:	JNKVV, Jabalpur (2015)
Characteristics of technology:	Integrated module of wilt management is more effective in managing <i>Fusarium</i> wilt. Integrated module- Deep ploughing + Soil application of <i>Trichoderma viride</i> @ 4 kg/ha + Seed treatment (FIR)+ Intercropping (Chickpea+ Coriander , 10:1or 2) and Marigold planting around the border + need based foliar application of tebuconazol @ 625 ml/ha at 25 and 45 DAS.
Name of Crop/Enterprises:	Chickpea
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT - 5 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of efficacy bio pesticide against aphid (Sucking pest) in Mustard
Year/Season:	Rabi 2023 -24
Farming situation:	Rainfed
Problem diagnosis:	Loss of crop up to 30-35% yield due to severe infestation of sucking pests(Aphids)
Thematic area:	Integrated pest Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Foliar application of Thiamethoxam 25 wg @ 100 gram/ acre .
T2 –Recommended Practice-	Foliar application of Neemastra biopesticide @ 6 % at 25,40& 50 DAS
T3- Recommended Practice-	Foliar application of Aganistra biopesticide@ 6 % at 25,40 & 50 DAS
Date of sowing:	22 Oct. 2023
Date of harvesting:	-
Source of technology:	Tamil Nadu Agricultural University, Coimbatore (2017).
Characteristics of technology:	Spraying of Aganistra @ 6 % very effectively check sucking pest (Aphid) up to three foliar application after 15 days interval. Biopesticide application which are effective and biodegradable and do not leave any harmful effect on
Name of Crop/Enterprises:	Mustard
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	-	-	-	-	-

Detailed Information about OFT - 6 Plant Protection

Name of Discipline	Plant Protection
Title of on-farm trial:	Assessment of integrated module of late blight management in tomato crop.
Year/Season:	Rabi-2023-24
Farming situation:	Irrigated
Problem diagnosis:	Loss of crop yield up to 40-45 % due to late blight in tomato in vegetable crop.
Thematic area:	Integrated Disease Management
No of trials:	10
No. of farmers involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Foliar application of Carbendazim +Mancozeb @0.2 %
T2 –Recommended Practice-	Soil application of Trichoderma viride and Pseudomonas fluorescens @ 4 kg /ha. at 15 days before transplanting followed by prophylactic spray of fungicides viz., Metalaxyl + Mancozeb 72% (0.2%), sprayed at regular intervals of ten, twenty and thirty days.
T3- Recommended Practice-	-
Date of sowing /Planting	2023
Date of harvesting:	-
Source of technology:	Department of plant pathology, university of agricultural sciences, GKVK ., Bengaluru (Karnataka) 2017
Characteristics of technology:	Soil application of Trichoderma viride and Pseudomonas fluorescens @ 4 kg /ha. at 15 days before transplanting followed by prophylactic spray of fungicides viz., Metalaxyl + Mancozeb 72% (0.2%), sprayed at regular intervals of ten, twenty and thirty days of disease severity was found very effective in managing the disease
Name of Crop/Enterprises:	Tomato
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Average Cost of cultivation (Rs/ha)	Average Gross Return (Rs/ha)	Average Net Return (Rs/ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T2(Recommended Practice)	Yield	q/ha	Awaited	Awaited	Awaited	Awaited	Awaited
T3(Recommended Practice)	-	-	-	-	-	-	-

Information about Extension OFT: 01

Title	Assessment of change in farmer's perception towards participation in Extension Activities like Kisan Gosthi, Group Meetings, Sammelan programmer by using Public Addressing System (PAS) audio devices.
Season & Year	Rabi/ 2023-24
Problem identified	Less motivation towards participation and attention in off campus training programmes among farmers
Thematic Area	Extension Management
Farming situation	NA
Name of Technology Intervention under study	PAS
Farmers Practice	Public addressing system is considered to be the most effective and efficient tool in organization of meetings and campaign in rural areas
No. of replication (Farmers)	25

Results / findings

Performance indicators/ parameters	Unit/ details	Observation		
		T1 (Farmers Practice)	T2(Recommended Practice)	T3(Recommended Practice)
T-1	Awaited	Awaited	Awaited	Awaited
T-2	Awaited	Awaited	Awaited	Awaited

Information about Home Science OFT: 01

Name of Discipline	Home Science
Title of on-farm trial:	Assessment of value addition of aonla on tribal farm family income
Year/Season:	Rabi 2023
Problem diagnosis:	Poor socio economic condition of tribal farm families dependent on forest produce
Thematic area:	Income generation
No of trials:	10
No. of farmers/farm women involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment:	
T1 – Farmers Practice-	Collection and selling of fresh aonla fruit in the market
T2 –Recommended Practice-	Selling of dried aonla (Amlethi) in the market
Source of technology:	CISH, Lucknow,2018

Characteristics of technology:	Technology comprises of washing, cleaning and boiling of aonla for 10 minutes, followed by removal of stones and drying of aonla flakes in sun for 2-3 days and grinding the dried flakes into powder
Name of Crop/Enterprises:	Aonla
Farming situation:	Rainfed
Date of sowing:	-
Date of harvesting:	-
Recommendations for Farmers	Farmer should not boil aonla in an iron vessel. Do not dry directly in the ground, use tarpaulin to dry Amlethi. Do not use immature aonla for value addition
Recommendations for Deptt. Personnel	Farmer should not boil aonla in an iron vessel. Do not dry directly in the ground, use tarpaulin to dry Amlethi. Do not use immature aonla for value addition
Feedback	Selling of value added product of fresh Aonla to dried aonla and aonla powder is more economical than selling fresh fruit.

(A) Economic Performance Home Science OFT: (For value addition)

Detail of Technology	Composition of product	Production (q)	Average Cost of input (Rs)	Average Gross Return (Rs)	Average Net Return (Rs)	Benefit -Cost Ratio (Gross Return / Gross Cost)
T₁(Farmers Practices)	Selling of fresh fruit in the market (@Rs.15 per kg)	1	1000	1500	500	1.5
T₂ (Recommended Practices)	Selling of dried aonla (Amlethi) in the market (@Rs.130 per kg)	0.18	1500	3240	1740	2.16
T₃(Recommended Practices)	Selling of Aonla powder in the market (@Rs.300 per kg)	0.15	2000	4500	2500	2.25

Information about Home Science OFT: 02

Name of Discipline	Home Science
Title of on-farm trial:	Assessment of green leafy vegetable with multigrain flour chapati for improvement of haemoglobin levels in farmwomen
Year/Season:	Kharif 2023
Problem diagnosis:	High anemic patient in district
Thematic area:	Nutritional Security
No of trials:	10
No. of farmers/farm women involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment:	
T1 – Farmers Practice-	Wheat flour chapatti
T2 –Recommended Practice-	Wheat+ soy flour + makki atta (1:1:1) + seasonal green leafy vegetable
T3 –Recommended Practice-	Wheat + makki atta+ besan (1:1:1) + seasonal green leafy vegetable
Source of technology:	KVK Jalandhar (2016)
Characteristics of technology:	Chopped Green leafy vegetables like amaranth leaves (chaulai), fenugreek (methi), spinach (palak), coriander (leafy coriander), mint leaves (pudhina), sp

	ring onion leaves (pyaaz) can be added to the whole wheat flour while kneading and rolled out as green rotis. This will enhance nutrients like iron, vitamin C, beta carotene (form of vitamin A in vegetarian sources), potassium and many other important minerals.
Name of Crop/Enterprises:	Green leafy vegetables and cereals
Farming situation:	Rain fed
Date of sowing:	-
Date of harvesting:	-
Recommendations for Farmers	
Recommendations for Deptt. Personnel	
Feedback	

(B) Economic Performance Home Science OFT: (For Nutritional security)

Name of Enterprise /product: -Green leafy vegetables and cereals

Detail of Technology	Name of Product/enterprise	Per capita Consumption gm/day	Nutrient Intake (Unit)				Anthropometric measurements		
			Energy (kcal)	Protein (gm)	Iron (mg)	Calcium (mg)	Increase in Weight (Kg)	Increase in Height (cm)	BMI ((Weight (Kg)/ (Height(in m) * Height(in m)
T₁(Farmer's Practices)	Wheat flour chapatti	100	748	6.8	112.4	142	1-2	1-3	0.84
T₂(Recommended Practices)	Wheat+ soy flour + makki atta (1:1:1) + seasonal green leafy vegetable	100	824	14.4	128.8	182.8	2-6	2-4	1.4
T₃(Recommended Practices)	Wheat + makki atta + besan (1:1:1) + seasonal green leafy vegetable	100	864	118.48	188.84	242.2	2-6	2-6	1.8

Information about Home Science OFT: 03

Name of Discipline	Home Science
Title of on-farm trial:	Assessment of Acceptability of value added products from oyster mushroom
Year/Season:	Rabi 2023-24
Problem diagnosis:	Low protein diet
Thematic area: (Focus area in DFI and nutritious smart initiatives)	Value addition
No of trials:	10
No. of farmers/farm women involved	10
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment:	
T1 – Farmers Practice-	Low use of mushroom
T2 –Recommended Practice-	Oyster mushroom Powder
Source of technology:	ICAR-National Research Centre for Mushroom , Solan,2008

Characteristics of technology:	Produced oyster mushroom dried in the solar-drier. Mushrooms has to be dried at a temperature of 45 °C for 2 days. Followed by grinding to prepare quality mushroom powder
Name of Crop/Enterprises:	Mushroom powder
Farming situation:	Irrigation
Date of sowing:	
Date of harvesting:	
Recommendations for Farmers	Awaited
Recommendations for Deptt. Personnel	Awaited
Feedback	Awaited

Economic Performance Home Science OFT: (For value addition) Mushroom

Detail of Technology	Composition of product	Production per unit	Average Cost of input (Rs/unit)	Average Gross Return (Rs/unit)	Average Net Return (Rs/unit)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T₁(Farmers Practices)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited
T₂ (Recommended Practices)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited
T₃(Recommended Practices)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited

Information about Home Science OFT: 04

Name of Discipline	Home Science
Title of on-farm trial:	Assessment of Mahua seed decorticator for Drudgery Reduction of Tribal Farm women
Year/Season:	Kharif/ 2023-24
Problem diagnosis:	Decortications of mahua seed by traditional shelling method is time consuming , laborious, low keeping quality due to damage of mahua seed and causing high drudgery of Farm Women
Thematic area: (Focus area in DFI and nutri smart initiatives)	Drudgery Reduction
No of trials:	5
No. of farmers/farm women involved	5
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment:	
T1 – Farmers Practice-	T-1. Decortications of mahua seed manually
T2 –Recommended Practice-	T-2. Decortications of mahua seed by Mahua seed decorticator
Source of technology:	OUAT Bhubaneswar (Odisha) (2011)
Characteristics of technology:	Capacity : 10 kg/h, Cost of operation: Rs. 1.30 per kg of seed
Name of Crop/Enterprises:	Mahua
Farming situation:	Rain fed
Date of sowing:	-
Date of harvesting:	-
Recommendations for Farmers	Awaited
Recommendations for Deptt. Personnel	Awaited
Feedback	Awaited

(A) Economic Performance Home Science OFT: (For Drudgery Reduction)

Detail of Technology	Output *	Est. Energy Expenditure kj/min	WHR beat/min	% reduction in drudgery	% increase in efficiency	Cardiac Cost of Work	% Saving of cardiac Cost
T ₁ (Farmers Practices)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited
T ₂ (Recommended Practices)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited

Detailed Information about OFT: 01

Name of Discipline / Fisheries etc)	Animal Science/
Title of on-farm trial:	Evaluation of poultry breed-Narmada Nidhi
Year/Season:	2023,Kharif
Farming situation:	Semi Scavenging
Problem diagnosis:	Poor performance due the unavailability of quality poultry bird
Thematic area:	Poultry farming
No of trials:	4
No. of farmers involved	4
No.of Birds	25
Type of OFT (Assessment/ Refinement):	Evaluation
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	T-1 Rearing of Local poultry birds
T2 –Recommended Practice-	T-2 Rearing of poultry breed-Narmada Nidhi in back yard system of Poultry farming.
T3- Recommended Practice-	-
Date of sowing:	22.9.2023
Date of harvesting:	13.12.2023
Source of technology:	NDVSU, Jabalpur (M.P.)
Characteristics of technology:	-
Name of Crop/Enterprises:	Poultry Farming
Recommendations for Farmers	To assess this breed in Satna district trial was conducted and according the findings it is recommended that Narmada Nidhi is most suitable and economically viable in back yard system especially for travel community.
Recommendations for Deptt. Personnel	The net input output ratio was more appropriate (4.06 than 3.61) and profitable to the farmers therefore this breed should be propagated in the field through departmental Personnel in the district. For diffusion of this breed, the intensive activities should be conducted by the department.
Feedback	Due to the low mortality rate, good body weight gain potential and higher market value, this breed producing higher return. Therefore Narmada Nidhi must be popularized and state department should facilitate for availability of the chicks of this breed in near future although farmers were interested to propagate this breed through own system.

