

**ICAR-ATARI, Pune**  
**DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2021**  
 (January 2021 to December 2021)

**1. GENERAL INFORMATION ABOUT THE KVK**

**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	-	<a href="mailto:kvkvdr@gmail.com">kvkvdr@gmail.com</a>	<a href="http://www.kvkvadodara.org">www.kvkvadodara.org</a> (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	-	<a href="mailto:kvkvdr@gmail.com">kvkvdr@gmail.com</a>	<a href="http://www.kvkvadodara.org">www.kvkvadodara.org</a>

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

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

**1.4. Date and Year of sanction: 1995**

### 1.5. Staff Position (as on December, 2021)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
					Current Pay Band	Current Grade Pay		
1.	Senior Scientist and Head	Dr.B.M.Mehta	9426834346	Horticulture	37400-9000-67000	9000	17/09/2013	
2.	Subject Matter Specialist	C. R. Patel	9725017823	Agronomy	15600-5400-39100	5400	23/06/2011	
3.	Subject Matter Specialist	M. C. Brahmbhatt	9909033890	Horticulture	-do-	5400	11/07/2011	
4.	Subject Matter Specialist	J. P. Meena	8238591551	Animal Science	-do-	5400	07/07/2011	
5.	Subject Matter Specialist			Home Science	VACANT			
6.	Subject Matter Specialist	B. L. Dhayal	9879013551	Ext.Edu	-do-	5400	23/08/2013	
7.	Subject Matter Specialist	V.D.Patel	9099216798	Plant Protection	-do-	5400	06/02/2017	
8.	Programme Assistant	K. K. Sutaria	8238089309		9300-4200-34800	4600	01/12/2008	
9.	Computer Programmer	M.R.Kulkarni	9429824313		-do-	4600	21/01/2008	
10.	Farm Manager	Hariom Sharma	9437227991		-do-	4200	02/09/2013	
11.	Accountant/Superintendent	V.V.Shah	8238089320		-do-	4600	04/06/2001	
12.	Stenographer	C.M.Raval	9265712399		5200-2400-20200	2400	02/09/2013	
13.	Driver 1	R.N.Prajapati	8238089304		5200-2000-20200	2400	17/01/2008	
14.	Driver 2	Z. S.Vora	8238089376		-do-	2000	27/06/2011	
15.	Supporting staff 1	P.B.Rathwa	8238089311		5200-1800-20200	1900	05/09/2003	
16.	Supporting staff 2	J.R.Tadvi	9904123920		-do-	1900	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 grant Poor 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
20-01-2021	1. <b>Sh. Dhirubhai B. Desai</b> Chairman, Mangalbharti Trust.	1. Vadodara district was bifurcation in 2013 and KVK-Vadodara falls under the jurisdiction of new established district Chhotaudepur. Therefore, change the name of KVK-Vadodara to KVK-Chhotaudepur at ICAR and ATARI level.	The issue was discussed with AAO, ATARI, Pune so many times. As per their view the problem solve after the establishment of new KVK in Vadodara. The same was also discussed during Zonal workshop in August-2021.
	2. <b>Dr.H.B.Patel</b> DEE, AAU, Anand	2. Introduce and demonstrate the varieties of Napier Grass in the district for Green fodder availability to milch animals.	Introduce Napier Variety CO-3 and demonstrations conducted on 55 farmer's field in three blocks i.e Sankheda, Bodeli & Pavi Jetpur.
	3. <b>Dr.A.K.Singh</b> Prin. Scientist & Head, ICAR-IISWC,Vasad	3. Develop demonstration unit on Animal Husbandry / live stock for advance and scientific management of animal husbandry training.	KVK submit a proposal for Indigenous GIR cow dairy unit to ATARI under the project setting up of Demonstration units for Establishment of Integrated Cow-based Socio Economical Model of Indigenous Cows at existing KVKs.KVK already had a goatery & back yard poultry unit
	4. <b>Dr.N.I.Shah</b> Professor & Head, Dept. of Horti., BACA,AAU,Anand.	4. Demonstrate the multilayer farming technologies at KVK farm and farmers field.	KVK plan to develop Natural farming unit on instructional farm. It will be possible after cutting of Eucalyptus plantation during next season.
	5. <b>D.N.Patel</b> Proj.Director. ATMA-Chhotaudepur	5. Introduce and demonstrate the new varieties of Soybean in Chhotaudepur district.	KVK demonstrated the new Soybean Variety JS-20-34 under CFLD programme.
	6. <b>Dr.P.K.Sharma</b> Senior . Scientist & Head, KVK Kheda	6. Introduce and demonstrate the new varieties of pulses and Maize in Chhotaudepur district.	KVK demonstrated the new variety of Greengram (GM-6) and Pigeon pea variety (GT-106) in FLD/ OFT trials.
	7. <b>Dr. S.K.Raval</b> Professor , Dept. of Medicine, Veterinary College, AAU, Anand	7. Arrange the training programme on IPM for input dealers.	KVK organized 4 training programme on IPM for input dealers. Total 164 dealers were participated in this programme.
	8. <b>Dr. R.G. Machhar</b> Unit Head, Pulse research station,AAU,	8. Aware the input dealers and farmers regarding non use of banned pesticides.	Aware the input dealers during IPM training programme and aware the farmers during on / off campus training and other extension activities of KVK.
	9. <b>R.N.Puwar</b> Range Forest officer, Bodeli	9. Promote agro forestry and aware the farmers about availability of agro forestry plant from forest department nurseries.	KVK conducted the training programme on farm border plantation and distributed the Drum stick, Mango and Lemon plants to the DFI villages. Also inform the farmers regarding forest nurseries nearby their villages.
	10. <b>M.N.Devda</b> IPO ,DIC, Chhotaudepur		
	11. <b>Shubhas Somabhai Rathwa</b>		
	12. <b>Ms. Jasodaben Tarbada</b> Progressive Women farmer.		
	13. <b>Piyush J. Bariya</b> <b>Horticulture Officer, Chhotaudepur</b>		
	14. <b>Dr.D.J.Patel</b> Veterinary Officer, Sankheda		
	15. <b>Dr.V.K.Garasia</b> Dept.Dir Animal Husbandry, D.P.Chhotaudepur		
	16. <b>S.N.Bhagriya,</b> District Agriculture Officer Chhotaudepur		
	17. <b>A.M.Patel</b> <b>Dy. Director Horticulture, Vadodara</b>		
	18. <b>Kalpesh Patel</b> <b>Assit. Director, Agri.sub.div. Dabhoi</b>		
	19. <b>Kundal Lal</b>		

<p> <b>LDM, Chhotaudepur</b>  <b>20. Tushar Deore, DDM, Nabard</b>  <b>21. Kartik Maharaja, DOF, SF, Vadodara</b>  <b>22. Trabada Rameshbhai Mothibhai</b>  Progressive Farmer  <b>23. Daydip Desai,</b>  Assit. Prof, DEE, AAU, Anand.    <b>24. Parmar Dilipsinh Damnansinh</b>  Progressive Farmer  <b>25. Baria, Dineshbhai Chimanbhai</b>  Progressive Farmer  <b>26. Harsad P. Padiyar,</b>  Irrigation Sub.Div. Vadodara  <b>27. Sh.M.M.Baira</b>  Irrigation Dept. Sankheda  <b>28. Dr.B.M.Mehta</b>  Seni. Scientist &amp; Head, KVK Vadodara  <b>29. Sh. C.R.Patel</b>  SMS ( Agronomy), KVK- Vadodara  <b>30. Sh. J.P.Meena</b>  SMS (Animal Science), KVK- Vadodara  <b>31. Sh. M.C.Bhrambhatt</b>  SMS (Horticulture), KVK- Vadodara.  <b>32. Sh. B.L.Dhayal</b>  SMS ( Agril. Extension), KVK- Vadodara  <b>33. Sh. V.D.Patel</b>  SMS ( Plant. Protection), KVK- Vadodara  <b>34. Sh. Keyur Patel</b>  SMS (Agromet) KVK Vadodara  <b>35. M.R.Kulkarni</b>  Prog. Assistant, (Comp.) Vadodara </p>	<p>10. To study the affect of climate change on milch animals in collaboration with Veterinary Collage, AAU, Anand.</p>	<p>AAU scientists collected the blood samples from four villages in two blocks and analyzed the samples and found that all the sample were negative for the haemoprotozoal infection by Giemsa stain.</p>
	<p>11. To Study and analyze the water quality of different rivers and canal.</p>	<p>KVK analyzed the water quality of rivers and canals.</p>
	<p>12. Associate with banks for financial literacy &amp; awareness on different bank schemes for the farmers during KVK training programme and activities.</p>	<p>Bank officials invited in many training programmes, but due to unavailability of time and shortage of staff they were not able to come in all training programme. . This year officers from SBI, Central Bank of India &amp; ICICI bank were attended and guided the farmers in four programmes.</p>
	<p>13. For implementation of FLDs on floriculture and Vegetables, use PPP mode channel for introduction of new technologies.</p>	<p>KVK laid down FLDs on floriculture crops like Marigold Var. <i>Pusa Bahar</i> from IARI and Chrysanthemum Var. <i>Bhagyashree White, Pramila Yellow, Sharvari Purple</i> from Private nursery, Pune and Vegetable crops like Tomato var. Arka Rakshak, Arka Apeksha, Arka Samrat and Chilli Var. <i>Arka Meghna, Arka Haritha</i> from IIHR and Eagle &amp; Nisha from pvt.secter during the year.</p>
	<p>14. Introduce semi rabi variety of Sesame released by AAU, Anand</p>	<p>As per the conversation with Scientist of AAU and JAU, there is no any specific new recommendation of sesame variety for Semi rabi season.</p>
	<p>15. Aware the farmers about cultivation of Bamboo and submit the proposal for development of bamboo nursery at KVK under National Bamboo mission scheme.</p>	<p>Aware the farmers regarding plantation of bamboo on border as well as sole plantation. Plant the bamboo on KVK farm border. Try to collect the different varieties of Bamboo for nursery from forest department but unable to get the materials.</p>
	<p>16. Write a letter to Director ATARI for release of funds for CFLDs and DAMU projects.</p>	<p>Wrote a mail and discussed with AAO, ATARI, and Pune. Grant for CFLDs was received in March-21, still facing the problems of release of funds for CFLDs and DAMU project.</p>



