ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2023

(January 2023 to December 2023)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
KVK-Vadodara (Mangalbharti) At.&Po.Golagamdi, Ta.Sankheda, Dist. Chhotaduepur.-391125	08141150500	``	kvkvdr@gmail.com	www.kvkvadodara.org (144165)

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

Address	Telephone		E mail	Website address
	Office	FAX		
Mangalbharti At.&Po.Golagamdi, Ta.Sankheda, Dist. Chhotaduepur.-391125	08141150500	-	kvkvdr@gmailcom	www.kvkvadodara.org

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. B. M. Mehta	08141150500	09426834346	bmehta_61@rediffmail.com

1.4. Date and Year of sanction: 1995

1.5. Staff Position (as on December, 2022)

					If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
Sl. No.	**Sanctioned post**	**Name of the incumbent**	**Mobile No.**	**Discipline**	**Current Pay Band**	**Current Grade Pay**	**Date of joining**	
1.	Senior Scientist and Head	Dr.B.M.Mehta	9426834346	Horticulture			17/09/2013	
2.	Subject Matter Specialist	C. R. Patel	9725017823	Agronomy			23/06/2011	
3.	Subject Matter Specialist	M. C. Brahmbhatt	9909033890	Horticulture			11/07/2011	
4.	Subject Matter Specialist			Animal Science	**VACANT**			
5.	Subject Matter Specialist	Mrs. Leena Joshi	7990624014	Home Science			02/05/2023	
6.	Subject Matter Specialist	B. L. Dhayal	9879013551	Ext.Edu			23/08/2013	
7.	Subject Matter Specialist	V.D.Patel	9099216798	Plant Protection			06/02/2017	
8.	Programme Assistant	K. K. Sutaria	8238089309				01/12/2008	
9.	Computer Programmer	M.R.Kulkarni	9429824313				21/01/2008	
10.	Farm Manager	Hariom Sharma	9437227991				02/09/2013	
11.	Accountant/Superintendent	V.V.Shah	8238089320				04/06/2001	
12.	Stenographer	C.M.Raval	9265712399				02/09/2013	
13.	Driver 1	R.N.Prajapati	8238089304				17/01/2008	
14.	Driver 2	Z. S.Vora	8238089376				27/06/2011	
15.	Supporting staff 1	P.B.Rathwa	8238089311				05/09/2003	
16.	Supporting staff 2	J.R.Tadvi	9904123920				29/07/2002	

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1	Under Buildings	1.30
2.	Under Demonstration Units	2.00
3.	Under Crops	8.00
4.	Horticulture	1.50
5.	Pond	0.50
6.	Others if any	6.70

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	2001	561.43	18,23,216/-			
2.	Farmers Hostel	ICAR	2011	300.75	26,57,744/-			
3.	Staff Quarters (8+6=14)	ICAR	2001	694.61	29,23,910/-			
4.	Fencing	ICAR	2006	1709 Rmt.	3,45,000/-			
5	Rain Water harvesting system	ICAR	2007	62x39mt.	9,78,000/-			
6	Threshing floor	ICAR	2010	41.82 (sqmt)	1,93,440/-			
7	Farm godown	ICAR	2010	55.76 (sqmt)	2,86,422/-			
8	Implement shed	ICAR	2010	55.76	2,99,000/-			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor with implements (Massey Ferguson)	01/11/19	6,50,000=00	999 hrs.	Good Working condition
Mahindra Bolero	29/03/10	6,25,000=00	238737	Poor condition
Bajaj Discover	09/02/11	48,251=00	110315	Poor condition

C) Equipments& AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Electronic type writer	30/03/95	16,380=00	Poor condition /.Need to Dispose
Steel cupboard	30/03/95	3,300=00	Good
Iron cupboard	30/03/95	3,100=00	Good
Iron Table	30/03/95	6,370=00	Good
Chair	30/03/95	5,860=00	Good
Tractor Plough	31/03/95	15,000=00	Good
Slide Projector	31/03/95	16,500=00	Poor condition /.Need to Dispose
Overhead Projector	31/03/95	10,500=00	Poor condition /.Need to Dispose
VCR (onida)	01/09/96	14,300=00	Poor condition /.Need to Dispose
Micro Scope	19/09/96	3,500=00	Poor condition /.Need to Dispose
Camera (Canon)	28/09/96	2,350=00	Poor condition /.Need to Dispose
Moving trolley	28/09/96	6,500=00	Good
Store well	30/09/96	10,800=00	Good
Store well	30/09/96	3,200=00	Good

Office table	30/09/96	6,525=00	Good
Office chair	30/09/96	1,400=00	Good
Glass door cupboard	30/09/96	3,900=00	Good
Office Table	30/09/96	2,175=00	Good
Office chair	30/09/96	350=00	Poor condition /.Need to Dispose
ColourT.V.(crown)	15/10/96	18,800=00	Poor condition /.Need to Dispose
Office Table	30/10/96	3,200=00	Good
Office chair	30/10/96	350=00	Good
Microphone PCM with set accessories	11/03/98	8,495=00	Poor condition /.Need to Dispose
Slide Projector with remote	01/04/98	11,300=00	Poor condition /.Need to Dispose
Glass door cupboard	04/03/2000	3,150=00	Good
Wind wheel	20/10/2000	15,00=00	Good
Store well	31/01/2001	29,000=00	Good
Office chair	31/01/2001	3,000=00	Good
Table	31/01/2001	11,500=00	Good
File rake	31/01/2001	5,100=00	Good
Museum room self	28/02/2001	20,900=00	Good
Dias	01/03/2001	9,056=00	Poor condition /.Need to Dispose
Library table	15/03/2001	22,000=00	Poor condition /.Need to Dispose
Plastic chair	30/03/2001	11,900=00	Poor condition /.Need to Dispose
Multi panel kit-12	31/03/2001	11,954=00	Poor condition /.Need to Dispose
Flash kit-4	31/03/2001	12,5000=00	Good
Eco display with 3 panel	31/03/2001	5,773=00	Good
Info panel wall type	31/03/2001	6,611=00	Good
Kitchen mixture	31/03/2002	1,995=00	Good
Cupboard & stand	31/03/2003	9,975=00	Good
Xerox machine (Canon-7160)	30/03/2004	79,800=00	Poor condition /.Need to Dispose
Rotavator (rotary)	31/12/2004	49,000=00	Poor condition /.Need to Dispose
Office Table	30/09/2005	33,500=00	Poor condition /.Need to Dispose
Office chair	30/09/2005	9,600=00	Poor condition /.Need to Dispose
File rake	30/09/2005	6,400=00	Good
Computer with Accessories (Compaq)	14/02/2006	64,500=00	Poor condition /.Need to Dispose
Steel cupboard	26/02/2006	10,440=00	Good
Plastic chair	26/02/2006	4,560=00	Poor condition /.Need to Dispose
Pneumatic cotton planter	28/03/2006	47,400=00	Under TMC-MM-II Grant
Power weeder	28/03/2006	33,500=00	Under TMC-MM-II Grant
Computer table	31/03/2006	3,165=00	Poor condition

Office table	31/03/2006	3,165=00	Poor condition
Computer chair	31/03/2006	4,310=00	Poor condition
Plastic chair	31/03/2006	8,125=00	Poor condition
Rake	31/03/2006	16,235=00	Poor condition
Storage cupboard	31/03/2006	25,250=00	Under STL grant
Storage cupboard	31/03/2006	5,150=00	”
Cupboard	31/03/2006	4,500=00	”
Angel rake	31/03/2006	7,100=00	”
Store well	31/03/2006	12,300=00	”
Office table	31/03/2006	7,500=00	”
Stand frame rake	31/03/2006	6,200=00	”
Revolving chair	31/03/2006	43,10=00	”
Revolving stool	31/03/2006	2,700=00	”
Plastic stool	31/03/2006	755=00	”
Store well cupboard	31/03/2006	15,000=00	”
Fixed wall steel cupboard	31/03/2006	85,021=00	”
Hot Plate Rectangular(Nova-NV-8535)	28/02/2006	7,500=00	Poor condition /.Need to Dispose
Rotary shaker(Nova-NV-853)	28/02/2006	25,250=00	Good
Voltage stabilizer(Nova-NV/14)	28/02/2006	16,000=00	”
“EL” Microprocessor Flame Photometer (Model-CL-387)	28/02/2006	35,250=00	Under STL grant
“EI” Microprocessor based pH meter (Model-1012)	28/02/2006	15,275=00	Poor condition /.Need to Dispose
“EI” Microprocessor based Conductivity/TDS meter (Model-1601)	28/02/2006	17,450=00	Poor condition /.Need to Dispose
Single pan balance ‘K-Roy”(Model: K-14 Deluxe)	28/02/2006	11,950=00	Good
Electronic Balance: Multi-function series (Model: Swis-310)	28/02/2006	14,900=00	Good
Visible Spectrophotometer(FGSL-177 Scanning)	02/03/2006	55,944=00	Good
Electronic Automatic Kel Plus Micro- processor based Twelve Place macro block Digestion System (Model: KES 12 L)	16/03/2006	96,020=00	Poor condition /.Need to Dispose
Electronic Kel Plus Micro- processor based Automatic Distillation System (Model: DISTY-EM)	16/03/2006	1,25,350=00	Poor condition /.Need to Dispose
Sampling Augers (Hand size 3”)	25/03/2006	1,200=00	Good
Sampling Augers (Hand size 6”)	25/03/2006	2,150=00	Good
Extension Rod - Size: 3”	25/03/2006	800=00	Under STL grant
Size: 6”	25/03/2006	1,050=00	Good
Refrigerator 330 Lit (Ken star-SR)	27/03/2006	15,000=00	Good

