ICAR-ATARI, Pune DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2020 (1st January 2020 to 31st December 2020)

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)
Krishi Vigyan Kendra,	Office	FAX	kvkrajkot@gmail.com	<u>www.jau.in</u>
Junagadh Agricultural University,	(0281)	0281)		
Targhadia, (Dist.: Rajkot)	2784170	2784170		
(Gujarat) - 360 003				

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

Address	Telephone		E mail	Website
	Office	FAX		address
Junagadh Agricultural University,	(0285)	(0285)	dee@jau.in	www.jau.in
Junagadh (Gujarat)	2672080	2672653		

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

Name	Telephone / Contact			
Dr R R Kaharia	Office	Mobile	Email	
Dr. B. B. Kabana	(0281) 2784170	9374202518	drbbkabaria@gmail.com	

1.4. Year of sanction: September – 2004

1.5. Staff Position (as on 31 December, 2020)

Sr. No.	Sanctioned post	Name of the incumbent	Discipline	Current Pay Band	Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
1	Senior	Dr. B. B.	Agril.	-	16-10-2016	-
	Scientist	Kabaria	Ento.			
	and Head					
2	SMS	Dr. M. M.	Animal	89900/-	04-08-2015	1,19,522/-
		Tajpara	Scence.			
3	SMS	Dr. J. H.	Agron.	64900/-	01-08-2017	78,525/-
		Chaudhary				
4	SMS	Dr. M. K.	Agri.	92500/	05-10-2019	-
		jadeja	Extension			
5	SMS	Vacant	Horti.	-	-	-
6	SMS	Shri D. P.	Agril.	98300/-	01-11-2016	1,19,107/-
		Sanepara	Engg.			
7	SMS	Mrs. H. H.	Home	89900/-	17-08-2006	1,08,994/-
		Padsumbiya	Science			

8	Farm	Shri S. R.	Plant	38090/-	30-7-2018	38,090/-
	manager	Rathva	breeding			
9	Programme	Shri A. B.	Agron.	63600/-	07-08-2014	52,976/-
	Assistant	Dabhi				
10	Computer	Miss. R. T.	-	47600/-	03-01-2009	57,811/-
	Programmer	Padaliya				
11	Acc. / Sup.	Vacant	-	-	-	-
12	Steno-	Vacant				-
	grapher					
13	Driver	Vacant	-			1
14	Driver	Vacant	-	1	-	1
15	Supporting	Smt.U.G	-	28800/-	16-09-2004	35,157/-
	staff	Zala				
16	Supporting	Vacant	-		-	-
	staff			_		

1.6. Total land with KVK (in ha):

Sr. No.	Item	Area (ha)		
1	Under Buildings	2.87		
2.	Under Demonstration Units	0.50		
3.	Under Crops	13.80		
4.	Horticulture	0.50		
5.	Farm Pond	0.48		
6.	Others (Road & drainage)	1.85		
	Total	20.00		

Infrastructural Development: Buildings 1.7.

A)

		Source			Stag	ge		
Sr.		of	(Complete	9		Incomp	olete
No	Name of building	funding	Completion Date	Plinth area (Sq.m)	Expe nditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative	KVK	31-3-2011	550	5500000	-	-	-
	Building							
2.	Farmers Hostel	KVK	31-3-2011	305	3000000	-	-	-
3.	Staff Quarters (6)	KVK	31-3-2011	400	4000000	ı	-	-
4.	Poly House	RKVY	31-3-09	320	281602	ı	ı	-
5	Net House	RKVY	31-3-09	150	64498	1	ı	-
6.	Store room	RKVY	9-2-10	70.61	454500	ı	ı	-
7.	Training hall	RKVY	11-2-10	190.99	1395800	-	-	-
8.	Processing plant	RKVY	11-2-10	197.31	1536400	-	1	-
9.	Implement shed	RKVY	9-2-10	77.33	297800	-	-	-
10	Farm Godown	KVK	2012	-	400000	-	-	-
11	Processing Unit	ICAR	2019	196.80	3500000	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualis	2004	590000	369162	Working
Tata Sumo	2008	600000	250365	Not Working, Purchase from MP grant
Motorcycle	2010	50000	49409	Working