## 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 <b>Low to medium in N &amp; P Content</b>	208646
3	Sandy loam	Highly erosive, Shallow to medium in depth, Poor permeability <b>Low to medium N &amp; P content</b>	174021
4	Sandy	<b>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.</b>	36305
5	Salt affected	<b>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</b>	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)
<b>A</b>	<b>Kharif :</b>						
1	Cotton (Lint)	81044	342768	7.19	80978	57926	7.16
2	Pigeon Pea	31321	40600	12.99	20562	22618	11.00
3	Paddy	34698	68700	19.80	21362	33666	15.76
4	Maize	600	1100	17.70	30903	17400	5.60
5	Bajara	900	1600	16.50	0	00	0
6	Castor	48719	99200	20.36	4220	9039	21.42
7	Green gram	47	16	3.40	200	82	3.34
8	Black gram	87	50	5.74	73	42	5.64
9	Soybean	11100	18300	16.44	10100	17300	17.07
<b>B</b>	<b>Rabi</b>						
1	Maize	5000	11200	22.57	25100	64700	25.80
2	Wheat	23300	60300	25.83	400	1300	34.71
3	Gram	300	400	14.49	200	300	13.57
<b>C</b>	<b>Summer</b>						
1	Groundnut	22	47	21.36	100	400	21.55
2	Bajara	4000	9000	22.41	0	0	0
3	Green gram	408	300	6.39	481	291	4.26
4	Sesamum	162	79	4.87	133	63	4.73
	<b>Horticultural crops</b>						
1	Fruits	19441	672106	34.57	12270	590684	48.14
2	Vegetables	31274	577075	18.45	14564	285428	19.60

Source: District agriculture department.

## 2.5. Weather data (2021)

Month	Rainfall (mm)	Temperature (° C)		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
Jan-21	0	0.0	0.0	0.0	0.0
Feb-21	0	0.0	0.0	0.0	0.0
Mar-21	0	0.0	0.0	0.0	0.0
Apr-21	0	40.4	23.1	74.3	13.6
May-21	23	39.5	26.9	79.6	28.5
Jun-21	121	36.4	26.5	89.8	46.5
Jul-21	226	34.2	26.7	93.6	60.1
Aug-21	153	32.2	25.7	98.7	68.9
Sep-21	407	31.5	25.5	100.0	79.2
Oct-21	57	33.8	22.8	96.1	46.9
Nov-21	9	33.3	19.8	75.0	29.8
Dec-21	43	23.9	13.8	93.0	46.7
Annual	1038	33.9	23.4	88.9	46.7

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

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

## 2.7. Details of Operational area / Villages

SI No	Tehsil	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Sankheda	Sankheda	<b>Saradiya, Raipur, Sundarpura, Kathmandva, Targod, Navapura, Ambapura, Vagetha, Deroli, Amalpur, Kapdiya, Fajalpur, Bamroli, Kandewar</b>	<b>Kharif</b> Cotton Pigeonpea Castor Banana Vegetables  <b>Rabi</b> Maize  <b>Summer</b> Greengram Groundnut	<b>Cotton :</b> 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  <b>Pigeon pea</b> 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  <b>Castor</b> 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	INM IWM IPM Water Mgt.  ICM INM IPM IWM  ICM INM IWM IPM  ICM IPM IDM

					<b>Banana</b> 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 <b>Maize</b> 1. Use of higher seed rate 2. Improper spacing 3. Higher application of nitrogenous fertilizer 4. Improper water management <b>Greengram</b> 1. Use of local seeds 2. Use of higher seed rate 3. Improper water management 4. Improper pest and disease management	IWM  ICM INM IWM  ICM IPM
2.	Naswadi	Naswadi	<b>Dhamasiya,Po chamba,Payak ui,Kolamba,Ak ona.Saripani</b>	<b>Kharif</b> Cotton Paddy Castor  <b>Rabi</b> Wheat Gram  <b>Summer</b> Greengram Groundnut	<b>Paddy</b> 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 <b>Wheat</b> 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 <b>Greengram</b> 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.	Waghodia	Waghodia	<b>Goraj, Rojyapura,Nur puri,Dolapura.</b>	<p><b>Kharif</b> Cotton, Pigeonpea, Castor Vegetables</p> <p><b>Rabi</b> Maize Gram</p> <p><b>Summer</b> Greengram</p>	<p><b>Cotton :</b> 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4. Problem of pest &amp; diseases 5. Depends only on manual weeding</p> <p>Pigeonpea 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</p> <p>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</p> <p>Maize 1. Use of higher seed rate 2. Improper spacing 3. Higher application of nitrogenous fertilizer 4. Improper water management</p> <p>Greengram 1. Use of local seeds 2. Use of higher seed rate 3. Improper water management 4. Improper pest and disease Management</p>	<p>INM IWM IPM Water Mgt.</p> <p>ICM INM IPM IWM ICM INM IWM IPM</p> <p>ICM INM IWM</p> <p>ICM IPM</p>
4.	Kawant	Kawant	<b>Khatiyawat, Baladgam, Mudamore,Kh erka,Karajwan t,Raypur,Pipla da,Kanlalva , Gordha,Jamba . Mankodi</b>	<p><b>Kharif</b> Cotton, Pigeonpea, Castor Vegetables</p> <p><b>Rabi</b> Maize Gram</p> <p><b>Summer</b> Greengram</p>	<p><b>Cotton :</b> 1. Higher application of nitrogenous fertilizers 2. Improper water management 3. No use of micronutrients 4. Problem of pest &amp; diseases 5. Depends only on manual weeding</p> <p><b>Pigeonpea</b> 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</p> <p><b>Maize</b></p>	<p>INM IWM IPM Water Mgt.</p> <p>ICM INM IPM IWM ICM INM IWM IPM</p> <p>ICM INM</p>

					1. Use of higher seed rate 2. Improper spacing 3. No use of micronutrients 4. Higher application of nitrogenous fertilizer 5. Improper water management	IWM
5.	Pavijetpur	Pavijetpur	<b>Ranbhunghati, Butiyapura, Kallarani, Haripura,</b>	<b>Kharif</b> Cotton, Pigeonpea, Castor Vegetables <b>Rabi</b> Maize Gram <b>Summer</b> 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. Inadequate 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 5. Improper water management	INM IWM IPM Water Mgt.  ICM INM IPM IWM  ICM INM IWM
6	Bodeli	Bodeli	<b>Kapdiya, Nana Butiyapura, Ranbhunghati, Mota Butiyapura, Navapura, Kathmandva, Pitha, Bhagwanpura, Dhroliya, Vaniyadri, Kosum, Amalaug, Tandlaja, Khodiya, Dholpur,</b>	<b>Kharif</b> Cotton Pigeonpea Castor Banana Vegetables  <b>Rabi</b> Maize  <b>Summer</b>	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	INM IWM IPM Water Mgt.  ICM INM IPM IWM  ICM