Stabilizer	27/03/2006	500=00	Poor condition /.Need to Dispose
'Nova' Willey mill stainless steel body	06/03/2006	21,550=00	Poor condition /.Need to Dispose
'Nova' Horizontal shaker-Kahn-Platform	06/03/2006	24,975=00	Poor condition /.Need to Dispose
"Mac" Electrically Heated all glass Distillation apparatus (Model: MSW-193)	06/03/2006	16,350=00	Poor condition /.Need to Dispose
Test Sieves Size: 3.35mm	25/03/2006	475=00	Good
Size: 2.00 mm	25/03/2006	475=00	"
Soil Hydrometer Range: 58-92%	25/03/2006	700=00	"
High speed stirrer: IS: 2720IV)	25/03/2006	11,400=00	"
Hand/Sugar Refractometer	25/03/2006	2,500=00	"
Hanna Pocket pH Meter	25/03/2006	2,600=00	"
Hanna Pocket TDS Meter	25/03/2006	2,450=00	"
Aero Blast Sprayer (Aspee-Mod.No.ATB/6HDP)	06/02/2007	86080=00	Under TMC-MM-II
LCD Projector (Panasonic-Model. No.-PT-PISD1500luens.	16/03/07	73010=00	Poor condition and not working condition so, this projector is buyback and purchase new Projector EPSON-EX-31
DVD Handy Cam(Sony.Model:608E	20/03/07	20500=00	Poor condition
Digital Camera(OriteMod.No.-C8000	20/03/07	9200=00	
Trolley With Cabinet	16/03/07	10688=00	
Projector Screen with Stand (Size:52"70)	16/03/07	11560=00	Poor condition
Seed cum fertilizer drill	28/11/10	30000=00	Under ICAR grantPoor condition
Projector EPSON-EX-31	24/3/17	33700=00	Working Conditions
Hitachi Air Condition No.2	23/3/17	80000=00	Working Conditions
Nikon Digital Camera D-5300 & Sony Handy-cam PJ-675	14/3/17	94800=00	Working Conditions
RO with Cooler	20/3/17	79990=00	Working Conditions
Computer with Accessorizes No.3	14/3/17	149953=00	Working Conditions
Office Table (7+2)	28/3/17	41800=00	Working Conditions
STRF METER	18/11/2015	95200=00	Working Conditions
Mridaparikshak	30/03/2017	90300=00	Faulty instruments

1.8. Details of SAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken

2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

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

S. No	Farming system/enterprise
Crop	Agril. Alone Agril. Horticulture Agril.-Animal Husbandry Agril.-silviculture
Enterprise	Agriculture and Animal Husbandry

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

a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
1	Middle Gujarat zone III	Average rain fall is 800-1000 mm. Geographically Vadodara district is located between 210 49' to 220 49' north latitude and 720 51' to 740 17' east longitude

b)Topography

S. No.	Agro ecological situation	Characteristics
1	Sandy loam soil with high rain fall	Altitude (in meter above MSL): 25-75 Taluka : Vadodara, Padara, Savli, Dabhoi, Waghodia
2	Medium black soil with high rain fall	Altitude (in meter above MSL): 75-150 Taluka: Pavijetpur, Chhotaudepur, Naswadi, Karjan
3	Deep black soil with high rain fall	Altitude (in meter above MSL): 25-75 Taluka: Dabhoi, Sankheda, Shinor, Karjan
4	Light soil with high rain fall	Altitude (in meter above MSL): 150-300 Taluka: Chhotaudepur (tribal base)

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Black soil	Moderate to severe erosive,Poor soil Fertility,Poor Irrigation facility	**88864**
2	Medium black	Water logging,Very Poor Permeability,Poor Soil Physical condition **Low to medium in N & P Content**	**208646**
3	Sandy loam	Highly erosive,Shallow to medium in depth,Poor permeability **Low to medium N & P content**	**174021**
4	Sandy	**Sandy soils are often dry, nutrient deficient and fast-draining. They have little (or no) ability to transport water from deeper layers through capillary transport.**	**36305**
5	Salt affected	**saline soils are those which have an electrical conductivity of the saturation soil extract of more than 4 dS/m at 25°C , Sodium and chloride are by far the most dominant ions**	**4888**

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2019)

Sr. No	Crop	Vadodara			Chhotaudepur		
		Area (ha)	Production (Mt)	Productivity (qt. /ha)	Area (ha)	Production (Mt)	Productivity (qt. /ha)
A	*Kharif* :						
1	Cotton (Lint)	74944	367612	83.38	88111	377064	72.75
2	Pigeon Pea	25747	31695	123.10	13368	17588	131.56
3	Paddy	28954	58294	201.33	13929	21747	156.12
4	Maize	162	316	19.49	22381	37953	16.95
5	Bajara	168	311	185.24	11	18	163.84
6	Castor	37274	76160	204.32	1068	2302	215.54
7	Green gram	20	9	44.38	5	2	44.37
8	Black gram	67	40	59.28	50	32	63.96
9	Soybean	9941	13857	139.39	14865	25476	171.38
B	*Rabi*						
1	Maize	4913	15586	317.24	13761	36938	268.42
2	Wheat	29053	69527	239.31	980	3234	330.53
3	Gram	507	967	190.76	1540	3179	206.44
C	Summer						
1	Groundnut	9	19	216.21	290	627	216.21
2	Bajara	4725	10451	221.18	152	443	291.33
3	Green gram	292	387	132.48	900	1192	132.48
4	Sesamum	123	59	480.00	288	109	380.00
	Horticultural crops						
1	Fruits	20087	695200	346.10	12226	606814	496.30
2	Vegetables	38310	697332	182.00	15008	296603	197.60

Source: District agriculture department. 2022

2.5. Weather data (2023)

Month	Rainfall (mm)	Normal Rainy days (number)	Temperature (^{0} C)		Relative Humidity (%)	
			Maximum	Minimum	Maximum	Minimum
Jan-23	27.9	13.6	86	33	0	0
Feb-23	33.6	14.4	79	16	0	0
March-23	34.8	19.5	79	21	0.5	0
April-23	35.6	21.8	63	15	0	0
May-23	37.4	25.2	78	19	9.5	2
June-23	36.5	28.2	84	41	66.5	5
July-23	30.2	24.8	93	64	**359.5**	14
Aug-23	31.9	26.2	96	59	18.5	4
Sept-23	32.5	25.8	99	61	264.5	10

Oct-23	33.1	21.1	83	25	0	0
Nov-23	32.4	20.2	71	27	54.5	1
Dec-23	29.4	16.6	80	38	2	0
Annual Avg	**32.9**	**21.4**	**77**	**35**	**775.5**	**36**

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

Category	**Population(00 No)**	**Production (mt)**	**Productivity(kg/day)**
Cattle			
Crossbred	4860	33.71	11.85
Indigenous	2694	102	5.53
Buffalo	5878	253	6.24
Sheep	132	4.12	932
Goats	2916	13.45	0.66
Poultry			
Hens	3323	160.55	125
Desi	-	-	-
Category		Production (Q.)	Productivity
Fish (Reservoir)	-	-	-

2.7. Details of Operational area / Villages

Sl No	**Tehsil**	**Name of the block**	**Name of the village**	**Major crops & enterprises**	**Major problem identified**	**Identified Thrust Areas**
1	Sankheda	Sankheda	**Saradiya, Raipur, Sundarpura,Kathmandva,Targod, Navapura, Ambapura ,Vagetha, Deroli,Amalpur,Kapdiya,Fajalpura,Bamroli, Kandewar**	***Kharif*** Cotton Pigeonpea Castor Banana Vegetables ***Rabi*** Maize **Summer**	**Cotton :** 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4. Problem of pest & diseases 5. Depends only on manual weeding **Pigeon pea** 1. Improper spacing 2. Use of higher seed rate 3. Improper pest and disease management 4. Improper water management 5. Depends only on manual weeding	 INM IWM IPM Water Mgt. ICM INM IPM IWM ICM