C) Equipments & AV aids

C) Equipments & AV aids	T	1	г
Name of the equipment	Year of purchase	Cost (Rs.)	Present status
1	2	3	4
Generator set	2002	24900	Working
Color TV (Akai) with Remote	2002	13850	Working
Panasonic PT LC 50 LCD Project	2002	164368	Working
PA Audio Vision System	2002	20000	Working
Computer System Intel Pentium IV	2003	32000	Working
Computer Wipro Super Genius Desktop	2006	-	Working
Electronic Kelvinator Refrigerator	2006	10,500	Working
Solar steel digital water plant	2006	45000	Working
Balaji Bio Gas Plant	2007	32000	Working
Aspee Tractor Mounted Sprayer	2007	32000	Working
Laptop Computer (HCL)	2008	47500	Working
Air Assisted Blower type sprayer	2009	98750	Working
Photo copier Machine (Richo)	2009	115300	Working
LCD Projector with ceiling mount kit Model-PT-CB50NTE-2GA (Panasonic)	2009	92155	Working
DVD Home theater system with Speaker (HCL)	2009	28000	Working
LCD TV 22" Model- 22LG30 (L. G.)	2009	27287	Working
Cotton stalk Shredder	2009	121000	Working
Groundnut Digger-Tractor Operated	2009	78500	Working
Cultivator cum Rotavator	2009	90000	Working
Groundnut Decorticator	2009	95850	Working
Multi crop Thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar – tractor operator	2009	44000	Working
Digital Camera (Nikon) P- 90 12.1	2010	24300	Working
Acer desktop veriten PC	2016	46032	Working
Digital Xerox machine with printer	2016	144391	Working
K-yan pro standerd	2016	110644	Working
Home UPS inverters system	2016	79000	Working

1.8. Details of SAC meetings to be conducted in the year

Date	Name & Designation of Participants	Salient Recommendations	Action taken
1	2	3	4
12/03/2020	Dr. V.P. Chovatiya,	> FLDs should be conducted	All
	Honorable Vice Chancellor, JAU,	with newly released	Suggestion
	Junagadh.	varieties; correction should	accepted
	Dr. B.K. Sagarka,	be made in wheat var. GW-	
	Directorate of Extension,	451/GJW-463 instead of	
	JAU, Junagadh	GW-361.	

Dr. D. S. Hirpara,
Res. Sci. (DF), DFRS, JAU, Targhadia
Dr. G. R. Sharma, Principal, Polytechnic
in Agril. Engg., JAU, Targhadia
Dr. B. B. Kabaria, Senior Scientist &
Head, KVK, JAU,
Targhadia, Dist: Rajkot
Dr. N. B. Jadav,
Scientist & Head, KVK, JAU,
Pipalia (Dhoraji), Dist. Rajkot
Shri. D. A. Saradava,
Scientist & Head, KVK, JAU,
Morbi, Dist. Morbi
Shri A.J. Chovatia,
Asstt. Director of Agriculture, District
Panchayat, Rajkot
Shri. N. M. Kamariya, Asstt. Director of
Horticulture,
Dept. of Horticulture, Rajkot
Shri M. B. Nasit,
Dy. Project Director,
ATMA, Rajkot
Dr. G. K. Vora,
Veterinary Officer, Dept. of Animal
Husbandry, Kuvadava, Dist:Rajkot
Dr. Amit H. Patel,
Rajkot Dairy (Gopal Dairy),
Rajkot
Shri. Vasantbhai Joshi,
All India Radio,
Rajkot
Dr. H. C. Chhodvadia,
Asstt. Directorate of Extension,
JAU, Junagadh
Ritaben Vora,
Centre for Environment Education,
Jasdan, Dist: Rajkot
Shree Hiteshbhai P. Kyada
Village: Rafala,
Tal: Rajkot, Dist.: Rajkot
Shree Kalyanbhai C. Ramani
Village : Lilapur, Tal: Jasdan,
Dist.: Rajkot
Shree Vinubhai R. Hirpara
Village: Lilapur, Tal: Jasdan,
Dist.: Rajkot
Lilaben Lakhataria
Village: Lalavadar,
Tal: Vinchhiya, Dist.: Rajkot
,