			Timbi, Ladhod, Desan, Sajva, Dhebarpura,D eroli,Gordhan pura,MotaRas ka.	Greengram Groundnut	<p>Castor</p> <ol style="list-style-type: none"> <li>1. Use of higher seed rate</li> <li>2. Improper spacing</li> <li>3. Indiscriminate use of fertilizer</li> <li>4. Improper water management</li> <li>5. Problems of wilt, rootrot and semi looper</li> </ol> <p>Banana</p> <ol style="list-style-type: none"> <li>1.No use of tissue culture plants</li> <li>2. Not follow seed treatment to rhizome</li> <li>3. Excess use of fertilizer</li> <li>4. Excess use of water</li> <li>5. Improper disease management</li> </ol> <p>Maize</p> <ol style="list-style-type: none"> <li>1. Use of higher seed rate</li> <li>2. Improper spacing</li> <li>3. Higher application of nitrogenous fertilizer</li> <li>4. Improper water management</li> </ol> <p>Greengram</p> <ol style="list-style-type: none"> <li>1. Use of local seeds</li> <li>2. Use of higher seed rate</li> <li>3. Improper water management</li> <li>4. Improper pest and disease management</li> </ol>	<p>INM IWM IPM</p> <p>ICM IPM IDM IWM</p> <p>ICM INM IWM</p> <p>ICM IPM`</p>
7.	Chhotaud epur	Chhotau depur	Dhandoda,Rai pur,NaniDuma li,MotiDumali, Rojkuva , Kanas, Rangpur, Gunata	<p><b>Kharif</b> Cotton, Pigeonpea, Castor Vegetables</p> <p><b>Rabi</b> Maize Gram</p> <p><b>Summer</b> Greengram</p>	<p><b>Cotton :</b></p> <ol style="list-style-type: none"> <li>1. Higher application of nitrogenous fertilizers</li> <li>2. Improper water management</li> <li>3. No use of micronutrients</li> <li>4.Problem of pest &amp; diseases</li> <li>5. Depends only on manual weeding</li> </ol> <p><b>Pigeonpea</b></p> <ol style="list-style-type: none"> <li>1. Improper spacing</li> <li>2. Use of higher seed rate</li> <li>3. No use of micronutrients</li> <li>4. Improper pest and disease management</li> <li>5. Improper water management</li> <li>6. Depends only on manual weeding</li> </ol> <p><b>Maize</b></p> <ol style="list-style-type: none"> <li>1. Use of higher seed rate</li> <li>2. Improper spacing</li> <li>3. No use of micronutrients</li> <li>4. Higher application of nitrogenous fertilizer</li> <li>5. Improper water management</li> </ol>	<p>INM IWM IPM Water Mgt.</p> <p>ICM INM IPM IWM ICM INM IWM IPM</p> <p>ICM INM IWM</p>

## 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
08	08	38	38	20	19	496	447

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
87	119	2480	3478	550	1104	21259	15980

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
205 (qtl)	113.25 (qtl)	400000	279498

### 3.1. B. Operational areas details during 2021

Sr.N o.	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, Vaniyadi	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 variety 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 Chilli 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	<ul style="list-style-type: none"> <li>Poor health and nutritional status of farm families</li> </ul>	100 Nos	Kacchata,, Sundarpura, Khodiya	FLD & Training on Kitchen garden (Nutritional security by kitchen garden) FLD on Vegetable Special fertilizer
14	Poultry	Low body weight Less eggs production	All local native breeds	Kanlva, sundrapura, vatvtiya	OFT On Assessment of kadaknath & Ankleshwar under Back yard poultry
15	Buffalo	Low milk yield	220	Sundrapura, bhagwanpura, vatvtiya	. Training and Group meeting
16	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
17	Oat	Non use of improved varieties	170	Vanyadri, sundarpur , saradiya, butiyapura	FLD on OS-405
18	Feed Supplement for milking Buffalo	<ul style="list-style-type: none"> <li>Low milk yield and poor reproduction in buffalo</li> </ul>	320	Vanyadri, sundarpur , saradiya, butiyapura, bhagwanpura	FLD on Mineral Mixture and common salt
		<ul style="list-style-type: none"> <li>Low milk yield and poor reproduction in buffalo</li> </ul>	250	Vanyadri, sundarpur , saradiya, butiyapura, bhagwanpura	FLD on Stavari powder
		<ul style="list-style-type: none"> <li>Imbalance feeding</li> </ul>	320	Vanyadri, sundarpur , saradiya, butiyapura , bhagwanpura	. Training and Group meeting

\* Support with problem-cause and interventions diagram

### 3.2. Technology Assessment (Kharif 2021, Rabi 2020-21, Summer 2021)

#### 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
Varietal Evaluation	0	0	2	1	3	0	0	0	0	6
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0
Other (Varmicompost and KG	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	1	3	0	0	0	0	6

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Feed and Fodder	2	0	0	0	0	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	Chilli	Assessment of Varieties of Chilli	3	3	1.2
	Okra	Assessment of Varieties of Okra	3	3	1.2
	Pigeon pea	Assessment of performance of different varieties of Pigeon pea under un irrigated/ rainfed condition.	3	3	1.2
	Greengram	Assessment of performance of different varieties of summer Green gram under irrigated condition	3	3	1.2
Integrated Pest Management	Cotton	Assessment of management practices for sucking pest in cotton	3	3	1.2
	Tomato	Assessment of Pest and disease resistant varieties in tomato	3	3	1.2
Total			15	15	8.0

#### 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
Feed and fodder	Lucerne	Assessment of different varieties of Lucerne	5	5
Poultry Management	Poultry	Assessment of poultry breed under Back yard	10	10
Total			15	15

## C. 1. Results of Technologies Assessed

### Assessment of Varieties of Chilli

Problem diagnose/defined	:	Low yield Poor Knowledge of improved cultivation practices Improper use of fertilizer and pesticides
Details of technologies selected for assessment /refinement	:	Treatments T <sub>1</sub> : Farmer Practice T <sub>2</sub> : Arka Haritha T <sub>3</sub> : Kashi Gaurav
Source of technology	:	IIHR (2012), IIVR (2012)
Production system	:	Irrigated/ Sole vegetable
Thematic area	:	ICM
No. of Trials	:	03
Plot size and total area (ha)	:	1.20 ha

### Performance of technologies assessed :

Technology option	Plant Population /ha	No. of Fruit Plant	Production (q/ha)	Cost of Cultivation (Rs/ha)	Net Profit (Rs/ha)	BC Ratio
T <sub>1</sub> : Farmers practice	28000	65	204	83250	59550	1.87
T <sub>2</sub> : To be assessed : Arka Harita	28000	72	215	86410	64090	1.97
T <sub>3</sub> : To be assessed : Kashi Gaurav	Seeds was not available due to pandemic					

## Assessment of Variety in Okra

Title	:	Assessment of Variety in Okra
Problem diagnose/defined	:	<ul style="list-style-type: none"> <li>• Low yield</li> <li>• Use of YVM susceptible varieties.</li> <li>• Poor Knowledge of improved cultivation practices</li> <li>• Improper use of fertilizer and pesticides.</li> </ul>
Details of technologies selected for assessment /refinement	:	Treatments T <sub>1</sub> : Guj. Junagadh Okra Hybrid 4 T <sub>2</sub> : Kashi Kranti T <sub>3</sub> : 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:- <ul style="list-style-type: none"> <li>• No. of Plant infected due to YVM at 30, 45, 60 DAP</li> <li>• Plant Population</li> <li>• Suitability of variety for area specific cultivation.</li> </ul> Economic Indicator:- <ul style="list-style-type: none"> <li>• Yield of variety</li> <li>• Benefit cost ratio</li> </ul> Farmer Reflection:- <ul style="list-style-type: none"> <li>• Fruit quality as per market demand.</li> <li>• Keeping quality of fruits.</li> </ul>

Techno. Assessed	Source of Techno.	Production (Qt./ha)	Gross Return (Rs/Unit)	Cost of Cultivation	Net Return	BC Ratio
T1. GAO 5	AAU	085	114750	47810	71940	2.40
T2. Kashi Kranti	IIVR 2011	110	148500	56430	87070	2.63
T3. Arka Nikitha	IIHR 2017	160	216000	76450	124010	2.82

**Assessment of performance of different varieties of summer Green gram under irrigated condition.**

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

<b>1. Technical Observation:</b>					
<b>Technology Option</b>	<b>No. of Seed per pods</b>	<b>Maturity days</b>	<b>Yield (qt/ha)</b>	<b>Net Return ( Rs./ha)</b>	<b>B:C Ratio</b>
T <sub>1</sub> : Farmers practices Green gram (cv.GAM-5)	4-5	70-75	12.0	54800	3.36
T <sub>2</sub> : To be assessed : Green gram (cv.GM-6)	4-5	70-75	11.0	48300	3.08
T <sub>3</sub> :To be assessed :Green gram (cv. Virat/IPM 205-7)	5-6	55-60	10.5	46000	2.94