				Greengram Groundnut	**Castor** 1. Use of higher seed rate 2. Improper spacing 3. Indiscriminate use of fertilizer 4. Improper water management 5. Problems of wilt, rootrot and semi looper **Banana** 1.No use of tissue culture plants 2. Not follow seed treatment to rhizome 3. Excess use of fertilizer 4. Excess use of water 5. Improper disease management **Maize** 1. Use of higher seed rate 2. Improper spacing 3. Higher application of nitrogenous fertilizer 4. Improper water management **Greengram** 1. Use of local seeds 2. Use of higher seed rate 3. Improper water management 4. Improper pest and disease management	INM IWM IPM ICM IPM IDM IWM ICM INM IWM ICM IPM`
2.	Naswadi	Naswadi	**Dhamasiya,Pochamba,Payakui,Kolamba,Akona.**Saripani, Sodhaliya	***Kharif*** Cotton Paddy Castor ***Rabi*** Wheat Gram **Summer** Greengram Groundnut	**Paddy** 1.Use of local seeds 2.Application of higher dose nitrogenous fertilizer 3.No use of micronutrients 4. T.P. at random method 5.In adequate and delayed plant protection 6.Use more seed rate 7.Problem of BLB, Hopper and stem borer **Wheat** 1. Use of local seeds 2. Delayed sowing 3. Use of higher rate of seed 4. Improper water management 5. Improper nutrient management 6. No use of micronutrients and Bio-fertilizers **Greengram** 1. Use of local seeds 2. Use of higher seed rate 3. Improper water management 4. Improper pest and disease management	 ICM SRI INM IPM INM IWM ICM ICM INM IPM

3.	Kawant	Kawant	**Khatiyawat, Mudamore,Kherka,Karajwant,Raypur,Pipladа,Kanlalva , Gordha,Jamba .** Mankodi	***Kharif*** Cotton, Pigeonpea, Castor Vegetables ***Rabi*** Maize Gram **Summer** Greengram	**Cotton :** 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4.Problem of pest & diseases 5. Depends only on manual weeding **Pigeonpea** 1. Improper spacing 2. Use of higher seed rate 3. No use of micronutrients 4. Improper pest and disease management 5. Improper water management 6. Depends only on manual weeding **Maize** 1. Use of higher seed rate 2. Improper spacing 3. No use of micronutrients 4. Higher application of nitrogenous fertilizer 5. Improper water management	INM IWM IPM Water Mgt. ICM INM IPM IWM ICM INM IWM IPM ICM INM IWM
4.	Pavijetpur	Pavijetpur	**Ranbhunghati, Butiyapura,Kallarani,Haripura,Sihode**	***Kharif*** Cotton, Pigeonpea, Castor Vegetables ***Rabi*** Maize Gram **Summer** Greengram	Paddy 1.Use of local seeds 2.Application of higher dose nitrogenous fertilizer 3.No use of micronutrients 4. T.P. at random method 5.In adequate and delayed plant protection 6.Use more seed rate 7.Problem of BLB, Hopper and stem borer Cotton : 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4.Problem of pest & diseases 5. Depends only on manual weeding Maize 1. Use of higher seed rate 2. Improper spacing 3. No use of micronutrients 4. Higher application of nitrogenous fertilizer	INM IWM IPM Water Mgt. ICM INM IPM IWM ICM INM IWM

					5. Improper water management	
5	Bodeli	Bodeli	**Kapdiya,Nana Butiyapura,Ranbunghati, MotaButiyapura,Navapura, Kathmandva, Pitha, Bhagwanpura, Dhroliya, Vaniyadri,Kosum, Amalaug, Tandlja, Khodiya, Dholpur, Timbi, Ladhod, Desan, Sajva, Dhebarpura,Deroli,Gordhanpura,MotaRaska,Timbarva,Sagadra**	***Kharif*** Cotton Pigeonpea Castor Banana Vegetables ***Rabi*** Maize **Summer** Greengram Groundnut	Cotton : 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. 3. No use of micronutrients 4. Problem of pest & diseases 5. Depends only on manual weeding Pigeon pea 1. Improper spacing 2. Use of higher seed rate 3. Improper pest and disease management 4. Improper water management 5. Depends only on manual weeding Castor 1. Use of higher seed rate 2. Improper spacing 3. Indiscriminate use of fertilizer 4. Improper water management 5. Problems of wilt, rootrot and semi looper Banana 1.No use of tissue culture plants 2. Not follow seed treatment to rhizome 3. Excess use of fertilizer 4. Excess use of water 5. Improper disease management Maize 1. Use of higher seed rate 2. Improper spacing 3. Higher application of nitrogenous fertilizer 4. Improper water management Greengram 1. Use of local seeds 2. Use of higher seed rate 3. Improper water management 4. Improper pest and disease management	INM IWM IPM Water Mgt. ICM INM IPM IWM ICM INM IWM IPM ICM IPM IDM IWM ICM INM IWM ICM IPM`

6.	Chhotaudepur	Chhotaudepur	**Dhandoda,Raipur,NaniDumali,MotiDumali, Rojkuva , Kanas, Rangpur, Gunata,Oliamba,Nalege,Simalfadiya**	***Kharif*** Cotton, Pigeonpea, Castor Vegetables ***Rabi*** Maize Gram **Summer** Greengram	**Cotton :** 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4.Problem of pest & diseases 5. Depends only on manual weeding **Pigeonpea** 1. Improper spacing 2. Use of higher seed rate 3. No use of micronutrients 4. Improper pest and disease management 5. Improper water management 6. Depends only on manual weeding **Maize** 1. Use of higher seed rate 2. Improper spacing 3. No use of micronutrients 4. Higher application of nitrogenous fertilizer 5. Improper water management	 INM IWM IPM Water Mgt. ICM INM IPM IWM ICM INM IWM IPM ICM INM IWM

2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Cotton	Integrated Nutrient Management Integrated Pest Management Integrated Weed management Varietal evaluation
Rice	Varietal evaluation Water Management Integrated Weed Management Integrated Nutrient management Integrated pest Management
Pigeonpea	Varietal evaluation Production and use of organic inputs Integrated pest Management
Gram	Varietal evaluation Production and use of organic inputs Integrated pest Management
Wheat	Integrated crop management Varietal evaluation Integrated weed management Integrated Nutrient management
Maize	Varietal evaluation Integrated Nutrient Management

	Integrated weed management
Castor	Integrated Pest & Disease Management Varietal evaluation Integrated Nutrient Management Water Management
Green gram	Varietal evaluation Integrated Pest & Disease Management
Urd bean	Varietal evaluation Integrated Pest & Disease Management
Soybean	Varietal evaluation///Integrated Pest & Disease Management
Cucurbits	Integrated Pest & Disease Management//Integrated Nutrient management
Banana	Integrated Nutrient Management //Integrated Weed management//Water Management
Vegetables	Integrated Pest & Disease Management Integrated Nutrient management
Animal husbandry	Management of Dairy animal for maximize the milk production Clean milk production, Animal Health management
Home science	Nutritional security for women and child popularize the drudgery reduction technology//Value addition Income generation activity

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
07	07	21	21	24 (160 ha)	20 (165 ha)	729	764

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
70	70	2025	2792	520	915	21261	194443

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
150	82.57	300000	144481

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
Poultry Chicks	20	-	-
Goat	28		

3.1. B. Operational areas details during 2023

Sr.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1.	Cotton	Injudicious use of chemical pesticides and lack of knowledge	535	Ambapura, Sundarpura	OFT On Assessment of IPM module for sucking pest in cotton
		Not using of bio pesticides	2020	Pitha, Vaniyadri	Training & method demonstration.
		Not using IPM Module.	1520	Sundarpura Butiyapura	FLD on IPM. Training and Field day.
		Non use of improved varieties.	220	Raipur,Kanalwa	FLD on Introduction of High density verity GTHH-49. Training and Field day.
		Not follow proper weed management practices.	1020	Raipur,Kanalwa	Training and Group meeting
		Not use of bio-fertilizer and Micro nutrient.	2020	Raipur,Kanalwa	Training and Group meeting
3	Maize	Not using of bio pesticides	570	Kathmandva, Navapura	FLD on bio-pesticide and Training and Field day.
		Not follow proper weed management practices.	220	Kathmandva, Navapura	Training and Group meeting
		Not use of bio-fertilizer and Micro nutrient.	270	Kathmandva, Navapura	Training and Group meeting
4	Urdbean	Non use of improved varieties.	470	Rangpur,Surshi	FLD on High yield Variety PU-31/NUL-7/IPU-2-43
		Not follow proper weed management practices.	270	Rangpur, Surshi	Training and Group meeting
		Not using IPM Module.	270	Rangpur, Surshi	Training and Group meeting
5	Soybean	Non use of improved varieties.	330	Kalarani, Raypur	FLD on High yield Variety KDS-344/NRC-37 and Field day
		Not follow proper weed management practices.	370	Kanalva, Gordha	Training and Group meeting
		Not using IPM Module.	350	Kanalva, Gordha	Training and Group meeting
6	Green gram	Low productivity due to Non use of improved varieties.	170	Jamli, Bhagvanpura	OFT on assessment of performance of different varieties of summer green gram FLD on High yield Variety GAM-5 and Field day and training.
		Not follow proper weed management practices.	120	Jamli, Bhagvanpura	Training and Group meeting
		Not using IPM Module.	120	Jamli, Bhagvanpura	Training and Group meeting
7	Pigeon pea	Non use of improved varieties.	270	Golagamdi, Manjrol	FLD on High yield Variety / GJP-1 / GT-106 and Field day.
		Low productivity due to Non use of improved varieties.	170	Golagamdi, Manjrol	OFT on assessment of performance of different varieties under unirrigated and rainfed condition
		Not follow proper weed management practices.	170	Golagamdi, Manjrol	Training and Group meeting
		Not using IPM Module.	170	Golagamdi, Manjrol	Training and Group meeting