- New crops/plants i.e. Jamun and Rayan should be introduced in the area.
- ➤ OFT should be conducted on newly released variety of brinjal crop.
- Correction should be made monopodia instead of sympodia for side branches of cotton in OFT of "Detopping in cotton crop". Also, treatment No. 3 should be taken as detopping at 75 DAS with detopping of monopodia branches at 90 DAS.
- ➤ OFT should be conducted on Bypass protein, Bypass fat and Chelated mineral mixture with combine in single animal, if possible.
- Large sample size should take for significances of results in OFT on "Fortified health management for reducing kid mortality of cow".
- ➤ Add one more treatment as and control consult Entomology department, JAU, Junagadh for quantity per trial in OFT "Preservation techniques of different pulses with organic methods". Pro super bag should be provided as a input in this OFT.
- ➤ More training should be planned on importance of organic farming with different crops.
- To conduct training on waste management.
- ➤ Publish success story of cloth stitch under vocational training conducted for SHG.
- ➤ Newspaper coverage and HRD during the year should be included in presentation.
- Tree plantation should be done in NICRA village.

2. DETAILS OF DISTRICT

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

Sr. No	Farming system/enterprise	
1	Groundnut – Wheat/ Cumin, Cotton – Summer Groundnut/ Pulses/sesame	
2	Dairy product	
3	Farm Waste Management specially for cotton stalk	
4	Fruit and Vegetable Preservation	
5	Value addition in Groundnut, Til ,Gram etc.	

2.2 Description of Agro-climatic Zone & major agro ecological situations

a) Soil type

Sr. No	Agro-climatic Zone	Characteristics
1.	North	The total geographical area of North Saurashtra Agro Climatic Zone is 35.2
	Saurashtra	Lacs ha. Out of total area, 73.40 per cent area falls under arid and semi-arid
	Agro	region. The soils of this zone are shallow to moderately deep. The soils of
	Climatic	Rajkot district is low in their availability of nitrogen while medium in
	Zone (VI)	phosphorus and high in available potash except the available phosphorus and
		potash is in medium category in adopted villages. Monsoon commences
		usually by the end of June and withdraws by middle of September. Average
		annual rainfall of districts is 648 mm while 1160.4mm during 2020.

b)Topography

Sr. No	Agro ecological situation	Characteristics
1.	Situation No. 4	Shallow black soil with 500-600 mm Rainfall
2.	Situation No. 14	Hilly Soils with 500-600 mm Rainfall

2.3 Soil types

Sr. No	Soil type	Characteristics	Area in ('000) ha
1.	Clay to clay loam	Medium black calcareous soil	258
2.	Sandy Clay Loam to Clayey	Well drained soil with rapid permeability	301
3.	Sandy to Sandy loam 10 cm,	Well drained soils	
	Calcareous		

2.4. Area, Production and Productivity of major crops cultivated in the district (2019-20)

Sr. No.	Crop	Area (ha)	Production (Tone)	Productivity (Kg. /ha)
1.	Groundnut	233895	894862	3782
2.	Cotton	264430	504053	1906
4.	Sesamum	1676	1671	997
5.	Castor	5551	14322	2580
6.	Millet	589	778	1321
7.	Green gram	1319	1260	955
8.	Black gram	1111	1199	1079
9	Pigeon pea	1746	3148	1803
10	Wheat	139257	517887	3719
11	Gram	36850	74880	2032
12	Cumin	29812	23438	786
13	Groundnut (Summer)	3685	8276	2246
14	Millet (Summer)	1453	3473	2390