Result : (Economic Performance of OFT) (Please choose and give the parameters name and value according to suitable your OFT)

Details of technology	Parameter Name	Unit of Parameter	Result	Age of egg laying started (days)	Mortality percent up to 6 months of age	Average Cost of cultivation (Rs/bird)	Average Gross Return (Rs/bird)	Average Net Return (Rs/bird)	Benefit-Cost Ratio (Gross Return / Gross Cost)
T1 (Farmers Practice)	Body Weight gain at 90 days	kg/bird	1.35	205	26	45	148.5	103.5	3.3

	of age								
T2(Recommended Practice)	Body Weight gain at 90 days of age	kg/bird	1.92	184	18	65	294.8	229.8	4.53
T3(Recommended Practice)	-	-	-			-	-	-	-

Detailed Information about OFT: 02

Name of Discipline / Fisheries etc)	Animal Science
Title of on-farm trial:	Assessment of the effect of chick pea flour mixed with butter milk in expelling retained fetal membranes for quitting of Placenta in buffalo. .
Year/Season:	Kharif, 2023
Farming situation:	Semi grazing.
Problem diagnosis:	Retained placenta is an important post partum complication. The placenta may be retained because of lack of expulsive forces or failure of separation of fetal cotyledons
Thematic area:	Animal Disease management.
No of trials:	6
No. of farmers involved	6
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	Farmers are not awaked regarding problem and solution therefore no proper treatment.
T2 –Recommended Practice-	Feeding of chickpea flour mixed with butter milk
T3- Recommended Practice-	-
Date of sowing:	05.9.2023
Date of harvesting:	16.12.2023
Source of technology:	Collage of Vet. Sci. and Animal Husbandry , Junagadh (Gujarat) (Year 2017)
Characteristics of technology:	18 kg flour of chickpea and Butter milk18 liters
Name of Crop/Enterprises:	Dairy
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT) (Please choose and give the parameters name and value according to suitable your OFT

Performance indicators/ parameters	Unit/ details	Observation		
		T1 (Farmers Practice)	T2(Recommended Practice)	T3(Recommended Practice)
Average Daily Milk yield of three months after treatment (L),	Liter	4.52	7.5	
quitting of Placenta percentage %	Percentage	7	2	-
Average cost of cultivation (Rs./ calf) at three month of age.	Rs./ calf	86	112	-
Average gross Return at three month of age.	Rs./ calf	248.6	412.5	-
Average net returns/ calf at three month of age.	Rs./ calf	162.6	300.5	-
B: C ratio		2.89	3.68	-

Detailed Information about OFT: 03

Name of Discipline / Fisheries etc)	Animal Science
Title of on-farm trial:	Assessment the anti diarrhoeic effect of whey on lactating buffalo. .
Year/Season:	Kharif, 2023
Farming situation:	Semi grazing.
Problem diagnosis:	Open grazing is a very common system of livestock farming specially from the month of March to October in the district but in the month of June lactating buffaloes used to suffer from heat stress, diarrhea and poor performance of milk productivity.
Thematic area:	Animal Disease management.
No of trials:	6
No. of farmers involved	6
Type of OFT (Assessment/ Refinement):	Assessment
Details of technology selected for assessment/ refinement:	
T1 – Farmers Practice-	T-1 No medication due to poor availability of vet. Services and lack of knowledge.
T2 –Recommended Practice-	T-2 Lactating buffaloes to be fed with 2 litres of whey to control the heat stress, diarrhoea and It to be followed for one week. (Rationale: Whey is a by-product obtained during the course of production of chhena. Chhena contains whey-water 93.6%, fat 0.5%, protein 0.4%, lactose 5.1%, ash 0.1%, lactic acid 0.2%, and milk solid 6-7%. It is good source of vitamin A & D. It is diuretic and having antibacterial property.)
T3- Recommended Practice-	-
Date of sowing:	05.9.2023
Date of harvesting:	16.12.2023
Source of technology:	Central Arid Zone Research Institute, Jodhpur (2020)
Characteristics of technology:	-
Name of Crop/Enterprises:	Dairy
Recommendations for Farmers	-
Recommendations for Deptt. Personnel	-
Feedback	-

Result : (Economic Performance of OFT) (Please choose and give the parameters name and value according to suitable your OFT

Performance indicators/ parameters	Unit/ details	Observation		
		T1 (Farmers Practice)	T2(Recommended Practice)	T3(Recommended Practice)
Average Milk production per day during 15 days of period per buffalo after suffering from diarrhoeic disease (lit).	Liter	3.5	5.6	
Mortality rate after treatment.	Percentage	10	6	-
Average cost of cultivation (Rs./ calf) at three month of age.	Rs./ calf	82.5	118	-
Average gross Return at three month of age.	Rs./ calf	192.5	328	-
Average net returns/ calf at three month of age.	Rs./ calf	110	210	-
B: C ratio		2.33	2.77	-

Frontline Demonstrations

Details of FLDs organized (Based on soil test analysis)

KV K Name	Season	Discipline (Agronomy/Horticulture/ Soil Science/Plant Protection/Plant Breeding/ Agroforestry)	Thematic area	Technology for demonstration	Crop Category	Name of Crop	Name of Variety	Farming Situation (rainfed/irrigated/semi-irrigated)	Completed/Ongoing	Crop - Area (ha)	No. of farmers			
											S C	S T	O t h e r s	G e n e r a l
Satna	Khari f& Rabi 2022-23	Agronomy	Cropping System	Demonstration on utilization of available residual moisture in rice fields under Rice-Fallow cropping system for growing early varieties of Mustard	Cereal & oilseed	Rice & Mustard	MTU 1010 & PM 28	Rainfed & semi-irrigated	Completed	6	7	0	0	8
Satna	Khari f& Rabi 2022-23	Agronomy	Cropping System	Demonstration on Kodo millet-Linseed cropping system for utilization of kharif fallow and wastelands	Cereal & oilseed	Kodo millet-Linseed	TNA U 86 & JLS 66	Rainfed & semi-irrigated	Completed	6	3	0	0	12
Satna	Khari f 2023-24	Agronomy	Resource Conservation Technology	Demonstration on direct seeding technology in Rice for reduction of cost and	Cereals	Rice	Swaran Shreya	Irrigation	Completed	4	2	0	0	8

				mitigate climate change										
Satna	Khari f 2023-24	Agronomy	Integrated Crop Management	Demonstration on Integrated crop management of Sorghum for higher productivity and profitability		Sorghum	CSV 28	Irrigation	Completed	4	1	0	6	3
Satna	Rabi 2022-23	Horticulture	Natural Farming	Demonstration of Chemical free Natural farming practices in tomato.	Vegetable	Tomato	Kashi Aman	Irrigated	Ongoing	1.0	0	0	20	0
Satna	Rabi 2022-23	Horticulture	Crop Diversification and intensification	Demonstration of vegetable intercropping (Cabbage +Pea) for ensuring higher returns under Okra-Cabbage-Onion cropping sequence.	Vegetable	Cabbage +Pea	Pride of India + Kashi Smridhi	Irrigated	Ongoing	1.0	2	0	10	8
Satna	Rabi 2022-23	Horticulture	Natural Farming	Demonstration of Chemical free Natural farming practices in Potato.	Vegetable	Potato	Kufri Chipsona 3	Irrigated	Ongoing	0.5	2	0	8	7
Satna	Rabi 2023-24	Horticulture	Chemical free Natural farming	Demonstration of Chemical free Natural farming practices in tomato.	Vegetables	Tomato	Kashi Aman	Irrigation	Ongoing	1	0	0	8	7

Satna	Rabi 2023-24	Horticulture	Crop Diversification and intensification (Inter cropping)	Demonstration of vegetable intercropping (Cabbage +Pea) for ensuring higher returns under Okra-Cabbage-Onion cropping sequence.	Vegetables	Cabbage + Pea	Green challanger +Kashisamrudhi	Irrigation	Completed	1	2	0	12	4
Satna	Rabi 2023-24	Horticulture	Chemical free Natural farming	Demonstration of chemical free Natural farming components (Beejamrit &Jeevamrit) in Potato.	Vegetables	Potato	Kufarichips - 3	Irrigation	Ongoing	1	0	0	17	2
Satna	Khari f - 2023	Plant Protection		Demonstration of efficacy of <i>Brahmastra</i> bio pesticide against sucking pest in Okra	Vegetables	Okra		Irrigation	Completed	1	1	1	1	7
Satna	Khari f - 2023	Plant Protection	Integrated Disease Management	Demonstration of Trichoderma species in management of Rice false smut	Cereals	Rice	JR-206	Irrigation	Completed	4	10	0	0	0
Satna	Khari f - 2023	Plant Protection	Integrated Insect pest Management	Demonstration of myco pesticide <i>Beauveria bassiana</i> with botanical insecticide neem against pod fly and pod borer on Pigeonpea	Pulses	Pigeon pea		Raifed	Ongoing	4	0	10	0	0

Satna	Rabi 2023-24	Plant Protection	Income generation	Demonstration of production technology of oyster mushroom for income generation in marginalized group of farmers	Mushroom	Mushroom	Plutus sajor kaju	Irrigation	Ongoing	10 units	0	10	0	0
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Economic Impact of Crop FLD

KV K Name	Technology for demonstration	Name of Crop/ Enterprise	Name of Parameter	Name of Unit	Result		Average Cost of cultivation (Rs/ha)		Average Gross Return (Rs/ha)		Average Net Return (Rs/ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
					FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)
Satna	Demonstration utilization of available residual moisture in rice fields under Rice-Fallow cropping system for growing early varieties of Mustard	Rice and Mustard	Grain Yield	q/ha	45.83	42.44 (Rice) + 16.36 (Mustard)	35841	61386	93491	176564	57650	115179	2.61	2.88
Satna	Demonstration on Kodo millet-Linseed cropping system for utilization of kharif fallow and wastelands	Kodo and Linseed	Grain Yield	q/ha	00	20.11 (Kodo) + 16.94 (Linseed)	0	51110	0.00	164285	0.00	113175	0.00	3.21

Satna	Demonstration on direct seeding technology in Rice for reduction of cost and mitigate climate change	Rice	Grain Yield	q/ha	35.96	45.26	34520	35523	78492	98792	43972	63269	2.27	2.78
Satna	Demonstration on Integrated crop management of Sorghum for higher productivity and profitability	Sorghum	Grain Yield	q/ha	19.75	26.10	30520	31522	63703	84163	33184	52640	2.09	2.67
Satna	Demonstration of Chemical free Natural farming practices in tomato.	Tomato	Yield	(q/ha)	298.01	280.96	100575	86615	298010	197435	197435	194343	2.96	3.24
Satna	Demonstration of vegetable intercropping (Cabbage +Pea) for ensuring higher returns under Okra-Cabbage-Onion cropping sequence.	Cabbage +Pea	Yield	(q/ha)	240.66	303.66	82450	98950	228625	288474	146175	189524	2.72	2.92
Satna	Demonstration of Chemical free Natural farming practices in Potato.	Potato	Yield	(q/ha)	180.92	177.66	92300	86850	226155	222080	133854	135230	2.45	2.54
Satna	Demonstration of Chemical free Natural farming practices in tomato	Tomato	Yield	(q/ha)	298.01	280.96	100575	86615	298010	280958	197435	194343	2096	3.24

Satna	Demonstration of vegetable intercropping (Cabbage +Pea) for ensuring higher returns under Okra +Cabbage+ Onion intercropping	Cabbage +Pea	Yield	(q/ha)	-	-	-	-	-	-	-	-	-	-
Satna	Demonstration of Chemical free Natural farming practices in Potato	Potato	Yield	(q/ha)	-	-	-	-	-	-	-	-	-	-
Satna	Demonstration of efficacy of <i>Brahmastra</i> bio pesticide against sucking pest in Okra	Okra	Yield	(kg/ha)	9635	10520	28280	24765	96350	105200	68070	80435	2.40	3.24
Satna	Demonstration of Trichoderma species in management of Rice false smut	Rice	Yield	(q/ha)	33.7	42.5	24215	27110	61502	77562	37287	50452	1.53	1.86
Satna	Demonstration of myco pesticide <i>Beauveria bassiana</i> with botanical insecticide neem against pod fly and pod borer on Pigeonpea	Pigeon pea	Yield	(q/ha)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited
	Production technology of oyster mushroom <i>Plurotus sajorokaju</i> for income generation in marginalized group of farmers	Mushroom	Yield	(kg/unit)	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited	Awaited

Extension and Training activities under FLDs

S. No.	Activity	No. of activities	Month	Number of participants
1	Field days	7	Jan-Feb,23	193
2	Farmers Training	6	Nov,23	148
3	Media coverage	5	Feb,23	Mass
4	Training for extension functionaries	4	Oct-Nov	76

Details of FLD on Enterprises

Farm Implements

Details of FLDs on Agriculture Engineering implemented during Jan-2023 to Dec-2023

KV K Name	Season	Thematic area	Technology for demonstration	Crop/Enterprise Category	Name of Crop/Enterprise	Name of Variety/Technology/Enterprise	Farming Situation (rainfed/irrigated/semi-irrigated)	Completed/Ongoing	Crop-Area (ha) / Enterprise - No.	No. of farmers			
										SC	ST	Others	General
-	-	-	-	-	-	-	--	-	-	-	-	-	-

Economic Impact of Agriculture Engineering FLD

KVK Name	Technology for demonstration	Name of Crop/Enterprise	Name of Performance parameters / indicators	Name of Unit	* Data on parameter in relation to technology demonstrated		Average Cost of cultivation (Rs/ha)		Average Gross Return (Rs/ha)		Average Net Return (Rs/ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
					FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Field efficiency, labour saving etc.