8	Sesame	Non use of improved varieties.	120	Vaniyadri	FLD on GT-5/3 and Field day.
9	Chilli	Non use of improved varieties.	120	Tokarva,Vaniyadri Fajalpura,Kathmandava	OFT on Assessment of Variety of Chilii Arka Harita and Kashi Gaurv. Training on cultivation Practices, IPM and INM
10	Okra	Low yield Use of YVM susceptible varieties. Poor Knowledge of improved cultivation practices Improper use of fertilizer and pesticides.	170	Shithol,Nana Butiyapura,Tokarva Ranbhun ghati Targol, sagadhra	OFT On Assessment of Varieties of Okra Training on improved cultivation Practices like INM,IPM
11	Tomato	Low yield Poor Knowledge of improved cultivation practices Improper use of fertilizer and pesticides.	220	Kalarani,Khodiya Panej,Fajalpura Ambapura,	OFT On Assessment of pest and disease resistant Varieties of Tomato Healthy seedling Provision Training on INM and IPM in tomato
		High infection of TLMV, Late blight Yield losses due to diseases	220	Kalarani,Khodiya Panej,Fajalpura Kathmandava	FLD on Arka Rakshak Healthy seedling Provision Training on improved cultivation Practices
12	Banana+ Cabbage	Not following inter cropping in banana	120	Ambapura,Muldhar Fajalpura,	FLD on Inter Cropping with Cabbage(1:4) Training on INM and Irrigation management FLD on Banana Special fertilizer
13	Kitchen Garden	• Poor health and nutritional status of farm families	100 Nos	Kacchata,, Sundarpura, Khodiya	FLD & Training on Kitchen garden (Nutritional security by kitchen garden) FLD on Vegetable Special fertilizer
14	Sorghum	Low yield of fodder	250	Vanyadri, sundarpur , saradiya,butiyapura	FLD on Cofs-29 and OFT on GAFS-11 , GAFS-12, CSV-46F
		Non use of improved varieties	170	Vanyadri, sundarpur , saradiya,butiyapura	FLD on Cofs-29

* Support with problem-cause and interventions diagram

3.2. Technology Assessment (Kharif 2023, Rabi 2022-23, Summer 2023)

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	1									1
Varietal Evaluation			2		2					4
Integrated Pest Management				1	1					2
Total	1		2	1	3					7

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

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Varietal Evaluation	Greengram	Assessment of performance of different varieties of summer Green gram under irrigated condition	03	03	1.2
	Pigeon pea	Assessment of performance of different varieties of Pigeon pea under un irrigated/ rainfed condition.	03	03	1.2
	Wheat	Assessment of INM in Wheat	03	03	1.2
	Tomato	Assessment of Verities of Tomato	03	03	1.2
	Okra	Assessment of Verities of Okra	03	03	1.2
Integrated Pest Management	Paddy	Assessment of technologies for the management of false smut disease in paddy	03	03	1.2
	Tomato	Assessment of pest and disease resistant varieties in Tomato	03	03	1.2
Total			21	21	8.2

B. 2. Technologies assessed under Livestock & fishery assessment

B.3 Technologies assessed under other enterprises

B 4.Technologies assessed under Women empowerment assessment

C. 1. Results of Technologies Assessed

OFT-1Assessment of performance of different varieties of summer Green gram under irrigated condition. (Summer-2023)

Title of OFT	Assessment of performance of different varieties of summer Green gram under irrigated condition.
Problem Identified	• Low productivity of Green gram due to non use of improved.
Objectives	To find out suitable variety
Micro-farming Situation	Irrigated, Medium black Soil, Rainfall 800-1000 mm
Treatments	T1 : Farmers practices : Green gram (cv.GAM-5)
	T2 : To be assessed : Green gram (cv.GM-6)
	T3 :To be assessed : Green gram (cv. Virat/IPM 205-7)
No. of Trials	03
Source of Technology	AAU.Anand (2015) NAU.Navsari(2018) IIPR,Kanpur (2016)
Critical Inputs to be used and its cost in Rs.	Seed of cv.GAM-5 cv.GM-6 cv. Virat/IPM 205-7 Cost 5000
Observations be recorded	Yield of Variety No. of seed per pods Wilt incidence percentage (%) Maturity days No. of branch per plant

1. Technical Observation:

Technology Option	No. of Seed per pods	Maturity days	Yield (qt/ha)	Net Return (Rs./ha)	B:C Ratio
T_1 : Farmers practices Green gram (cv.GAM-5)	5-6	75-80	11.00	64900	3.56
T_2 : To be assessed : Green gram (cv.GM-6)	6-7	75-82	12.10	73920	3.92
T_3 :To be assessed :Green gram (cv. Virat/IPM 205-7)	5-6	70-75	08.00	40300	2.59

Price@82/-Rs per Kg

OFT-2 Assessment of performance of different varieties of Pigeon pea under un irrigated/ rainfed condition (Kharif-2022)

Title of OFT	Assessment of performance of different varieties of Pigeon pea under un irrigated/ rainfed condition
Problem Identified	Low productivity of Pigeon pea due to Wilt & nonuse of improved varieties.
Objectives	To find out suitable variety
Micro-farming Situation	Irrigated, Medium black Soil, Rainfall 800-1000 mm
Treatments	Farmers Practice (T1) (cv.AGT 2)
	Assessed Practice (T2) (cv.GT 104)
	Assessed Practice (T3) (cv.GJP 1)
No. of Trials	03
Source of Technology	(T1) AAU, Anand (2011) (T2) NAU.Navsari (2018) (T3) JAU, Judagadh (2015)
Critical Inputs to be used and its cost in Rs.	Seed of cv.GT104 ,cv. GJP 1 (2kg) Cost Rs. 2000/-
Observations be recorded	Yield of Variety No. of seed per pods Wilt incidence percentage (%) Maturity days No. of branch per plant

1. Technical Observation:

Technology Option	No. of Seed per pods	Maturity days	Yield (qt/ha)	Increase in Yield (%)	Net Return (Rs./ha)	B:C Ratio
T1 -cv.AGT-2	4-5	150-170	14.00	-	50100	2.35
T2-cv.GT-104	5-6	150-165	15.50	11	59300	2.61
T3-cv.GJP-1	4-5	150-160	16.50	18	65500	2.78

Price 7600/-Rs. per Quintal

OFT-3 Assessment of Variety in Okra (Summer-2022)

Title	:	Assessment of Variety in Okra
Problem diagnose/defined	:	• Low yield • Use of YVM susceptible varieties. • Poor Knowledge of improved cultivation practices • Improper use of fertilizer and pesticides.
Details of technologies selected for assessment /refinement	:	Treatments T_1: Guj. Junagadh Okra Hybrid 4 T_2: Kashi Kranti T3: Arka Nikitha
Source of technology	:	JAU(2014-15), IIVR (2015 and 2011), IIHR (2017)
Production system & Thematic Area	:	Irrigated/ Sole vegetable
Thematic area	:	ICM
No. of Trials	:	03
Plot size and total area (ha)	:	1.20 ha (0.40 x3)
Spacing	:	45 x 20 cm
Performance indicator Indicator - I Indicator - II Indicator - III	: : :	Technical Observation:- • No. of Plant infected due to YVM at 30, 45, 60 DAP • Plant Population • Suitability of variety for area specific cultivation. Economic Indicator:- • Yield of variety • Benefit cost ratio Farmer Reflection:- • Fruit quality as per market demand. • Keeping quality of fruits.

Performance of technologies assessed:

Techno. Assessed	Source of Techno.	Production (Qt./ha)	Gross Return (Rs/Unit)	Cost of Cultivation	Net Return	BC Ratio
T1. GAO 5	AAU	106	159000	62580	96420	2.54
T2. Kashi Kranti	IIVR 2011	114	171000	66840	104160	2.55
T3. Arka Nikitha	IIHR 2017	158	237000	74560	162440	3.17

OFT-4 : Assessment of technologies for the management of false smut disease in paddy (Kharif-2023)

Problem Diagnosed	Higher infestation of false smut disease
Technology Assessed	**Treatments** **(T1)** Farmers practices (Conventional fungicides and recent chemicals are used as tank mixture with higher dose) **(T2)** To be assessed :Spray of *Tebuconazole 50% + Trifloxystrobin 25% WG* 0.06% (8 gm/10 liter of water) at the time of 50% panicle formation and second spray at the time of 100% panicle formation **(T3)** To be assessed : Spray of *Propiconazole 25EC* 0.0025% (10 ml/10 liter of water) at the time of boot leaf stage and second spray at the time of milking stage.
Source of technology	(T2) AAU, Anand (2021) (T3) NAU, Navsari (2020),
Year of technology	2021
Thematic area	IPM
No. of Trials	03
Total area (ha)	1.20
Technical Observation	• Incidence percentage at 60,75 and 90 days after transplanting.
Economic Indicator	Yield of Crop, Cost of Cultivation, Benefit Cost Ratio.

