ANNUAL PROGRESS REPORT

Year: 2023

[Period: January 2023 – December 2023]

Krishi Vigyan Kendra

Lokbharti Gramvidyapith Trust

Sanosara, ***Ta:***Sihor, ***Dist:*** Bhavnagar (Gujarat) - 364 230

E-mail: kvkbhavnagar@gmail.com

ANNUAL PROGRESS REPORT

INDEX

ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT
Krishi Vigyan Kendra - Bhavnagar
(January 2023 to December 2023)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Lokbharati Gramvidyapith, At: Sanosara, Ta.:Sihor, Dist. - Bhavnagar (Guj.)-364230	(02846) 283777	283999	kvkbhavnagar@gmail.com	https://lokbharti.org//Krishi-Vigyan-Kendra

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

Address	Telephone		E mail	Website address
	Office	FAX		
Lokbharati Gramvidyapith Trust, At: Sanosara, Ta.:Sihor, Dist. Bhavnagar (Guj.)-364230	(02846) 283528	283528	Lokbharti@lokbharti.org	www.lokbharti.org

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. N. P. Shukla	(02846) 283777	09426895354	nigamshukla@gmail.com

1.4. Year of sanction: 2009

1.5. Staff Position (as on 31st December, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	If Permanent, Please indicate		Date of joining
					Current Pay Band	Current Grade Pay	
1.	Senior Scientist and Head	Dr. N.P. Shukla	9426895453	Plant Protection	166400	-	13/10/2010
2.	Subject Matter Specialist	Mrs. S. N. Boricha	9978745959	Home Science	73200	-	07/08/2012
3.	Subject Matter Specialist	Vacant	-	Horticulture	-	-	-
4.	Subject Matter Specialist	Mr. P. M Kyada	9726396836	Agri. Engg.	69000	-	27/08/2014
5.	Subject Matter Specialist	Dr. V. R. Desai	9427595990	Animal Husbandry	69000	-	02/09/2014
6.	Subject Matter Specialist	Mr. J. K. Kantariya	7698369732	Agronomy	65000	-	28/02/2017
7.	Subject Matter Specialist	Dr. Saroj Chaudhary	8469478385	Agriculture Extension	65000	-	05/03/2017
8.	Programme Assistant	Mr. P. J. Rathod	9978945445	Soil Science	52000	-	10/05/2011
9.	Computer Programmer	Mr. P. M. Mehta	9879407582	Computer	53600	-	1/10/2010
10.	Farm Manager	Mr. V. B. Savani	9979272288	Horticulture	50500	-	15/08/2012
11.	Accountant/Superintendent	Mr. V. B. Makavana	9426550258	Commerce	53600	-	1/10/2010
12.	Stenographer	Vacant	-	-	-	-	-
13.	Driver 1	Mr. P. M. Rathod	9408373919	-	30200	-	1/10/2010
14.	Driver 2	Mr. P. S. Gameti	9727455394	-	30200	-	1/10/2010
15.	Supporting staff 1	Mr. R. B. Naiya	9825768357	-	25600	-	1/10/2010
16.	Supporting staff 2	Mr. D. P. Vagela	9726379644	-	25600	-	1/10/2010

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	2.4
2.	Under Demonstration Units	-
3.	Under Crops	9.5
4.	Horticulture	-
5.	Pond	-

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Lakh Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2012	546.32	54.00	--	--	--
2.	Farmers Hostel	ICAR		303.56	30.00	--	--	--
3.	Staff Quarters (6)	ICAR	2012	399.97	40.00	--	--	--
4.	Plug Nursery	Dept. of Horticulture, Bhavnagar	2016	1 Ha	30.00	--	--	--
5	Rain Water harvesting system	Host Institute	-	-	-	-	-	-
6	Threshing floor	ICAR	2017	83.54	0.69	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2009-10	6,03,650.00	249081 km	Working Condition
Tractor with Trolley	2009-10	6,02,923.00	5112 hrs	Working Condition

C) Equipment & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer with Accessories (6)	2010-11/2015-16	2,99,350.00	Under use
Photo copier Machine with duplex, stabilizer, Trolley & Accessories (2)	2010-11/2016-17	2,18,700.00	Under use
Fax Machine with Acrylic cover	2010-11	09,000.00	Under use
LCD Projector with laptop & other accessories (2)	2011-12/2015-16	1,60,450.00	Later one is under use
Digital Camera with accessories (2)	2011-12 / 2015-16	53300.00	Under use
LED television set	2015-16	32200.00	Under use
Office furniture	2016	654250.00	Under use

1.8. Details of SAC meeting conducted in the year 2023

Salient Recommendations in 14th SAC	Action taken
Mention average number of rainy days of district in the overview of the district.	Added to the District Profile.
Arrange meetings and trainings of extension workers of line departments for new and special programmes at KVK.	Training of Extension workers has been organized at KVK.
All the photographs included in presentations must be geo tagged.	Suggestion incorporated.
The OFTs which completed three years of trials should be studied critically and a research paper based on the results may be prepared.	Suggestion incorporated.
Observations on FLDs must be recorded with a view to publish a study as a research paper.	Observations on FLDs has recorded and to be presented discipline wise.
Problems and solutions of different crops and farming conditions addressed during diagnostic visits of SMS must be included in the presentations.	Suggestion incorporated.
Study on moisture indicator and its impact must be studies and published.	The format for Impact study will be prepared and implemented by SMS – Agri. Engg.
A study on impact of the locally used power tiller (popularly known as "*Sanedo*") may be planned.	The format for Impact study will be prepared and implemented by SMS – Agri. Engg.
Study on hydroponics must be focused on energy saving and consumption.	
Impact of the extension activities for super napier fodder must be studies.	Suggestion incorporated in AAP 2024 and will be presented by SMS – Agronomy.
Study on impact of azolla as a cattle feed should be planned.	Suggestion incorporated in AAP 2024 and will be presented by SMS – Animal Hus.
Include economics of cattle farm in presentation.	The economics included in presentation of SMS – Animal Hus.
A trial on use of filtered waste water for kitchen garden must be planned	Suggestion incorporated in AAP 2024 and will be presented by SMS – Home Science.
Job profile of SMS – Ag. Extension must include impact studies of KVK activities, base line surveys of the villages under KVK activities, support activities for FPOs and formation of SHGs.	The impact Studies has planned and to be presented by SMS – Ag. Extension.
OFT on comparative study of groundnut varieties Girnar – 4, G.G – 39 and G.G. – 35 should be planned.	The On Farm Trial has planned and laid out during the year 2024 by SMS – Agronomy.
Extension activities like training, demonstration or OFT may be planned for high density plantation of cotton crop.	The On Farm Trial has planned and laid out during the year 2024 by SMS – Agronomy.

2. DETAILS OF JURISDICTION AREA UNDER KVK (No. of talukas): Ten (10)

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

S. No	Farming system/enterprise
1	Agricultural + Animal Husbandry
2	Agricultural + Horticulture
3	Agricultural + Horticulture + Animal Husbandry
4	Animal Husbandry
5	Agriculture

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

a) Agro-climatic Zones

Sl. No.	Agro-climatic Zone	Characteristics
1	South Saurashtra Agro Climatic Zone	This zone includes part of Sihor, Bhavnagar, Ghogha, Gariadhar, Palitana, Jesar, Talaja, &Mahuva Talukas of Bhavnagar district. The region receives **625-750 mm** of rainfall. The soil type is Shallow medium black calcareous soils. Surface colour of the soil is Very dark grey to dark grayish and dark brown. Main crop of these region are Groundnut, Cotton, Wheat, Pearl millet, Sorghum & Sugarcane.
2	North Saurashtra Agro Climatic Zone	This zone includes part of Umrala, part of Sihor, Bhavnagar, Ghogha, Gariadhar, Palitana, Vallabhipur Talukas of Bhavnagar district. The region receives **400-700 mm** of rainfall. Soil type is Shallow and medium black. Surface colour of the soil is Very dark brown to very greyish brown. Main crop of these regions is Groundnut, Cotton, Wheat, Pearl millet, Sorghum & Sugarcane.
3	Bhal & Costal region	This zone includes Parts of Vallabhipur, Umrala and Bhavnagar talukas of Bhavnagar district. The region receives **625-1000** mm of rainfall. Soil type is Medium black, poorly drained and saline soil. Surface colour of the soil is Dark brown, to dark, Grayish brown. Main crop of these regions is Groundnut, Cotton, Pearl millet, rainfed wheat and Pulse, & Sorghum.

b) Topography

S. No	Agro-climatic Zone	Name of AES	Block covered	Characteristics			
				Rainfall (mm)	General Fertility		
					N	P	K
1	South Saurashtra Agro Climatic Zone	Medium black soils with medium rain fall	30 % Mahuva	625-750	Medium to high	Low	High
			25 % Talaja				
			10 % Ghogha				
		Costal alluvial soils with medium rainfall	40 % Mahuva				
			60 % Talaja				
			20 % Ghogha				
		Shallow black soil with medium rainfall	30 % Mahuva				
			15 % Talaja				
			70 % Ghogha				
2	North Saurashtra Agro Climatic Zone	Medium black soil with 400-500 mm rainfall	100 % Umarala	400-700	Medium to high	Low	Low to Medium
		Medium black soil with 500-600 mm rainfall	30 % Gariyadhar				
		Hilly soil with 500-600 mm rainfall	30 % Palitana				
			20 % Sihor				
3	Bhal& Costal region	Black clay soil with medium rainfall	24.3 % Vallabhipur	625-1000	Poor	Medium	Medium

2.3 Soil Types

S. No	Soil type	Characteristics	Area (Lakh ha)
1	Shallow medium black calcareous soil	Soil texture is clay loam to clay, soil depth is moderate to deep (25 to 75 cm) and availability of nitrogen content medium to high, phosphorus content low and potash content is high	3.08
2	Shallow medium black	Soil texture is clay loam to clay, soil depth is moderate deep to deep (30 to 80 cm) and availability of nitrogen content medium to high, phosphorus content low and potash content is low to medium	1.54
3	Black clay poorly drained saline soil	Soil texture is silty clay loam to silty clay and clay, soil depth is deep to very deep (›90 cm) and availability of nitrogen content low, phosphorus and potash content medium	0.87

2.4. Area, Production and Productivity of major crops cultivated in the district (2020-21)

S. No	Crop	Area (ha)	Production (MT)	Productivity (Qt./ha)
A). Seasonal field Crops				
1	Cotton	224301	732921	672.15
2	*Kharif* Groundnut	117204	220202	1879.79
3	Wheat	23644	76902	3252.48
4	Chickpea	21704	51851	2389
5	*Kharif* Pearl millet	17745	34281	1931.8
6	*Summer* Groundnut	8008	17035	2127.19
7	*Summer* Pearl millet	5584	15149	2713
8	*Kharif* Sesame	3624	1027	283.43
9	Green Gram	1354	479	354
10	Pigeon Pea	1042	1236	1185
11	Black Gram	373	132	353
				Source: *Dept. of Agriculture, District Panchayat, Bhavnagar (2020-21)*
B). Horticulture crop				
I) Fruits crops				
1	Citrus	6536	80720	12.35
2	Mango	4854	37764	7.78
3	Coconut	3612	35723	9.89
4	Guava	3536	37340	10.56
5	Sapota	1831	19134	10.45
6	Banana	1167	53845	46.14
7	Custard Apple	1017	13536	13.31
8	Ber	871	9476	10.88
9	Pomegranate	508	6360	12.52
10	Papaya	216	8113	37.56
II) Vegetable crops				
1	Onion	46000	1191400	25.90
2	Brinjal	2050	41656	26.32
3	Tomato	1342	31134	23.20
4	Okra	619	8171	13.20
5	Chilly	355	596	1.68
6	Cucurbits	1508	21532	14.28
III) Flower crops				
1	Rose	746	634	8.57
2	Merigold	89	779	8.75
				Source: *District Horticulture Department (2020-21)*