2.4 Weather data (2020)

Month	Rainfall (mm)	Temperature ⁰ C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	0	25.6	9.6	73.5	40.6
February	0	30.9	13.2	62.0	31.2
March	0	33.3	16.9	69.2	27.5
April	0	39.6	22.3	71.1	25.5
May	0	41.5	25.1	74.4	27.8
June	85.9	37.4	25.2	81.2	53.0
July	276.0	33.6	25.1	86.3	67.5
August	674.1	30.9	23.8	92.5	81.1
September	84.7	33.4	24.0	87.5	67.0
October	39.7	35.1	21.6	78.7	51.7
November	0	32.2	14.9	57.2	34.4
December	0	29.8	12.4	62.5	41.4
	1160.4				

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

Category	Population ('000 Nos.)	Production ('000 tone)	Productivity
Cattle	1		
Cows	452	3326.90	
Buffalo	362	5284.70	
Sheep	263.40	266.81(Production of wool)	
Goats	197	231.24	
Pigs	1		
Crossbred			
Indigenous			
Poultry		(Production of eggs in Lakh	Nos.)
Hens			
Desi	7.8	3.92	
Improved	13.4	32.52	
Ducks			
Others	1		1
Horse and Camel			
Dogs	9		

2.7 Details of Operational area / Villages

Sr. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas	
1	Jasdan	Cluster I	Barvala Kamlapur Lilapur Hadmatiya Kalasar	*Groundnut, Cotton, Sesamum, Wheat, Cumin, Gram, Garlic, Onion.	Pink ball worm in Cotton, Heavy infestation of sucking pest in cotton, phytopthora	* IPM and INM in major crops of this area * Reducing the inter- calving period in Buffalo	
2	Vinchhiya	Cluster II	Amrapur Hingolgadh Gundala Bhopra Lalavadar	*Enterprises are dairy business, Vermi composting,	disease in sesamum and white grub infestation in groundnut. Long	* Motivate the farmers for arid Horticultural crops. * Efficient use of	
3	Rajkot	Cluster III	Haripar Makanpar Umrali Khachharia Hodathali	preparation of roasted groundnut and chikki from groundnut and sesame	preparation of roasted groundnut and chikki from groundnut and sesame	inter-calving period in Buffalo, Nutritional deficiency in animal problem, feed and fodder, Less area under Horticultural crops	irrigation water * To create the awareness for grading, processing and marketing (value addition)

2.8 Priority thrust areas

Crop/Enterprise	Thrust area						
Groundnut,	Increasing the productivity of the major crops by adopting the						
Sesamum etc	recommended of dry farming technologies and to create awareness for						
	value addition.						
Water	In situ soil moisture conservation and rainwater harvesting. Use of cotton						
conservation	stalk for organic manure.						
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing						
	the cost of production.						
Arid Fruits	Promoting the arid horticulture.						
Livestock prod.	Enhancing productivity of milch animals by proper feeding and breeding						
	management.						
women	Providing self employment through skill oriented income generating						
empowerment	activities						
Agriculture	Developing interest among youth for agriculture as a profession.						
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.						
PHT	Minimizing the post harvest losses and to create the awareness for proper						
	storage.						
Income generating	Self employment among rural youth and skill oriented income generating						
activities	activities.						
Nutrition	Care and importance of nutrition in children & pregnant women.						
management							

3. TECHNICAL ACHIEVEMENTS

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

		0	FT		FLD			
ĺ			1		2			
ĺ	Numb	er of OFTs	Numbe	r of farmers Number of FLDs		er of FLDs	Number of farmers	
ĺ	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
	8	6	14	10	125	125	125	125

Training				Extension Programmes			
		3		4			
Numbe	Number of Courses Number of			Number of N		Nu	mber of
		Participants		Programmes		participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
106	77	1738	2274	-	95	-	2107

Seed Produ	action (Qtl.)	Planting materials (Nos.)		
	5	6		
Target	Achievement	Target	Achievement	
-	123.30	1	-	