# Assessment of pest and disease resistant varieties in Tomato

<b>Problem Diagnosed</b>	<b>Yield loss due to high infestation of TLCV,BW and EB</b>
<b>Technology Assessed</b>	<b>T<sub>1</sub> : Farmers practices (Hybrids from private sectors) T<sub>2</sub> : To be assessed : Arka Samrat OR Arka Vishesh T<sub>3</sub>: To be assessed : Arka Apeksha</b>
<b>Source of technology</b>	<b>ICAR-IIHR, Bengaluru</b>
<b>Year of technology</b>	<b>2016</b>
<b>Thematic area</b>	<b>IPM</b>
<b>No. of Trials</b>	<b>03</b>
<b>Total area (ha)</b>	<b>1.20</b>
<b>Technical Obsevation</b>	<ul style="list-style-type: none"> <li>➤ The plot will be divided into 15 equal blocks. From each quadrate, 5 plants will be selected randomly.</li> <li>➤ 5 plant will be observed critically to record Tomato Leaf curl Virus, Bacterial wilt and Early Blight.</li> <li>➤ No. of infected plant due to pest and disease at 30,60,90 DATP</li> </ul>
<b>Economic Indicator</b>	<ul style="list-style-type: none"> <li>➤ Yield of Crop, Cost of Cultivation, Benefit Cost Ratio</li> </ul>

	<b>Production (q/ha)</b>	<b>Cost of Cultivation(Rs/ha)</b>	<b>Gross Return (Rs/ha)</b>	<b>Net Profit (Rs/ha)</b>	<b>BC Ratio</b>
<b>T1 (Farmers Practices)</b>	370	438400	<b>925000</b>	<b>506600</b>	<b>2.10</b>
<b>T2 (To be assessed) Arka Samrat</b>	424	482560	<b>1060000</b>	<b>577440</b>	<b>2.20</b>
<b>T3 (To be Assessed) Akra Apeksha</b>	406	464750	<b>1015000</b>	<b>550250</b>	<b>2.18</b>



# Assessment of technologies for the management of pink boll worm in Cotton

<b>Problem Diagnosed</b>	<b>Higher infestation of pink boll worm</b>
<b>Technology Assessed</b>	<b>T<sub>1</sub> : Farmers practices (Conventional insecticides and recent chemicals are used as tank mixture with higher dose)</b> <b>T<sub>2</sub> : To be assessed : Five spray of <i>Beauveria Bassiana</i> 80 gm/ 10 ltr of water at 5% half opening of flowers and remaining four spray after 10 Days interval of first application</b> <b>T<sub>3</sub> : To be assessed : 1000 drops of savaj MDP pest at place of between two twigs at flowering initiation stage and remaining two treatment after 30 days interval of first application</b>
<b>Source of technology</b>	<b>JAU, Junagadh</b>
<b>Year of technology</b>	<b>2018</b>
<b>Thematic area</b>	<b>IPM</b>
<b>No. of Trials</b>	<b>03</b>
<b>Total area (ha)</b>	<b>1.20</b>
<b>Technical Obsevation</b>	<ul style="list-style-type: none"> <li>➤ The plot will be divided into 15 equal blocks.</li> <li>➤ From each quadrate, 5 plants will be selected randomly.</li> <li>➤ 3 bolls (top,middle and lower) of each plant will be observed</li> </ul>
<b>Economic Indicator</b>	<ul style="list-style-type: none"> <li>➤ Yield of Crop, Cost of Cultivation, Benefit Cost Ratio.</li> </ul>

	<b>Production (q/ha)</b>	<b>Cost of Cultivation(Rs/ha)</b>	<b>Gross Return (Rs/ha)</b>	<b>Net Profit (Rs/ha)</b>	<b>BC Ratio</b>
<b>T1 (Farmers Practices)</b>	<b>20.0</b>	<b>40400</b>	<b>180000</b>	<b>139600</b>	<b>4.4</b>
<b>T2 (To be assessed)</b>	<b>20.7</b>	<b>38620</b>	<b>186300</b>	<b>147680</b>	<b>4.8</b>
<b>T3 (To be assessed)</b>	<b>21.5</b>	<b>38150</b>	<b>193500</b>	<b>155350</b>	<b>5.0</b>

**OFT on Assessment of different varieties of Lucerne**

<b>Problem diagnose/defined</b>	<b>Low green fodder yield</b> <b>Non use of Improved Varieties</b>
Details of technologies selected for assessment /refinement	Treatments : T <sub>1</sub> : Farmers Practise (Local) T <sub>2</sub> : Anand-3 (AAU, Anand) T <sub>3</sub> : RL-88 (IGFRI-Dharwad)
Source of technology & year	AAU , Anand IGFRI-Dharwad (2015)
Performance indicator	Green fodder yield No. of Cutting BCR

**Performance of technologies assessed :**

<b>Technology option</b>	<b>Production (q/ha)</b>	<b>No. of Cuttings</b>	<b>Cost of Cultivation (Rs/ha)</b>	<b>Net Profit (Rs/ha)</b>	<b>BC Ratio</b>
T <sub>1</sub> : : Farmers Practise (Local)	600	04	24650	35580	2.45
T <sub>2</sub> : Anand-3 (AAU, Anand)	660	07	25050	46630	2.83
T <sub>3</sub> : RL-88 (IGFRI-Dharwad)	720	08	25900	48720	2.85

## On Farm Testing : Animal Husbandry

<b>Title</b>	Assessment of poultry breed under Back yard
<b>Problem diagnose/defined</b>	Low body weight Less eggs production
<b>Details of technologies selected for assessment /refinement</b>	<b>Treatments</b> T <sub>1</sub> : Farmers practice – desi birds rearing under back yard. T <sub>2</sub> : Ankleshwar breed (Recom. AAU) T <sub>3</sub> : Kadaknath breed
<b>Source of technology</b>	AAU , Anand (2016)  KVK Jabua (RVKV) Gwalior
<b>Production system &amp; Thematic Area</b>	Poultry management
<b>Thematic area</b>	Poultry Management
<b>Performance of the Technology with performance indicators</b>	Increase egg production and fast growth rate
<b>Feedback,of technology</b>	<ul style="list-style-type: none"><li>• Attractive multi color feather patterns as rural people like coloured birds.</li><li>• Good adaptability in backyard / free range.</li><li>• Fast growth rate and higher egg production as compared to local native.</li></ul>

### *Farmer reflection:*

*Fast growth rate and higher egg production as compared to local native*

## 2.0 Results of On Farm Trial – Animal Science -2

Results of OFT Farm Trial - Animal Science - 2								
Animal	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of Assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9
Poultry	<ul style="list-style-type: none"><li>•Low body weight</li><li>•Less eggs production</li><li>•More age at first egg production</li><li>•Higher mortality of chicks</li></ul>	Assessment of poultry breed under Back yard	10	<b>Treatments</b> T <sub>1</sub> : Farmers practice – desi birds rearing under back yard.	Body Weight	850 (M) & 810 (F) gm to 20 weeks	Fast Growth rate with average body weight of 20 weeks of age 1320gm (M) and 1140 (F) . Higher egg production than local .	Good adoptability in backyard/ free range , Fast Growth rate and higher egg production as compared to local native.
			Egg Production		34 eggs upto 40 weeks			
			10	T <sub>2</sub> : Ankleshwar breed (Recom. AAU)	Body Weight	1290 (M) & 1050 (F)gm to 20 weeks		
					Egg Production	43 eggs upto 40 weeks		
			10	T <sub>3</sub> : Kadaknath breed	Body Weight	1320(M) & 1140 (F) gm to 20 weeks		
					Egg Production	48 eggs upto 40 weeks		

Contd....

Technology Assessed	Gross Cost in Rs. / unit	Gross Return in Rs. / unit	Net Return (Profit) in Rs. / unit	BC Ratio
<b>11</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
Treatments T <sub>1</sub> : Farmers practice – desi birds rearing under back yard.	4320	7880	3160	1.73
T <sub>2</sub> : Ankleshwar breed (Recom. AAU)	4320	10062	5742	2.32
T <sub>3</sub> : Kadaknath breed	4263	10896	6633	2.55

Ankleshwar Av. age at first egg-175 days. and Kadaknath Av. Age at First egg- 185 days

### 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 2021 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 Chilli 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 Arka Rakshak	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 management	Mineral Mixture	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	150	50
11	Feed management	Feed management	Bypass fat	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	50	50
12	Nutritional gardening	Recommended Seeds	monthly Savings	FLD, Exposure visit of demo field, Organized Field day, through training programme	10	113	10
13	Banana + Cabbage	Intercropping	Intercropping in banana and Cabbage	FLD, Exposure visit of demo field, Organized Field day, through training programme	4	50	10

B. Details of FLDs implemented during 2021 **(Kharif 2021, Rabi 2020-21, Summer 2021)** (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 (GAR-14)	Kharif-2021	8	8	11	9	20	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigation)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Paddy	Kharif-21	Irrigated	Medium Black	L	M	H	Maize	10/06/2021	10/11/2021	1038	48

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1.Paddy	Pest and Disease infestation is less as compare to Local variety (GR-11).