2.5. Weather data (2023)

Month	Rainfall (mm)	Temperature 0 C		Average Relative Humidity (%)
		Maximum	Minimum	
January - 23	0	26.5	13.3	45
February - 23	0	28.2	16.4	48
March - 23	0	35.4	25.4	50
April - 23	0	37.6	23.8	44
May – 23	0	39.4	25.9	53
June - 23	126.1	34.5	27.1	64
July-23	511.5	33	26	75
August-23	7.5	32.2	24.8	80
Sep-23	66	33	24.1	75
Oct-23	5	34.2	22.4	56
Nov-23	0	31.7	17.9	49
Dec-23	0	28.6	14.1	50
Total	**716.1**	-	-	-

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

Category	Population	Production	Productivity
Cattle			
Crossbred	11492	12.74 x 10^3 Ton / yr	8.418 kg milk /day/animal
Indigenous	328571	130.04 x 10^3 Ton /yr	4.131 kg milk /day/animal
Buffalo	334140	212.64 x 10^3 Ton /yr	4.551 kg milk /day/animal
Sheep			
Indigenous	258267	436060 kg /yr	1446 gm wool/sheep/yr
Goats	199173	16.32 x 10^3 Ton /yr	0.487 kg milk /day/animal
Poultry			
Desi layer	16637	10.45 lakh / yr	119 eggs/layer/yr
Improved layer	1042000	1805.78 lakh / yr	295 eggs/layer/yr

(Source: 18th livestock census, Dept. of Animal Husbandry, Gujarat).

2.7. Details of Operational area / Villages

S. No.	Major crops & enterprises in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem	Names of Cluster Villages	Intervention
1	Cotton	Infestation of Pink Boll Worm	50 per cent	Hadmatiya, Ratanvav, Chamardi, Thasa, Mandavi, Thonda, Ramanka	OFT, FLD, Field day, Trainings, Scientist's visit to farmers field, Group meetings, Distribution of literature, Soil Health card
		Intensive mono cropping	45 per cent		
		Stagnant / decreasing productivity	72 per cent		
		Para wilt	45 per cent		
		Labour scarcity	75 per cent		
		Poor nutrition management Practices	68 per cent		
2	Groundnut	Infestation of whitegrub	38 per cent	Thadach, Devadiya, Thadiya Maliya, Timana, Medha	OFT, FLD, Field day, Training, Field Visits, Telephonic helpline, Distribution of literature, soil Health Card
		Low productivity in summer groundnut due to heat wave	50 per cent		
		Sporadic incidence of wire worm	15 per cent		
		Lack of awareness about INM	65 per cent		

3	Sesame	Lack of awareness regarding nutrition management practices Water scarcity for summer cultivation	65 per cent 80 per cent	Thonda, Mandavi, Ratanvav, Timana	FLD, Field day, Training, Field Visits, Soil Health Card
4	Chickpea	Poor Nutrient Management Practices,	45 per cent	Ratanpar, Monpar, Chamardi	OFT, FLD, Filed day, Training, Field Visits, Telephonic helpline, Distribution of literature, soil Health Card
		Lack of awareness regarding moisture conservation practices	50 per cent		
		Poor Integrated pest management practices	65 per cent		
5	Green gram / Black gram	Poor adoption due to wild animals, fluctuating market prices	75 per cent	Thadiya, Chamardi, Monpar, Virpur, Chok	Training, Field Visits, Telephonic helpline
		Lack of knowledge regarding latest recommended varieties	65 per cent		
6	Wheat	Lack of irrigation management	55 per cent	Maliya, Kumbhan, Shobhavad	OFT on Soil Moisture Indicator for Irrigation Management, FLD, Field day, Training, Field Visits, Soil Health Card, Printed literature
		Poor nutrition management practices	60 per cent		
7	Fodder crops	Cultivation of old variety	65 per cent	Ratanpar, Virpur, Ishora,	Training, FLD on chaff cutter and Variety CoFS – 29, Field visits, Filed Day, Literature distribution, Soil Health Card distribution
		Poor nutrition management	65 per cent		
		No use of chaff cutter for fodder	75 per cent		
		Poor Knowledge of newly recommended variety / fodder crops	70 per cent		
8	Onion	Infestation of thrips	68 per cent	Trapaj, Dakana, Maliya, Medha, Kumbhan, Shevadivadar Chok	Training, Field Visits, Soil Health Card, Printed literature
		Lack of adoption of newly recommended varieties	70 per cent		
		Labour scarcity for transplanting	70 per cent		
		Injudicious use of chemicals	65 per cent		
		Nematode infestation	50 per cent		
9	Brinjal	Poor Nutrition management	60 per cent	Kodiyak, Lakhanka, Khadsaliya, Bhakhal	FLD, Field day, Training, Soil Health card, Visits
		Infestation of fruit and shoot borer	70 per cent		
10	Chilli	Scarcity of healthy seedlings of desirable variety	65 per cent	Avaniya, Morchand, Lakhanka, Koliyak	FLD, Field day, Training, Soil Health card, Visits, Supply of seedlings
		Poor nutrition management	65 per cent		
		Infestation of sucking pest	55 per cent		
11	Kagzilime	Scarcity of reliable planting material	60 per cent	Sanosara, Ambala,	Field visits, literature, Group meetings,

		Poor nutrition management	60 per cent	Surka, Ramdhari	supply of planting material
		Infection of diseases like citrus canker / gummosis	50 per cent		
		Lack of canopy management	70 per cent		
		Lack of Knowledge about "*Bahar"* Treatment.	40 Percent.		
12	Guava	Scarcity of reliable planting material	60 per cent	Aambla, Sanosara, Bajud, Ishwariya	Field visits, Group meetings, Telephonic help line
		Poor Nutrition management	60 per cent		
		Lack of canopy management	70 per cent		
		Nematode infestation.	40 per cent		
		Fruit fly Infestation.	50 Percent		
13	Vegetables	Unavailability of health and pesticide free vegetables for landless labour	75 percent	Avaniya, Morchand, Khadsaliya, Chok	FLD in Kitchen Garden, Field Visit, Training, Telephonic Helpline
14	Dairy farming (Cattle)	Indiscreet breed of cattle Lack of reliable and timely AI facilities Low productivity of milk Poor nutrition and animal health management Lack of maintenance of hygienic condition Poor management of subclinical mastitis in cattle	70 per cent 65 per cent 70 per cent 65 per cent 70 per cent 65 per cent	Ratanvav, Mandavi, Zariya, Bhutiya, Sanosara	Diagnostic visits, FLD on probiotics and bypass fat supplementation, OFTs on management of subclinical mastitis and Prophylactic treatment regime, literature, Training, Field Day

2.8. Priority thrust areas:

Agronomy
To promote improved package of practices
Integrated Nutrient Management
Integrated Pest and Disease Management
Crop diversification and rotation
Soil Health and Fertility Management
Introduction of newly recommended variety
Horticulture
Integrated Pest and Disease Management
Integrated Nutrient Management
Post-Harvest Management of horticultural crops
Nursery Management for fruits and vegetables
To promote protected cultivation
To promote improved cultivation practices in fruits and vegetables
Animal husbandry
To improve milk productivity
To improve feed and fodder management practices
To promote scientific dairy farming and cooperatives
To improve health management practices
To improve breed quality
Ag. Engineering
To increase water use efficiency
To Increase farm mechanization
To promote Soil and Water Conservation Practices
Extending Post Harvest technology of cereals, pluses and horticulture crops
To promote farm innovations
Home Science
Drudgery Reduction of farm women
To develop entrepreneurial skill of farm woman
To promote nutritional security of land less labours
Woman and child care through counseling
Gender mainstreaming through SHGs
Ag. Extn.
Formation and management of FIGs
Entrepreneurship development in Rural Youth
To create awareness for PPVFR
To promote farm innovations
To create awareness for conservation of natural resources and other agriculture related issues

3. TECHNICAL ACHIEVEMENTS

3.1. A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	40	40	15	15	550	550

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
92	94	3100	3074	2200	2448	35000	44405

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	-	100000	108150

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
-	-	50000	321400

3.1. B. Operational areas details during the year 2023

S. No.	Major crops & enterprises	Prioritized problems	Extent of area (Ha/No.) affected by the problem	Names of Cluster Villages identified for intervention	Intervention
1	Cotton	Infestation of Pink Boll Worm Intensive mono cropping Stagnant / decreasing productivity Para wilt Labour scarcity Poor nutrition management	60 per cent 40 per cent 70 per cent 50 per cent 70 per cent 70 per cent	Sanosara,Bhutiya, Naughanvadar, Babriyat,	FLD, Field Day, Trainings, Scientist's visit to farmers field, Group meetings, Distribution of literature, Soil Health card, Lecture Delivered as a resource person
2	Groundnut	Infestation of white grub Low productivity in summer groundnut due to heat wave Sporadic incidence of wire worm Lack of awareness about INM	35 per cent 50 per cent 15 per cent 60 per cent	Valukad,Medha, Lakhavad, Sanosara, Manar,	FLD, Field Day, Training, Field Visits, Telephonic helpline, Distribution of literature, soil Health Card, Telephonic Helpline, Lecture Delivered as a resource person, Method Demonstrations, Wheel hoe demonstration, ARYA project
3	Sesame	Crop was damaged due to Heavy rainfall in *Kharif* season Poor nutrition management Water scarcity for summer cultivation	80 per cent 70 per cent 65 per cent	Sanosra, Bajud, Ishwariya	Training, Field Visits, Printed literature
4	Castor	Cultivation of old variety Poor nutrition management	76 per cent 65 per cent	Timana,Padargadh, Bagdana, Dharai	FLD, Field day, Training, Field Visits, Soil Health Card, Printed literature
5	Wheat	Lack of irrigation management Poor nutrition management practices	60 per cent 50 per cent	Zariya, Kalsar, Sanosara, Manar	FLD on new variety, Field day, Training, Field Visits, Soil Health Card, Printed literature, Lecture Delivered as a resource person
6	Fodder sorghum	Cultivation of old variety Poor nutrition management No use of chaff cutter for fodder	70 per cent 60 per cent 80 per cent	Aambla, Sanosara, Zariya, Vavdi, Valukad	FLD on chaff cutter, Field visits, Training, Field Visits, Telephonic Helpline, Lecture delivered as a resource person.
7	Chickpea	Poor Yield due to improper fertilizer management Unavailability of newly recommended variety	75 percent 60 percent	Thansa, Pithalpur,	FLD, Field day, Training, Field Visits, Soil Health Card, Printed literature
8	Onion	Infestation of thrips Labour scarcity for transplanting Injudicious use of chemicals	70 per cent 70 per cent 60 per cent	Kalsar, Padargadh, Malvav	Training, Field Visits, Telephonic Helpline, SMS Advisory Services, Lecture Delivered as a resource person.
9	Brinjal	Scarcity of healthy seedlings of	70 per cent	Sanosara,	Lecture Delivered,