Performance of technologies assessed:

Techno. Assessed	Production (q/ha)	Cost of Cultivation(Rs/ha)	Gross Return (Rs/ha)	Net Profit (Rs/ha)	BC Ratio
T1 (Farmers Practices)	42	33400	92400	59000	2.8
T2 (To be assessed)	47	31800	103400	71600	3.3
T3 (To be assessed)	45	31650	99000	67350	3.1

Market price- 22 Rs./kg

OFT-5 Assessment of pest and disease resistant varieties in Tomato (Kharif-2023)

Problem Diagnosed	Yield loss due to high infestation of TLCV,BW and EB
Technology Assessed	T_1 : Farmers practices (Hybrids from private sectors) T_2 : To be assessed : Arka Samrat T_3: To be assessed : Arka Apeksha
Source of technology	ICAR-IIHR, Bengaluru
Year of technology	2016
Thematic area	IPM
No. of Trials	03
Total area (ha)	1.20
Technical Observation	➢ The plot will be divided into 15 equal blocks. From each quadrate, 5 plants will be selected randomly. ➢ 5 plant will be observed critically to record Tomato Leaf curl Virus, Bacterial wilt and Early Blight. ➢ No. of infected plant due to pest and disease at 30,60,90 DATP
Economic Indicator	➢ Yield of Crop, Cost of Cultivation, Benefit Cost Ratio

Performance of technologies assessed:

Techno. Assessed	Production (q/ha)	Cost of Cultivation(Rs/ha)	Gross Return (Rs/ha)	Net Profit (Rs/ha)	BC Ratio
T1 (Farmers Practices)	370	251400	462500	211100	1.83
T2 (To be assessed) Arka Samrat	412	240000	515000	275000	2.14
T3 (To be Assessed) Akra Apeksha	398	237350	497500	260150	2.09

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 suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Paddy	Varietal evaluation	New variety Paddy cv.GAR-13 & GAR-14	FLD, Exposure visit of demo field, Organized Field day, through training programme	45	720	1070
2	Greengram	Varietal evaluation	New variety greengram cv. GAM-5	FLD, Exposure visit of demo field, Organized Field day, through training programme, Providing the seed of the variety.	28	418	280
3	Pigeon pea	ICM	New variety Pigeon pea cv.AGT-2	FLD, Exposure visit of demo field, Organized Field day, through training programme, Providing the seed of the variety.	28	410	880
4	Blackgram	ICM	New variety Blackgramcv.PU-31	FLD, Exposure visit of demo field, Organized Field day, through training programme, Providing the seed of the variety.	10	75	50
5	Sesame	ICM	New variety Blackgramcv.GT-5	FLD, Exposure visit of demo field, Organized Field day, through training programme, Providing the seed of the variety.	2	25	24
6	Soybean	ICM	New variety Soybeancv.NRC-37/JS-20-34	FLD, Exposure visit of demo field, Organized Field day, through training programme, Providing the seed of the variety.	12	125	80
7	Chilli	Varietal evaluation	New variety Chilii cv.Arka Meghna	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	75	48
8	Tomato	Varietal evaluation	New variety Tomato cv ArkaRakshak	FLD, Exposure visit of demo field, Organized Field day, through training programme	17	159	56
9	Fodder Crop	Fodder Production	Sorghum Cofs-29	FLD, Exposure visit of demo field, Organized Field day, through training programme	30	145	50
10	Feed management	Feed managem ent	Mineral Mixture	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	150	50
11	Feed management	Feed managem ent	Bypass fat	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	50	50
12	Nutritional gardening	Recommend ed Seeds	monthly Savings	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	113	10
13	Banana + Cabbage	Intercropping	Intercropping in bananna and Cabbage	FLD, Exposure visit of demo field, Organized Field day, through training programme	4	50	10

B. Details of FLDs implemented during 2023 **(Kharif 2023, Rabi 2022-23, Summer 2023)** (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

1. FLD Cereals

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Paddy	ICM	Varietal (GR-21)	Kharif-2023	8	8	12	8	20	-
2	Wheat	NF	GW-451	Rabi-2023	6	6	0	16	16	
3	Maize	IPM	IPM	Rabi-2023	16	16	27	13	40	

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					
Paddy	Kharif-23	Irrigated	Medium Black	L	M	H	Maize	10/06/2023	10/11/2023	775	36
Wheat	Rabi-2023	Irrigated	Medium Black	L	M	H	Maize	1/02/2022	05/04/2023	-	-
Maize	Rabi-2023	Irrigated	Medium Black	L	M	H	Soybean	02/11/2023	-	-	-

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
Paddy	Pest and Disease infestation is less as compare to Local variety (GR-11).
Wheat	Soil fertility is improved due to Natural component.

Farmers' reactions on specific technologies

S. No	**Feed Back**
Paddy	Cooking quality is good and Lodging resistance variety.
Wheat	Market price of grain is more in NF.

Extension and Training activities under FLD

Sl.No.	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	**Remarks**
Paddy	Field days	1	11/10/2023	36	
2	Farmers Training	1	08/06/2022	12	

3	Media coverage	1	13/10/2023	5000	

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
Maize	Farmers Training	1	02/11/2023	23	
	Farmers Training	1	06/11/2023	40	

2. CFLD Oilseeds

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	FLD Sesame	Varietal Intro	ICM	Summer-23	20	20	21	22	43	-
2	FLD Soybean	Varietal Intro	ICM	Kharif-23	10	10	25	00	25	
3	CFLD Soybean	Varietal Intro	ICM	Kharif-23	10	10	25	00	25	

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					
FLD Sesame	Summer-23	Irrigated	Sandy Loam	L	M	H	Soybean	15/02/2023	22/05/2023	-	-
FLD Soybean	Kharif-23	RF	Sandy Loam	L	M	H	Cotton	22/06/2023	11/10/2023	775	36
CFLD Soybean	Kharif-23	RF	Sandy Loam	L	M	H	Cotton	04/07/2023	25/10/2023	775	36

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
1 FLD Sesame	Gujarat Til-5 Improved and Bold seeded variety of Sesame
2 FLD Soybean	Seed shattering problem is less in this variety
3. CFLD Soybean	Seed shattering problem is less in this variety

Farmers' reactions on specific technologies

S. No	**Feed Back**
1 FLD Sesame	Farmers are interested in Sesame crop because of the short duration and it is giving high profit due to the good market price as well as there is less expenses on pesticides and fertilizers
2 FLD Soybean	NRC-37 variety gives stable performance in water logged as well as dry condition
3. CFLD Soybean	NRC-37 variety gives stable performance in water logged as well as dry condition

Extension and Training activities under FLD

Sl.No.	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	**Remarks**
1. FLD Sesame	Field days	2	10,11/05/2023	41	-
	Farmers Training	4	13,14/02/2023 21/03/2023 13/04/2023	53	
2. FLD Soybean	Field days	1	05/09/2023	26	-
	Farmers Training	4	6,9,10/06/2023	108	

			06/07/2023 03/08/2023		
3. CFLD Soybean	Field days	1	25/09/2023	27	-
	Farmers Training	4	30/06/2023 03/07/2023 23/08/2023 05/09/2023	61	

3. FLD Pulses

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Blackgram	Varietal	Varietal	Kharif-2023	8	8	20	00	20	
2	CFLD Pigonpea	ICM	ICM	Kharif-2023	20	20	11	39	50	
3	Greengram	Varietal	Varietal	Summer-2023	10	10	11	14	25	

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					
Blackgram	Kharif-2023			L	M	H	Maize	01/07/2023	05/10/2023	775	36
CFLD Pigonpea				L	M	H	Pigeonpea	1/10/2022	10/03/2023	775	36
Greengram							Cotton	15/02/2023	15/05/2023	50	2

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
Blackgram	This variety also suitable in Kharif season
CFLD Pigonpea	
Greengram	This variety also suitable after Cotton-Greengram cropping system.

Farmers' reactions on specific technologies

S. No	**Feed Back**
Blackgram	YVM found less in this variety.
CFLD Pigonpea	Wilt problem observe very less.
Greengram	YVM found less in this variety.