Livestock Enterprises

Details of FLDs on Animal Science implemented during Jan-2023 to Dec-2023

KVK Name	Thematic area	Technology for demonstration	Name of Enterprise	Name of Breed	Completed/Ongoing	No. of unit (animals, poultry birds etc.)	No. of farmers			
							SC	ST	Others	Gen
Satna	Dairy Management	Demonstration on management to control the Lumpy disease in cattle.	Dairy	Cross breed of cattle	Complete	10	0	10	0	0
Satna	Improved breed	Demonstration of improved poultry birds in back yard system	Poultry		Complete	32	4	0	0	0
Satna	Disease Management	Demonstration of Combination of flower juice and powdered seeds of <i>Cassia tora</i> (Sanay) for treatment of diarrhoeic goats.	Goatery		Complete	10	0	0	10	0

Economic Impact of Animal Science FLD

KVK Name	Technology for demonstration	Name of Enterprise	Performance parameters / indicators		*Data on parameter in relation to technology demonstrated		Average Cost of cultivation (Rs/ha)		Average Gross Return (Rs/ha)		Average Net Return (Rs/ha)		B:C Ratio (Gross Return / Gross Cost)	
			Name of Parameter	Name of unit	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)
Satna	Vaccination	Dairy	Milk Production	Lit/day	2.2	4.5	55.5	72.25	121	247.5	65.5	175.25	2.18	3.42
Satna	Kegg Golden breed of Poultry	Poultry	Body Weighy at 60 days of age	Kg/bird	1.6	2.4	58.5	73.5	240	360	181.5	286.5	4.10	4.89
Satna	ITK Based Treatment	Goatery	Body after three month of treatment	Kg / Goat	11.6	14.48	605	689	2320	2880	1715	2190	3.83	4.17

*Milk production, meat production, egg production, reduction in disease incidence etc.

Details of FLDs on Fishery implemented during Jan-2023 to Dec-2023

KVK Name	Thematic area	Technology for demonstration	Name of Enterprise	Completed/Ongoing	Area (ha) / Entrep - No.	No. of farmers			
						SC	ST	Others	General
-	-	-	-	-	-	-	-	-	-

Economic Impact of Fishery FLD

KVK Name	Technology for demonstration	Name of Enterprise	Performance parameters / indicators		Data on parameter in relation to technology demonstrated		Average Cost of cultivation (Rs/ha)		Average Gross Return (Rs/ha)		Average Net Return (Rs/ha)		B:C Ratio (Gross Return / Gross Cost)	
			Name of Parameter	Name of unit	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)	FP (T ₁)	RP (T ₂)
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Information about Home Science FLDs - (For All Thematic Area)

Thematic area	Technology demonstrated	Name of Crop/ Enterprise	Crop- Area (ha) / Entrep - No.	No. of farmers			
				SC	ST	Others	General
Nutritional Security	Demonstration on sprouted cowpea feeding to malnourished children under 5 years	Cowpea	10	2	3	4	1
Nutritional Security	Demonstration of nutritional Kitchen garden for year round production of vegetables to meet family requirement	Kitchen garden	20	20	0	0	0
Nutritional Security	Demonstration on Drumstick dry leaf powder as daily dietary supplement for anemic adolescent	Drumstick	10	05	02	02	01

Economic Performance Home Science FLD: (Drudgery Reduction)

Technology for demonstration	Performance Indicator / Parameter						
	Output *	Est. Energy	WHR	%	%	Cardiac	% Saving of cardiac

			Expenditure kj/min.		beat/min		reduction in drudgery		increase in efficiency		Cost of Work		Cost	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

***Kindly use Unit as per the machine/implement/equipment used for drudgery reduction**

Economic Performance Home Science FLD: (Income Generation)

Technology for demonstration	Performance Indicator / Parameter											
	Production per unit (Q/No/Lit)		Average Cost of input (Rs/unit)		Average Gross Return(Rs/unit)		Average Net Return(Rs/unit)		Benefit-Cost Ratio (Gross Return / Gross Cost)			
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
-	-	-	-	-	-	-	-	-	-	-	-	-

Economic Performance Home Science FLD: (For value addition)

Technology for demonstration	Performance Indicator / Parameter											
	Composition of product		Production per unit (Q/ Lit)		Average Cost of input (Rs/unit)		Average Gross Return (Rs/unit)		Average Net Return (Rs/unit)		Benefit-Cost Ratio (Gross Return / Gross Cost)	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
-	-	-	-	-	-	-	-	-	-	-	-	-

Economic Performance Home Science FLD: (For Nutritional security)

Technology for demonstration	Performance Indicator / Parameter				Nutrient Intake (Unit)								Anthropometric measurements					
	Name of Product		Per capita Consumption gm/ day		Energy (kcal)		Protein (gm)		Iron (mg)		Calcium (mg)		Increase in Weight (Kg)		Increase in Height (cm)		BMI ((Weight (Kg)/ (Height(in m) * Height(in m))))	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
Demonstration on sprouted cowpea feeding to malnourished children under 5 years	Other vegetable	Drumsticks leaves	150gm	25 gm dried powder	45	67	2.5	5.94	3.2	6	466	851	42.3	44.8	149.9	152.8	18.8	19.2
Demonstration of nutritional Kitchen garden for year round production of vegetables to meet family requirement	General Diet	General Diet + Sprouted Cowpea	325	365	1027	1363	49.49	73.01	54	62.27	253.5	363.5	0.23	0.68	1.02	1.89	0.15	0.24

Technology for demonstration	Performance Indicator / Parameter				Nutrient Intake (Unit)								Anthropometric measurements					
	Name of Product		Per capita Consumption gm/ day		Energy (kcal)		Protein (gm)		Iron (mg)		Calcium (mg)		Increase in Weight (Kg)		Increase in Height (cm)		BMI ((Weight (Kg)/(Height(m) * Height(m))))	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
Demonstration on Drumstick dry leaf powder as daily dietary supplement for anemic adolescent	local vegetable	All veg.	110	175	260	265	5	10	1.8	3.9	8	10	2(48 to 50)	3(48 to 51)	148	150	22.8	22.7

Cluster Demonstration of Oilseed and Pulses under NFSM (2023)

Sl. No.	Crop	Thematic area	Technology for demonstration	Critical inputs	Season and year	Area (ha)	No. of farmers/ demonstration
1	Blackgram	Integrated crop Management	Improved variety, Weed Management, Pest Management	Seed, Weedicide, Insecticide	Kharif 2023-24	50	125
2	Pigeonpea	Integrated crop Management	Improved variety, Weed Management, Pest Management	Seed, Weedicide, Insecticide	Kharif 2023-24	50	125
3	Lentil	Integrated crop Management	Improved variety, Weed Management, Pest Management	Seed, Weedicide Pesticide	Rabi 2023-24	50	125
4	Soybean	Integrated crop Management	Improved variety, Seed treatment	Seed, Fungicide	Kharif 2023-24	20	50
5	Sesame	Integrated crop Management	Improved variety, Weed Management, Disease Management	Seed, Weedicide, Fungicide	Kharif 2023-24	10	25
6	Mustard	Integrated crop Management	Improved variety, Nutrient Management, Pest Management	Seed, Insecticide	Rabi 2023-24	50	125

Extension and Training activities under CFLDs Oilseed and Pulses

S. No.	Activity	No. of activities	Month	Number of participants
1	Field days	6	Sept, Dec and March	146
2	Farmers Training	6	July and Oct	475
3	Media coverage	6	Sept, Dec and March	Mass
4	Training for extension functionaries	2	June and Oct	40

Training (Including the sponsored and FLD training programmes):
A) ON Campus

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Courses	Duration (Days)	Participants							
						Gen		SC		ST		Others	
						M	F	M	F	M	F	M	F
F &FW	Crop Production	Resource Conservation Technologies	Improved sowing techniques for enhancing productivity of kharif pulses and oilseed crops	1	1	12	0	1	0	0	0	9	0
F &FW	Crop Production	Resource Conservation Technologies	Zero tillage technology of wheat under semi-irrigated condition in rice-wheat cropping sequence	1	1	10	0	3	0	0	0	7	0
F &FW	Crop Production	Crop Diversification	Summer cultivation of Green gram and Black gram for crop intensification	1	1	2	0	2	1	0	0	14	0
F &FW	Crop Production	Micro irrigation/irrigation	Water saving and micro irrigation technology for Wheat	-	-	-	-	-	-	-	-	-	-
F &FW	Crop Production	Seed production	Quality Seed Production of Kodo millet	1	1	0	0	0	0	13	7	0	0
F &FW	Crop Production	Integrated Crop Management	Integrated Crop Management Practices in Sorghum	1	1	2	0	3	0	1	0	14	0
F &FW	Crop Production	Production of organic inputs	Organic crop production practices of Chickpea	1	1	1	0	1	0	0	0	19	0
F &FW	Horticulture (Vegetable Crops)	Off season vegetables	Profitable vegetable based cropping patterns for marginal farmers under irrigated conditions	1	1	0	0	6	0	1	0	18	0
F &FW	Horticulture (Vegetable Crops)	Off season vegetables	Improved production and management practices in Kharif tomato production	1	1	0	0	1	0	0	0	45	0
F &FW	Horticulture (Vegetable Crops)	Nursery raising	Nursery raising techniques of kharif season vegetables	1	1	0	1	1	9	0	0	0	9
F &FW	Horticulture (Vegetable Crops)	Production and Management technology	Improved production and management practices in onion and potato cultivation	1	1	3	0	3	6	7	6	24	0
F &FW	Horticulture (Fruits)	Training and Pruning	Training and pruning newly planted fruit plants	1	1	0	0	0	0	49	0	0	0
F &FW	Horticulture (Fruits)	Training and Pruning	Training and Pruning Operations in Fruit Orchards	1	1	1	1	1	1	23	0	0	0
F &FW	Horticulture (Fruits)	Layout and Management of Orchards	Layout and Planting technique of fruit orchards	1	1	0	0	0	0	16	0	0	0
F &FW	Horticulture (Fruits)	Layout and Management of Orchards	Layout and Planting technique of fruit orchards	1	1	0	0	0	0	34	0	0	0
F &FW	Horticulture (Fruits)	Layout and Management of Orchards	Management Practices in Newly established Orchard	1	1	0	0	0	0	43	0	0	0
F &FW	Horticulture (Fruits)	Cultivation of Fruit	Importance of Fruits in Good health and nutrition of Adolescent girls	1	1	1	1	1	1	15	0	0	0
F &FW	Horticulture (Fruits)	Management of young plants/orchards	Management Practices in Newly established Orchard	1	1	0	0	0	0	46	0	0	0
F &FW	Horticulture (Fruits)	Management of young plants/orchards	Importance of Fruits in Good health and nutrition of human beings	1	1	1	1	1	1	34	0	0	0
F &FW	Horticulture (Fruits)	Management of young plants/orchards	Importance of Fruits in Good health and nutrition of human beings	1	1	0	0	0	0	26	4	0	0
F &FW	Horticulture(Spices)	Production and Management technology	Training programme for tribal farm women on “value addition of Karonda (Carissa carandas)”	1	3	0	0	0	0	5	43	0	0
F&FW	Horticulture(Spices)	Processing and value addition											
F&FW	Horticulture(Spices)	Natural Farming	Natural farming practices in Horticultural crops	1	2	7	0	5	0	3	0	14	0
F&FW	Soil Health and Fertility Management	Soil & water testing	Technique of Soil sampling	1	1	1	0	4	9	1	1	1	0
F&FW	Soil Health and	Management of	-	-	-	-	-	-	-	-	-	-	-

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Cour ses	Dura tion (Days)	Participants							
						Gen		SC		ST		Othe rs	
						M	F	M	F	M	F	M	F
	Fertility Management	Problematic soils											
F&FW	Soil Health and Fertility Management	Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-	-
F&FW	Soil Health and Fertility Management	Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-	-
F&FW	Soil Health and Fertility Management	Balance Use of fertilizer	-	-	-	-	-	-	-	-	-	-	-
F&FW	Soil Health and Fertility Management	Soil & water testing	-	-	-	-	-	-	-	-	-	-	-
F&FW	Soil Health and Fertility Management	Organic Farming	-	-	-	-	-	-	-	-	-	-	-
F&FW	Soil Health and Fertility Management	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Dairy Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Poultry Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Piggery Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Rabbit Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Disease Management	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Feed & fodder technologies	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Production of quality animal products	-	-	-	-	-	-	-	-	-	-	-
F&FW	Livestock Production and Management	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Design and development of low/minimum cost diet	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Designing and development for high nutrient efficiency diet	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Minimization of nutrient loss in processing	Training on preventing nutrient impairment during anola value addition	1	1	2	1	8	0			1 2	0
F&FW	Home Science/Women empowerment	Processing & cooking	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Storage loss minimization techniques	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Value addition	Training on Aonla Value Addition	1	1	0	0	0	0	0	2 0	0	0
F&FW	Home Science/Women empowerment	Value addition	Training to make stuffed chillies	1	1	0	0	0	1 1	0	7	0	2
F&FW	Home Science/Women empowerment	Value addition	Training on Aloo Papad Making	1	1	0	7	0	1 0	0	1	0	2
F&FW	Home Science/Women empowerment	Value addition	Training in making potato chips	1	1	0	8	0	5	0	5	0	1 0
F&FW	Home Science/Women empowerment	Women empowerment	Training to make natural gual from Palas flowers	1	1	0	3	0	3	0	5	0	9
F&FW	Home Science/Women empowerment	Location specific drudgery reduction technologies	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Rural Crafts	-	-	-	-	-	-	-	-	-	-	-

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Cour ses	Dura tion (Days)	Participants							
						Gen		SC		ST		Othe rs	
						M	F	M	F	M	F	M	F
F&FW	Home Science/Women empowerment	Women and child care	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in Rice crop	1	1	0	0	1	7	0	0	0	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in Onion crop	1	1	0	0	0	0	2	2	0	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in Okra Vegetable	1	1	9	3	0	0	7	1	9	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in Mustard crop	1	1	0	0	0	3	0	1	0	7
F&FW	Plant Protection	Production of bio control agents and bio pesticides	Production of eco friendly bio-pesticides ie Neemastra ,Brasatra and Agaiatra	1	1	1	0	0	0	1	5	3	1
F&FW	Plant Protection	Income Generation	Beekeeping and honey production	1	2	0	0	0	0	0	2	0	0