		desirable variety Infestation of fruit and shoot borer	70 per cent	Zariya, Sarkadiya, Pipardi, Gorkhi	Healthy Seedlings provided to the nearby areas, Telephonic Helpline
10	Okra	Poor fruit harvesting practices Lack of availability of recently developed harvesting tools	85 per cent 95 per cent	Hathab, Khadsaliya	Trainings, Lectures, Visits, Literatures
11	Chilli	Scarcity of healthy seedlings of desirable variety Poor nutrition management Infestation of sucking pest	70 per cent 60 per cent 60 per cent	Kariyani, Sanosara	Training, Scientist visit to farmers fields, Supply of seedlings, FLDs, Seedlings supply, Field day
12	Kagzilime	Scarcity of reliable planting material Poor nutrition management Infection of diseases like citrus canker / gummosis Lack of canopy management	60 per cent 60 per cent 50 per cent 70 per cent	Sanosara, aambla, Karkolia, Mandvi, Mota surka, Sandhida, Zariya	field visits, literature, Group meetings, supply of planting material
13	Guava	Scarcity of reliable planting material Poor Nutrition management Lack of canopy management	60 per cent 60 per cent 70 per cent	Ranghola, Aambla, Sanosara, Krushnapura, Surka, Ishwariya, Shedhavadar	Field visits, Group meetings, Telephonic helpline, Trainings, Lecture delivered, Planting materials suppy
14	Mango	Lack of knowledge regarding organic cultivation	65 per cent	Manar, Sosiya	, Trainings, Literatures, Booklets,
15	Spice crops (Turmeric, Coriander, Chilli)	Lack of knowledge regarding processing and value addition	75 per cent	Longadi, Juna Padar, Jesar, Zariya, Moti Jagdhar	Group Formed under ARYA project, Established Spice pulverizing units in the district for Income generation
16	Dairy farming (Cattle)	Indiscreet breed of cattle Lack of reliable and timely AI facilities Low productivity of milk Poor nutrition and animal health management Lack of maintenance of hygienic condition	70 per cent 70 per cent 70 per cent 60 per cent 70 per cent	Zariya, Gadhula, Sanosara, Aambla, Sarkadiya, Ishwariya	OFT, Diagnostic visits, FLD on probiotics and silage making, OFTs on Prophylactic treatment regime, Mineral mixture, literature,
17	Kitchen Garden	Poor Nutrition Management in children Unavailability of chemical free vegetables	65 per cent 90 per cent	Nani mal	FLD, Training, FLD visits, SHG Meeting, Field Day
18	Mushroom Cultivation	Lack of Knowledge regarding Mushroom cultivation Poor knowledge regarding growing practices	95 per cent 85 percent	Bhavnagar,	FLDs, Vocational Trainings, Diagnostic visits, Lectures, Field Day

3.2. Technology Assessment

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

Thematic areas	Oilseeds	Pulses	Commercial crops	TOTAL
Varietal Evaluation	-	1	-	1
Integrated Nutrient Management	1	2	1	4
Integrated Pest Management	-	-	1	1
Total	**1**	**3**	**2**	**6**

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

Thematic areas	Cattle	TOTAL
Nutrition Management	2	2
TOTAL	**2**	**2**

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha
Varietal Evaluation	Chick pea	Assessment of high yielding variety of Chickpea in rainfed area of Bhavnagar District	5	5	0.5
Integrated Nutrient Management	Green gram	Assessments of natural farming practices in comparison with conventional practices in Green gram	3	3	0.2
Integrated Nutrient Management	Cotton	Effect of levels of Nitrogen in Cotton through fertigation	3	3	0.2
Integrated Pest Management	Cotton	Assessments of natural farming practices in comparison with conventional practices in cotton	3	3	0.2
Integrated Nutrient Management	Chick pea	Assessments of natural farming practices in comparison with conventional practices in chick pea	3	3	0.2
Integrated Nutrient Management	Ground nut	Assessment of Integrated Nutrient Management Practices under Prakrutik krishi in Kharif Groundnut	5	5	0.2
		Total	**22**	**22**	**1.5**

B.2. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Nutrition management	Cattle	Management of Post-Partum Anestrous in dairy cattle	10	10
Nutrition management	Cattle	Effect of Polyherbal Mixture Supplementation on Milk Production and Postpartum Reproduction in Cows under Field Conditions	10	10
		Total	20	**20**

C1.Results of Technologies Assessed
Results of On Farm Trial – 1

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chickpea	Irrigated	Low productivity of crop	Assessment of high yielding variety of Chickpea in rainfed area of Bhavnagar District	5	Farmers Practice (T1) :GJG-3	No. of Pod per Plant	38.6	Variety GJG-6 of chickpea yielded higher as compared to Phule vikram and GJG-3	-	-	-
					Assessed Practice (T2) :GJG-6		58.6				
					Assessed Practice (T3) : Phule Vikram		56.6				

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmers Practice (T1) :GJG-3	-	22	Q/ha	64598.64	2.88
Assessed Practice (T2) :GJG-6	JAU, Junagadh	29.75	Q/ha	99473.64	3.89
Assessed Practice (T3) : Phule Vikram	MPKV, Rahuri	27	Q/ha	87398.64	3.56

Results of On Farm Trial – 2

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chick pea	Irrigated	Poor soil fertility	Assessments of natural farming practices in comparison with conventional practices in Chick pea	3	Chick pea with recommended fertilizer dose (N:P:K – 20:40:00) Chick pea with Natural Farming practices	Average No. of Pod per Plant	37.4 55	Under natural farming practices Green gram performed better.	-	-	-

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmers Practice (T1) - Green gram with recommended fertilizer dose (N:P:K – 20:40:00)	-	18.75	Q/ha	67323.64	3.1
Assessed Practice (T2) - Green gram with Natural Farming practices	-	22.50	Q/ha	98823.64	**4.0**

Results of On Farm Trial – 3

Enterprise /Crop	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement	Justification
1	2	3	4	5	6	7	8	9	10	11	12
Cotton	Irrigated	Poor nutrient management Lack of awareness pertaining fertigation system	Effect of levels of Nitrogen in Cotton through fertigation	3	**Farmers Practice (T1) -** Application of Recommended dose of Nitrogen (Broadcasting) (240 Kg per Ha) **Assessed Practice (T2) -** Application of Recommended dose of Nitrogen through fertigation (240 Kg per Ha) **Assessed Practice (T3) -** Application of 75 % of Recommended dose of Nitrogen by Fertigation (180 Kg per Ha)	-	-	Assessed Practice (T2) performed well compared to others practices.	-	-	-

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	17	18	
Farmers Practice (T1) - Application of Recommended dose of Nitrogen (Broadcasting) (240 Kg per Ha)		16.70	Q/ha	36982.38	1.48
Assessed Practice (T2) - Application of Recommended dose of Nitrogen through fertigation (240 Kg per Ha)	Solanki RM, Malam KV, Vasava MS and Chhodavadia SK. Response of Bt cotton to high density planting and nitrogen levels through fertigation. Journal of Pharmacognosy and phytochemistry 2020; 9(5): 1952-1958	20.81	Q/ha	67683	1.86
Assessed Practice (T3) - Application of 75 % of Recommended dose of Nitrogen by Fertigation (180 Kg per Ha)		18.80	Q/ha	54780	1.70

Results of On Farm Trial – 4

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Cotton	Irrigated	Stagnant production	Assessments of natural farming practices in comparison with conventional practices in cotton	3	**Farmers Practice (T1) -**Cotton with recommended fertilizer dose – (NPK 240:50:150) **Assessed Practice (T2) -**Cotton with natural farming practices	-	-	Under natural farming practices cotton performed better.	-	-	-

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmers Practice (T1) -Cotton with recommended fertilizer dose – (NPK 240:50:150)	-	19.00	Q/ha	49482.78	1.53
Assessed Practice (T2) -Cotton with natural farming practices	-	25.00	Q/ha	76548.62	**1.62**

Results of On Farm Trial – 5

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Chickpea	Irrigated	Stagnant production	Assessments of natural farming practices in comparison with conventional practices in chick pea	3	Farmers Practice (T1) –Application of Chemical fertilizer as per RDF (20-40-0 NPK kg/ha) Assessed Practice (T2) –Application of Prakrutik inputs only (Ghan Jivamrut as Basal dose(250 kg/ha) with Jivamrut at 15 days interval, Bijamrut for seed treatment) T2 + 50 % RDF (20-40-0 NPK kg/ha)	-	-	Under natural farming practices chick pea performed better.	-	-	-

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmers Practice (T1) –Application of Chemical fertilizer as per RDF (20-40-0 NPK kg/ha)	-	22.50	Q/ha	67323.64	3.06
Assessed Practice (T2) –Application of Prakrutik inputs only (Ghan Jivamrut as Basal dose(250 kg/ha) with Jivamrut at 15 days interval, Bijamrut for seed treatment)	-	27.50	Q/ha	103062.00	**4.61**
T2 + 50 % RDF (20-40-0 NPK kg/ha)		18.75	Q/ha	52405.00	**2.69**

Results of On Farm Trial –6

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Irrigated	Stagnant production	Assessment of Integrated Nutrient Management Practices under Prakrutik krishi in Kharif Groundnut	5	Farmer practice- Application of RDF (12.5:25:0) NPK/ha **Assessed practice T2-** Application of Ghan Jivamturt as Basal Dose (250 kg/ha), Jivamtrit at 15 days interval, Bijamrit for seed treatment) **T3-** T1 + 50 % RDF (12.5:25:0) NPK/ha	-	-	Under natural farming practices ground nut performed better.	-	-	-

Technology Assessed	Source of Technology	Production	Unit of yield	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Farmer practice-Application of RDF (12.5:25:0) NPK/ha	-	22.50	Q/ha	85530.32	2.22
Assessed practice T2- Application of Ghan Jivamturt as Basal Dose (250 kg/ha), Jivamtrit at 15 days interval, Bijamrit for seed treatment)	-	18.00	Q/ha	71835.50	2.39
T3- T1 + 50 % RDF (12.5:25:0) NPK/ha		21.50	Q/ha	78831.83	2.14

Results of On Farm Trial - 7

enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement	Justification
1	2	3	4	5	6	7	8	9	10	11	12
Cattle	-	Post-Partum anestrous increases inter-calving period and decreases milk production	Management of Post-Partum Anestrous in dairy cattle	10	Treatment 3 – T2 + Phosphorus inj. 15ml I/M for 2 days (61 to 66 days after parturition)	Milk production (l/day/cow)	12.32	Treatment given two months post partum resulted in improved conception rate and minimize inter calving period.	Supplementation of nutrients post calving resulted in early commencement of heat and increased milk production.	-	-
						Commencement of estrous after calving (days)	80 to 90				
						Conception %	75				
						Cost, Rs./cow/60 days	11860.00				
						Gross Income, Rs./cow/60 days	27248.24				
						Net Income, Rs./cow/60 days	15388.24				
						Benefit cost ratio	2.13				

Technology Assessed	Source of Technology	Milk Production (l/day/cow)	Net Income, Rs./cow/60 days	BC Ratio
13	14	15	17	18
Farmer practice (No additional Supplement after two month of calving	-	9.42	6653.57	1.64
Ecbolic and uterine stimulant- 100 ml for 4 days (61 to 64 days after parturition) + Heat inducer and conception promoter 4 capsules for 4 days (65 to 68 days after parturition) + Trace mineral supplement for 20 days (61 to 80 days after parturition)	-	10.74	12583.8	2.13
T2 + Phosphorus inj. 15ml I/M for 2 days (61 to 66 days after parturition)	Post Graduate Institute of Veterinary and Animal Sciences (PGIVAS), Akola, Maharashtra	12.32	15388.24	2.30