Extension and Training activities under FLD

Sl.No.	**Activity**	**No. of activities organized**	**Date**	**Number of participants**	**Remarks**
Blackgram	Field day	01	20/09/2023	36	

CFLD Pigonpea	Field day	01	11/02/2023	20	
Greengram	Field day	01	04/05/2023	25	

4. FLD Other Crops

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Cotton Leaf spot and wilt disease	IDM	IDM	Kharif-2023	8	8	00	20	20	
2	Cotton Sucking pest	IPM	IPM	Kharif-2023	8	8	00	20	20	
3	Cotton Pink boll worn	IPM	IPM	Kharif-2023	8	8	11	09	20	
4	Cotton	Varietal	Varietal	Kharif-2023	5	5	02	18	20	

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					
Cotton Leaf spot and wilt disease	Kharif -23	Irrigated	Medium black	L	M	H	Sesame	15/06/2023	09/02/2023	775	36
Cotton Sucking pest	Kharif -23	Irrigated	Medium black	L	M	H	Maize	18/06/2023	07/02/2023	775	36
Cotton Pink boll worn	Kharif -23	Irrigated	Medium black	L	M	H	Maize	05/06/2023	07/02/2023	775	36
Cotton	Kharif -23	Irrigated	Medium black	L	M	H	Cotton	15/06/2023	10/02/2023	775	36

Technical Feedback on the demonstrated technologies

S. No.1	**Feed Back**
Cotton Leaf spot and wilt disease	Use of fungicides and bactericide in proper sequence giving good result to manage disease

Farmers' reactions on specific technologies

S. No.2	**Feed Back**
Cotton Sucking pest	Use of solar yellow steaky trap and alternate spray of bio pesticides and low doses of chemical pesticides has minimized the infestation of sucking pest
S. No.3	**Feed Back**
Cotton Pink boll worn	Use of Pheromone trap reduced no. of chemical pesticides sprays, which has minimized the cost of cultivation . It is safer for beneficial insects like beetles

Extension and Training activities under FLD

S.No.1	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	**Remarks**
Cotton Leaf spot and wilt disease	Field days	1	29/01/2024	32	
	Farmers Training	1	27/07/2023	19	
		1	10/08/2023	20	
		1	12/10/2023	04	

S.No.2	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	
Cotton Sucking pest	Field days	1	02/01/2024	37	
	Farmers Training	1	28/08/2023	20	
		1	04/10/2023	05	
S.No.3	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	
Cotton Pink boll worn	Field days	1	24/01/2024	28	
	Farmers Training	1	04/09/2023	20	
		1	12/09/2023	21	
		1	12/10/2023	06	
Cotton (GCH-21)	Field day	1			

	Farmer Training	1		20	

5. FLD Horticulture Crops

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Tomato	NF	Arka Rakshak	Kharif-22	5	5	16	0	16	-
2	Marigold	Varietal Intro	Pusa bahar	Rabi-22	2	2	-	5	5	-

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					
Tomato	Kharif-22	Irrigated	Sandy loam	L	M	H	Fallow	07/08/22	17-2—23	1038	48
Marigold	Rabi-22	Irrigated	Sandy loam	L	M	H	Fallow	15-8-23	25-2-23	1038	48

Technical Feedback on the demonstrated technologies

S. No	**Feed Back**
1 Tomato	Growth is affected in water logging condition.
2 Marigold	Variety is suitable for local area

Farmers' reactions on specific technologies

S. No	**Feed Back**
1 Tomato	Good firmness of fruit and good keeping quantity Fruit weight is more as compare to local hybrid

2 Marigold	Production is good and less incidence of sucking pest

Extension and Training activities under FLD

Sl.No.	Activity--Tomato	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	-			
3	Media coverage	01	7/08/2022	16	
4	Training for extension functionaries	01	04/11/22	27	
Sl.No.	**Activity- Merigold**	**No. of activities organized**	**Date**	**Number of participants**	**Remarks**
1	Field days	01	13/02/23	22	
2	Farmers Training	01	07/08/22	16	
4	Training for extension functionaries	01	04/11/22	27	

6. FLD – Other Enterprise
Details of Implementation

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Nos.		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Vermi Compost	Organic Farming	Vermibed	*Kharif-22*	20	20	0	20	20	--
2	Kitchen gardening	Nutritional Mang.	Kitchen gardening	*Kharif/Rabi-22*	100	100	0	100	100	--

Technical Feedback on the demonstrated technologies

S. No	Feed Back
Vermi Compost	• It improves soil texture & help in increasing the soil carbon.
Kitchen gardening	• Kitchen Garden helps in reducing the problems of mal nutrition by growing varieties of vegetables throughout year.

Farmers' reactions on specific technologies

S. No	Feed Back
Vermi Compost	• By adopting vermi compost proper utilizations of farm waste and help in reducing the cost of cultivation of fertilizers.
Kitchen gardening	• Farm women get variety of vegetables throughout year and save the cost of vegetables.

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										
Sesame Summer-23	ICM	ICM	GT-5	43	20	6.1	5.05	5.50	5.02	9.56	24800	63250	38450	2.55	26400	57730	31330	2.18
FLD Soybean Kharif-23	ICM	ICM	NRC-37	25	10	17.8	15.2	16.2	15.0	8.0	20250	76950	56700	3.8	23100	71250	48150	3.0
CFLD Soybean Kharif-23	ICM	ICM	NRC-37	25	10	17.6	15.1	16.4	15.0	9.33	20100	77900	57800	3.9	23550	71250	47700	3.0

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

Frontline demonstration on 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										
CFLD Pigeonpea Kharif-23	ICM	Varietal	GJP-1	20														
Blackgram Kharif-23	ICM	Varietal	Shyamal	20	8	6.5	6.0	6.2	5.5	12.7	18670	49600	30930	2.65	18500	44000	25500	2.37
Greengram Summer-23	ICM	Varietal	GM-6	25	10	12.0	9.0	11.0	9.0	22	25300	90200	64900	3.56	25150	73800	48650	2.93
Chickpea Rabi-23	ICM	Varietal	GG-5	30	12													

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

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy Kharif-23	ICM	Vertical GAR-21	20	4.0	50.5	40.5	45.0	42.0	7			32400	99000	66600	3.05	32750	92400	59650	2.82
Wheat																			
Millets																			
Jowar																			
Bajra																			
Barnyard millet																			
Finger millet																			
Vegetables																			
Tomato																			
Chilli																			
Flower crops																			
Marigold																			
Commercial Crops																			

Cotton **Kharif-23**	Varietal	Varietal GCH-24	20	4	22	16	16.2	14.5	25			38500	110160	71660	2.86	38250	98600	60350	2.57
Cotton **Kharif-23**	IPM																		
Cotton **Kharif-23**	IPM																		
Cotton **Kharif-23**	IPM																		
Maize **Rabi-23**	IPM																		
Fodder Crops																			
Sorghum (F)																			

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

FLD on Other enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit			
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Vermi Compost																

FLD on Other Enterprise: Kitchen Gardening

Nutrition garden components	Thematic area	Area (sq mt)	No. of Farmer	No. of Units	Yield (Kg)- supply of vegetables, fruits, etc from KG in the year		% change in yield	Household size (number)		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check*		Demo	Check	Gross Cost	Gross Return/Savings*	Net Return	BCR (R/C)	Gross Cost	Gross Return/ Savings*	Net Return	BCR (R/C)

***check maybe family adopting different Nutrition garden model/ no adoption of Nutrition garden model**
Savings from produce of Nutrition garden used for home consumption

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

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	18		18	2		2	20	0	20
Seed production	1			0	5	22	27	5	22	27
Integrated Crop Management	5	68		68	73		73	141	0	141
Others (pl. specify)	7	133	10	143	58	0	58	191	10	201
Total	**14**	**219**	**10**	**229**	**138**	**22**	**160**	**357**	**32**	**389**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	4	78		78	12		12	90	0	90
Others (pl specify)	1	1	1	2	28		28	29	1	30
Total (a)	**5**	**79**	**1**	**80**	**40**	**0**	**40**	**119**	**1**	**120**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	6	10	60	70	0	125	125	10	185	195
Value addition	7		66	66		20	20	0	86	86
Women empowerment	1		20	20			0	0	20	20
Women and child care	1		50	50			0	0	50	50
Total	**15**	**10**	**196**	**206**	**0**	**145**	**145**	**10**	**341**	**351**
VII Plant Protection										
Integrated Pest Management	3	33	11	44	27	14	41	60	25	85
Integrated Disease Management	3	58		58	31		31	89	0	89
Production of bio control agents and bio pesticides	2			0	49		49	49	0	49
Others (pl specify)	5	46	72	118	22	0	22	68	72	140
Total	**13**	**46**	**72**	**220**	**129**	**0**	**143**	**266**	**97**	**363**
X CapacityBuilding and Group Dynamics										
Leadership development	3	34	25	59	21		21	55	25	80
Group dynamics	4	118	4	122			0	118	4	122
WTO and IPR issues	1	10	10	20			0	10	10	20
Others (pl specify)	1	31		31			0	31	0	31
Total	**9**	**193**	**39**	**232**	**21**	**0**	**21**	**214**	**39**	**253**
GRAND TOTAL	**49**	**488**	**304**	**792**	**300**	**181**	**481**	**788**	**485**	**1273**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	23		23			0	23	0	23
Resource Conservation Technologies	1			0	30		30	30	0	30
Seed production	1			0	23		23	23	0	23
Integrated Crop Management	1	14	8	22			0	14	8	22
Others (pl specify)	4	70	22	92	13	1	14	83	23	106
Total	**14**	**219**	**10**	**229**	**138**	**22**	**160**	**357**	**32**	**389**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops	3	30	9	39	22	0	22	52	9	61
Others (pl specify)	3		4	4	55	32	87	55	36	91
Total (a)	**6**	**30**	**13**	**43**	**77**	**32**	**109**	**107**	**45**	**152**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	52	64	116			0	52	64	116
Value addition	8		97	97	17	139	156	17	236	253
Location specific drudgery reduction technologies	1		40	40			0	0	40	40