B) OFF Campus

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Co urs es	Dur atio n (Da ys)	Participants							
						Gen		SC		ST		Othe rs	
						M	F	M	F	M	F	M	F
F &FW	Crop Production	Weed Management	Integrated weed management practices for Kodo millet	1	1	17		0	0	2	0	1	0
F &FW	Crop Production	Weed Management	Integrated weed management practices for Chickpea	1	1	12	0	0	0	0	0	8	0
F &FW	Crop Production	Resource Conservation Technologies	Direct Seeded Rice for minimizing cost of production in Rice	1	1	5	2	0	0	1	1	2	0
F &FW	Crop Production	Integrated Farming	Integrated farming system module for improving nutritional and economic security of small and marginal farmers.	1	1	2	0	0	0	0	0	1	8
F &FW	Crop Production	Climate Resilient Agriculture	Techniques of protecting crops against frost injury	1	1	12	0	1	0	2	0	5	0
F &FW	Crop Production	Natural Farming Practices	Natural Farming practices for minimizing cost of production and higher net return of Mustard	1	1	0	0	1	2	0	0	0	0
F &FW	Crop Production	Precision Farming	Aerial spraying of Nano fertilizers using Agri drone sprayer in Barley and Wheat	1	1	6	0	6	0	0	0	5	0
F & FW	Horticulture (Vegetable Crops)	Production of low volume and high value crops	Planning for year round production of vegetables	1	1	0	0	0	3	0	0	0	0
F & FW	Horticulture (Vegetable Crops)	Production of low volume and high value crops	Improved Production and management practices in Bittergourd cultivation	1	1	0	1	4	0	0	0	2	7
F & FW	Horticulture (Vegetable Crops)	Off Season	Summer Cultivation of cucurbitaceous vegetables	1	1	0	0	0	0	0	0	2	6
F & FW	Horticulture (Vegetable Crops)	Nursery raising	Nursery raising techniques of cucurbitaceous vegetables in polybags	1	1	2	0	1	0	2	7	9	0
F & FW	Horticulture (Fruits)	Layout and Management of Orchards	Layout, planting technique and moisture conservation method for planting fruit trees on farm bunds and wastelands	1	1	0	0	0	0	1	5	1	5
F & FW	Horticulture (Fruits)	Cultivation of Fruit	Planting technique of fruits	1	1	0	0	0	0	2	2	0	0
F & FW	Horticulture (Fruits)	Cultivation of Fruit	Planting technique of Fruit Plants	1	1	1	1	1	1	2	3	3	0

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Co urs es	Dur atio n (Da ys)	Participants							
						Gen		SC		ST		Othe rs	
						M	F	M	F	M	F	M	F
F & FW	Horticulture (Fruits)	Cultivation of Fruit	Plantation techniques for fruit plants	1	1	0	0	0	0	0	4	0	0
F & FW	Horticulture (Fruits)	Cultivation of Fruit	Plantation techniques for fruit plants	1	1	1	1	1	1	7	2	0	0
F & FW	Soil Health and Fertility Management	Micro nutrient deficiency in crops	Foliar Application of nutrient in field Vegetable crops	1	1	2	3	5	4	5	0	0	0
F & FW	Soil Health and Fertility Management	Soil fertility management	Reclamation of Problematic soil	1	1	10	0	0	0	0	0	0	0
F & FW	Soil Health and Fertility Management	Integrated Nutrient Management	Foliar Application of nutrient in field crops	1	1	0	0	1	0	0	8	0	5
F&FM	Soil Health and Fertility Management	Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Management of Problematic soils	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Balance Use of fertilizer	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Soil & water testing	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Organic Farming	-	-	-	-	-	-	-	-	-	-	-
F&FM	Soil Health and Fertility Management	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Dairy Management	Care of newly borne calves in winter season	1	2	8	0	0	0	0	0	10	4
F&FM	Livestock Production and Management	Poultry Management	Feeding management in backyard system of poultry.	1	2	0	0	12	3	5	2	0	0
F&FM	Livestock Production and Management	Piggery Management	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Rabbit Management	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Disease Management	Importance of de- worming and vaccination in goat.	1	2	0	0	2	0	5	2	5	4
F&FM	Livestock Production and Management	Feed & fodder technologies	Forage management in lean period	1	2	8	7	2	1			2	3
F&FM	Livestock Production and Management	Feed & fodder technologies	Care and feeding of upgraded progeny of buffalo.	1	2	12	00	0		00	0	6	2
F&FM	Livestock Production and Management	Feed & fodder technologies	Green fodder production in rabi season.	1	2	12	0	0	0	0	0	9	0
F&FM	Livestock Production and Management	Feed & fodder technologies	Forage management in lean period for buffalo.	1	2	5	2	0	0	2	2	8	3
F&FM	Livestock Production and Management	Production of quality animal products	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FM	Livestock Production and Management	Goat Management	Feeding management of pregnant goat	1	2	0	0	1	2	5	2	8	6
F&FW	Home Science/Women empowerment	Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Household food security by kitchen gardening and	importance of nutritious gardens for rural women	1	1	0	3	0	0	0	21	0	3

Category (F/ FW / F &FW)	Category	Sub Theme	Training Title	No. of Co urs es	Dur atio n (Da ys)	Participants							
						Gen		SC		ST		Othe rs	
						M	F	M	F	M	F	M	F
		nutrition gardening											
F&FW	Home Science/Women empowerment	Design and development of low/minimum cost diet	To prepare balanced diet for women farmers based on the resources available at the village level	1	1	0	2	0	15	0	0	0	4
F&FW	Home Science/Women empowerment	Minimization of nutrient loss in processing	Training on preventing nutrient loss during tomato processing	1	1	2	0	8	0	0	0	0	13
F&FW	Home Science/Women empowerment	Processing & cooking	Tomato processing and value addition	1	1	0	0	0	6	0	0	3	11
F&FW	Home Science/Women empowerment	Value addition	Beal processing and value addition	1	1	0	0	0	0	11	15	0	0
F&FW	Home Science/Women empowerment	Women empowerment	Bitter guard and tomato Processing and value addition	1	1	1	2	0	0	1	2	15	6
F&FW	Home Science/Women empowerment	Designing and development for high nutrient efficiency diet	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Minimization of nutrient loss in processing	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Processing & cooking	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Storage loss minimization techniques	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Value addition	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Women empowerment	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Location specific drudgery reduction technologies	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Rural Crafts	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Women and child care	-	-	-	-	-	-	-	-	-	-	-
F&FW	Home Science/Women empowerment	Others (Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in summer vegetable and green gram	2	1	11	0	2	0	3	0	8	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in rice crop	2	1	0	0	0	0	13	12	0	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in cucurbitaceous crop	2	1	12	0	2	0	0	0	13	0
F&FW	Plant Protection	Integrated Pest Management	Integrated Pest Management in kharif pulses crop	2	1	0	0	0	0	19	6	0	0
F&FW	Plant Protection	Integrated Disease Management	Management of false smut disease in Rise crop	2	1	0	0	0	0	13	0	1	0
F&FW	Plant Protection	Plant protection measurement in summer vegetables	Plant protection measurement in summer vegetables	2	1	8	0	4	0	0	0	11	0
F&FW	Plant Protection	Integrated weed Management	Integrated weed Management in khaif crop	2	1	0	0	0	0	13	0	14	0
F&FW	Plant Protection	Integrated pest Management	Integrated insect and pest Management in potato	2	1	7	0	8	1	0	0	11	0
F&FW	Plant Protection	Integrated pest Management	Integrated insect and pest Management in chickpea	2	1	0	0	12	14	0	0	3	0
F&FW	Plant Protection	Integrated pest Management	Integrated insect and pest Management in Mustard	2	1	6	0	18	0	2	0	4	0

Details of Training Programmes conducted by the KVKs for Rural Youth

A. ON Campus

Thematic Area of training	Training Title	No. of Course s	Duration (Days)	Participants							
				Gen		SC		ST		Others	
				M	F	M	F	M	F	M	F
Nursery Management of Horticulture crops	Various propagation techniques involved in raising fruit plants nursery	1	7	13	0	5	0	1	0	8	0
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-	-
Commercial fruit production	-	-	-	-	-	-	-	-	-	-	-
Integrated farming	-	-	-	-	-	-	-	-	-	-	-
Seed production	Seed Production technology of onion and post harvest handling of seeds	1	3	5	0	2	0	0	0	14	0
Seed production	Quality Seed Production of Field crops	1	5	15	0	0	0	0	0	5	0
Production of organic inputs	Organic farming of Field crops	1	5	8	0	0	0	6	0	6	0
Vermi culture	-	-	-	-	-	-	-	-	-	-	-
Mushroom Production	Mushroom production	1	3	0	0	0	3	0	13	1	6
Bio pesticide and Bio fertilizer Production	Bio pesticide and Bio fertilizer Production	2	3	6	0	0	0	0	0	14	0
Sericulture	-	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-	-
Value addition	Value addition of Karonda	1	3	0	0	0	0	0	41	0	0
Value addition	Value addition of anola	5	5	10	8	2	10	0	0	10	16
Small scale processing	-	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-	-
Tailoring and Stitching	-	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-	-
Production of quality animal products	-	-	-	-	-	-	-	-	-	-	-
Dairying	-	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-	-
Quail farming	-	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-	-
Rabbit farming	-	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-	-
Freshwater prawn culture	-	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-	-
Cold water fisheries	-	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-	-
Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-

B. OFF Campus

Thematic Area of training	Training Title	No. of Course s	Duration (Days)	Participants							
				Gen		SC		ST		Others	
				M	F	M	F	M	F	M	F
Nursery Management of Horticulture crops	-	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	-	-	-	-	-	-	-	-	-	-	-
Commercial fruit production	-	-	-	-	-	-	-	-	-	-	-
Integrated farming	-	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-	-

Thematic Area of training	Training Title	No. of Courses	Duration (Days)	Participants							
				Gen		SC		ST		Others	
				M	F	M	F	M	F	M	F
Planting material production	-	-	-	-	-	-	-	-	-	-	-
Vermi culture	-	-	-	-	-	-	-	-	-	-	-
Mushroom Production	-	-	-	-	-	-	-	-	-	-	-
Bio pesticide and Bio fertilizer Production	-	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-	-
Small scale processing	-	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-	-
Tailoring and Stitching	-	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-	-
Production of quality animal products	-	-	-	-	-	-	-	-	-	-	-
Dairying	-	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-	-
Quail farming	-	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-	-
Rabbit farming	-	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-	-
Freshwater prawn culture	-	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-	-
Cold water fisheries	-	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-	-
Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-

Details of Training Programmes conducted by the KVKs for Extension Personnel

A. ON Campus

Thematic Area of training (if other please specify name)	Training Title	No. of Courses	Duration (Days)	Participants							
				Gen		SC		ST		Others	
				M	F	M	F	M	F	M	F
Productivity enhancement in field crops											
Integrated Pest Management	Integrated Pest Management in kharif crops	1	1	11	2	1	0	0	0	3	2
Integrated Pest Management	Integrated Pest Management in Rabi crops	1	1	4	2	2	0	0	0	4	0
Integrated Nutrient management	Diagnosis of nutrient deficiencies in Rabi pulses and oilseed crops and their remedial measures	1	1	12	2	1	0	0	0	1	0
Natural Farming	Natural Farming in Horticultural Crops	1	2	6	2	0	0	0	0	5	3
Protected cultivation technology	-	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-
Care and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-	-
Group Dynamics and farmers organization	-	-	-	-	-	-	-	-	-	-	-
Information networking among farmers	-	-	-	-	-	-	-	-	-	-	-
Capacity building for ICT application	-	-	-	-	-	-	-	-	-	-	-
Management in farm animals	-	-	-	-	-	-	-	-	-	-	-
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-	-

B. OFF Campus

Thematic Area of training (if other please specify name)	Training Title	No. of Courses	Duration (Days)	Participants							
				Gen		SC		ST		Others	
				M	F	M	F	M	F	M	F
Productivity enhancement in field crops	-	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient management	-	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-	-
Protected cultivation technology	-	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-	-
Care and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-	-
Group Dynamics and farmers organization	-	-	-	-	-	-	-	-	-	-	-
Information networking among farmers	-	-	-	-	-	-	-	-	-	-	-
Capacity building for ICT application	-	-	-	-	-	-	-	-	-	-	-
Management in farm animals	-	-	-	-	-	-	-	-	-	-	-
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-	-
Productivity enhancement in Hort crops	Recent technologies in high valued horticultural crops for enhancing farmers income.	1	2	10	5	0	0	0	0	2	2

Details of Vocational training programmes for Rural Youth conducted by the KVKs

Thematic Area	Sub Theme	Training title	No of Courses	Duration of training (days)	Number of Beneficiaries							
					Gen		SC		ST		Others	
					M	F	M	F	M	F	M	F
Crop production and management	Commercial floriculture											
Crop production and management	Commercial fruit production	Variuos propagation techniques involved in raising fruit plants nursery	1	7	13	0	5	0	1	0	8	0
Crop production and management	Commercial vegetable production	Seed Production technology of onion and post harvest handling of seeds	1	3	5	0	2	0	0	0	1	4
Natural farming	Natural farming	Production and application of Bio-pesticide and Bio-fertilizer	2	1	11	0	2	0	2	0	8	0
Crop production and management	Organic farming	-	-	-	-	-	-	-	-	-	-	-
Crop production and management	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	Value addition	Value addition of Aonla	1	3	0	0	0	0	0	1	0	0
Post harvest technology and value addition	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Dairy farming	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Composite fish culture	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Piggery	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Poultry farming	-	-	-	-	-	-	-	-	-	-	-
Livestock and fisheries	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Vermi-composting	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Production of bio-agents, bio-pesticides,	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-	-