Farmers' reactions on specific technologies

S. No	Feed Back
1.Paddy	Cooking quality is good and Lodging resistance variety.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1.Paddy	Field days	2	20/10/2021 03/11/2021	23 24	
2	Farmers Training	1	08/06/2021	12	
3	Media coverage	1	07/11/2021	5000	

## 2. FLD 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	Sesame	Varietal Intro	ICM	Summer-21	10	10	16	11	27	-
2	Soybean	Varietal Intro	ICM	Kharif-21	10	5	10	02	12	

### 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					
Sesamum	Summer-21	Irrigated	Sandy Loam	L	M	H	paddy	24/02/2021	20/05/2021	-	-
Soybean	Kharif-21	RF	Sandy Loam	L	M	H	Maize	18/06/2021	07/10/2021	1038	48

### Technical Feedback on the demonstrated technologies

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

### Farmers' reactions on specific technologies

S. No	Feed Back
1 Sesamum	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 Soybean	JS 20-34 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 Sesamum	Field days	-	-	-	-
2	Farmers Training	1	17/02/2021	25	
1 Soybean	Field days	1	23/09/2021	35	-
2	Farmers Training	1	15/07/2021	04	

## 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	Sesame	Varietal Intro		ICM	Summer-21	20	20	20	30	50	-
2	Soybean	Varietal Intro		ICM	Kharif-21	10	10	20	05	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					
Sesame	Summer-21	Irrigated	Sandy Loam	L	M	H	paddy	24/02/2021	20/05/2021	-	-
Soybean	Kharif-21	RF	Sandy Loam	L	M	H	Maize	18/06/2021	07/10/2021	1038	48

### Technical Feedback on the demonstrated technologies

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

### Farmers' reactions on specific technologies

S. No	Feed Back
1 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 Soybean	JS 20-34 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 Sesame	Field days	-	-	-	-
2	Farmers Training	1	17/02/2021	25	
1 Soybean	Field days	1	23/09/2021	35	-
2	Farmers Training	1	15/07/2021	04	



### 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	Black gram	ICM	Varietal,	Kharif-21	10	10	25	00	25	
2	Green gram	ICM	Varietal,	Summer-21	4	4	15	05	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					
Black gram	Kharif-20	Rainfed	Medium black	L	M	H	Maize	27/06/2021	25/09/2021	1038	48
Green gram	Summer-20	Irrigated	Medium black	L	M	H	Cotton	01/03/2021	25/05/2021	0	0

Technical Feedback on the demonstrated technologies

S. No	Feed Back
Black gram	Adoption of IWM&INM resulted into better weed management and Plant growth
Green gram	INM increase growth of plant and size of seed.

Farmers' reactions on specific technologies

S. No	Feed Back
Black gram	YVM infestation found later stage in this variety and Mature earlier as compare to Local variety
Green gram	YVM resistance variety. Bold seed size resulted in higher Market rate.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1.Blackgram	Field days	1	10/09/2021	37	
2	Farmers Training	1	26/10/2021	24	
1.Greengram	Field days	0			
2	Farmers Training	2	11/02/2021 12/02/2022	26 24	

### 3. CFLD 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	Green gram (CFLD)	ICM	Varietal, INM, IPM	Summer-21	20	20	25	25	50	

#### 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					
Green gram	Summer-21	Irrigated	Medium black	L	M	H	Cotton	01/03/2021	25/05/2021	0	0

#### Technical Feedback on the demonstrated technologies

S. No	Feed Back
Green gram	INM increase growth of plant and size of seed.

#### Farmers' reactions on specific technologies

S. No	Feed Back
Green gram	YVM resistance variety. Bold seed size resulted in higher Market rate.

#### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1.Green gram	Field days	0			
2	Farmers Training	2	11/02/2021 12/02/2021	26 24	

### 3. 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 IPM	IPM	IPM	Kharif-2021	8	8	05	15	20	
1	Cotton IPM	IPM	IPM	Kharif-2021	8	8	05	15	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 IPM	Kharif -21	RF	Medium black	L	M	H	Mungbean	20/06/2021	02/02/2022	1038	48
Cotton IPM	Kharif -21	RF	Medium black	L	M	H	Mungbean	15/06/2021	05/02/2022	1038	48

#### Technical Feedback on the demonstrated technologies

S. No	Feed Back
2 Cotton IPM	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

#### Farmers' reactions on specific technologies

S. No	Feed Back
2 Cotton IPM	Pheromone traps and low doses of pesticides has minimized the infestation of pink boll worm and good quality cotton was harvested

#### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1 Cotton IPM	Field days	1	30/12/2021	28	
	Farmers Training	1	26/08/2021	20	
		1	16/11/2021	04	

### 3. 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	Varietal Intro	Arka Rakshak	Kharif-21	5	5	13	4	17	-
2	Marigold	Varietal Intro	Pusa bahar	Rabi-21	2	2	-	4	4	-

#### 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-21	Irrigated	Sandy loam	L	M	H	Fallow	07/08/21	17-2--22	1038	48
Marigold	Rabi-21	Irrigated	Sandy loam	L	M	H	Fallow	15-8-21	25-2-22	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	7/08/2021	16	
4	Training for extension functionaries	01	04/11/21	27	
Sl.No.	Activity- Chilli	No. of activities organized	Date	Number of participants	Remarks
1	Field days	01	13/02/22	22	
2	Farmers Training	01	07/08/21	16	
4	Training for extension functionaries	01	04/11/22	27	

**7. 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	<i>Kharif-21</i>	20	20	0	20	20	--
2	Kitchen gardening	Nutritional Mang.	Kitchen gardening	<i>Kharif/Rabi-21</i>	100	100	0	100	100	--

**Technical Feedback on the demonstrated technologies**

S. No	Feed Back
Vermi Compost	<ul style="list-style-type: none"> <li>It improves soil texture &amp; help in increasing the soil carbon.</li> </ul>
Kitchen gardening	<ul style="list-style-type: none"> <li>Kitchen Garden helps in reducing the problems of mal nutrition by growing varieties of vegetables throughout year.</li> </ul>

**Farmers' reactions on specific technologies**

S. No	Feed Back
Vermi Compost	<ul style="list-style-type: none"> <li>By adopting vermi compost proper utilizations of farm waste and help in reducing the cost of cultivation of fertilizers.</li> </ul>
Kitchen gardening	<ul style="list-style-type: none"> <li>Farm women get variety of vegetables throughout year and save the cost of vegetables.</li> </ul>

## 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-21	ICM	ICM	GT-5	27	10	6.0	5.1	5.60	5.02	11.55	22850	45080	22230	1.97	26100	40411	14311	1.54
CFLD Sesame Summer-21	ICM	ICM	GT-5	50	20	6.3	5.3	5.75	5.02	14.54	23120	46287	23167	2.0	26450	40411	13961	1.52
Soybean Kharif-21	ICM	ICM	NRC-37	12	5	19.2	15.1	16.9	15.0	12.66	22680	87880	65200	3.8	23950	78000	54050	3.2
CFLD Soybean Kharif-21	ICM	ICM	JS 20-34	25	10	18.4	14.5	16.6	15.0	10.66	21500	86320	64820	4.0	24800	78000	53200	3.1

\* 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										
Blackgram Kharif-21	ICM	ICM	PU-31	25	10	6.5	6.0	6.2	5.5	12.7	18670	37200	18530	1.99	18500	33000	14500	1.78
Greengram Summer-21	ICM	ICM	GM-6	20	4	12	6.0	10.5	7.8	34	23200	68250	45050	2.94	22250	50700	28450	2.28
CFLD Greengram Summer-21	ICM	ICM	GM-5	50	20	15	8.8	11.2	7.8	43	26500	78400	51900	2.95	25600	54800	29000	2.13

\* 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-21	ICM	ICM	20	8	50.5	40.5	46.0	41.5	10.5	-	-	283680	82800	54440	2.91	28660	74700	46040	2.60
Vegetables																			
Tomato	Varietal	Varietal	17	5	422	380	402	368	8.60	-	-	465800	1005000	539200	2.15	443800	920000	476200	2.07
Flower crops																			
Marigold	Varietal	Varietal	4	2	107	98	103	96	7.29			238280	515000	276720	2.16	224340	480000	255660	2.13
Fruit crops																			
Banana+Cabbage	Intercropping	Intercropping	15	5	-	-	-	-	-	--	-	144000	636400	492400	-	137250	61000	472750	-
Commercial Crops																			
Cotton	IPM	Management of Sucking pest	20	8	-	-	21.1	20.0	5.5	-	-	38200	189900	151700	4.09	40800	180000	139200	4.4
Cotton	IPM	Management of Pink boll worm	20	8	-	-	22.11	20.0	10.5	-	-	39450	198900	159450	5.0	41200	180000	138800	4.3

## 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	Organic Farming	20	20	1010	3500	188	1000		3250	5040	1790	-	-	-	-	-

## 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)
Vegetable Seedling	Nutritional Management	-	100	100	98	34	188	1720	3820	350	2450	2100	-	-	-	-	-