Results of On Farm Trial - 8

enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement	Justification
1	2	3	4	5	6	7	8	9	10	11	12
Cattle	-	Lack awareness of post partum management	Effect of Polyherbal Mixture Supplementation on Milk Production and Postpartum Reproduction in Cows under Field Conditions	10	Polyherbal Mixture Supplementation	Milk production (l/day/cow)	11.57	Treatment given post partum resulted in improved conception rate and increased milk production.	Supplementation of nutrients post calving resulted in early commencement of heat and increased milk production.	-	-
						Retention of foetal membranes	0				

Technology Assessed	Source of Technology	Milk Production (l/day/cow)	Net Income, Rs./cow/60 days	BC Ratio
13	14	15	17	18
Farmer practice T1 (No additional Supplement after calving)	-	9.42	7725.664	1.52
Assessed Practice T2 – The polyherbal mixture: Mixing 25 g each of *Foeniculum vulgare* (Saunf), *Trachy spermumammi* (Ajwain), *Trigonella foenum-graecum* (Methi), *Zingiber officinale* (Sunth), *Anethum graveolens* (Sowa) and *Elettaria cardamomum* (Cardamom). T1 will be supplemented ployherbal mixture from the day of calving till day 10 of postpartum	NDRI, Karnal, 2019	11.57	15938.433	1.89

C2. Details of each On Farm Trial for assessment

OFT – 1

<table>
<tr><th>Title</th><th>Assessment of high yielding variety of Chickpea in rainfed area of Bhavnagar District</th></tr>
<tr><td>Problem diagnose</td><td>Low productivity of crop</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Farmers Practice (T1) :GJG-3</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Assessed Practice (T2) :GJG-6</td></tr>
<tr><td>Technology to be assessed T_3</td><td>Assessed Practice (T3) : Phule Vikram</td></tr>
<tr><td>Number of trials</td><td>5</td></tr>
<tr><td>Season</td><td>Rabi</td></tr>
<tr><td>Source of technology</td><td>JAU, Junagadh and MPKV, Rahuri</td></tr>
<tr><td>Thematic area</td><td>Varietal Trial</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1) :GJG-3</th><th>Assessed Practice (T2) :GJG-6</th><th>Assessed Practice (T3) : Phule Vikram</th></tr>
<tr><td>No. of Pod par plant</td><td>38.60</td><td>58.60</td><td>56.60</td></tr>
<tr><td>Yield (Q/ha)</td><td>22.00</td><td>29.75</td><td>27.00</td></tr>
<tr><td>Cost (Rs./ha)</td><td>34401.36</td><td>34401.36</td><td>34101.36</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>99000.00</td><td>133875.00</td><td>121500.00</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>64598.64</td><td>99473.64</td><td>87398.64</td></tr>
<tr><td>BC Ratio</td><td>2.88</td><td>3.89</td><td>3.56</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>The result revealed that the Treatment 3 (variety Phule Vikram) give higher yield as compared to other variety GJG-3 and GJG-6.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT – 2

<table>
<tr><td>Title</td><td>Assessments of natural farming practices in comparison with conventional practices in Green gram</td></tr>
<tr><td>Problem diagnose</td><td>Lack of awareness regarding natural farming practices
Higher cost of production
Depleting soil fertility and crop production</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice</td><td>Green gram sole crop with conventional practices</td></tr>
<tr><td>Technology to be assessed T_1</td><td>Green gram with recommended fertilizer dose (N:P:K – 20:40:00)</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Green gram with Natural Farming practices</td></tr>
<tr><td>Number of trials</td><td>3</td></tr>
<tr><td>Season</td><td>kharif-2023</td></tr>
<tr><td>Source of technology</td><td>-</td></tr>
<tr><td>Thematic area</td><td>Integrated Crop Management</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1)</th><th>Assessed Practice (T2)</th><th>Assessed Practice (T3)</th></tr>
<tr><td>Yield (Q/ha)</td><td>8.50</td><td>10.00</td><td>9.50</td></tr>
<tr><td>Cost (Rs./ha)</td><td>22684.03</td><td>24570.00</td><td>24436.67</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>68000.00</td><td>80000.00</td><td>85500.00</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>43315.97</td><td>55430.00</td><td>61063.33</td></tr>
<tr><td>BC Ratio</td><td>3.00</td><td>3.26</td><td>3.50</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Under natural farming practices Green gram performed better.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT –3

<table>
<tr><th>Title</th><th>Effect of levels of Nitrogen in Cotton through fertigation</th></tr>
<tr><td>Problem diagnose</td><td>Poor nutrient management
Lack of awareness pertaining fertigation system</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Farmers Practice (T1) - Application of Recommended dose of Nitrogen (Broadcasting) (240 Kg per Ha)</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Assessed Practice (T2) - Application of Recommended dose of Nitrogen through fertigation (240 Kg per Ha)</td></tr>
<tr><td>Technology to be assessed T_3</td><td>Assessed Practice (T3) - Application of 75 % of Recommended dose of Nitrogen by Fertigation (180 Kg per Ha)</td></tr>
<tr><td>Number of trials</td><td>3</td></tr>
<tr><td>Season</td><td>kharif-2023</td></tr>
<tr><td>Source of technology</td><td>-</td></tr>
<tr><td>Thematic area</td><td>Integrated Crop Management</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1)</th><th>Assessed Practice (T2)</th><th>Assessed Practice (T3)</th></tr>
<tr><td>Yield (Q/ha)</td><td>16.70</td><td>20.81</td><td>18.80</td></tr>
<tr><td>Cost (Rs./ha)</td><td>77830.12</td><td>79027.50</td><td>77760.00</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>114812.50</td><td>146710.50</td><td>132540.00</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>36982.38</td><td>67683.00</td><td>54780.00</td></tr>
<tr><td>BC Ratio</td><td>1.47</td><td>1.86</td><td>1.70</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Application of recommended 100 % dose of Nitrogen fertilizer through fertigation increased the yield of cotton as compared to other application methods.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT –4

<table>
<tr><td>Title</td><td>Assessments of natural farming practices in comparison with conventional practices in cotton</td></tr>
<tr><td>Problem diagnose</td><td>Stagnant production</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Farmers Practice (T1) -Cotton with recommended fertilizer dose – (NPK 240:50:150)</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Assessed Practice (T2) -Cotton with natural farming practices</td></tr>
<tr><td>Number of trials</td><td>3</td></tr>
<tr><td>Season</td><td>kharif-2023</td></tr>
<tr><td>Source of technology</td><td>-</td></tr>
<tr><td>Thematic area</td><td>Integrated Crop Management</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1)</th><th>Assessed Practice (T2)</th></tr>
<tr><td>Yield (Q/ha)</td><td>19.00</td><td>25.00</td></tr>
<tr><td>Cost (Rs./ha)</td><td>93017.21</td><td>123451.37</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>142500.00</td><td>200000.00</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>49482.78</td><td>76548.62</td></tr>
<tr><td>BC Ratio</td><td>1.53</td><td>1.62</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Under natural farming practices cotton yield increased.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT –5

<table>
<tr><td>Title</td><td>Assessments of natural farming practices in comparison with conventional practices in chick pea</td></tr>
<tr><td>Problem diagnose</td><td>Poor soil fertility</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T1</td><td>Farmers Practice (T1) –Application of Chemical fertilizer as per RDF (20-40-0 NPK kg/ha)</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Assessed Practice (T2) –Application of Prakrutik inputs only (Ghan Jivamrut as Basal dose(250 kg/ha) with Jivamrut at 15 days interval, Bijamrut for seed treatment)</td></tr>
<tr><td>Technology to be assessed T_3</td><td>T2 + 50 % RDF (20-40-0 NPK kg/ha)</td></tr>
<tr><td>Number of trials</td><td>3</td></tr>
<tr><td>Season</td><td>Rabi-2023</td></tr>
<tr><td>Source of technology</td><td>-</td></tr>
<tr><td>Thematic area</td><td>Integrated Crop Management</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1)</th><th>Assessed Practice (T2)</th><th>Assessed Practice (T3)</th></tr>
<tr><td>Average No. of Pod per Plant</td><td>37.40</td><td>55.00</td><td>32.00</td></tr>
<tr><td>Yield (Q/ha)</td><td>22.5</td><td>27.5</td><td>18.75</td></tr>
<tr><td>Cost (Rs./ha)</td><td>32801.36</td><td>28563.00</td><td>31025.00</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>100125.00</td><td>131625.00</td><td>83430.00</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>67323.64</td><td>103062.00</td><td>52405.00</td></tr>
<tr><td>BC Ratio</td><td>3.06</td><td>4.61</td><td>2.69</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Under natural farming practices chick pea yield increased and cost benefit ratio increased.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT –6

<table>
<tr><td>Title</td><td>Assessment of Integrated Nutrient Management Practices under Prakrutik krishi in Kharif Groundnut</td></tr>
<tr><td>Problem diagnose</td><td>Stagnant production</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Application of RDF (12.5:25:0) NPK/ha</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Application of Ghan Jivamturt as Basal Dose (250 kg/ha), Jivamtrit at 15 days interval, Bijamrit for seed treatment)</td></tr>
<tr><td>Technology to be assessed T_3</td><td>T1 + 50 % RDF (12.5:25:0) NPK/ha</td></tr>
<tr><td>Number of trials</td><td>3</td></tr>
<tr><td>Season</td><td>kharif-2023</td></tr>
<tr><td>Source of technology</td><td>-</td></tr>
<tr><td>Thematic area</td><td>Integrated Nutrient Management</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameters</th><th>Farmers Practice (T1)</th><th>Assessed Practice (T2)</th><th>Assessed Practice (T3)</th></tr>
<tr><td>Yield (Q/ha)</td><td>22.50</td><td>18.00</td><td>21.25</td></tr>
<tr><td>Cost (Rs./ha)</td><td>69844.68</td><td>51664.50</td><td>69355.67</td></tr>
<tr><td>Gross Return (Rs./ha)</td><td>155375.00</td><td>123500.00</td><td>148187.50</td></tr>
<tr><td>Net Return (Rs. /ha)</td><td>85530.32</td><td>71835.50</td><td>78831.83</td></tr>
<tr><td>BC Ratio</td><td>2.22</td><td>2.39</td><td>2.14</td></tr>
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<tr><td>Feedback/Farmers' perceptions</td><td>-</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>-</td></tr>
</table>