Thematic Area	Sub Theme	Training title	No of Courses	Duration of training (days)	Number of Beneficiaries							
					Gen		SC		ST		Others	
					M	F	M	F	M	F	M	F
Income generation activities	Repair and maintenance of farm machinery & implements	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Rural Crafts	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Seed production	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Sericulture	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Mushroom cultivation	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Nursery, grafting etc.	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Tailoring, stitching, embroidery, dying etc.	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Agril. para0workers, para0vet training	-	-	-	-	-	-	-	-	-	-	-
Income generation activities	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-
Agricultural Extension	Capacity building and group dynamics	-	-	-	-	-	-	-	-	-	-	-
Agricultural Extension	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-

Table 5.5. Sponsored Training Programmes

Client (F &FW/ FW/ RY/ IS)	Thematic area	Sub-theme	Training Title	No. of course s	Durat ion (days)	No. of Participants								Sponso ring Agency	Fund recei ved for train ing (Rs.)
						Gen		Othe rs		SC		ST			
						M	F	M	F	M	F	M	F		
F &FW	Productivity enhancement in field crops	Increasing production and productivity of crops	Recent Agronomic Interventions for Kharif field crops	1	1	1 7	3	6	3	0	0	4	1	JNKV V,Jabal pur	-
F &FW	Productivity enhancement in field crops	Commercial production of vegetables	Recent Agronomic Interventions for Rabi field crops	1	1	1 1		1	3	0	0	3	1	JNKV V,Jabal pur	
F &FW	Crop production and management	Production and value addition	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Fruit Plants	Training and pruning newly planted fruit plants	1	1	0	0	0	0	4 9	0	0	0	Biover sity Intern ational	2.4 Lak h
F &FW	Crop production and management	Fruit Plants	Training and Pruning Operations in Fruit Orchards	1	1	1	1	1	1	2 3	0	0	0		
F &FW	Crop production and management	Fruit Plants	Layout and Planting technique of fruit orchards	1	1	0	0	0	0	1 6	0	0	0		
F &FW	Crop production and management	Fruit Plants	Layout and Planting technique of fruit orchards	1	1	0	0	0	0	3 4	0	0	0		
F &FW	Crop production and management	Fruit Plants	Management Practices in Newly established	1	1	0	0	0	0	4 3	0	0	0		

Client (F &FW/ FW/ RY/ IS)	Thematic area	Sub-theme	Training Title	No. of course s	Durat ion (days)	No. of Participants								Sponso ring Agency	Fund recei ved for train ing (Rs.)
						Gen		Othe rs		SC		ST			
						M	F	M	F	M	F	M	F		
			Orchard			M	F	M	F	M	F	M	F		
F &FW	Crop production and management	Fruit Plants	Importance of Fruits in Good health and nutrition of Adolescent girls	1	1	1	1	1	1	1	5	0	0	0	
F &FW	Crop production and management	Fruit Plants	MangementPra cties in Newly established Orchard	1	1	0	0	0	0	4	6	0	0	0	
F &FW	Crop production and management	Fruit Plants	Importance of Fruits in Good health and nutrition of human beings	1	1	1	1	1	1	3	4	0	0	0	
F &FW	Crop production and management	Fruit Plants	Importance of Fruits in Good health and nutrition of human beings	1	1	0	0	0	0	2	6	4	0	0	
F &FW	Crop production and management	Fruit Plants	Training programme for tribal farm women on “value addition of Karonda (Carissa carandas)”	1	3	0	0	0	0	4	5	3	0	0	
F &FW	Crop production and management	Ornamental plants	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Spices crops	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Soil health and fertility management	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Production of Inputs at site	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Methods of protective cultivation	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Crop production and management	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Post harvest technology and value addition	Processing and value addition	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Post harvest technology and value addition	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Farm machinery	Farm machinery, tools and implements	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Farm machinery	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Livestock production and management	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Animal Disease Management	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Fisheries Nutrition	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Fisheries Management	-	-	-	-	-	-	-	-	-	-	-	-	-
F &FW	Livestock and fisheries	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	-

Client (F &FW/ FW/ RY/ IS)	Thematic area	Sub-theme	Training Title	No. of course s	Durat ion (days)	No. of Participants								Sponso ring Agency	Fund recei ved for train ing (Rs.)
						Gen		Othe rs		SC		ST			
						M	F	M	F	M	F	M	F		
F &FW	Home Science	Household nutritional security	-	-	-	-	-	-	-	-	-	-	-	-	
F &FW	Home Science	Economic empowerment of women	-	-	-	-	-	-	-	-	-	-	-	-	
F &FW	Home Science	Drudgery reduction of women	-	-	-	-	-	-	-	-	-	-	-	-	
F &FW	Home Science	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	
F &FW	Agricultural Extension	Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-	-	-	-	-	
F &FW	Agricultural Extension	Others(Pl. Specify)	-	-	-	-	-	-	-	-	-	-	-	-	

Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
		79	19	98	1.5	0.5	2	80.5	19.5	100
Field Day	15	398	56	454	12	4	16	410	60	470
Kisan Mela	2	786	219	1005	11	6	17	797	225	1022
Kisan Ghosthi	53	1329	309	1638	13	7	20	1342	316	1658
Exhibition	8	802	191	993	23	8	31	825	199	1024
Film Show	17	201	136	337	3	6	9	204	142	346
Method Demonstrations	21	243	183	426	4	6	10	247	189	436
Farmers Seminar	4	407	176	583	22	17	39	429	193	622
Workshop	6	585	523	1108	11	7	18	596	530	1126
Group meetings	27	204	342	546	0	0	0	204	342	546
Lectures delivered as resource persons	47	1074	753	1827	151	82	233	1225	835	2060
Newspaper coverage	59	0	0	0	0	0	0	0	0	Mass
Radio talks	3	0	0	0	0	0	0	0	0	Mass
TV talks	1	0	0	0	0	0	0	0	0	Mass
Popular articles	12	0	0	0	0	0	0	0	0	Mass
Extension Literature	11	7827	2476	10303	16	3	19	7843	2479	10322
Advisory Services	972	1064	64	1128	117	4	121	1181	68	1249
Scientific visit to farmers field	114	562	342	904	37	17	54	599	359	958
Farmers visit to KVK	1	8755	2763	11518	27	19	46	8782	2782	11564
Diagnostic visits	79	136	23	159	27	15	42	163	38	201
Exposure visits	1	35	29	64			0	35	29	64
Ex-trainees Sammelan	0	0	0	0	0	0	0	0	0	0
Soil health Camp	5	197	34	231	3	0	3	200	34	234
Animal Health Camp	72	1113	385	1498	13	7	20	1126	392	1518
Agri mobile clinic	0	0	0	0	0	0	0	0	0	0
Soil test campaigns	9			0			0	0	0	0
Farm Science Club Conveners meet	0	0	0	0	0	0	0	0	0	0
Self Help Group Conveners meetings	10	14	178	192	0	0	0	14	178	192
Mahila Mandals Conveners meetings	0	0	0	0	0	0	0	0	0	0
Celebration of important days (specify)	27	782	108	890	32	17	49	814	125	939
Technology Week	27	5077	1942	7019	45	23	68	5122	1965	7087
Total	13144	31591	11232	42823	567	248	815	32158	11480	43638

Mass media used for wide publicity

Name of media	Number of events/activity	Name of channel/ Newspaper used	Place of delivery or publication	Coverage of the media (Local/ Regional/National)
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CD/DVD				
Radio talks				
TV talks	02	MP –Kisan	KVK,Majhgawan	Regional
Newspaper coverage	59	Dainik Bhaskar Navsandes , dainik jaagran ,Star samachar	KVK,Majhgawan	Regional
Kisan Mela	02	Dainik Bhaskar Navsandes , dainik jaagran ,Star samachar	KVK,Majhgawan	Regional
Extension Literature	12	-	-	-
Internet (Youtube)	03	Krishi Vigyan Kendra Satna	Youtube	National
Social media (Whats App, Facebook, Instagram, Twitter etc.)	254	Kvk Majhgawan Satna drikyksatna DRI KVK Satna	Facebook Instagram Twitter	National & international

Production and supply of Technological products

SEED MATERIALS

Category	Crop	Variety (pl. give the name of variety instead of local)	Quantity (qtl.)	Value (Rs.)	Provided to no. of Farmers/ society	Expected area coverage (ha.)
CEREALS	Paddy	JR 81	7.75	38750	24	15.50
CEREALS		Pant 11	20.6	103000	26	41.20
CEREALS		Govind Dhan	17.2	86000	24	34.40
CEREALS		Swarn Shreya	11.3	56500	25	22.60
CEREALS		Bauna Dubraj	6.25	37500	23	50.00
CEREALS		Bauna Safari	4.05	24300	26	32.40
CEREALS	Wheat	JW 3288	5.4	28080	15	5.40
CEREALS		K1317	3.56	18512	13	3.56
CEREALS		DBW 187	9	46800	15	9.00
CEREALS		GW 322	6.18	32136	14	6.18
CEREALS		GW 451	3.43	17836	14	3.43
Millet	Kodo Millet	TNAU 86	0.25	3000	20	4.17
Millet	Finger Millet	VL 376	1.6	19200	55	26.67
Millet	Barnyard Millet	VL Madira 207	1	8000	46	16.67
Millet	Pearl Millet	P 1201	0.4	4800	20	6.67
OILSEEDS	Sesame	TKG 308	0.82	12300	61	16.40
OILSEEDS	Niger	JNS 28	0.5	7500	25	10.00
OILSEEDS	Mustard	PM 28	1.79	23270	73	35.80
OILSEEDS		Giriraj	2.09	27170	74	41.80
OILSEEDS		RH 761	0.54	7020	75	10.80
PULSES	Greengram	PM 5	0.25	4250	17	1.67
PULSES		Pusa Vishal	1	17000	19	6.67
PULSES		P 1431	2	34000	18	13.33
PULSES	Blackgram	PU 10	0.48	8160	6	3.20
PULSES		Indira Urd 1	0.41	6970	7	2.73
PULSES	Chickpea	RVG 202	1.62	12150	5	2.03
VEGETABLES	Okra	Kashi Pragati	0.304	9120	130	2.53
VEGETABLES	Spinach	All Green	0.2	6000	163	0.8
VEGETABLES	Bottlegourd	Pusa Naveen	0.0253	2530	141	0.84
VEGETABLES	Tomato	Kashi Aman	0.0315	15750	441	6.30
VEGETABLES	Brinjal	NB-5	0.0173	6920	110	3.46
VEGETABLES	Bittergourd	Kashi Harit	0.0099	5940	65	0.25
VEGETABLES	Spngue gourd	Sneha	0.0109	1090	82	0.27
VEGETABLES	Fenugreek	Pusa Early Bunching	0.545	5450	20	2.18
VEGETABLES	Fenugreek	Kasuri Methi	0.007	700	21	0.14
VEGETABLES	Pumpkin	Kashi Harit	0.007	700	58	0.35
VEGETABLES	Amaranthus	Red	0.0206	2060	85	0.17
VEGETABLES	Radish	Kashi Mooli	0.0525	1837.5	91	0.53

VEGETABLES	Carrot		0.011	1100	28	0.22
VEGETABLES	Peas	Kashi Smridhi	0.17	2720	20	0.23
VEGETABLES	Onion	ALR	0.08	8000	22	0.80
SPICES CROP	Turmeric	Pant Pitambh	0.47	2820	4	0.03
SPICES CROP	Coriander	Pant Haritima	0.382	11460	151	3.82
SPICES CROP	Chillies	Kashi Anmol	0.0178	5340	94	3.56
FLOWER CROPS	Marigold	Pusa Narangi	0.012	7200	10	0.80
FRUIT CROP	Papaya	Coorg Honey Dew	0.0048	2880	43	0.96
OTHERS (Specify)						

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers	Expected area coverage (ha.)
FRUITS	Papaya	Coorg Honey Dew	2207	44140	216	0.883
FRUITS	Mango	Dushehari, Amarpali	590	59000	142	0.236
FRUITS	Mango	Seedling	50	2000	17	0.180
FRUITS	Sweet Lime	Kagzi	1079	64740	293	2.698
FRUITS	Karonda	Pant Manohar	704	17600	73	0.634
	Bael	NB-9	69	4140	36	0.248
FRUITS	Orange	Nagpur Orange	69	4140	33	0.173
FRUITS	Pomegrannate	Bhagua	283	7075	70	0.453
FRUITS	Aonla	Seedling	259	6475	79	0.932
FRUITS	Aonla Budded	NA-7,NA-10, NA-6	501	30060	172	1.804
FRUITS	Guava Budded	Shweta, Lalit	727	43620	141	2.617
FRUITS	Guava	Seedlings	232	5800	88	0.835
FRUITS	Dragon Fruit	-	55	2750	23	0.050
FRUITS	Passion fruit	-	97	4850	41	0.155
FRUITS	Woodapple	Desi	16	320	7	0.078
FRUITS	Jamun	Raa	100	6000	31	0.640
FRUITS	Hanuman fal	Local	37	1850	18	0.181
FRUITS	Moringa	PKM 1	320	9600	63	0.512
FRUITS	Chironee	Local	18	540	14	0.065
FRUITS	Custard apple	Dharur 4	84	2100	29	0.210
FRUITS	Mandarin	-	53	3180	24	0.133
FRUITS	Jackfruit	Khwaja	134	4020	62	0.858
SPICES						
VEGETABLES	Tomato	Kashi Aman, Kashi Adarsh	116600	69960	1068	3.148
VEGETABLES	Chillies	Kashi Anmol	58550	35130	715	1.581
VEGETABLES	Brinjal	NB-5	46100	27660	643	1.660
VEGETABLES	Bottlegourd	Pusa Naveen	303	1515	35	0.121
VEGETABLES	Cabbage	Golden acre	10800	10800	190	0.292
VEGETABLES	Cauliflower	Barkha	17150	17150	282	0.463
VEGETABLES	Broccoli	Fista	8100	8100	166	0.219
VEGETABLES	Onion	ALR	189250	37850	170	0.426
FOREST SPECIES	Meethi Neem		61	1525	16	0.098
FOREST SPECIES	Umar		25	500	8	0.123
FOREST SPECIES	Sagon		25	625	8	0.023