### 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
<b>I Crop Production</b>				0			0	0	0	0
Weed Management	2	49		49	1		1	50	0	50
Resource Conservation Technologies	1			0		30	30	0	30	30
Seed production	1	0		0	27		27	27	0	27
Integrated Crop Management	3	48	1	49	35	0	35	83	1	84
Integrated nutrient management	3	42		42	21		21	63	0	63
Others (Natural Farming)	14	262	77	339	138	78	216	400	155	555
<b>Total</b>	<b>24</b>	<b>401</b>	<b>78</b>	<b>479</b>	<b>222</b>	<b>108</b>	<b>330</b>	<b>623</b>	<b>186</b>	<b>809</b>
<b>II Horticulture</b>				0			0	0	0	0
<b>a) Vegetable Crops</b>				0			0	0	0	0
Production of low value and high value crops	1	10		10			0	10	0	10
Nursery raising	1	17		17	9		9	26	0	26
Export potential vegetables	1	1		1	31		31	32	0	32
Protective cultivation	1	40		40	11		11	51	0	51
Others (pl specify)	1	18		18	2		2	20	0	20
Cultivation of Fruit	3	31	0	31	5	35	40	36	35	71
Management of young plants/orchards	1		28	28		7	7	0	35	35
Export potential fruits	2	28	0	28	32	0	32	60	0	60
<b>Grand Total (a to g)</b>	<b>11</b>	<b>145</b>	<b>28</b>	<b>173</b>	<b>90</b>	<b>42</b>	<b>132</b>	<b>235</b>	<b>70</b>	<b>305</b>
<b>IV Livestock Production and Management</b>				0			0	0	0	0
Dairy Management	4	84	0	84	22	0	22	106	0	106
Poultry Management	1	22	0	22	0	0	0	22	0	22
Disease Management	1	9	11	20	3		3	12	11	23
Feed & fodder technology	3	59		59	7		7	66	0	66
Production of quality animal products	1	17	0	17	1		1	18	0	18
<b>Total</b>	<b>10</b>	<b>191</b>	<b>11</b>	<b>202</b>	<b>33</b>	<b>0</b>	<b>33</b>	<b>224</b>	<b>11</b>	<b>235</b>
<b>V Home Science/Women empowerment</b>				0			0	0	0	0
Household food security by kitchen gardening and nutrition gardening	1	3		3	22		22	25	0	25
<b>Total</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>22</b>	<b>0</b>	<b>22</b>	<b>25</b>	<b>0</b>	<b>25</b>
<b>VII Plant Protection</b>				0			0	0	0	0
Integrated Pest Management	5	20	0	20	91	0	91	111	0	111
Integrated Disease Management	8	293	10	303	1	0	1	294	10	304
Others (Dealer Training )	4	53	32	85	27	32	59	80	64	144
<b>Total</b>	<b>17</b>	<b>366</b>	<b>42</b>	<b>408</b>	<b>119</b>	<b>32</b>	<b>151</b>	<b>485</b>	<b>74</b>	<b>559</b>
<b>X CapacityBuilding and Group Dynamics</b>				0			0	0	0	0
Group dynamics	1	85		85	0		0	85	0	85
Entrepreneurial development of farmers/youths	3	19		19	6	48	54	25	48	73
<b>Total</b>	<b>4</b>	<b>104</b>	<b>0</b>	<b>104</b>	<b>6</b>	<b>48</b>	<b>54</b>	<b>110</b>	<b>48</b>	<b>158</b>
<b>GRAND TOTAL</b>	<b>67</b>	<b>1210</b>	<b>159</b>	<b>1369</b>	<b>492</b>	<b>230</b>	<b>722</b>	<b>1702</b>	<b>389</b>	<b>2091</b>

**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
<b>I Crop Production</b>				0			0	0	0	0
Weed Management	2	16	8	24	23	0	23	39	8	47
Micro Irrigation/irrigation	1	16		16	7		7	23	0	23
Integrated Crop Management	1			0	22		22	22	0	22
Integrated nutrient management	3	56	10	66	3		3	59	10	69
Production of organic inputs	2	1	34	35	24	0	24	25	34	59
Others (Natural Farming )	1	25		25			0	25	0	25
<b>Total</b>	<b>10</b>	<b>114</b>	<b>52</b>	166	<b>79</b>	<b>0</b>	79	193	52	245
<b>II Horticulture</b>				0			0	0	0	0
<b>a) Vegetable Crops</b>				0			0	0	0	0
Production of low value and high value crops	5	62	20	82	40	5	45	102	25	127
Nursery raising	1			0	23		23	23	0	23
Protective cultivation	2	30		30	24		24	54	0	54
<b>Grand Total (a to g)</b>	<b>8</b>	<b>92</b>	<b>20</b>	<b>112</b>	<b>87</b>	<b>5</b>	<b>92</b>	<b>179</b>	<b>25</b>	<b>204</b>
<b>IV Livestock Production and Management</b>				0			0	0	0	0
Dairy Management	3			0	60	16	76	60	16	76
Poultry Management	1			0	21		21	21	0	21
Animal Nutrition Management	4	63	7	70	20		20	83	7	90
Feed & fodder technology	1	20	13	33	0		0	20	13	33
Production of quality animal products	2	20	1	21	19	0	19	39	1	40
<b>Total</b>	<b>11</b>	<b>103</b>	<b>21</b>	<b>124</b>	<b>120</b>	<b>16</b>	<b>136</b>	<b>223</b>	<b>37</b>	<b>260</b>
<b>V Home Science/Women empowerment</b>				0			0	0	0	0
Household food security by kitchen gardening and nutrition gardening	2	89		89	13		13	102	0	102
<b>Total</b>	<b>2</b>	<b>89</b>	<b>0</b>	<b>89</b>	<b>13</b>	<b>0</b>	<b>13</b>	<b>102</b>	<b>0</b>	<b>102</b>
<b>VII Plant Protection</b>				0			0	0	0	0
Integrated Pest Management	3	42		42	21		21	63	0	63
Integrated Disease Management	3	54	22	76			0	54	22	76
<b>Total</b>	<b>6</b>	<b>96</b>	<b>22</b>	<b>118</b>	<b>21</b>	<b>0</b>	<b>21</b>	<b>117</b>	<b>22</b>	<b>139</b>
<b>X CapacityBuilding and Group Dynamics</b>				0			0	0	0	0
Group dynamics	3	42	22	64			0	42	22	64
Entrepreneurial development of farmers/youths	6	63	30	93	73		73	136	30	166
<b>Total</b>	<b>9</b>	<b>105</b>	<b>52</b>	<b>157</b>	<b>73</b>	<b>0</b>	<b>73</b>	<b>178</b>	<b>52</b>	<b>230</b>
<b>GRAND TOTAL</b>	<b>46</b>	<b>599</b>	<b>167</b>	<b>766</b>	<b>393</b>	<b>21</b>	<b>414</b>	<b>992</b>	<b>188</b>	<b>1180</b>

**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
<b>I Crop Production</b>				0			0	0	0	0
Weed Management	4	65	8	73	24	0	24	89	8	97
Resource Conservation Technologies	1	0	0	0	0	30	30	0	30	30
Micro Irrigation/irrigation	1	16	0	16	7	0	7	23	0	23
Seed production	1	0	0	0	27	0	27	27	0	27
Integrated Crop Management	4	48	1	49	57	0	57	105	1	106
Integrated nutrient management	6	98	10	108	24	0	24	122	10	132
Production of organic inputs	2	1	34	35	24	0	24	25	34	59
Others (Natural Farming )	15	287	77	364	138	78	216	425	155	580
<b>Total</b>	34	515	130	645	301	108	409	816	238	1054
<b>II Horticulture</b>	0	0	0	0	0	0	0	0	0	0
<b>a) Vegetable Crops</b>	0	0	0	0	0	0	0	0	0	0
Production of low value and high value crops	6	72	20	92	40	5	45	112	25	137
Nursery raising	2	17	0	17	32	0	32	49	0	49
Export potential vegetables	1	1	0	1	31	0	31	32	0	32
Protective cultivation	3	70	0	70	35	0	35	105	0	105
Others (pl specify)	1	18	0	18	2	0	2	20	0	20
Cultivation of Fruit	3	31	0	31	5	35	40	36	35	71
Management of young plants/orchards	1	0	28	28	0	7	7	0	35	35
Export potential fruits	2	28	0	28	32	0	32	60	0	60
<b>Grand Total (a to g)</b>	19	237	48	285	177	47	224	414	95	509
<b>IV Livestock Production and Management</b>	0	0	0	0	0	0	0	0	0	0
Dairy Management	7	84	0	84	82	16	98	166	16	182
Poultry Management	2	22	0	22	21	0	21	43	0	43
Animal Nutrition Management	4	63	7	70	20	0	20	83	7	90
Disease Management	1	9	11	20	3	0	3	12	11	23
Feed & fodder technology	4	79	13	92	7	0	7	86	13	99
Production of quality animal products	3	37	1	38	20	0	20	57	1	58
<b>Total</b>	21	294	32	326	153	16	169	447	48	495
<b>V Home Science/Women empowerment</b>	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	3	92	0	92	35	0	35	127	0	127
<b>VII Plant Protection</b>	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	8	62	0	62	112	0	112	174	0	174
Integrated Disease Management	11	347	32	379	1	0	1	348	32	380
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	4	53	32	85	27	32	59	80	64	144
<b>Total</b>	23	462	64	526	140	32	172	602	96	698
<b>X CapacityBuilding and Group Dynamics</b>	0	0	0	0	0	0	0	0	0	0
Group dynamics	4	127	22	149	0	0	0	127	22	149
Entrepreneurial development of farmers/youths	9	82	30	112	79	48	127	161	78	239
<b>Total</b>	13	209	52	261	79	48	127	288	100	388
<b>GRAND TOTAL</b>	113	1809	326	2135	885	251	1136	2694	577	3271