OFT- 7

<table>
<tr><th>Title</th><th>Management of Post-Partum Anestrous in dairy cattle</th></tr>
<tr><td>Problem diagnose</td><td>Post-Partum anestrous increases inter-calving period and decreases milk production</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Farmer practice (No additional Supplement after two month of calving</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Ecbolic and uterine stimulant- 100 ml for 4 days (61 to 64 days after parturition) + Heat inducer and conception promoter 4 capsules for 4 days (65 to 68 days after parturition) + Trace mineral supplement for 20 days (61 to 80 days after parturition)</td></tr>
<tr><td>Technology to be assessed T_3</td><td>T2 + Phosphorus inj. 15ml I/M for 2 days (61 to 66 days after parturition)</td></tr>
<tr><td>Number of trials</td><td>10</td></tr>
<tr><td>Season</td><td>-</td></tr>
<tr><td>Source of technology</td><td>Post Graduate Institute of Veterinary and Animal Sciences (PGIVAS), Akola, Maharashtra</td></tr>
<tr><td>Thematic area</td><td>Animal Nutrition</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameter</th><th>T1 (Control)</th><th>T2</th><th>T3</th></tr>
<tr><td>Milk production (l/day/cow)</td><td>9.42</td><td>10.74</td><td>12.32</td></tr>
<tr><td>Commencement of estrous after calving (days)</td><td>110 to 125</td><td>100 to 120</td><td>80 to 90</td></tr>
<tr><td>Conception %</td><td>40.00</td><td>60.00</td><td>75.00</td></tr>
<tr><td>Cost, Rs./cow/60 days</td><td>10450.00</td><td>11100.00</td><td>11860.00</td></tr>
<tr><td>Gross Income, Rs./cow/60 days</td><td>17103.57</td><td>23683.80</td><td>27248.24</td></tr>
<tr><td>Net Income, Rs./cow/60 days</td><td>6653.57</td><td>12583.8</td><td>15388.24</td></tr>
<tr><td>Benefit cost ratio</td><td>1.64</td><td>2.13</td><td>2.30</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Supplementation of nutrients post calving resulted in early commencement of heat and increased milk production.</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>Treatment given two months post partum resulted in improved conception rate and minimize inter calving period.</td></tr>
</table>

OFT- 8

<table>
<tr><td>Title</td><td>Effect of Polyherbal Mixture Supplementation on Milk Production and Postpartum Reproduction in Cows under Field Conditions</td></tr>
<tr><td>Problem diagnose</td><td>Lack of awareness of post partum management</td></tr>
<tr><td>Treatments</td><td></td></tr>
<tr><td>Farmer practice T_1</td><td>Farmer practice T1 (No additional Supplement after calving)</td></tr>
<tr><td>Technology to be assessed T_2</td><td>Assessed Practice T2 –
The polyherbal mixture: Mixing 25 g each of Foeniculum vulgare (Saunf), Trachy spermumammi (Ajwain), Trigonella foenum-graecum (Methi), Zingiber officinale (Sunth), Anethum graveolens (Sowa) and Elettaria cardamomum (Cardamom). T1 will be supplemented ployherbal mixture from the day of calving till day 10 of postpartum.</td></tr>
<tr><td>Number of trials</td><td>10</td></tr>
<tr><td>Season</td><td>-</td></tr>
<tr><td>Source of technology</td><td>NDRI, Karnal, 2019</td></tr>
<tr><td>Thematic area</td><td>Animal Nutrition</td></tr>
<tr><td>Performance of the Technology with performance indicators</td><td>
<table>
<tr><th>Parameter</th><th>T1 (Control)</th><th>T2</th></tr>
<tr><td>Milk production (l/day/cow)</td><td>9.42</td><td>10.74</td></tr>
<tr><td>Retention of foetal membrane (no.)</td><td>2</td><td>0</td></tr>
<tr><td>Cost, Rs./cow/60 days</td><td>14840.00</td><td>17950.00</td></tr>
<tr><td>Gross Income, Rs./cow/60 days</td><td>22565.66</td><td>33888.43</td></tr>
<tr><td>Net Income, Rs./cow/60 days</td><td>7725.66</td><td>15938.43</td></tr>
<tr><td>Benefit cost ratio</td><td>1.52</td><td>1.89</td></tr>
</table>
</td></tr>
<tr><td>Feedback/Farmers' perceptions</td><td>Supplementation of nutrients post calving resulted in early commencement of heat and increased milk production</td></tr>
<tr><td>Final recommendation for micro level situation</td><td>Treatment given post partum resulted in improved conception rate and increased milk production.</td></tr>
</table>

3.3. FRONTLINE DEMONSTRATION

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

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

Sr. No.	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods	Horizontal spread of technology		
					No. of villages	No. of farmers	Area (ha)
1	Wheat	Varietal Evaluation	Salinity tolerant variety KRL-19, New variety GW - 463	Training, feedback and follow up, Distribution of seed	20	350	150
2	Groundnut (*Kharif)*	Integrated Crop Management	Soil application of *Trichoderma* and castor cake, Bio-fertilizers, SNPV, Bio – pesticides	Demonstration, Field Day, Training, feedback and follow up, lecture, visits	50	800	200
3	Groundnut (*Kharif)*	Farm Mechanization	Wheel Hoe	Trainings, Demonstrations, Field Day, Lecture Delivered	40	750	250
4	Sesame *(Summer)*	Integrated Crop Management	Sesame Variety Guj. Til – 3, Bio-fertilizers, Azadirrectin, Soil application of Sulphur 90 %	Demonstration, Field Day, Training, feedback and follow up, lecture, visits	54	450	210
5	Chick pea	Varietal	Variety Guj. Junagadh Chickpea – 5, use of HaNPV for management of *helicoverpa* Bio-fertilizers	Trainings, Demonstration, Field Day, Training, feedback and follow up	45	850	270
6	Onion	Integrated pest management	Bio-fertilizer (NPK consortium), Beauveria, Micro nutrient grade – 4	Demonstration, Field Day, Training, feedback and follow up, distribution	40	1420	150
7	Cattles	Nutrition management	Prophylactic Treatment Regime in lactating cattle	Demonstration, Trainings, Meeting, Diagnostic Visits	40	1200	-
8			Deworming followed by Mineral mixture supplementation to dairy cattle	Demonstration, Field Day, Training, feedback and follow up, lecture, visits	212	4253	-
9		Health Management	0.1 % potassium permanganate solution for post milking teat dipping, Prophylactic treatment regime	Demonstration, Field Day, Training, feedback and follow up, lecture, visits	23	450	-

			during post calving period				
10	Cotton	Integrated Pest Management	Bio-fertilizer (NPK consortium), Beauveria, Micro nutrient grade – 4, Pheromone Traps	Demonstration, Field Day, Training, feedback and follow up	42	1456	450
11	Natural farming	INM, IPM	Jivamrit, Ghan Jivamrit,	Training, Meetings, Method Demonstration	50	1200	200

B. Details of FLDs implemented during 2023

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Proposed	Actual	SC/ST	Others	Total
A	**FLD *Kharif*, 2023**								
1	Groundnut	ICM	INM, IWM, IPM	*Kharif* – 2023	20	20	1	49	50
2	Pigeon Pea	ICM	INM, IWM, IPM	*Kharif* – 2023	20	20	1	49	50
3	Cotton	ICM	INM, IPM	*Kharif* – 2023	10	10	0	25	25
4	Pearl Millet	Varietal	(GHB 1129) Bio fortified variety	Kharif – 2023	10	10	0	25	25
5	Kitchen Garden	Kitchen Garden	Vegetables seeds and saplings	*Kharif* - 2023	0	0	0	100	100
B	**FLD *Rabi*, 2023**								
6	Chickpea	ICM	INM, IPM	Rabi - 2023	10	10	0	25	25
7	Wheat	Varietal	Gujarat Junagadh Wheat – 463	*Rabi* – 2023	10	10	0	25	25
8	Kitchen Garden	Kitchen Garden	Vegetables seeds and saplings	*Rabi* - 2023	0	0	0	100	100
C	**FLD Smmer, 2023**								
9	Pearl Millet	Varietal	(GHB 1129) Bio fortified variety	Summer– 2023	10	10	0	25	25
				Total	**90**	**90**	**2**	**423**	**423**

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Groundnut	*Kharif* - 2023	*Rainfed*	Medium black soils	Low to Medium	Medium	High	Sorghum	3rd week of June to 1st week of July	2nd week to 3rd week of Oct.	579.0	25
Pigen pea	*Kharif* - 2023	*Rainfed*	Medium black soils	Low to Medium	Medium	High	Sorghum	2nd week of June to 4th week of June	2nd week to 3rd week of Oct.	579.0	25
Cotton	*Kharif* – 2023	*Irrigated*	Shallow black soils	Medium to High	Medium to High	High	Cotton	2nd week of June to 1st week of July	2nd week of Dec. to 1st week of Feb.	579.0	25
Pearl millet	*Kharif* – 2023	*Rainfed*	Shallow black soils	Medium to High	Medium to High	High	Cotton	2nd week of June to 1st week of July	1st week to 3rd week of Oct.	579.0	25
Chickpea	*Rabi* – 2023	*Irrigated*	Medium black soils	Low	Medium	Medium	Groundnut	2nd week of Oct. to 4th week of Oct.	2nd week of Feb. to 1st week of March	0	0
Wheat	*Rabi* – 2023	*Irrigated*	Medium black soils	Medium	High	Medium	Sorghum	2nd week of Oct. to 4th week of Oct.	2nd week of Feb. to 1st week of March	0	0
(Kitchen Garden) Vegetables	*Kharif* – 2023	*Irrigated*	Medium black soils	Medium	Low	Medium to High	Vegetables	2nd week of June to 2nd week of July	1st week of Sept. to 3rd week of Sept.	579.0	25
(Kitchen Garden) Vegetables	*Rabi* – 2023	*Irrigated*	Medium black soils	Low	Medium	High	Vegetables	2nd week of Oct. to 4th week of Oct.	3rd week of Jan. to 2nd week of Feb.	0.0	0

Technical Feedback on the demonstrated technologies

Sl. No.	Crop / Enterprise	Farmers' Feed Back
1	Groundnut (*Kharif*)	Cost of fertilizer application is saved due to soil health card. Application of Micro nutrients helped to overcome *chlorosis* in groundnut. Bio pesticides Beauveria bassiana helped to control the sucking pest in the crop.
2	Cotton	*Beauveria* and Neem Oil proved useful to minimize initial infestation of sucking pest. The infestation of pink boll worms was minimum due to the mass trapping of adults of PBW in Pheromone traps. Immature flower and bud drooping and reddening of leaves was also minimum due to proper nutrient management.
3	Wheat	Gujarat Junagadh Wheat – 463 variety gave higher yield as compared to locally cultivated variety
4	Chickpea	Different Bio Inputs prove effective for the control of Insect and pest attack, and the chickpea variety Gujarat Junagadh Gram – 5 gave higher yield as compared to local variety in irrigated farming condition.
5	Chaff Cutter	The chaff cutter is very useful for cutting green and dry fodder. It reduces the wastage of fodder while animal feeding.
6	Wheel hoe	The wheel hoe is useful for saving time and labour cost.
7	Mineral mixture	Supplementation of minerals results in increased milk production and improved estrous cycle. It resulted in good condition of animals and increased milk fat percent.
8	Rumensin powder	Supplementation of inputs resulted in higher milk production at peak period. Cattle came early in estrous period after calving and conceive within four months of calving.