FOREST SPECIES	Peepal		25	500	9	0.250
FOREST SPECIES	Kachnar		100	2000	2	0.360
FOREST SPECIES	Silver Oak		96	4800	8	0.346
FOREST SPECIES	Casia		21	630	10	0.076
FOREST SPECIES	Mahua		73	1825	21	0.730
ORNAMENTAL CROPS	Hibiscus		236	5900	96	0.094
ORNAMENTAL CROPS	Rose		245	6125	120	0.098
ORNAMENTAL CROPS	Calendula		31	31	20	0.012
ORNAMENTAL CROPS	Chameli		55	1375	37	0.022
ORNAMENTAL CROPS	Chandni		149	3725	88	0.060
ORNAMENTAL CROPS	Bela		67	1675	35	0.027
ORNAMENTAL CROPS	Hemelia		65	3250	33	0.026
ORNAMENTAL CROPS	Croton		73	2190	39	0.029
ORNAMENTAL CROPS	Morpankhi		53	1325	30	0.021
ORNAMENTAL CROPS	Areca Palm		66	7260	13	0.059
ORNAMENTAL CROPS	Coleous		165	4950	55	0.066
ORNAMENTAL CROPS	Bottle Plam		5	550	3	0.005
ORNAMENTAL CROPS	Coleous		65	1950	33	0.026
ORNAMENTAL CROPS	Bougainvillea		18	450	5	0.007
ORNAMENTAL CROPS	Shawani		8	200	3	0.003
ORNAMENTAL CROPS	Ashok		32	960	4	0.029
ORNAMENTAL CROPS	Manokamni		12	300	6	0.005
ORNAMENTAL CROPS	Champa		6	300	6	0.002
ORNAMENTAL CROPS	Golden Duranta		108	2700	14	0.043
ORNAMENTAL CROPS	Madhu malti		58	1450	18	0.023
ORNAMENTAL CROPS	Marigold		3000	3000	30	0.007
ORNAMENTAL CROPS	Jaistrophia		16	800	5	0.006
ORNAMENTAL CROPS	Beetal leaf		37	925	17	0.015
ORNAMENTAL CROPS	Manda		30	1500	23	0.012
ORNAMENTAL CROPS	Kund		3	75	3	0.001
PLANTATION CROPS	-	-	-	-	-	-

Others (specify)	-	-	-	-	-	-
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Bio-products

S.No	List of Major Group Bio agent/Bio fertilizers/Bio Pesticides	Name of the Product	Species	Qty (in Kg)	Qty (in No.)	Value (Rs.)	Provided to no. of Farmers	Expected area coverage (ha.), if applied
1	Bio Fertilizers	Non Symbiotic Azotobacter	-	-	-	-	-	-
		Vermicompost	-	-	-	-	-	-
		Azolla	-	-	-	-	-	-
		Earthworms	-	-	-	-	-	-
		Compost	-	-	-	-	-	-
		Blue Green Algae	-	-	-	-	-	-
		NADEP	-	-	-	-	-	-
		Sanjeevani Khad	-	-	-	-	-	-
		Ghanjeevamrut	-	620	-	6200	15	3.9
		Taral jeevamriut	-	410	-	16400	82	18.2
		Beejamriut	-	60	-	2400	35	14.6
		Acetobactor	-	-	-	-	-	-
		Aspergillius	-	-	-	-	-	-
		Azatobactor	-	-	-	-	-	-
		Azospirillum	-	-	-	-	-	-
			-	-	-	-	-	-
		Phosphate solublizing Bacteria	-	-	-	-	-	-
		Rhizobium	-	-	-	-	-	-
		Other (pl. sp.)	-	-	-	-	-	-
2	Bio-Food	Spirulina	-	-	-	-	-	-
		Honey	-	-	-	-	-	-
		Any Other (pl. sp.)	-	-	-	-	-	-
3	Bio Pesticides	Neem extract	-	-	-	-	-	-
		Neem powder	-	-	-	-	-	-
		Tobacco extract	-	-	-	-	-	-
		<i>Trichoderma viride</i>	-	-	-	-	-	-
		<i>Trichoderma harjinum</i>	-	-	-	-	-	-
		<i>Trichogramma chilonis</i>	-	-	-	-	-	-
		<i>Beauveria bassiana</i>	-	-	-	-	-	-
		<i>Metarhizium anisopliae</i>	-	-	-	-	-	-
		<i>Pseudomonas fluorescens</i>	-	-	-	-	-	-
		SINPV	-	-	-	-	-	-

S.No	List of Major Group Bio agent/Bio fertilizers/Bio Pesticides	Name of the Product	Species	Qty (in Kg)	Qty (in No.)	Value (Rs.)	Provided to no. of Farmers	Expected area coverage (ha.), if applied
		HaNPV	-	-	-	-	-	-
		GF1	-	-	-	-	-	-
		Baco Lures	-	-	-	-	-	-
		Heli Lures	-	-	-	-	-	-
		Leucin Lures	-	-	-	-	-	-
		Paecilomyces	-	-	-	-	-	-
		Panchagavya	-	25	-	1000	12	6
		Neemastra	-	355	-	14200	71	28.4
		Bramastra	-	290	-	11600	58	23.2
		Aganistra	-	300	-	12000	60	24.0
		Verticillium	-	-	-	-	-	-
4	Bio Agents (Tricho card)	<i>Trichogramma chilonis</i>	-	-	-	-	-	-
		<i>Chrysoperla carnea</i>	-	-	-	-	-	-
		Tricho card	-	-	-	-	-	-
		Any other (Pl. Specify)	-	-	-	-	-	-
5	Bio Agents (Pyrilla parasitoids)	<i>Ooincirtus papilionis</i>	-	-	-	-	-	-
		<i>Epiricania melanolauca</i>	-	-	-	-	-	-
6	Bio Agents(Worms)	<i>Eisenia fetida</i>	-	-	-	-	-	-
		<i>Eudrilus eugeniae</i>	-	-	-	-	-	-
		Earth worm	-	-	-	-	-	-
		Any other (pl. specify)	-	-	-	-	-	-
7	Others	Mushroom spawn	Plurotus sajorcaju	179 kg	-	26850	52	
		Mushroom fresh		172.5 kg	-	17280	67	
		Mineral Mixture	-	-	-	-	-	-
		Cow dung (dry)	-	-	-	-	-	-
		Any other (pl. specify)	-	-	-	-	-	-

LIVESTOCK

S.No	Type	Name of the animal / bird / aquatics	Breed	Type of Produce	Quantity		Value (Rs.)	No. of Beneficiaries
					unit (kg/qt./liter/no)	Qty.		
1	Dairy animals	Cow	Gir/sahiwal	Milk	liter	1626	73170	18
		Calves	Gir/sahiwal	-	-	-	-	-
		Goats	Sirohi	Kids	kg	278	127880	9
		Buffaloes	-	-	-	-	-	-

S.No	Type	Name of the animal / bird / aquatics	Breed	Type of Produce	Quantity		Value (Rs.)	No. of Beneficiaries
					unit (kg/qt./liter/no)	Qty.		
		Sheep	-	-	-	-	-	-
		Breeding bull	Gir	Service	No.	26	3900-	26
		Other (pl specify)	-	-	-	-	-	-
2	Poultry	Poultry	Narmdan idhi	Birds	kg	740	185000	168
		Japanese quail	-	-	-	-	-	-
		Japanese quail eggs	-	-	-	-	-	-
		Ducks	-	-	-	-	-	-
		Turkey	-	-	-	-	-	-
		Other	-	-	-	-	-	-
3	Piggery	Piglets	-	-	-	-	-	-
		Boar	-	-	-	-	-	-
		Sow	-	-	-	-	-	-
		Other (pl specify)	-	-	-	-	-	-
4	Fisheries	Indian carp	-	-	-	-	-	-
		Exotic carp	-	-	-	-	-	-
		Other (pl specify)	-	-	-	-	-	-

Literature Developed/Published

KVK News Letter

Period	Quarter	Number of copies published	Number of copies distributed	Type of beneficiaries receiving the newsletter (Farmer, District/block/Panchayat Official, D.M. etc.
January to March 2023	Q1	200	200	Farmers and panchayat officers
April to June 2023	Q2	200	200	Farmers and panchayat officers
July to September 2023	Q3	200	200	Farmers and panchayat officers
October to December 2023	Q4	200	200	Farmers and panchayat officers

Details of Electronic Media to be Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1	VCD	Meri Kahani Meri Jubani	6
2	VCD	Conservational and mainstreaming of traditional Farmers varieties	2

Literature developed/published

Type	Number (please don't give mass please fill number only)	Number of copies printed (please don't give mass please fill number only)
Abstract	4	Mass
Book	0	Mass
Book Chapter	2	Mass
Booklet	2	550
CD/DVD	2	48
Leaflets/ Folder/ Pamphlet	20	11500
Popular article	2	Mass
Research Paper	4	Mass
Technical Bulletin	02	500
Training Manual	1	26
Technical Report	04	20
Year Planner	01	20
Others (pl. specify)		

Activities of Soil and Water Testing Laboratory

Year of establishment: 2003

List of equipments purchased:

Sl. No.	Name of the Equipment	Qty.	Condition
1	Spectrophoto meter	1	Not Working
2	Flame photometer	1	Not Working
3	Water distillation apparatus	1	Not Working
4	PH Meter	1	Not Working
5	Hot Air oven	1	Not Working
6	Mechanical Shaker	1	Not Working
7	Harvesto Digital	1	Working
8	Harvesto shaker	1	Working

Details of Soil samples analyzed:

Soil Testing Kits till date		No of soil samples		No. of Samples analyzed			No. of Farmers benefited			No. of Villages covered	Amount realized	Soil health card distributed to the farmers by KVK (Nos)	
Sanctioned	Procured	Collected by KVKs	Provided by Dept./ DDA	Mini Soil Testing kit	Soil testing laboratory	By Department	By KVK		By Department			Through Mini Soil Testing kit	Through Soil testing laboratory
02	0	500	0	386	0	0	349	0	0	43	72500	386	0

Details of water samples analyzed:

No. of Samples	No. of Farmers	No. of Villages	Amount realized	Test report distributed to the farmers (Nos)
-	-	-	-	-

Details of Plant samples analyzed :

No. of Plant Samples analyzed	No. of Farmers	No. of Villages	Amount realized
-	-	-	-

Footfall of farmers in KVKs (Jan. 2023 to Dec. 2023)

Name of KVK	Footfall during 2023			
	No. of Farmers	No. of officials	No. of VIPs	Total
Satna	15454	398	119	15971

* JPEG Photographs (2-3 only)

Status of Kisan Mobile Advisory (KVK-KMA)

S. No.	Thematic area	Particulars	No of Calls	No of advisory sent	No of Messages sent	No. of farmers received messages	Total no of villages in District	No of village Covered by KVK through KMA
1	Crop Management	Crop Production Technology	168	45	45	76452	1816	1006
		Integrated Farming						
		Field Preparation						
		Any Other (Specify)						
2	Weather	Advisory	282	38	38	76452	1816	1006
		Change in variety						
		Change in Sowing technique						
		Climate forecast						
		Any Other (Specify)						
3	Soil Management	Soil Testing	98	0	0	76452	1816	1006
		INM						
		Fertilizer Application						
		Vermicomposting/ bio-waste recycling						
		Bio-fertilizer						
		Any Other (Specify)						
4	Disease & Pest Management	Disease Management	79	36	36	76452	1816	1006
		Pest Management	240					
		Preventive Advisory Disease Management	44					
		Preventive Advisory Pest Management	62					
		Bio-pesticides	29					
		Any Other (Specify)	26					
5	Nutrition Security & Women Empowerment	Nutrition Awareness	45	0	0	76452	1816	1006
		Kitchen garden						
		Value Addition and Processing						
		Drudgery Reduction						
		Entrepreneurship & Income Generation						
		Advisory						
		Any Other (Specify)						
6	Horticulture	Vegetable	387	43	43	12023	1816	543
		Fruit	122	13	13	653	1816	139
		Hi Tech Horticulture	13	0	0		1816	37
		Any Other (Specify)	7	2	2	54	1816	4
7	Livestock	Feed and Fodder	73	14	14	76452	1816	1006

S. No.	Thematic area	Particulars	No of Calls	No of advisory sent	No of Messages sent	No. of farmers received messages	Total no of villages in District	No of village Covered by KVK through KMA
		Dairy Management						
		Fisheries						
		Poultry Management						
		Vaccination & Disease management						
		Any Other(Specify)						
8	Farm Mechanization							
9	Extension		115	0	0	76452	1816	1006
10	Organic Farming		35	15	15	76452	1816	1006
11	Marketing							
12	Awareness							
13	Other Enterprise							
14	Any Other(Specify)							