### Training for Rural Youths including sponsored training programmes (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
Bee-keeping	3	52	0	52	22	0	22	74	0	74
Value addition	1	0	0	0	0	51	51	0	51	51
Dairying	2	43	0	43	39	0	39	82	0	82
<b>TOTAL</b>	<b>6</b>	<b>95</b>	<b>0</b>	<b>95</b>	<b>61</b>	<b>51</b>	<b>112</b>	<b>156</b>	<b>51</b>	<b>207</b>

### 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
Productivity enhancement in field crops	2	3	0	3	2	48	50	5	48	53
Group Dynamics and farmers organization	1	85	0	85	0	0	0	85	0	85
<b>TOTAL</b>	<b>3</b>	<b>88</b>	<b>0</b>	<b>88</b>	<b>2</b>	<b>48</b>	<b>50</b>	<b>90</b>	<b>48</b>	<b>138</b>

### 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
<b>Crop production and management</b>										
Increasing production and productivity of crops	3	78	1	79	4	0	4	82	1	83
Commercial production of vegetables	2	1	0	1	61	0	61	62	0	62
Methods of protective cultivation	1	40	0	40	11	0	11	51	0	51
Others (Natural Farming )	13	247	77	324	128	78	206	375	155	530
<b>GRAND TOTAL</b>	<b>19</b>	<b>366</b>	<b>78</b>	<b>444</b>	<b>204</b>	<b>78</b>	<b>282</b>	<b>570</b>	<b>156</b>	<b>726</b>

## 3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	268	2602	16	2618
Diagnostic visits	02	5	0	5
Field Day	15	413	10	423
Group discussions	72	1071	11	1082
Kisan Ghosthi	3	166	11	177
Film Show	142	2413	0	2413
Scientists' visit to farmers field	70	323	0	323
Plant/animal health camps	6	307	0	307
Farmers' seminar/workshop	3	456	8	464
Method Demonstrations	10	186	0	186
Celebration of important days	28	1297	10	1307
Special day celebration	1	235	0	235
Exposure visits	4	192	0	192
Others (Lecture Delivered )	43	2081	11	2091
Others (PRA )	3	465	0	465
Others (Farmers Visit to KVK )	142	2413	0	2413
Others (Swachta Campaign )	25	1017	11	1021
Other Soil & Water Sample	223	223	0	223
<b>Total</b>	<b>1060</b>	<b>15865</b>	<b>88</b>	<b>15936</b>

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

**Details of other extension programmes:**

Particulars	Number
Extension Literature	2
Newspaper coverage	30
Popular articles	1
Animal health camps (Number of animals treated-1499)	6
Social Media (No. of platforms Used)	5
<b>Total</b>	<b>44</b>

**3.6 Online activities during year 2021**

S. No.	Activity Type	Mode of implementation	Title of Program	No. of Programmes	No. of Participants/ Views
E	Any other (Pl. specify)				
1	In-service Training for Extension Personal	<b>Zoom</b>	In-service Training for Extension Personal	1	85
2	Scientific Beekeeping	<b>Zoom</b>	Scientific Beekeeping	1	60
	<b>Total</b>			<b>2</b>	<b>145</b>

**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	Certified	63	In Storage	
	Wheat	HI-8759 (Pusa Tejas)	Truthful	1.50	6000	
	Wheat	HI-1605 (Pusa Ujjala)	Truthful	1.50	6000	
Oilseeds	Soybean	NRC-37	Certified	1.05	In Storage	
Pulses	Green gram	GAM-5	Truthful	18	In Storage	
	Pigeonpea	Vaishali	Certified	18.74	168935	
<b>Total</b>				121.79		

**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	Brinjal, Tomato, Cabbage, Cauliflower, Chili	F1 Hyb	-	267391	267391	227
Fruits	lime	K-Lime	-	1133	11330	
	Drumstick	PKM-1	-	610	6100	
	Mango	Kasar Rajapuri	-	364	18200	
Others	Merry gold	Pusa Bahar	-	10000	10000	
<b>Total</b>				<b>279498</b>	<b>313021</b>	<b>227</b>

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

A. KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.):

B. Literature developed/published

Item	Title	Authors name	Number
Technical reports	AGRESO Meeting Reports ,ZREAC, APR,AAP	-	04
News letters	Half Yearly News letter	KVK-Vadodara	02
Popular articles	Bharat Sarkar ni havaman adharit krush salahthi kheduto ne thase faydo	Dr.B.M.Mehta Kyur Patel	01
<b>TOTAL</b>			<b>07</b>

#### 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	Vadodara KVK	116
2	Facebook page/ Account	Kvk Mangalbharti Vadodara	1010
3	WhatsApp groups	11	<b>950</b>
4	Twitter Account	Krishi Vigyan Kendra - Vadodara @kvkvdr	<b>188</b>

## 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	Technical Support
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

### C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

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	Other remarks (if any)
01	Meetings	AGB Meeting, Convergence meeting FSI Meeting DFAC Meeting	04	04	
03	Training programmes	Sponsor Training	16	16	
04	Demonstrations	Backyard Poultry	02	02	
05	Extension Programmes	Lecture Delivered	10	-	
06	Award Verification	Field Visit for Award Verification	04	04	

### D. Give details of programmes implemented under National Horticultural Mission

#### 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)	<ul style="list-style-type: none"> <li>Due to short duration of variety cv. GAWMH-2 &amp; Narmada Moti is benefitted to cotton crop..</li> <li>It is highly suitable of domestic (food)/ rotala ) purpose</li> </ul>
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)	<ul style="list-style-type: none"> <li>Fruits are long and tender with dark green colour help in getting more market price</li> <li>Very less infestation of YVM</li> </ul>
Tomato (cv.AT-3) Tomato (cv.GAT-5)	<ul style="list-style-type: none"> <li>GAT-5 gives higher yield then AT-3</li> <li>Infestation of TLMV is higher in AT-3 var. as compare to GAT-5</li> <li>It is required to work for minimizing fruit cracking while transportation.</li> </ul>
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 IPM strategies decreased the No. of chemical pesticides spray and cost of production without affecting the yield.
Maize (IPM)	<ul style="list-style-type: none"> <li>Farmers convinced to use bio-pesticides and chemical pesticides for management of pests in maize</li> <li>By using bio and chemical pesticides in proper sequence, expense on pesticides can be reduced.</li> </ul>
Wheat (cv.GW-451)	<ul style="list-style-type: none"> <li>Farmers were convinced to adopt new variety of Wheat (GW-451)</li> <li>Production of GW-451 higher than GW-496</li> </ul>

Cotton (INM)	INM increase the yield and quality of cotton. Reduce the cost of Cultivation
Chilli (IWM)	Less labour costing and good initial growth. Lower infection of sucking pests.
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	<ul style="list-style-type: none"> <li>Farm women convinced to use Cotton picking bags because of saving time, and physical energy.</li> <li>Use of Cotton picking bags also increases the working efficiency.</li> </ul>
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	<ul style="list-style-type: none"> <li>It is needed to work more on develop of pest resistance/tolerance for the variety.</li> </ul>
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)	<ul style="list-style-type: none"> <li>Pheromone traps, bio-pesticides has minimized the infestation of pink boll worm and good quality cotton was harvested</li> <li>There is need to develop pink boll worm pest resistant varieties of cotton.</li> </ul>
Maize (IPM)	<ul style="list-style-type: none"> <li>Use of Carbofuran for stem borer management( During 30-45 DAS) in maize has given good results</li> <li>By using bio and chemical pesticides in proper sequence, expenses on pesticides can be reduced.</li> </ul>
Wheat (cv.GW-451)	<ul style="list-style-type: none"> <li>In GW-451 variety more tillers(19-28)/ plants found as compare to local check(GW496)(19-25)</li> </ul>
Cotton (INM)	Due to seed treatment of NPK consortium germination found better.
Chilli	<ul style="list-style-type: none"> <li>Weed competition is less during 2 months after translating,</li> <li>Good plant growth due to less weeds.</li> <li>Less no. of weeds/ units area (sq.mt)</li> </ul>
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 Cow	Supplementary feeding for dairy animals to increase milk and fat percentage
Kitchen gardening	Kitchen garden fulfill the requirement of <b>Carbohydrates, Vitamins&amp; Minerals</b> to human diet By Kitchen garden green vegetable available round the year.