Farmers' reactions on specific technologies

Sl. No.	Crop / Enterprise	Farmers' Feed Back
1	Groundnut (*Kharif*)	The inputs used as per the suggestions and it helped to reduce pest incidence and weed problem also. Cost of fertilizer application is saved due to soil health card. Application of Micro nutrients helped to overcome *chlorosis* in groundnut. Bio pesticides are cost effective. Adoption of INM helped to increase grain weight**.**
2	Cotton	The inputs helped to increase the productivity of cotton and also helpful to reduce the cost of cultivation. Due to the bio inputs, the infestation of pink boll worms was minimum. Immature flower and bud drooping and reddening of leaves was also minimum due to proper nutrient management.
5	Wheat	Gujarat Junagadh Wheat – 463 variety gave higher yield as compared to locally cultivated variety
6	Chickpea	Different Bio Inputs prove effective for the control of Insect and pest attack, and the chickpea variety Gujarat Junagadh Gram – 5 gave higher yield as compared to local variety in irrigated farming condition.
7	Chaff Cutter	The chaff cutter is very useful for cutting green and dry fodder. It reduces the wastage of fodder while animal feeding.
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9	Mineral mixture	Supplementation of minerals results in increased milk production and improved estrous cycle. It resulted in good condition of

	supplementation to cow	animals and increased milk fat percent.
10	Runensin powder	Supplementation of inputs resulted in higher milk production at peak period. Cattle came early in estrous period after calving and conceive within four months of calving.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	5	Cotton – 26/10/23 Wheat – 09/02/24 Groundnut – 24/10/23 Pigeon pea- 05/02/24 Pearl millet- 16/09/23	28 42 76 82 55	-
2	Farmers Training	09	08/04/23 4/4/2023 31/08/23 22/09/23 24/10/23 11/10/23 20/10/23 8/11/23/ 7/11/23	23 19 34 23 40 14 32 24 34	-
3	Training for extension functionaries	2	16/05/23 11/02/23	56 23	-

C. Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	Integrated Crop Management (ICM)	INM IPM IWM	GJG-32	50	20	32.5	27.5	29.57	24.5	20.69	65273.62	217786.32	152512.70	3.37	70109.85	169185.00	99075.15	2.41

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeon pea	ICM	INM, IPM	GJP-1	50	20	18.75	13.75	15.47	13	19.00	64597.64	153307.70	88710.06	2.37	60311.03	122200.00	61888.97	2.02

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
					High	Low	Average												
Cereals																			
Wheat	Varietal	Gujarat Junagadh Wheat – 463	25	10	54.20	40.25	49.8	42.25	17.87	-	-	36569.55	99600.00	63030.44	2.72	37169.42	84500.00	47330.58	2.27
Pearl Millet (*Kharif*)	Varietal	Bio fortified pearl millet variety GHB - 1129	50	10	31.25	24.5	26.9	24.1	11.6	-	-	15656.08	59060.00	41403.92	3.7	15270.24	52990.00	37719.76	3.47
Chick pea (*Rabi*)	Varietal	Guj. Gram- 5	25	10	23.2	17.55	22.5	18.75	20.00	-	-	32801.36	131625.00	98823.64	4.01	33207.56	100125.00	66917.44	3.01
Pearl Millet (*Summer*)	Varietal	Bio fortified pearl millet variety GHB - 1129	25	10	Result awaited														
Commercial Crops																			
Cotton	ICM	INM, IPM	25	10	20.75	14.50	20.25	16.5	22.73	-	-	94844.14	142762.50	47918.36	1.51	92372.46	115500.00	23127.56	1.25

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Milk production		% change in major parameter	Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle															
	Animal Nutrition Management	Chelated mineral mixture supplementation	25	25	12.35	11.4	8.33	55276	85690.8	30414.8	1.55	51246	69825.6	18579.6	1.36
	Animal Nutrition Management	Advanced Cattle feed supplement	25	25	11.02	9.46	16.49	88140	111639	23499	1.27	75690	106263.5	30573.5	1.40
	Animal Nutrition Management	Rumensin power powder supplement	25	25	13.6	12.21	11.38	63180	93100.8	29920.8	1.47	54912	71001.84	16089.84	1.29

Front line Demonstration - Kitchen Garden

Season	Farm Women	Village	total production per day (g/day)	Family Requirement (g/day)	fulfill of vegetable/family	% daily requirement of Vegetable fulfill	% gap between requirement of day and supply of kitchen garden	cost of per day requirement	cost of vegetable supply	% of daily cost saving
Kharif	100	Bhutiya Dayal Navagam	1092	2150	1092	50	50	90	45	50
Rabi	100	Bhutiya Dayal Navagam	1150	2150	1150	53	47	70	37	53

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Major parameters	Fodder waste (kg/animal/day)		% change in major parameter (Waste reduction)	Cost reduction Rs. / animal/day
					Demo	Check		
Chaff cutter (Capacity 1 ton/hr)	Fodder crop (pearl millet, Sorghum)	Chaff cutter	20	Fodder Wastage reduction	0.65	2.75	76.36	31.50

Fodder cost @ Rs. 1000.00/Q

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Field capacity (ha/d)		% change in major parameter	Cost (Rs./ha)		Cost reduction (Rs./ha)	
					Demo	Check		Demo	Check	Demo	Check
Wheel hoe	Groundnut	Hand tool Wheel hoe (CAET, JAU)	10	10	0.83	0.38	43.82	350 + One-time tool cost	675	325	0
One day= 8 hour, Labour cost @ Rs. 250.00/day/labour for hand weeding, Labour cost @ Rs. 300.00/day/labour for Wheel hoe, Cost of hand tool=Rs. 2600.00											

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women										
I Crop Production										
Resource Conservation Technologies	1	30	0	30	0	0	0	30	0	30
Integrated Crop Management	3	69	0	69	0	0	0	69	0	69
Production of organic inputs	3	44	0	44	0	50	50	44	50	94
Total	**7**	**143**	**0**	**143**	**0**	**50**	**50**	**143**	**50**	**193**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	25	125	150	0	0	0	25	125	150
Value addition	1	2	50	52	0	0	0	2	50	52
Total	**4**	**27**	**175**	**202**	**0**	**0**	**0**	**27**	**175**	**202**
VI Agril. Engineering										
Farm Machinery and its maintenance	1	33	0	33	0	0	0	33	0	33
Installation and maintenance of micro irrigation systems	2	57	2	59	7	0	7	64	2	66
Total	**3**	**90**	**2**	**92**	**7**	**0**	**7**	**97**	**2**	**99**
IX Production of Inputs at site										
Mushroom Production	2	20	20	40	0	0	0	20	20	40
Total	**2**	**20**	**20**	**40**	**0**	**0**	**0**	**20**	**20**	**40**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	1	0	30	30	0	0	0	0	30	30
Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**0**	**30**	**30**
GRAND TOTAL	**17**	**280**	**227**	**507**	**7**	**50**	**57**	**287**	**277**	**564**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women										
I Crop Production										
Integrated Farming	4	117	25	142	0	0	0	117	25	142
Integrated Crop Management	5	189	5	194	0	1	1	189	6	195
Integrated nutrient management	1	45	0	45	2	0	2	47	0	47
Total	**10**	**351**	**30**	**381**	**2**	**1**	**3**	**353**	**31**	**384**
II Horticulture										
GT (a-g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
III Soil Health and Fertility Management										
Integrated water management	1	23	0	23	0	0	0	23	0	23
Total	**1**	**23**	**0**	**23**	**0**	**0**	**0**	**23**	**0**	**23**
IV Livestock Production and Management										
Dairy Management	1	27	0	27	2	0	2	29	0	29
Animal Nutrition Management	1	25	0	25	0	0	0	25	0	25
Disease Management	4	28	61	89	8	25	33	36	86	122

Total	**6**	**80**	**61**	**141**	**10**	**25**	**35**	**90**	**86**	**176**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	20	85	105	0	0	0	20	85	105
Gender mainstreaming through SHGs	2	0	55	55	0	0	0	0	55	55
Women empowerment	4	25	69	94	5	13	18	30	82	112
Location specific drudgery reduction technologies	2	0	25	25	0	0	0	0	25	25
Women and child care	1	0	20	20	0	0	0	0	20	20
Total	**11**	**45**	**254**	**299**	**5**	**13**	**18**	**50**	**267**	**317**
VI Agril. Engineering										
Farm Machinery and its maintenance	1	2	10	12	0	4	4	2	14	16
Repair and maintenance of farm machinery and implements	2	30	5	35	0	0	0	30	5	35
Total	**3**	**32**	**15**	**47**	**0**	**4**	**4**	**32**	**19**	**51**
GRAND TOTAL	**31**	**531**	**360**	**891**	**17**	**43**	**60**	**548**	**403**	**951**

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

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		M	**F**	**T**	**M**	**F**	**T**	**M**	**F**	**T**
(A) Farmers & Farm Women										
I Crop Production										
Resource Conservation Technologies	1	30	0	30	0	0	0	30	0	30
Integrated Farming	4	117	25	142	0	0	0	117	25	142
Integrated Crop Management	8	258	5	263	0	1	1	258	6	264
Integrated nutrient management	1	45	0	45	2	0	2	47	0	47
Production of organic inputs	3	44	0	44	0	50	50	44	50	94
Total	**17**	**494**	**30**	**524**	**2**	**51**	**53**	**496**	**81**	**577**
II Horticulture										
GT (a-g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
III Soil Health and Fertility Management										
Integrated water management	1	23	0	23	0	0	0	23	0	23
Total	**1**	**23**	**0**	**23**	**0**	**0**	**0**	**23**	**0**	**23**
IV Livestock Production and Management										
Dairy Management	1	27	0	27	2	0	2	29	0	29
Animal Nutrition Management	1	25	0	25	0	0	0	25	0	25
Disease Management	4	28	61	89	8	25	33	36	86	122
Total	**6**	**80**	**61**	**141**	**10**	**25**	**35**	**90**	**86**	**176**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	5	45	210	255	0	0	0	45	210	255
Gender mainstreaming through SHGs	2	0	55	55	0	0	0	0	55	55
Value addition	1	2	50	52	0	0	0	2	50	52
Women empowerment	4	25	69	94	5	13	18	30	82	112
Location specific drudgery reduction technologies	2	0	25	25	0	0	0	0	25	25
Women and child care	1	0	20	20	0	0	0	0	20	20
Total	**15**	**72**	**429**	**501**	**5**	**13**	**18**	**77**	**442**	**519**
VI Agril. Engineering										
Farm Machinary and its maintenance	2	35	10	45	0	4	4	35	14	49
Installation and maintenance of micro	2	57	2	59	7	0	7	64	2	66