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

3.1. B. Operational areas details during 2020

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	Groundnut	Variety	-	All cluster	FLD
		White grub	-	All cluster	FLD, OFT and Training
		Stem rot	-	All cluster	FLD and Training
2	Cotton	Water stress	-	All cluster	OFT
		Pink ballworm	-	All cluster	FLD and Training
3	Cumin	Stem rot	-		FLD, OFT and Training
4	Gram	Variety	-	All cluster	FLD and Training

3.2. Technology Assessment

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

Thematic areas	Cereals	Oilseeds	Pulses	Commer cial Crops	Vegetables	Fruits	Flower	Plant ation crops	 TOTAL
Integrated Nutrient		1							1
Management									
Varietal Evaluation									
Integrated Pest		1							1
Management									
Integrated Crop									
Management									
Integrated Disease									
Management									
Small Scale Income									
Generation									
Enterprises									
Weed Management									
Resource		1		1					2
Conservation									
Technology									
Farm Machineries									
Integrated Farming									
System									
Seed / Plant									
production									
Value addition									
Drudgery Reduction									
Storage Technique			1						1
Mushroom cultivation									
TOTAL		3	1	1					5

A.2 Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Wormi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of								
Management								
Value Addition								
Production and								
Management								
Feed and Fodder								
Small Scale income								
generating enterprises								
TOTAL								

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed		Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management		Organic farming in Kharif Groundnut	1	1	0.4
Varietal Evaluation					
Integrated Pest Management		Infestation of white grub in organic Kharif Groundnut	1	1	0.4
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology		Effect of mulching on productivity of kharif groundnut	1	1	0.4
	Cotton	Water management in drip irrigated cotton crop	1	1	0.4
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique		Preservation techniques of different pulses with organic methods	1	5	-
Mushroom cultivation					
Total	<u>t</u>		5	9	1.60

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
Evaluation of breeds				
Nutrition management				
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total	_	_		

C1. Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameter s of assessme nt	the	of	Feed back from the farmer	Any refine ment needed	Justifica tion for refine ment
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Rainfed	Higher use of chemical fertilizers	Organic farming in Kharif Groundnut	1	1. Farmers practices 2. Cow base farming 3. All Bio products.	Yield param eters, Econom ics	-	-	-	-	-
Groundnut		Higher use of pesticides	Infestatio n of white grub in organic Kharif Groundnu t		1. Farmers practices 2. Cow base farming 3. All Bio products.	Growth and yield parame ters 2. % of white grub infestati on	-	-	-	-	-
Groundnut	Rainfed	High soil moisture losses during the crop period.	Effect of mulching on productivity of kharif groundnut	1	1. Without mulching (Farmers' practice) 2. Farm residues mulching (Recommen ded Technology)	Yield Kg/ha and Soil Moisture Content (%)	-	Increase d the yield 15.02%	Farm residues mulching conserve soil moisture	-	-
Cotton		Water scarcity in the region due to less rainfall.	Water managemen t in drip irrigated cotton crop (Plastic mulching in drip irrigated cotton crop)		1.Without mulching (Farmers' practice) 2. Plastic mulch with drip irrigation) (Recommen ded Technology)	Yield (Kg/ha) and Soil Moisture Content (%)	-	d the cotton yield 15.45%	save water and gave higher yield		
Farm woman	•	Lack of knowledg e	Preservati on technique s of different pulses with organic methods		1. Use of Neem leaves (50gm dry leaves/500g m food grain) 2. Use of Castor oil (1kg castoroil/ 100Kg food grain) 3. Use of pro super bag 4. Control			Result A	waited		

Contd..