## 11. Technology Week celebration during 2021: No,

## 14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2021	09	2602	
Feb 2021	09	2602	
March 2021	09	2602	
April 2021	09	2602	
May 2021	09	2602	
Jun 2021	09	2602	
Jul 2021	09	2602	
Aug 2021	09	2602	
Sept 2021	09	2602	
Oct 2021	09	2602	
Nov. 2021	09	2602	
Dec. 2021	09	2602	

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Vadodara	Text only	0	0	108	0	0	0	108
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	<b>Total Messages</b>	0	0	108	0	0	0	108
	<b>Total farmers Benefitted</b>	0	0	2602	0	0	0	2602

## 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	-	2000	3000	
2	Goatry Unit	2016-17	0.05	Surti	Breed	17	31750	115000	
3	Poultry Unit	2016-17	0.05	Ankelshwar/Kadaknath	Eggs Birds	103	19847	32030	
4	Vegetable & Nursery Unit	2010-11	0.20	F1Hyb	Seedling	279498	223578	313021	

### 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. (qtl)	Cost of inputs	Gross income	
Cereals									
Paddy	3-8-21	3-8-21	2.88	GAR-13	Seed	99.40	86515	63200	63 qtl. in storage
Wheat	22-12-20	14-4-21	0.36	HI-8759	Seed	4.36	30135	8720	
			0.36	HI-1605	Seed	6.96		12950	

<b>Pulses</b>									
Greengram	25-2-21	3-6-21	2.28	GAM-5	Seed	18.21	77040	223440	2.36 kg in storage
Pigeonpea	13-10-20	11-3-21	1.92	Vaishali	Seed	18.74	63192	168935	
Pigeonpea	13-10-20	11-3-21	1.92	Vaishali	Grain	18.58	25834	113650	
<b>Oilseeds</b>									
Soyaben	2-7-21	28-10-21	2.36	NRC-37	Seed	10.95	39575	-	
<b>Others (specify)</b>									
Sorghum	24-10-20 26-10-20 27-10-20	15-1-21	5.16	MP Chary	Fodder	1600No	27543	16000	
eucalyptus	5-8-14 10-7-15	21-1-22	0.40	local	tick		12834	79000	
Sharu	11-8-14	21-1-22	0.10	Local	tick			27200	
Subabul	22-7-15	6-5-21	0.22	Local	Tick	-			

#### E. Utilization of hostel facilities

Accommodation available (No. of beds):

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Nil			

#### F. Database management

S. No	Database target	Database created

#### 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
0.02	Vegetable crops	07	2091
	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
10	Vegetable crops	07/15000	100
	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 2021-22 (Rs. in lakh) (Till Dec, 2021)

Sr.No	Items/ Head	Approved Allocation for the year 2021-22	Grant received (council's share)	Expenditure (up to Dec-21)
<b>A</b>	<b>Recurring Contingencies Items</b>			
1	Pay & Allowances	15200000	12644000	11447556
2	Traveling Allowances	100000		15868
3	Contingencies	950000		702113
a	Stationery, Telephone, Postage & other expenditure on office running,	400000		111639
b	POL, repair of Vehicles, tractor & equipment's			83821
	<b>(Total a + b)</b>	<b>400000</b>	<b>702000</b>	<b>195460</b>
c	Meals/refreshment of trainees			65678
d	Training materials			365
g	Training of extension functionaries	550000		2675
e	Frontline demonstration			345490
f	On farm testing			92445
h	Maintenance of building			0
	<b>(Total c to h)</b>	<b>950000</b>		<b>506653</b>
	<b>Total (A)</b>	<b>16250000</b>	<b>13346000</b>	<b>12165537</b>
<b>B</b>	<b>Non-Recurring Contingencies</b>			
1	Equipment	0	0	0
2	Works	0	0	0
3	Vehicle	0	0	0
4	Library	0	0	0
	<b>Total (B)</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Grand total (A+B)</b>	<b>16250000</b>	<b>13346000</b>	<b>12165537</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2018 to March 2019	1167537=68	1345000=00	1115000=00	1397537=68
April 2019 to March 2020	1397537=68	1306193 =00	942287=00	1761443=68
April 2020 to March 2021	1761443=68	1626811=00	1357013=00	2031241=68
April 2021 to December, 2021	2031241=68	2381595	1582960=00	2829876=68

**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
C.R.Patel	SMS (Agronomy)	Climate Smart technologies and practices for increasing the soybean productivity	MANAGE-Hydrabad	Online	18- 21 May-2021
B.L.Dhayal	SMS (Ext.)	Beekeeping	AICRP, J& K	Online	21-21 May-2021
J.P.Meena	SMS (Ani.Sci)	Emerging Disease, Challenges of Poultry and Control Strategies.	Director of Poultry Research Rajedranagar Hyderabd	Online	1-7-2021
J.P.Meena	SMS (Ani.Sci)	Importance of silage in sustainable dairy farming	CEDS	Online	16-7-21
M.C.Brahambhatt	SMS( Horti)	Natural Farming	SAMETI and ATAM Gujrat	Offline	26-11-21 to 2-12-21
Dr. Bharat M. Metha	Sr.Sci.& Head	International Webinar on Mango producing is not enough , wakeup call on post-harvest handling processing Technology and Value chain management.	NIFTEM, Kundil, Sonipat (Haryana)	Online	10-12-2021
Dr. Bharat M. Metha	Sr.Sci.& Head	Pre-incubation series BEEJ	PUSA Krishi, ICAR IARI New Delhi	Online	6-17 Dec-2021
Dr. Bharat M. Metha	Sr.Sci.& Head	National Webinar on Nutraceuticals and Immunity booster foods for combating Covid-19	ASPPE College of HS & Nutri. Sardarkushinagar	Online	17-05-2021

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

Name of DFI Villages	Farming System	Scenario at benchmark (2017-18)	Scenario at benchmark (2018-19)	Present Scenario (2019-20)	Present Scenario (2020-21)	Per cent Increase
		Annual Income (Rs./ha)	Annual Income (Rs./ha)	Annual Income (Rs./ha)	Annual Income (Rs./ha)	
Sundarpura Taluka: Sankheda	1. Crop + Horti. + Vegetables+ Animal husbandry	76000/-	82000/-	94300/-	137560/-	81.0
	2. Crop + Horti. + Animal husbandry	67500	74800/-	88200/-	118800/-	76.0
Vaniyadri Taluka: Bodeli	1. Crop + Horti. + Vegetables+ Animal husbandry	90000	118200	134750/-	164700/-	83.0
	2.Crops + Horticulture	75000	81300/-	94300/-	128250/-	71.0
	3. Crops + Animal Husbandry	73500	79800/-	94100/-	126420/-	72.0

## 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	91	2034	373	2407
Extension functionaries	03	90	48	138
Sponsored Training	19	570	156	726
Vocational Training	06	156	51	207
<b>Total</b>	<b>119</b>	<b>2850</b>	<b>628</b>	<b>3478</b>

### 2. Frontline demonstrations

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	114	45	0
Pulses	151	44	0
Cereals	35	10	0
Vegetables	17	5	0
Other crops	75	24	0
<b>Total</b>	<b>392</b>	<b>128</b>	<b>0</b>
Livestock & Fisheries	45	10	45
Other enterprises	120	-	120
<b>Total</b>	<b>165</b>	<b>10</b>	<b>165</b>
<b>Grand Total</b>	<b>557</b>	<b>148</b>	<b>165</b>

### 3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	6	18	18
Livestock	2	20	20
Various enterprises	0	0	0
<b>Total</b>	<b>8</b>	<b>38</b>	<b>38</b>
<b>Technology Refined</b>			
Crops			
Livestock	0	0	0
Various enterprises	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>8</b>	<b>38</b>	<b>38</b>

### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1060	15936
Other extension activities	44	44
<b>Total</b>	<b>1104</b>	<b>15980</b>

## 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Vadodara	Text only	0	0	108	0	0	0	108
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	<b>Total Messages</b>	0	0	108	0	0	0	108
	<b>Total farmers Benefitted</b>	0	0	2602	0	0	0	2602

## 6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	113.25	180935
Planting material (No.)	279498	313021

## 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil	223	0
Water	103	-
Plant	-	-
<b>Total</b>	<b>326</b>	

## 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	06
2	Conferences	0
3	Meetings	0
4	Trainings for KVK officials	0
5	Visits of KVK officials	0
6	Book published	0
7	Training Manual	01
8	Book chapters	0
9	Research papers	0
10	Lead papers	0
11	Seminar papers	0
12	Extension folder	0
13	Proceedings	0
14	Award & recognition	0
15	On-going research projects	0