irrigation systems										
Repair and maintenance of farm machinery and implements	2	30	5	35	0	0	0	30	5	35
Total	**6**	**122**	**17**	**139**	**7**	**4**	**11**	**129**	**21**	**150**
IX Production of Inputs at site										
Mushroom Production	2	20	20	40	0	0	0	20	20	40
Total	**2**	**20**	**20**	**40**	**0**	**0**	**0**	**20**	**20**	**40**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	1	0	30	30	0	0	0	0	30	30
Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**0**	**30**	**30**
GRAND TOTAL	**48**	**811**	**587**	**1398**	**24**	**93**	**117**	**835**	**680**	**1515**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(B) RURAL YOUTH										
Integrated farming	3	76	32	108			0	76	32	108
Production of organic inputs	1	22	3	25	0	0	0	22	3	25
Planting material production	1	49	1	50	0	0	0	49	1	50
Mushroom Production	1	0	40	40	0	0	0	0	40	40
Repair and maintenance of farm machinery and implements	1	0	12	12	0	0	0	0	12	12
TOTAL	**7**	**147**	**88**	**235**	**0**	**0**	**0**	**147**	**88**	**235**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(B) RURAL YOUTH										
Value addition	2	0	130	130	0	0	0	0	130	130
TOTAL	**2**	**0**	**130**	**130**	**0**	**0**	**0**	**0**	**130**	**130**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(B) RURAL YOUTH										
Integrated farming	3	76	32	108	0	0	0	76	32	108
Production of organic inputs	1	22	3	25	0	0	0	22	3	25
Planting material production	1	49	1	50	0	0	0	49	1	50
Mushroom Production	1	0	40	40	0	0	0	0	40	40
Repair and maintenance of farm machinery and implements	1	0	12	12	0	0	0	0	12	12
Value addition	2	0	130	130	0	0	0	0	130	130
TOTAL	**9**	**147**	**218**	**365**	**0**	**0**	**0**	**147**	**218**	**365**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(C) Extension Personnel										
Productivity enhancement in field crops	1	2	9	11	2	0	2	4	9	13
Integrated Nutrient management	3	109	17	126	0	0	0	109	17	126
Women and Child care	1	1	20	21	0	0	0	1	20	21
Capacity building for ICT application	1	15	1	16	0	0	0	15	1	16
Management in farm animals	2	51	0	51	0	0	0	51	0	51
Livestock feed and fodder production	1	35	0	35	0	0	0	35	0	35
TOTAL	**9**	**213**	**47**	**260**	**2**	**0**	**2**	**215**	**47**	**262**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(C) Extension Personnel										
Management in farm animals	1	2	17	19	1	3	4	3	20	23
TOTAL	**1**	**2**	**17**	**19**	**1**	**3**	**4**	**3**	**20**	**23**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(C) Extension Personnel										
Productivity enhancement in field crops	1	2	9	11	2	0	2	4	9	13
Integrated Nutrient management	3	109	17	126	0	0	0	109	17	126
Women and Child care	1	1	20	21	0	0	0	1	20	21
Capacity building for ICT application	1	15	1	16	0	0	0	15	1	16
Management in farm animals	3	53	17	70	1	3	4	54	20	74
Livestock feed and fodder production	1	35	0	35	0	0	0	35	0	35
TOTAL	**10**	**215**	**64**	**279**	**3**	**3**	**6**	**218**	**67**	**285**

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
Production and value addition										
Natural farming	**18**	**456**	**42**	**498**	**0**	**0**	**0**	**456**	**42**	**498**
Total	**18**	**456**	**42**	**498**	**0**	**0**	**0**	**456**	**42**	**498**

Details of vocational training programmes carried out by KVKs for rural youth

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
Crop production and management										
Organic farming	1	22	3	25	0	0	0	22	3	25
Integrated Nutrient Management	1	121	0	121	0	0	0	121	0	121
Total	**2**	**143**	**3**	**146**	**0**	**0**	**0**	**143**	**3**	**146**
Post harvest technology and value addition										
Value addition	3	32	75	107	0	0	0	32	75	107
Total	**3**	**32**	**75**	**107**	**0**	**0**	**0**	**32**	**75**	**107**
Income generation activities										
Vermi composting	1	30	20	50	0	0	0	30	20	50
Bee keeping	1	35	0	35	0	0	0	35	0	35
Total	**2**	**65**	**20**	**85**	**0**	**0**	**0**	**65**	**20**	**85**
Grand Total	**7**	**240**	**98**	**338**	**0**	**0**	**0**	**240**	**98**	**338**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Diagnostic visits	56	171	56	283
Field Day	12	407	24	443
Exhibition	9	5250	38	5297
Kisan Mela	7	4017	18	4042
Scientists' visit to farmers field	26	122	37	185
Plant/animal health camps	3	338	3	344
Farmers' seminar/workshop	4	1044	37	1085
Method Demonstrations	37	1666	39	1742
Celebration of important days	12	854	25	891
Exposure visits	4	326	8	338
Technology week celebration	1	760	13	774
Farmers and Dignitories visit to KVK	13	446	11	470
Lecture Delivered as a Resource Person	135	20892	146	21173
Lecture delivered in KVK Trainings	54	1946	57	2057
Farmers Meetings	35	601	71	707
Telephonic Help Line	2036	2036	9	4081
Awareness Campaign	4	485	4	493
TOTAL	**2448**	**41361**	**596**	**44405**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	3
Newspaper coverage	28
Popular articles	1
Radio Talks	0
TV Talks	0
Animal health Camps (Number of animals treated)	3
Social Media (No. of platforms Used)	5
Total	**40**

3.6 Online activities during year 2023

S. No.	Activity Type	Mode of implementation	Title of Program	No. of Programmes	No. of Participants/ Views
A	Farmers training	-	-	-	-
B	Farmers scientist's interaction programme	-	-	-	-
C	Farmers seminars	-	-	-	-
D	Expert lectures	-	-	-	-
	Total			**-**	**-**

3.7. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
-	-	-	-	-	-	-

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Chilli	Pvt. F1 Hy.	-	100000	150000	250
	Tomato	Pvt. F1 Hy.	-	5000	7500	50
Fruit Plant	Lime	Kagzi	-	500	10000	20
	Guava	Bhavnagar red	-	100	2000	5
	Mango	Kesar	-	250	50000	50
	Sapota	Kali patti	-	100	20000	25
	Coconut	Local	-	50	10000	20
	Custard Apple	Balanagari	-	100	2500	22
	Pomegranate	Sinduri	-	250	10000	2
	Pomegranate	Ganesh	-	1000	30000	100
Ornamentals	Flowers (Rose, Annuals, Jasood, Perennials)	Different varieties	-	200	5000	50
	Leafy ornamentals	Different varieties	-	100	3000	20
	Forest trees	Different varieties	-	500	10000	30
Total				**108150**	**310000**	**644**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
Bio Fertilizers	Vermi compost	10900	109000	70
	Compost from farm waste	320000	480000	5
Azolla	Azolla	500	0	50
	Total	**331400**	**589000**	**125**

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
-	-	-	-	-

4. Literature Developed/Published

A. KVK News Letter
B. Literature developed/published - NIL

C. Details of Electronic Media Produced

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

D. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel	KVK – Bhavnagar	277
2	Facebook page/ Account	KVK – Bhavnagar	4563
3	Mobile Apps	-	-
4	Whats App groups	15	5875
5	Twitter Account	KVK – Bhavnagar	402

D. Success Stories / Case studies, if any

NIL

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

NIL

F. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Cotton, vegetable	Spraying cow urine based formulations	To prevent infestation of pests and diseases
2	Chilli, cotton	Use of fermented flour of pearl millet with buttermilk	To prevent leaf curl in chilli and to prevent sucking pests in cotton
3	Pulses	Mixing ash with grains	To prevent storage pests.

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

NIL

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Problem identified from Matrix
iii) Field level observations
iv) Farmer group discussions
v) Layout of OFT

For FLD:

i) Baseline Survey and gap analysis
ii) Farmers Group Identification
iii) Identify the New variety/technology
iv) Layout of FLDs
v) Field day

5.3. Field activities

i. Name of villages identified/adopted with block name (from which year): --
ii. No. of farm families selected per village : --
iii. No. of survey/PRA conducted : --
iv. No. of technologies taken to the adopted villages: --
v. Name of the technologies found suitable by the farmers of the adopted villages:--
vi. Impact (production, income, employment, area/technological– horizontal/vertical) --
vii. Constraints if any in the continued application of these improved technologies: --

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Junagadh Agriculture University, Junagadh	Source of information on Agril. Technologies and reporting to DEE office. We also demonstrate the Bio product *(Trhichoderma, Beauveria, Metarizium etc.)* developed by JAU and provided to the farmers. KVK has conducted four Certification courses for Input Dealers of the District on Integrated Pest management.
Department of Agriculture, Govt. of Guj., Bhavnagar	KVK provided training for village level workers i.e. Gram Sevak, prepared contingency plan for district, participated in planning extension activities in district, Resource person for the programmes related to farmers and farm women. KVK has also jointly organized farmers fair and Exhibition at KVK Premises.
Department of Horticulture, Govt. of Guj., Bhavnagar	Conducted a vocational training on value addition, participated in planning extension activities in district, Resource person for the programmes related to farmers and farm women
Department of Ani. Hus.. Govt. of Guj., Bhavnagar	Subject Matter specialist of KVK participates in the animal treatment camps organized by department
ATMA, Govt. of Guj., Bhavnagar	Jointly conducted field visits, planned activities of ATMA and KVK as well as KVK conducted training programmes for extension workers of ATMA. KVK has also jointly organized farmers fair and Exhibition at KVK Premises.
National Horticulture Mission	PC, KVK acted as a member in the evaluation committee of NHM for approval of nurseries, Also Organized a farmers' seminar on Horticultural Crops.
Farmers' Training Centre, Bhavnagar	Knowledge sharing in FFS and other programmes
Gujarat State Seed Corporation	Source of seed related information for farmers
Lokseva Mahavidyalaya, Lokbharti	Jointly organized training programme for farmers as well as scientists of KVK delivered lectures for the students of different agricultural subjects
Lokbharti University for Rural Innovation.	KVK has provided a technical support for formatting the syllabus of various courses offered by the university. KVK also arranged the lectures on various topics of agriculture and food processing for the students of the university.
CSPC, Talaja	Training of Extension Personal of Field workers has been organized collaboration with the agency
Vivekanand Research and Training Institute, Bhavnagar	Training of farmers and Extension officers has been organized collaboration with the agency
Parishram Foundation, Dhasa	Training of farmers and Extension officers has been organized collaboration with the agency

B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
-	-	-	-

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	No of Farmers attending
01	Meetings	05	05	2	242
02	Research projects	-	-	-	-
03	Training programmes	03	03	03	-
04	Method Demonstrations	37	12	12	1742
05	**Extension Programmes**				
	Exposure visit	04	3	01	338
	Lecture delivered	54	9	5	2057
	KisanMela	7	8	3	4042
	Technology Week	1	12	12	762
	Exposure visit	4	6	2	338
	Exhibition	9	12	3	5297

D. Give details of programmes implemented under National Horticultural Mission

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

E. Nature of linkage with National Fisheries Development Board

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

F. Details of linkage with RKVY

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

-	-	-	-	-	-

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

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

H. Details of linkage with NFSM

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	CFLD in Oilseeds	Trainings, Inputs demonstrations, Soil testing, etc.	1,57,355	1,57,309	-
2	CFLD in Pulses		1,22,063	75,668	-

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

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

7. Convergence with other agencies and departments:

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	SAP (Swachhata Action Plan)	Inputs Demonstrations, Awareness Campaigning, etc.	24,390	24,200	-
2	Sponsored Training Programme for Extension Functionaries	-	--	11,050	-

8. Innovator Farmer's Meet

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

9. Farmers Field School (FFS)

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

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

Sl. No.	Crop / Enterprise	Farmers' Feed Back
1	Groundnut	The inputs used as per the suggestions and it helped to reduce pest incidence and weed problem also. Cost of fertilizer application is saved due to soil health card. Application of Micro nutrients helped to overcome *chlorosis* in groundnut. Bio pesticides are cost effective. Adoption of INM helped to increase grain weight**.**
2	Cotton	The inputs helped to increase the productivity of cotton and also helpful to reduce the cost of cultivation. Due to the bio inputs, the infestation of pink boll worms was minimum. Immature flower and bud drooping and reddening of leaves was also minimum due to proper nutrient management.
3	Wheat	Gujarat Junagadh Wheat – 463 variety gave higher yield as compared to locally cultivated variety.
4	Chickpea	Different Bio Inputs prove effective for the control of Insect and pest attack, and the chickpea variety Gujarat Junagadh Gram – 5 gave higher yield as compared to local variety in irrigated farming condition.
5	Chaff Cutter	The chaff cutter is very useful for cutting green and dry fodder. It reduces the wastage of fodder while animal feeding.
6	Wheel hoe	The wheel hoe is useful for saving time and labour cost.
7	Mineral mixture supplementation to cow	Supplementation of minerals results in increased milk production and improved estrous cycle. It resulted in good condition of animals and increased milk fat percent.
8	Rumensin powder	Supplementation of inputs resulted in higher milk production at peak period. Cattle came early in estrous period after calving and conceive within four months of calving.