Status of KVK Website during Jan to Dec. 2023

Date of start of website	Address of Website	No. of updates during 2023	No. of visitors during 2023	Flag Collected	Year Planner
04.04.2021	http://kvksatna.org.in/	45	2357	-	yes

Mobile Apps developed by KVK during 2023

S.No	Name of KVK (Developer)	Name of Host organization	Title of Mobile App	Content (in one line)	Languages (in which app developed)	Number of downloads	Total expenditure incurred in developing app (Rs.)
1	-	-	-	-	-	-	-

ICT based module

Information on Whats app in social media by KVK

KVK	Discipline wise group with name of discipline	No of Farmer members	Activity details on whats app group
Satna	KVK Farmers Training	69	Farmers advisory on training programme Agri and Horticulture based , information on seed availability
Satna	DRI KVK SHG	120	Farmers advisory on Agri. and Horticultural crops, information on seed availability
Satna	Mushroom Production trainees	87	Farmers advisory on Mushroom production
Satna	DRI KVK Majhgawan,Satna	215	Farmers advisory on pest management in Agri. and Horticultural crops , information on seed availability
Satna	KFPCL Nagod Farmers Group	205	Farmers advisory on seed Production and information on seed availability
Satna	KVK Mahila Bal Vikas Majhagwan	74	Farmers advisory on training programme

Satna	Horticulture- Udyaniki vikas Maihar	190	Farmers advisory on horticultural crops, information on seed availability
Satna	Horticulture- Udyaniki Krishak, Rampur Baghean	44	Farmers advisory on horticultural crops, information on seed availability
Satna	Horticulture- Udyaniki group Ramnagar	52	Farmers advisory on horticultural crops, information on seed availability
Satna	Horticulture- Udyaniki Mahgawan	75	Farmers advisory on horticultural crops, information on seed availability
Satna	Horticulture- Udyaniki group Sohawal	76	Farmers advisory on horticultural crops, information on seed availability
Satna	Horticulture- Udyaniki group Nagod	39	Farmers advisory on horticultural crops, information on seed availability

Information on social media by KVK

KVK	Facebook			Twitter		Instagram	
	Scientists linked	Farmers connected	No of Post	No of tweets	People following	No of share	People following
Satna	685	3895	103	37	1245	29	352

DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Name of KVK	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock /technology
Satna	Gosthies	16	255	Mid and terminal drought mitigation techniques in Kharif , Zero and dry seeding technology
Satna	Lectures organized	27	7087	Technologies for mitigating and adapting the drought, water saving methods, Soil and water conservation technique, Nursery raising of vegetables, livestock feeding management
Satna	Exhibition	2	765	Technologies on drought mitigation in kharif crops and improved production technologies for important rabi season crops were shown through exhibition
Satna	Film show	11	535	Production technology of rabi crops
Satna	Fair	1	812	Technical information/lecture related to the rabi crops, Felicitation of innovative farmers
Satna	Farm/ Field Visit	27	136	Identification of important diseases insects, weeds and deficiency symptoms of nutrients
Satna	Diagnostic Practical's	32	67	Insects, pests, diseases of Kharif standing crops
Satna	Distribution of Literature (No.)	12	7087	Package of practices of rabi crops
Satna	Distribution of Seed (q)	122	368	Rabi crops & vegetables
Satna	Distribution of Planting materials (No.)	156322	613	Fruit sapling and vegetables seedlings
Satna	Bio Product distribution (Kg)	140	14	Liquid biofertilizer, Beejamriut and Ghanjeevamriut
Satna	Distribution of Bio Fertilizers (q)	-	-	-
Satna	Distribution of fingerlings	-	-	-
Satna	Distribution of Livestock specimen (No.)	-	-	-
Satna	Total number of farmers visited the technology week	15	1205	Technology park and demonstration units
Satna	Animal health camp	3	142	Vaccination and use of minerals mixture
Satna	Awareness programme	3	217	Natural farming and Agri drone
Satna	Demonstration(ha.)	103	259	Improved production technology of Rabi season

Name of KVK	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock /technology
				cereals pulses and oil seeds
Satna	Exposure visit	3	175	Technology park and demonstration units
Satna	Ex-trainees Meet	-	-	-
Satna	Farmer scientist interaction	5	125	Improved varieties seed tolerant biotic and abiotic stress
Satna	Farmers Training	10	235	Mustard, Chickpea and Wheat
Satna	Gajarghans Unmulan Pakhwada	2	82	uprooting and chemical control
Satna	Group Meeting	2	56	SHG
Satna	Jai Kisan Jai Vigyan Sangoshthi	3	147	Recent technologies
Satna	Plant Protection Week	1	113	Cultural and mechanical pest control
Satna	Seed treatment campaign	1	125	Seed treatment and inoculation
Satna	Self Help Group convener meet	1	6329	Forest produce collection ,storage and marketing
Satna	Soil health Camp	1	105	Soil Sampling techniques and STFR
Satna	Swachha Bharat Abhiyan	4	84	Farm waste management
Satna	Farmers workshop	2	317	Preparedness of rabi season crop and improved farm technologies

Participation in HRD Programmes organized by ATARI

Name of KVK	Name of Staff	Post held	Programme attended (Nos)	Remarks
Satna	Dr.RS Negi	SS&Head	3	Zonal Workshop and annual action plan ,financial management
Satna	Dr.Akhilesh Jagre	SMS Plant Protection	2	Zonal Workshop and annual action plan National conference
	Total		05	

Name of KVK	Total Number of staff Attended HRD Programme organized by ATARI (nos)	Total Number of Programme attended (Nos)
Satna	3	5

Participation in HRD Programmes organized by DES

Name of KVK	Name of Staff	Post held	Programme attended (Nos)	Remarks
Satna	Dr.RS Negi	SS&Head	2	

Name of KVK	Total Number of staff Attended HRD Programmes organized by DES (nos)	Total Number of Programmes attended (Nos)
Satna	1	2

Participation in HRD Programmes by KVK Staff (Refresher course, Short course, Training programme etc.)

Name of KVK	Name of Staff	Post held	Programmes attended (Nos)	Duration (days)	Type of HRD activities (Refresher course/CAFT/Summer winter school/short course)
Satna	Dr.Ajay Chourasiya	SMS Agronomy	2	7	Training

Name of KVK	Total Number of staff Attended HRD Programmes by KVK staff (nos)	Total Number of Programmes attended (Nos)
Satna	2	2

Information for TSP Jan-Dec 2023

S l. No.	Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		Number of farmers involved			Participa nts in exten sion activ ities (No.)	Produc tion of seed (q)	Produc tion of Plan ting mat erial (Nu mber in lakh)	Produc tion of Live stoc k strai ns (Nu mber in lakh)	Produc tion of fing erlin gs (Nu mber in lakh)	Testin g of Soil, water, plant, manur es sampl es (Num ber)
	No. of Train ings/ Demo s	No. of Far mers	No. of Trainin gs/Demo s	No. of Wo men Farm ers	No. of Trainin gs/Demo s	No. of Yo uths	No. of Trainin gs/Demo s	No. of Ex t. Pe rson	On- fa rm trials	Frontli ne de mos	Mo bile agr o- adv iso ry to far mers						
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

39. Information for SCSP Jan-Dec 2023

S l. No.	Farmer Training		Women Farmer Training		Rural Youths		Extension Personnel		Number of farmers involved			Participa nts in exten sion activ ities (No.)	Produc tion of seed (q)	Produc tion of Plan ting mat erial (Nu mber in lakh)	Produc tion of Live stoc k strai ns (Nu mber in lakh)	Produc tion of fing erlin gs (Nu mber in lakh)	Testin g of Soil, water, plant , man ures sampl es (Nu mber)
	No. of Train ings/ Demo s	No. of Far mers	No. of Traini ngs/Demo s	No. of Wo men Farm ers	No. of Traini ngs/Demo s	No. of Yo uths	No. of Traini ngs/Demo s	No. of Ex t. Pe rson	On- fa rm trials	Frontli ne de mos	Mo bile agr o- adv isor y to far mers						
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

40. Information for KSHAMTA Jan-Dec 2023

Sl. No.	State	Name of KVK	Number of Adopted Villages	No. of Activities		No. of farmers benefited	
				Demo	Training	Demo	Training
-	-	-	-	-	-	-	-

Activities in Nutri-Smart Village during Jan-Dec 2023

Information about Nutri-Smart Village

Name of KVK	Block	Name of Nutri Smart Village
-	-	-

1. Technologies Assessed (OFT) in Nutri Smart Village

Name of KVK	Thematic area	Name of Intervention	No. of Activity	Area	No. of beneficiaries
	Nutritional Garden (activity in no. of Unit) (m ²)	-	-	-	-
	Bio-fortified Crops (activity in no. of Unit) (ha)	-	-	-	-
	Value addition (activity in no. of Unit/Enterprise)	-	-	-	-
	Other Enterprises (activity in no. of Unit)	-	-	-	-

	Unit/Enterprise)				
	Income generation (activity in no. of Unit/Enterprise)	-	-	-	-
	Drudgery reduction (activity in no. of Unit/Enterprise)	-	-	-	-

2. Technologies Demonstrated (FLD) in Nutri Smart Village

Name of KVK	Thematic area	Name of Intervention	No. of Activity	Area	No. of beneficiaries
	Nutritional Garden (activity in no. of Unit) (m ²)	-	-	-	-
	Bio-fortified Crops (activity in no. of Unit) (ha)	-	-	-	-
	Value addition (activity in no. of Unit/Enterprise)	-	-	-	-
	Other Enterprises (activity in no. of Unit/Enterprise)	-	-	-	-
	Income generation (activity in no. of Unit/Enterprise)	-	-	-	-
	Drudgery reduction (activity in no. of Unit/Enterprise)	-	-	-	-

3. Training Programme conducted in Nutri Smart Village

Name of KVK	Training Title	No. of Courses	Duration (Days)	Gen		SC		ST		Other		Total
				M	F	M	F	M	F	M	F	
-	-	-	-	-	-	-	-	-	-	-	-	-

4. Extension Activities in Nutri Smart Village

Name of KVK	Activity	No. of activities	SC		ST		Other		Officials		Total
			M	F	M	F	M	F	M	F	
-	-	-	-	-	-	-	-	-	-	-	-

LINKAGES

Functional linkage with different organizations

Name of organization	Nature of linkage
-	-

Details of linkage with ATMA / NFSM

a) Is ATMA implemented in your district Yes/No

Name of Programme	Nature of linkage
-	-

Give details of programmers implemented under National Horticultural Mission

Name of Programme	Nature of linkage
-	-

Flagship programmes implemented at KVK

(NICRA, ARYA, Natural farming, CBBO, Seed Hub, Agri Drone etc)

Name of Flagship programmes; Natural Farming

Month	Activity details	No. of Activity	Beneficiaries
January to December -2023	Training cum organized in Self Reliant Centre	11	358
January to December -2023	Awareness program	15	546
February -2023	Exposure visit	4	164
February -2023	Organized one day workshop on natural farming at block level in Satna district	1	437
July & Oct.2023	Demonstration on natural farming	12	12 (12 acre)
July 2023	Cow based Microbial formulation unit establishment	1	-
	Total	45	1517

Name of Flagship programmes- ARYA

Month	Activity details	Beneficiaries
April to July – 2023	Selection of rural youth	200
April to December – 2023	Training three days - Goat Framing -44 - Poultry Farming -49 - Mushroom Production – 50 - Vermicompost Production -50	193
August-.2023	Goafarming Rural Youth Meet	67
April to December - 2023	Field Visit - 17	67
April to December - 2023	Unit Establishment - Goat Framing -10 - Poultry Farming -12 - Mushroom Production -8 - Vermicompost Production -8	38

Name of Flagship programmers; NFSM Cluster frontline demonstration

Crop	Variety	Area(ha)	No of farmers benefited
Pulses			
Blackgram	PU 9,PU10,PU12	50	125
Pigeonpea	PA 6, PA 7	50	125
Lentil	IPL 316, L4727	50	125
Total/Average		150	375
Oilseed			
Sesame	GT5/GT6	10	25
Soybean	JS 2098/JS 2069	20	50
Mustard	RH 761/DRMRIJ31	50	125
Total/ average		70	200

Crop Cafeteria

Total Area of Crop cafeteria: 2000 Sq m

Crop	Season	Variety	Particulars /details	Area (Sq m)
Rice	Kharif	JR 10, JR 767,JR 81, Pant Dhan 28, Pant Dhan 11, IR 64, Kranti, Govind, Bauna Dubraj, Bauna Safari, Pusa Sugandh 5,		400
Blackgram	Kharif	IPU 13-1, IPU 11-02, Indira Urd 1, Pant Urd 9, Pant Urd 10, Pant Urd 12, Azad 3, Pratap urd, PU 40, IPU 94-1, IPU 2-43		200
Small Millets	Kharif	Kodo millet, (JK 137) Finger millet (Indira Ragi 1), Little millet (JK4), Barnyard millet (DHBM 93-3), Foxtail millet, Great millet (PC 701).		200
Greengram	Kharif	IPM 410-1 (Shikha), IPM 205-7 (Virat), Pusa vishal, IPM 2-14, GM 4, IPM 2-3, Swati, PDM 139,		200