Women and child care	2		28	28	11	29	40	11	57	68
Total	**14**	**52**	**229**	**281**	**28**	**168**	**196**	**80**	**397**	**477**
X Capacity Building and Group Dynamics										
Leadership development	4	11	40	51	47	7	54	58	47	105
Others (pl specify)	1	19	18	37			0	19	18	37
Total	**5**	**30**	**58**	**88**	**47**	**7**	**54**	**77**	**65**	**142**
GRAND TOTAL	**40**	**285**	**339**	**624**	**308**	**209**	**517**	**593**	**548**	**1141**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	2	41	0	41	2	0	2	43	0	43
Resource Conservation Technologies	1	0	0	0	30	0	30	30	0	30
Seed production	2	0	0	0	28	22	50	28	22	50
Integrated Crop Management	6	82	8	90	73	0	73	155	8	163
Others (pl specify)	11	203	32	235	71	1	72	274	33	307
Total	22	326	40	366	204	23	227	530	63	593
II Horticulture	0	0	0	0	0	0	0	0	0	0
a) Vegetable Crops	0	0	0	0	0	0	0	0	0	0
Production of low value and high value crops	7	108	9	117	34	0	34	142	9	151
Others (pl specify)	4	1	5	6	83	32	115	84	37	121
Total (a)	11	109	14	123	117	32	149	226	46	272
Total	0	0	0	0	0	0	0	0	0	0
V Home Science/Women empowerment	0	0	0	0	0	0	0	0	0	0
Household food security by kitchen gardening and nutrition gardening	9	62	124	186	0	125	125	62	249	311
Value addition	15	0	163	163	17	159	176	17	322	339
Women empowerment	1	0	20	20	0	0	0	0	20	20
Location specific drudgery reduction technologies	1	0	40	40	0	0	0	0	40	40
Women and child care	3	0	78	78	11	29	40	11	107	118
Total	29	62	425	487	28	313	341	90	738	828
VII Plant Protection	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	3	33	11	44	27	14	41	60	25	85
Integrated Disease Management	3	58	0	58	31	0	31	89	0	89
Production of bio control agents and bio pesticides	2	0	0	0	49	0	49	49	0	49
Others (pl specify)	5	46	72	118	22	0	22	68	72	140
Total	13	137	83	220	129	14	143	266	97	363
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0
Leadership development	7	45	65	110	68	7	75	113	72	185
Group dynamics	4	118	4	122	0	0	0	118	4	122
WTO and IPR issues	1	10	10	20	0	0	0	10	10	20
Others (pl specify)	2	50	18	68	0	0	0	50	18	68
Total	14	223	97	320	68	7	75	291	104	395
GRAND TOTAL	89	857	659	1516	546	389	935	1403	1048	2451

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Production and use of organic inputs	3	80	0	80	0	0	0	80	0	80
Any other (pl.specify) NF	1	38	4	42	0	0	0	38	4	42
TOTAL	4	118	4	122	0	0	0	118	4	122

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Protected cultivation technology	1	31	0	31	0	0	0	31	0	31
Production and use of organic inputs	1	29	1	30	0	0	0	29	1	30
Low cost and nutrient efficient diet designing	1	0	20	20	0	0	0	0	20	20
TOTAL	3	60	21	81	0	0	0	60	21	81

Details of vocational training programmes carried out by KVKs for rural youth (4 or more days)

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Seed production	4	166	9	175	0	0	0	166	9	175

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	75	58072	0	58147
Field Day	12	284	12	308
Group discussions	19	458	11	488
Kisan Ghosthi	01	102	10	113
Film Show	49	1273	13	1335
Kisan Mela	2	1342	12	1356
Exhibition	7	4986	13	5006
Scientists' visit to farmers field	47	261	12	320
Farmers' seminar/workshop	13	935	10	958
Method Demonstrations	2	25	11	38
Celebration of important days	9	863	9	881
Special day celebration	17	878	12	907
Exposure visits	11	461	11	483
Others Lecture Delivered	63	5301	19	5383
Farmers Visit to KVK	49	1273	0	1322
Soil Water Sample	183	183	0	366
VBSY	310	117700	0	118010
Total	**869**	**194397**	**155**	**195421**

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

Details of other extension programmes:

Particulars	Number
Extension Literature	10
Newspaper coverage	37
Popular articles	1
TV Talks	9
Social Media (No. of platforms Used)	5
Total	**62**

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
Cereals	Paddy	GAR-13	-	37.80	-	In Storage
	Paddy	GAR-13	-	66.15	214360/-	46
Oilseeds	Pigonpea	BSMR-853	-	20.52	225720/-	57
	Soybean	NRC-37	-	14.75	118000/-	13
Pulses	Green gram	GAM-5	-	6.03	90450/-	39
	Green gram	GM-6	-	9.50	-	In Storage
Total				**154.75**	**648530/-**	

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal	F1	6750	8750	26
	Tomato	F1	44638	55706	106
	Chili	F1	12414	18570	61
	Cabbage	F1	54100	41600	27
	Onion	F1	10000	1200	1
	Cauliflower	F1	5670	4405	24
Flowers	Marigold	Pusabahar	10820	14820	17
Fruit Plant	Lime	Kagadi	73	730	5
	Drumstick	PKM-1	16	160	5
			144481	**145941**	**272**

Production of livestock materials

Particulars of Live stock	Name of the animal / bird / aquatics	Name of the breed	Type of Produce	unit (no./ lit/kg)	Quantity	Value (Rs.)	No. of Farmers
Dairy animals		Surti	Goat.	No.	28	183660	20
Poultry		**Ankleswer**	**Chicks**	**No.**	**123**	**38000**	**18**
Total					**151**	**221660**	**38**

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

A. KVK News Letter ((**Date of start-2012, Periodicity- Half yearly , number of copies distributed 3500.**):

B. Literature developed/published

Item	Citation/ Title	Authors name	Number
Research papers			
Technical reports	AGRESCO Meeting Reports ,ZREAC, APR,AAP	-	04
News letters	Half Yearly News letter	KVK-Vadodara	02
Technical bulletins			
Popular articles			
Extension literature	Millets and Natural Farming	KVK Vadodara	08
Others (Pl. specify)			
TOTAL			

D. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	No of events (uploaded video/post/story etc.	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel (no of video uploaded)	**02**	Vadodara KVK	116
2	Facebook page/ Account (no of Post)	**13**	Kvk Mangalbharti Vadodara	1010
4	WhatsApp groups	**96**	**Farmers Group**	**7678**
5	Twitter Account	**22**	Krishi Vigyan Kendra - Vadodara @kvkvdr	**188**

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

The Broad outline for the case study may be

Title

Background

Interventions
- Process
- Technology

Impact
- Horizontal Spread
- Economic gains
- Employment Generation

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

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK

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

A. Practicing Farmers

a)

b)

c)
B. Rural Youth
a)
b)
c)
d)
C. In-service personnel
a)
b)
c)

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) Others if any

For FLD:

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

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**
Anand Agricultural University, Anand	Technical Support
Model farm, Anand Agricultural University, Vadodara	Technical Support
State Department of Agriculture, and Dept. of Agriculture, District Panchayat, Vadodara / Chhotaudepur	Technical / Financial Support
State Dept. of Horticulture, Vadodara/ Chhotaudepur	Technical / Financial Support
National Horticulture Mission, Vadodara / Chhotaudepur	Technical / Financial Support
Dept. of Animal Husbandry, Vadodara / Chhotaudepur	Technical / Financial Support
ATMA Project, Vadodara / Chhotaudepur	Technical / Financial Support
Central ware housing Corporation	Technical Support
APMC Vadodara / Chhotaudepur	Technical / Financial Support
District Watershed Development Unit, Vadodara / Chhotaudepur	Technical Support
Main Research Station (Cotton), Surat, Navsari Agricultural University	Technical Support
National Bank for Agriculture and Rural Development (NABARD),Vadodara/Chhotaudepur	Technical Support
LEAD Bank Bank Of Baroda/State Bank of India	Technical Support
GGRC	Technical Support
GSFC	Technical Support
Baroda Swarojgar Vikas Sansthan, Vadodara / Chhotaudepur	Technical Support
PrakurtiFoundation ,Zalod	Technical Support

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

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(State Govt./Other Agencies)	Amount (Rs.)

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district?