Contd					
Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Organic farming in	n <i>Kharif</i> Groundnut				
T1 Farmers practices	National Centre of Organic farming, Ghaziabad (U.P.)	2250	Kg/ha	81000	3.43
T2 Cow base farming		1900	Kg/ha	78250	3.05
T3 All Bio Products		1550	Kg/ha	71500	2.84
	grub in organic <i>Kha</i>	<i>rif</i> Groundnut			
T1 Farmers practices	National Centre of Organic farming, Ghaziabad (U.P.)	2250 (2.2%)	Kg/ha (% plant infestation)	81000	3.43
T2 Cow base farming		1900 (3.0%)	Kg/ha (% plant infestation)	78250	3.05
T3 All Bio Products		1550 (1.6%)	Kg/ha (% plant infestation)	71500	2.84
Effect of mulching	on productivity of kh	arif groundnu	t		•
1. Without mulching (Farmers' practice)		Yield: 1065 Soil Moisture content (23.65%)	Yield (kg/ha) Soil Moisture content (5)	31428	1.97
2. Farm residues mulching (Recommended Technology)	Junagadh Agricultural University, Junagadh	Yield: 1225 Soil Moisture content (26.15%)	Yield (kg/ha) Soil Moisture content (5)	38343	2.10
Water management	t in drip irrigated cot	ton crop	<u> </u>		1
1. Without mulching (Farmers' practice)		Yield: 2750 Soil Moisture content (24.25%)	Yield (kg/ha) Soil Moisture content (5)	105925	3.27
2. Plastic mulch (20 micron) (Recommended Technology)	RTTC, Junagadh Agricultural University, Junagadh	Yield: 3175 Soil Moisture content (27.35%)	Yield (kg/ha) Soil Moisture content (5)	123863	3.37

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

OFT-1

- 1. Title of Technology Assessed : Organic farming in Kharif Groundnut
- 2. Problem Definition: Non use of organic products in farming
- 3. Details of technologies selected for assessment :
 - 1. RDF (Chemical)+ Seed treatment
 - 2. Only cow based
 - 3. All Bio product

Source of technology: JAU

- 4. Production system and thematic area: NCDF, Ghaziabad (UP)
- 5. Production system and thematic area: NRM
- 6. Performance of the Technology with performance indicators:

No	Name of the farmer	Name of the Village	Yield (Kg/ha)				
			T1	T2	Т3		
1	KVK Farm	Targhadia	2250	1900	1550		
	Average			1900	1550		

- Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques: Chemical treatment has given higher production as compare to organic treatment.
- 8. Final recommendation for micro level situation :Yield can be increased and white grub infestation can be reduced with use of *Trichoderma* in mixture with castor cake.
- 9. Constraints identified and feedback for research : White grub infestation was observed more in organic are as compare to chemical treatment.
- 10. Process of farmers participation and their reaction: This was first trial for experimentation and it will be improved and repeated nest.

OFT-2

- 1. Title of Technology Assessed: Infestation of white grub in organic Kharif Groundnut
- 2. Problem Definition: Higher use of pesticides
 - 3. Details of technologies selected for assessment:
 - 1. RDF Chemical + seed treatments for white grubs and sucking pests
 - 2. Only cow based
 - 3. All Bio product

Source of technology: JAU

- 4. Production system and thematic area: NCDF, Ghaziabad (UP)
- 5. Production system and thematic area: NRM
- 6. Performance of the Technology with performance indicators:

	Name of the	Name of the			Result			
No	farmer	Village						
110			Unit	T1	T2	T3		
1	KVK Farm	Targhadia	Yield	2250	1900	1550		
1			(Kg/ha)					
	•		(% plant	2.2	3.0	1.6		
			infestation)					

- 7 Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques: Chemical treatment has given higher production as compare to organic treatment.
- 8. Final recommendation for micro level situation :Yield can be increased and white grub infestation can be reduced with use of *Trichoderma* in mixture with castor cake.
- 9. Constraints identified and feedback for research : White grub infestation was observed more in organic are as compare to chemical treatment.
- 10. Process of farmers participation and their reaction: This was first trial for experimentation and it will be improved and repeated nest.