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

Sl. No.	**Crop / Enterprise**	**Farmers' Feed Back**
1	Groundnut	Cost of fertilizer application is saved due to soil health card. Application of Micro nutrients helped to overcome *chlorosis* in groundnut. Bio pesticides Beauveria bassiana helped to control the sucking pest in the crop.
2	Cotton	*Beauveria* and Neem Oil proved useful to minimize initial infestation of sucking pest. The infestation of pink boll worms was minimum due to the mass trapping of adults of PBW in Pheromone traps. Immature flower and bud drooping and reddening of leaves was also minimum due to proper nutrient management.
3	Castor	Castor variety GCH- 9 prove effective and gave higher yield as compared to other locally cultivated varieties.
4	Wheat	Gujarat Junagadh Wheat – 463 variety gave higher yield as compared to locally cultivated variety
5	Chickpea	Different Bio Inputs prove effective for the control of Insect and pest attack, and the chickpea variety Gujarat Junagadh Gram – 5 gave higher yield as compared to local variety in irrigated farming condition.
6	Chaff Cutter	The chaff cutter is very useful for cutting green and dry fodder. It reduces the wastage of fodder while animal feeding.

7	Wheel hoe	The wheel hoe is useful for saving time and labour cost.
8	Mineral mixture supplementation to cow	Supplementation of minerals results in increased milk production and improved estrous cycle. It resulted in good condition of animals and increased milk fat percent.
9	Runensin powder	Supplementation of inputs resulted in higher milk production at peak period. Cattle came early in estrous period after calving and conceive within four months of calving.

11. Technology Week celebration during 2023: YES

Period of observing Technology Week:	12th February to 17th February 2023
Total number of farmers visited:	760/day
Total number of agencies involved	3 Agencies (KVK - Bhavnagar, ATMA – Bhavnagar, Dept. of Agriculture, Bhavnagar
Number of demonstrations visited by the farmers within KVK campus	10 Demonstration Units Visited (Roop top rain water harvesting unit, Drip Irrigation system unit, Farm Mechanization unit, Vermi Composting unit, NADEP Composting unit, Azolla Unit, Dairy unit, Plug Nursery unit, Renewable Energy Park)
Extension Activities conducted	Farmers Trainings, Meetings, Exposure Visits, Method Demonstrations, Exhibitions

12. IMPACT

A. Impact of KVK activities

NIL

B. Cases of large scale adoption

NIL

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

13. Kisan Mobile Advisory Services

Name of KVK	Message Type	Type of Messages					
		Crop	Weather	Marketing	Awareness	Other enterprise	Total
Bhavnagar	Text only	-	2	-	-	-	2
	Total Messages	-	**2**	-	-	-	**2**
	Total farmers Benefitted	-	-	-	-		

14. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Vermi Compost Unit	2016	-	-	Vermi Compost	10	-	100000	Sold to other department of Host Organization
2	NADEP Compost Unit	2017	-	-	Compost	2 tons	-	-	Used in the KVK Demonstration farm
3	Mushroom Unit	2019	-	Oyster Mushroom	Mushroom	25 kg	-	-	Used for the vocational trainings of Value addition

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (kg)	Cost of inputs	Gross income	
Cotton	7/7/2023	16/01/2024	4	Pvt.	Seed cotton	3500		2,35,136	-
Groundnut	10/7/2023	5/12/2023	3.5	GJG – 32	Pod	2880		1,60,000	-
Groundnut			-	-	fodder	6620		49,650	-

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

Sl. No.	Bio Products	Name of the Product	Qty (kg)	Amount (Rs.)		Remarks
				Cost of inputs	Gross income	
1	Bio Fertilizers	Vermi compost	10900	-	-	-
		Compost from farm waste	320000	-	-	-
2	Azolla	Azolla	500	-	-	-
		Total	**331400**	-		-

D. Performance of instructional farm (livestock)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty. (Lit)	Cost of inputs	Gross income	
1	Cattle (Cow)	Gir	Milk	2200	65000.0	58000.0	-
			Ghee	10 kg	19500.0	15000.0	

E. Utilization of hostel facilities

Accommodation available (No. of beds): 30

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Jan 2023	-	-	-
Feb 2023	-	-	-
March 2023	-	-	-
April 2023	-	-	-
May 2023	-	-	-
Jun 2023	132	264 (2 days)	-
Jul 2023	130	260 (2 days)	-
Aug 2023	22	44 (2 days)	-
Sept 2023	15	30 (2 days)	-
Oct 2023	60	120 (2 days)	-
Nov. 2023	30	90 (3days)	-
Dec. 2023	60	180 (3days)	-

F. Database management

S. No	Database target	Database created
-	-	-

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
-	-	-	-	-	-	-	-	-	-

H. Performance of Nutritional Garden at KVK farm

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
	Vegetable crops	10	570
63.58 Square Metter	Fruit crops	-	

Nutritional Garden developed at Village Level

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
01	Vegetable crops	Kharif – 10 Rabi - 10	100 100
01	Vegetable crops	Mushroom	200

H. Details of Skill Development Trainings organized

S.No.	Name of KVKs/SAUs/ICAR Institutes	Name of QP/Job role	Duration (hrs)	No. of participants					
				SCs/STs		Others		Total	
				Male	Female	Male	Female	Male	Female
-	-	-	-	-	-	-	-	-	-

15. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India	SANOSARA	SBIN0060025	KRISHI VIGYAN KENDRA LOKBHARTI GRAMVIDYAPITH	30844106935	362002634	SBIN0060025

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	182.51	182.51	182.34
2	**Traveling allowances**	0.70	0.70	0.68
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.95	3.95	3.92
B	POL, repair of vehicles, tractor and Equipments	1.77	1.77	1.77
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1.73	1.73	1.73
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.24	0.24	0.13
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	2.82	2.82	2.82
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.15	0.15	0.15
G	Training of extension functionaries	0.11	0.11	0.11
H	Maintenance of buildings	0.28	0.28	0.28
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Library	-	-	-
TOTAL (A)		**179.26**	**194.26**	**194.26**
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Equipments including SWTL & Furniture**	-	-	-
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	9.00	9.00	9.00
4	**Library** (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		0	9.00	9.00
C. REVOLVING FUND		0	-	-
GRAND TOTAL (A+B+C)		**179.26**	**203.26**	**203.26**

9.0

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2018 to March 2019	5.53	6.58	7.46	4.65
April 2019 to March 2020	4.65	6.97	6.49	5.13
April 2020 to March 2021	5.13	8.94	5.24	8.83
April 2021 to March 2022	8.83	34.22	16.24	26.81
April 2022 to March 2023	26.81	42.53	22.64	46.70
April 2023 to March 2024	46.70	40.73	20.75	66.68

16. Details of HRD activities attended by KVK staff during year

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/Offline)	Dates
Dr. S. Chaudhary	Subject Matter Specialist	Competency skills enhancement for extension professionals	EEI, Anand	Offline	24/04/23
Mrs. S. N. Boricha	Subject Matter Specialist	Competency skills enhancement for extension professionals	EEI, Anand	Offline	24/04/23
Mrs. S. N. Boricha	Subject Matter Specialist	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Mr. P. M. Kyada	Subject Matter Specialist	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Dr. N. P. Shukla	Sr. Sci & Head	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Dr. Vikram Desai	Subject Matter Specialist	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Mrs. S. N. Boricha	Subject Matter Specialist	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Mr. J. K. Kantariya	Subject Matter Specialist	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Mr. Paresh Rathod	Program. Assit. (Agri)	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23
Mr. Vinit Savani	Farm Manager	Natural farming	Gurukul, Kurukshetra, Haryana	Offline	24/05/23

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

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit)	
				Before	After
Gundrana	300	Integrated crop management through introduction of new variety, INM, IPM and	150	25000	35000

		crop rotation			
		Introduction of high yielding variety in wheat crop	130	18000	27000
		Livestock production management through nutritional supplementation and animal health management	50	14000	24000
		Groundnut Processing	2	40000	67000
		Introduction of Organic farming through awareness camps	15	14000	19500
Medha	300	Integrated crop management through introduction of new variety, INM, IPM and crop rotation	100	20500	31500
		Livestock production management through nutritional supplementation and animal health management	50	19000	34000
		Introduction of Organic farming through awareness camps	20	10000	23000

18. Details of activities planned under NARI /PKVY / TSP / KKA

S. No.	Name of the programme	No. of villages adopted	Key activities performed	No. of activities carried out	No. of families covered
1	PKVY	2	Farmers Trainings, Inputs Demonstrations, Field Visits	2	15
2	NARI	2	Trainings of Farm women, Field Visits, Demonstration of Drudgery reduction tools	5	153

19. Details of Progress of ARYA Project 2023

Name of Enterprise	No of Training Conducted	No of Beneficiaries	No of Extension Activities	No of Beneficiaries	No of Unit established	Change in income		No. Of Groups Formed
						Before	After	
Spice Pulverizing Unit (Chilli, Turmeric and Coriander)	7	236	5	45	2	-	-	2

20. Details of SAP

S. No.	Types of major Activity conducted- Swachhta Pakhwada, Cleaning, Awareness Workshop, Microbial based Agricultural Waste Management by Vermicomposting etc.	No. of Programmes conducted	No. of Participants
1	Awareness Workshop	3	146
2	*Swachhta Pakhwada* celebration	15	473
3	Cleaning of KVK office premises and surrounding campus area	6	72

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	48	835	680	1515
Rural youths	9	147	218	365
Extension functionaries	10	218	67	285
Sponsored Training	18	456	42	498
Vocational Training	7	240	98	338
Total	**92**	**1896**	**1105**	**3001**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	50	20	-
Pulses	75	30	-
Cereals	75	30	-
Commercial	25	10	-
Total	**225**	**90**	-
Livestock & Fisheries	95	-	95
Other enterprises	230	10	-
Total	**325**	**10**	**95**
Grand Total	**550**	**100**	**95**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	6	22	22
Livestock	2	20	20
Total	**8**	**42**	**42**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	2448	44405
Other extension activities	0	0
Total	**2448**	**44405**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages					
		Crop	Weather	Marketing	Awareness	Other enterprise	Total
Bhavnagar	Text only	0				2	**2**
	Total Messages	0				**2**	**2**
	Total farmers Benefitted	**0**	**0**	**0**	**0**	**39097**	**39097**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.

Seed (q)	0	-
Planting material (No.)	108150	310000
Bio-Products (kg)	331400	589000
Livestock Production (No.)	0	-
Fishery production (No.)	0	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	-	-
Water	-	-
Plant	-	-
Total	-	-

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops/Webinar	10
2	Conferences	3
3	Meetings	14
4	Trainings for KVK officials	5
5	Visits of KVK officials	0
6	Book published	1
7	Training Manual	1
8	Book chapters	0
9	Research papers	0
10	Lead papers	0
11	Seminar papers	0
12	Extension folder	5
13	Proceedings	5
14	Award & recognition	0
15	Ongoing research projects	0

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