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	AGB Meeting, Convergence meeting FSI Meeting DFAC Meeting	04	04	-
02	Training programmes	Sponsor Training	01	01	41
03	Kisanmela	Kisanmela	01	01	362
04	Exhibition	Exhibition	01	01	362
05	Extension Programmes	Lecture Delivered	10	-	76
06	Award Verification	Field Visit for Award Verification	07	-	48

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

S. No	Feed Back
Black gram (cv.PU-31)	YVM infestation not found in this variety and Mature earlier as compare to Local variety
Black gram (cv.PU-40)	YVM infestation very less in this variety
Cotton (cv.GAWMH-2) Cotton (cv.Narmdamoti)	• Due to short duration of variety cv. GAWMH-2 & Narmada Moti is benefitted to cotton crop.. • It is highly suitable of domestic (food)/ rotala) purpose
Ovsynch Protocol in buffalo	Reduce inter calving and dry period ,increase milk production
Backyard Poultry (breed)	Fast growth rate and higher egg production as compared to local native.
Okra (cv.GAO-5)	• Fruits are long and tender with dark green colour help in getting more market price • Very less infestation of YVM
Tomato (cv.AT-3) Tomato (cv.GAT-5)	• GAT-5 gives higher yield then AT-3 • Infestation of TLMV is higher in AT-3 var. as compare to GAT-5 • It is required to work for minimizing fruit cracking while transportation.
Cotton (IPM)	Use of Pheromone trap and bio-pesticides reduced no. of chemical pesticides sprays, which has minimized cultivation cost. It is safer for beneficial insects like beetles.
Brinjal (IPM)	The adoption of IPMstrategies decreased the No. of chemical pesticides spray and cost of production without affecting the yield.
Maize (IPM)	• Farmers convinced to use bio-pesticides and chemical pesticides for management of pests in maize • By using bio and chemical pesticides in proper sequence, expense on pesticides can be reduced.

Wheat (cv.GW-451)	• Farmers were convinced to adopt new verity of Wheat (GW-451) • Production of GW-451 higher than GW-496
Cotton (INM)	INM increase the yield and quality of cotton. Reduce the cost of Cultivation
Chilli (IWM)	Less labour costing and good initiat growth. Lower infection of sucking pests. 7
Sorghum (cv.COFS-29)	This Variety gave higher green fodder yield as compare to local variety Green fodder availability throughout the year
Supplementary feeding of Mineral mixture in Buffalo	Farmers were convinced to adopt supplementary feeding of Mineral mixture Increase the Milk production
Feeding of Bypass protein in Cow	Farmers were convinced to adopt supplementary feeding of Bypass protein Increase the Milk production
Cotton Picking Bags	• Farm women convinced to use Cotton picking bags because of saving time, and physical energy. • Use of Cotton picking bags also increases the working efficiency.
Kitchen gardening	Farm women are ready to adopt kitchen garden because of variety of vegetables available for their food. Farm women save the expenses as against vegetables purchases.
Soybean cv.JS-20-29	Seed shattering problem is less in this variety. Variety gives stable performance in water logged and dry condition
Pigeon pea cv.AGT-2	Wilt problem is less as compare to Vaishali variety and INM also increase the growth and yield of plant.
Green gram cv.GAM-5	YVM resistance variety and Market rate more due to bold seed size.

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

S. No	Feed Back
Soybean cv.NRC-37	• It is needed to work more on develop of pest resistance/tolerance for the variety.
Black gram cv.PU-31	Better weed management found due to adoption IWM and Plant growth found better due to adoption INM and found resistance against YVM virus
Pigeon pea cv.AGT-2	Less sterility mosaic as compare to BDN-2 variety.
Green gram cv.GAM-5	INM increase growth of plant and size of seed and found resistance against YVM virus
Cotton (IPM)	• Pheromone traps, bio-pesticides has minimized the infestation of pink boll worm and good quality cotton was harvested • There is need to develop pink boll worm pest resistant varieties of cotton.
Maize (IPM)	• Use of Carbofuran for stem borer management(During 30-45 DAS) in maize has given good results • By using bio and chemical pesticides in proper sequence, expenses on pesticides can be reduced.
Wheat (cv.GW-451)	• In GW-451 variety more tillers(19-28)/ plants found as compare to local check(GW496)(19-25)
Cotton (INM)	Due to seed treatment of NPK consortium germination found better.
Chilli	• Weed competition is less during 2 months after translating, • Good plant growth due to less weeds. • Less no. of weeds/ units area (sq.mt)
Sorghum(F) cv. COFS-29	Needs seeds availability of improved variety. Suitable for assured irrigated area.
Supplementary feeding of Mineral mixture in Buffalo	Milk yield and fat percentage has increased and get more market price.
Feeding of Bypass protein in	Supplementary feeding for dairy animals to increase milk and fat percentage

Cow	
Kitchen gardening	Kitchen garden fulfill the requirement of **Carbohydrates**, **Vitamins**& Minerals to human diet By Kitchen garden green vegetable available round the year.

11. Technology Week celebration during 2023 : No

13. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

B. Cases of large scale adoption
(Please furnish detailed information for each case)

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

14. Kisan Sarthi Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2023	09	7876	
Feb 2023	09	7876	
March 2023	09	7876	
April 2023	09	7876	
May 2023	09	7876	
Jun 2023	09	7876	
Jul 2023	09	7876	
Aug 2023	09	50196	
Sept 2023	09	50196	
Oct 2023	09	50196	
Nov. 2023	09	50196	
Dec. 2023	09	7876	

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only			92		16		108
	Voice only							
	Voice & Text both							
	Total Messages			**92**		**16**		**108**
	Total farmers Benefitted			**7876**		**50196**		**58072**

15. 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	Vermicompost Unit	2016-17	0.05	-	Compost				
2	Goatry Unit	2016-17	0.05	Surti	Breed				
3	Poultry Unit	2016-17	0.05	Ankelshwar/ Kadaknath	Eggs Birds				
4	Vegetable & Nursery Unit	2010-11	0.20	F1Hyb	Seedling				

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.	Cost of inputs	Gross income	
Cereals									
Paddy				GAR-13	Seed	37.80		-	In Storage
Paddy				GAR-13	Seed	66.15		214360	
Pulses									
Greengram				GAM-5	Seed	6.03		90450	
Greengram				GM-6	Seed	9.50		-	In Storage
Oilseeds									
Pigonpen				BSMR-853	Seed	20.52		225720	
Soybean				NRC-37	Seed	14.75		118000	
Fruits									
Vegetables									
Others (specify)									

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	

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)
January **2023**	42	15	
February **2023**	0	0	
March **2023**	0	0	
April **2023**	30	03	
May **2023**	51	15	
June **2023**	0	0	
July **2023**	37	15	
August **2023**	44	15	
September **2023**	0	0	
October **2023**	0	0	
November **2023**	0	0	
December **2023**	0	0	

H. Performance of Nutritional Garden at KVK farm
If Nutritional Garden developed at KVK farm/Village Level? Yes/No
If yes,

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
	Vegetable crops		
	Fruit crops		
	Others if any		

Nutritional Garden developed at Village Level (Area under nutritional garden)

No. of Villages covered	**Component of Nutritional Garden**	**No. of species / plants in nutritional garden**	**No. of farmers covered**
	Vegetable crops		
	Fruit crops		
	Others if any		

17. 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	Sankheda	3497	Mangalbharti Krishi Vigyan Kendra	10683587608	391002514	SBIN0003497

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	18546000	15502000	15370607
2	**Traveling allowances**	100000		
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and Equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)				
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)				

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				**2144343.38**
April 2019 to March 2020	**2144343.38**	**1317193.00**	**2146311.47**	**1315224.91**
April 2020 to March 2021	**1315224.91**	**1626811.00**	**1357013.00**	**1585022.91**
April 2021 to March, 2022	**1585022.91**	**3322283.00**	**2014188.67**	**2893117.24**
April 2022 to March 2023	**2893117.24**	**2697119.00**	**1372681.00**	**4217555.24**
April 2023 to Dec 2023	**4217555.24**	**2472259.00**	**2216332.55**	**4473481.69**

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/Offline)	Dates

21. 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

Sr. No	Name of KVK	Date	***Activity***	No of VIPs	No of Farmers	Others	Total

21. Books published 2023-24

Title of the Book	Authors	ISBN No	Publisher	Pages No	Description/review of the book (one paragraph/sentence)

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

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. **Training Programmes**

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women				
Rural youths				
Extension functionaries				
Sponsored Training				
Vocational Training				
Total				

2. **Frontline demonstrations**

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds			
Pulses			
Cereals			
Vegetables			
Other crops			
Hybrid crops			
Total			
Livestock & Fisheries			
Other enterprises			
Total			
Grand Total			

3. **Technology Assessment & Refinement**

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops			
Livestock			
Various enterprises			
Total			
Technology Refined			
Crops			
Livestock			
Various enterprises			
Total			
Grand Total			

4. **Extension Programmes**

Category	No. of Programmes	Total Participants
Extension activities		
Other extension activities		
Total		

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only							
	Voice only							
	Voice & Text both							
	Total Messages							
	Total farmers Benefitted							

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)		
Planting material (No.)		
Bio-Products (kg)		
Livestock Production (No.)		
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil		
Water		
Plant		
Total		

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	
2	Workshops	
3	Conferences	
4	Meetings	
5	Trainings for KVK officials	
6	Visits of KVK officials	
7	Book published	
8	Training Manual	
9	Book chapters	
10	Booklet	
11	Leaflets/ Folder/ Pamphlet	
12	Research papers	
13	Technical Bulletin	
14	Popular article	
15	Lead papers	
16	Seminar papers	
17	Extension folder	
18	Proceedings	
19	Award & recognition	
20	On-going research projects	
21	Other	