Crop	Season	Variety	Particulars /details	Area (Sq m)
Pigeonpea	Kharif	Pant Arhar 6, Pant Arhar 7, BDN 716, Rajivlochan, TT 401, Pusa 992, TJT 501		100
Sesame	Kharif	GT 5, GT 6, RT 372, TKG 308, JTS 21, TKG 22, TKG 306, Shekhar, GT 1, JTS 8, JTS 9, RT 346, RT 351		200
Wheat	Rabi	DBW-303, DBW 332, DBW-187, DDW 55, JW 3465, JW 3211, JW 3288, GW 322, HI 1544, HI 1634, K 1317, K 1616, C 306		400
Barley	Rabi	DWRB-137, DWRB-182		50
Chickpea	Rabi	JG 36, JG 24, RVG 204, JG 14, JG 12, JG 16, JG 63, JG 11, JG 130, JG 74, JG 03, JG 135, JG 01		200
Lentil	Rabi	IPL 534, RVL 11-05, RVL 31, IPL 316, L 4076, IPL 406, L 4147, IPL 321, IPL 220, IPL 526		200
Field Pea	Rabi	IPFD 11-5, IPFD 10-12, IPF 49, IPFD 1-10, KPMR 400, IPFD 12-2, Aprana, IPF 519, IPF 99-25, IPFD 99-13		100
Mustard	Rabi	DRMRIJ 31, NRCHB-101, DRMR 150-35, DRMR 1165-40, RH 725, RH 761, Pusa Mahak, PM 28, PM 30		200
Tomato	Rabi	Kashi Aman, Kashi Amrit, Arka Rakshak		50
Brinjal	Rabi	NB 2, Deshi hara gola, Deshi hara lamba, Deshi baigni gola, Deshi baigni lamba,		50
Peas	Rabi	VRP 9, VRP 22, Azad 1,		50

Details of Demonstration Unit at KVK

Demonstration Unit	Particulars /details	Area (Sq m)	Output /Production
High tech Nursery	Fruits, Vegetables, ornamental Plant nursery	780	459566 fruit saplings and seedlings provided to 5769 farmers
Vegetables & Spices seed production	Improved varieties seeds	0.8	2.38 q seeds were provided to 1779 farmers
Bio-pesticide and Bio-fertilizer Unit	Prepared in cow urine based biofertilizer (Ghanjeevmriut, Taral Jeevamriut Beejamriut and panchgavya) & Biopesticide (Neemastra, Bramastra and Agniastara)	400	Natural Bio-Product – Ghanjeevmriut, - 350kg Taral Jeevamriut - 650 liter Beejamriut - 50 liter Bio-pesticide – 550 liter
Mushroom Production	Oyster and Button Mushroom seed and fresh Production(spawn).	731	Oyster and Button Mushroom seed- 265 kg Fresh Mushroom- 350 kg

Success Story of Vegetable based cropping pattern for round the year vegetable cultivation in Cluster approach.

"Small is beautiful" is a good saying. But it does not appear to be good when it comes to landholdings in agriculture. . More than 69.6 per cent of farmers in Satna district of MP own less than two hectares land. Their share of cultivated land is only 20.9 per cent of the total available agricultural land. The cropping system followed by small and marginal land holders, failed to provide food, nutritional, economic and employment security to these farm families. As a result, these groups of farm families are showing disinterest in farming, quitting farming and are migrating towards cities.

The Bundelkhand region of Madhya Pradesh characterized by fragile ecosystem has been facing drought like situation in the past few years. The production system in this region is confronted by several bio-physical constraints, such as low and erratic rainfall, extreme temperature variations as high as 48°C during summer and 2-3°C during winter and increased in the severity of long dry spells. Although, the region receives an average annual rainfall of 767.8 to 1086.7 mm during monsoon, but, due to undulated topography in the upland, most of the rainwater is lost through surface run off resulting in to erosion of the top soil. The uplands are seldom utilized for production of agricultural crops. Thus, under such situation, cropping system integrating suitable vegetable crops with market acceptance could be more remunerative as it will not only improve the productivity and profitability of farming but it will also provide nutritional security to the farm family. The practice of multiple cropping with cropping pattern also permits crop diversification to spread out the risk to more crops, thus, eliminating the dependence of income on a single crop. Therefore, to minimize risk, improve livelihood, ensure high returns from such uplands for small land holders and further, to improve the soil characteristics, vegetable based cropping system could be a most promising technology. The climate of the region is suitable for growing vegetables, and spices crops will not only fetch good income to the farmers from their lands, but will also simultaneously improve the condition of soils if leguminous crops are grown in cropping system.

Situation analysis/Problem statement:

Rice –wheat cropping system is the major cropping pattern of Satna District, but during recent years, short and delayed rainfall, the productivity of this cropping system has been greatly reduced, resulting into reduction in income of the farmers. The persistent changes in the weather have resulted in the overall decrease in the quantity of available water for irrigation, resulting in low productivity and profitability of rice -wheat cropping system in upland areas of the district. In order to improve the productivity and profitability of this farming situation, there is a need for diversification of rice to vegetables by including crops/varieties that require less water in the cropping

system. In most of such areas in the district offer the possibility for growing three crops if rice- wheat cropping system is further intensified to bitter gourd- pea- wheat cropping system. Rice fields cover large agricultural areas in Satna District of MP. Lower profitability of rice cultivation has however, created a need for diversification of this upland rice to the more profitable cultivation of vegetables. Increasing demands of vegetables during rainy season, further makes conversion of rice fields reasonable in this environment without supplemental irrigation.

The productivity of vegetables in Satna district of Madhya Pradesh are very low due to diverse climatic condition viz., erratic rainfall during rainy season, moisture stress, frost during winter season, poor soil nutrient. Farmers who produce vegetables like cucumber, cowpea, brinjal tomatoes etc during their main season also get poor price to market glut. The cropping pattern is the best alternative for regulating the above factors as per requirement of the crops in order to realize the maximum potential of the available resources. It also helps in raising good quality crops and also reduces the risk of crop failure due to extreme and unseasonal weather conditions. Round the year production of vegetables also help in providing employment to farm family, increases production and minimize disease and pests attacks.

2. Plan, Implement and Support: KVK Satna introduced various vegetable based cropping pattern for year round production of vegetables in Pagarkala village. Farmers were imparted training on year round production of vegetables by following suitable cropping patterns. Farmers were well supported by organizing demonstrations on improved production technologies of vegetable production. During the last 5 years 18 demonstrations on improved production techniques of vegetables and spices were organized by involving more than 105 farmers. The farmers were advised to follow the cropping pattern by following the standard production technologies and cultivating the high yielding varieties/hybrids. The literature and technical support in terms of consultancy, advisories, training, exposure visits to KVK vegetable demonstration farm, farmer and scientist interactions, field days were organized to showcase the technologies to the farmers and villagers for large scale adoption.

Promising characteristics of technology:

- Intensification of rice wheat cropping system to vegetable based cropping system.
- Selection of high yielding varieties/hybrid
- Planting Seeds/ seedlings on raised beds/ridges/basins
- Nutrient management- Recommended Dose of Fertilizers and Foliar application of water soluble fertilizers(NPK- 19:19:19(1%) and micronutrient (agromin 0.2 %) 30, 45 and 60 days after planting
- Improved Crop Management Practices(Water management- Drainage & irrigation, weeding, Change in cropping Pattern, Staking & training of vegetables)
- Management of insectpests(Removal of disease infested leaves, Prophylactic Spray there after need based spray of chemicals)

Table 1. Activities / technological intervention undertaken by KVK

Technological Intervention/ Activities	Nos.
On campus training programmers	14
Off campus training programmers	26
Frontline Demonstrations	18
Method demonstrations	08
Field Visits	46
Kisan Advisory Services	234(105 farmers)
Field days	18
Exposure Visits	03
Formation of farmers group	01 (2 farmers)

3. Output: The concerted efforts by KVK in promoting farmers to adopt most profitable cropping pattern resulted in year round production of vegetables in the villages increasing the cropping intensity from 1.76 to 2.89 %, and production by 169 per cent as compared to traditional cultivation . Similarly the net return, profitability was also increased by double in the technology demonstrated during last five years (Table 2).

Table 1. Economic performance of Cropping pattern for round the year vegetable production

Cropping pattern)Kharif- Rabi- Zaid(	Cost of cultivation)Rupees/acre/year(	Gross Returns)Rupees/acre/year(	Net Returns)Rupees/acre/year(	B:C ratio
Tomato - Cauliflower - Cowpea	75470	201825	126355	2.67
Cowpea- Potato - Okra	71550	170200	98650	2.38
Chillies - Onion – leafy coriander	83420	231250	147830	2.77
Okra - Pea – Bottle Gourd	66140	169625	103485	2.56
Zinger - Cowpea	73350	193775	120425	2.64
Cowpea - Garlic – Spinach	74410	233775	159365	3.14
Cauliflower - Pea - Tomato	82360	237575	155215	2.88
Onion – Cauliflower - Cowpea	82215	225975	143760	2.75
Bitter gourd - Pea - Muskmelon	69325	207000	137675	2.99

Of the various cropping patterns tested/demonstrated in the village, cowpea- garlic- spinach, bittergourd- pea- muskmelon and cauliflower- pea-tomato, which gave net return of Rs. 159365 , Rs. 137675 and Rs. 155215/acre and benefit : cost ratio (3.11, 2.99 and 2.88) respectively, are the best cropping sequences for upland irrigated production system. In the cropping system, natural resources like soil, moisture and space were utilized properly. Income per unit area increased substantially with cropping system. Year round production approach of vegetable production also helped to reduce nutritional problems as well as poverty in the village.

4. Outcome: The farmers were very happy with the adoption of cropping sequences as their income from vegetable

production has increased significantly. Each farm family income has been observed to increase by 169 percent on an average. The off season vegetables provided good prices to the farmer. Horizontal spread to 105 farmers in the village along with in 3 adjoining villages covering 89.5 ha area under vegetable cultivation

5. Impact: This technology provides job opportunity and income round the year for the farm families and also more income per unit of land. The adoption of appropriate cropping pattern resulted in year round production of vegetables thus increasing the productivity and income of farm families which definitely will help in doubling the farmers income. The area under vegetable has also increased significantly in the village. Overall following changes were observed in the village.

- Living standards of farmers improved
- Sizable increase in Area(89.5 ha) under vegetable cultivation in the village
- 140 farmers in 3 villages of the surrounding villages started vegetable cultivation
- Sale of farmers produce at their door step
- Farmers are now taking three crops in a year



A success story of Vegetable grower – a case in Satna District of MP

While youth of his age are migrating towards cities in search of better job, 39-year-old farmer Sh. Sunil Verma of Pagarkhurd village under Majhgawan block in Satna District is still going strong as a vegetable grower and has become an inspiration for youths shying away from agriculture. Sunil, who is into vegetable cultivation for the last 11 years, has made farming a lucrative affair and is reaping a profit of Rs 5 lakh per annum from 2.5 acre piece of land.

Sunil, who has studied up to BA, started vegetable cultivation at an age of 28. He started with cultivation of Zinger, tomato, brinjal and cabbage over about 2.5 acres of land. Before he entered into vegetable farming, his father was solely concentrated into rice –wheat cultivation. Sunil took up vegetable cultivation after he came in contact with kvk and informed that vegetable cultivation offers good return.

The 39-year-old now grows papaya and guava over 1.0 acres besides, bitter gourd, tomato, brinjal, potato cabbage, cauliflower, cowpea and bottle gourd over 1.5 acres. Altogether, he cultivates horticultural crops over 2.5 acres of land and earns around Rs 5.0 lakhs per year.

Sunil said he earns around Rs 1.5 lakh annually from fruit cultivation over one acre and another Rs 1.35 lakhs by growing Okra cowpea, cauliflower and cabbage over 0.5 acres. Similarly, he cultivates zinger and chillies over half an acre and earns a profit of about Rs 1.2 lakhs. He also grow potato, tomato, brinjal chillies, cucurbits and leafy vegetables over 0.5 acres and earns about Rs 0.95 lakh from cultivation of these vegetables annually

“He plans sowing and transplanting of vegetables intelligently to capture the early market to escape form distress sale,” Sunil said.

This farm success has been possible only because of proper planning and layout along with appropriate utilization of available farm resources and market demand driven cultivation, he said. Apart from this, Sunil is also rearing two buffaloes and one cow.

Sunil said he faces no problem in selling his yield as traders visit his village regularly to procure his produce. “I have never felt the need of a job and am satisfied with farming,” he said.



Indicate the specific training need analysis tools/methodology followed for(Viz PRA, AES, line dept, ex trainees, interface,)

S. No.	Training	Need analysis tools/methodology followed
1	Identification of courses for farmers/farm women	PRA technique, Rapid Rural Appraisal (RRA) technique, Personal contact, conducted meeting of the villagers, semi-structured interview schedule the problems, issues and needs were also assessed through POINT techniques. The gaps in adoption of technologies have been analyzed through farming situation based extension (FSBE) tools
2	Rural Youth	
3	In-service personnel	
4	methodology for identifying OFTs/FLDs	
5	Matrix ranking	

Field activities

Name of villages identified for adoption with block name:

S.No.	Name of Village	Name of Block	Distance of village from KVK (Km)
1	Banka	Majhgawan	25
2	Piparawan	Majhgawan	23
3	Baruwa	Majhgawan	25
4	Tikara	Majhgawan	26
5	Lotni	Majhgawan	24
6	Devipur	Sohawal	36
7	khuja	Unchhehara	62

1. No. of farm families selected per village :

2. No. of survey/PRA to be conducted:

Well labeled Photographs in .jpeg format with high resolution (300 dpi)of each activity of the KVK. (Separately) (pl don't paste photo in word file)