OFT-3

- 1 Title of Technology Assessed : Effect of mulching on productivity of kharif groundnut
- 2 Problem Definition: High soil moisture losses during the crop period.
- 3 Details of technologies selected for assessment: Impact of farm residues mulching on productivity of kharif groundnut (JAU Reco.)
 - T1: Without mulching
 - T2: Farm residues mulching
- 4 Source of technology: JAU
- 5 Production system and thematic area: Resource Conservation Technology

6 Performance of the Technology with performance indicators:

Farmer	Name of the farmer	Name of the Village	Yield (Kg/ha)	Soil Moisture content (%)		
No			T1	T2	T1	T2	
1	KVK Farm	Targhadia	1065	1225	23.65	26.15	
	Average			1225	23.65	26.15	

- 7 Feedback, matrix scoring of various technology parameters done through farmer'sparticipation / other scoring techniques : Farm residues mulching enhanced the kharif groundnut yield
- 8 Final recommendation for micro level situation :Use of farm residues mulch in kharif groundnut.
- 9. Constraints identified and feedback for research: -
- 10. Process of farmers participation and their reaction : --

OFT-4

- 1. Title of Technology Assessed : Water management in drip irrigated cotton crop.

 (Plastic mulching in drip irrigated cotton crop)
- 2. Problem Definition: Water scarcity due to less rainfall and reduce yield of cotton in Rajkot district
- 3. Details of technologies selected for assessment : Effect of plastic mulching on productivity of drip irrigated cotton (JAU Reco.)
 - T1: Without mulching
 - T2: Plastic mulching (20 micron)
- 4. Source of technology: JAU
- 5. Production system and thematic area: Resource Conservation Technology
- 6. Performance of the Technology with performance indicators:

Farmer	Name of the farmer	Name of the	` • ′			
No		Village	T1	T2	T1	T2
1	Babubhai Ramani	Khorana	2750	31.75	24.25	27.35
Average			2750	31.75	24.25	27.35

- 7. Feedback, matrix scoring of various technology parameters done through farmer'sparticipation / other scoring techniques : Silver-black plastic mulch with drip irrigation had enhanced the cotton yield
- 8. Final recommendation for micro level situation :Use of silver black plastic mulch (25 micron) in drip irrigated cotton
- 9. Constraints identified and feedback for research: -
- 10. Process of farmers participation and their reaction : --

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 2020 and recommended for large scale adoption in the district

				Details of popularization		ntal spread	l of
S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	methods suggested to the	No. of villages	No. of farmers	Area in ha
				Extension system			
1	Groundnut	IPM	Varietal evaluation+ IPM through Chlorpyriphos	Management of white grub through seed treatment	8	10	4.0
2	Groundnut	INM	Variety+ INM+ IPM+IDM	To test yield potentiality of newly released groundnut variety	7	10	4.0
3	Gram	Varietal evaluation	GJG-5	To test yield potentiality of newly released gram variety	9	10	4.0
4	Cumin	Pest Management	IPM	Management of wilt through bio agent	4	5	2.0
5	Buffalo	Nutrient Manage ment	Chelated mineral mixture power	-	4	20	20
6	Buffalo	Nutrient Manage.	by Pass protein	-	3	10	10
7	Buffalo	Nutrient Manage.	by pass fat	-	3	10	10
8	Fodder	"Fodder managemen	Jinjvo grass (Marvel grass)	-	2	10	10

B. Details of FLDs implemented during 2020 oilseeds

SI. No	Crop	Thematic area	Techno ogy Demon strated	Season and year	Area (den	of farme	on	Reasons for shortfall in achieveme nt
					Proposed	Actual	SC/ST	Others	Total	
1	Ground nut	(GJG-22)	Varietal evaluati on+ IPM through Chlorpy riphos		4.0	4.0	1	9	10	-
2	Ground nut	INM (GJG-22)	Varie ty+ INM + IPM+I DM	Kharif 2020	4.0	4.0	0	10	10	-

Pulses:

Sr.	Crop	Thematic	Technology	Season and	Area ((ha)		. of farn monstra	tion	Reasons for short-
No.	Стор	area	Demonstrated		Proposed	Actual	SC/ ST	Others		
1	Gram	Varietal	Variety	Rabi	4.0	4.0	0	10	10	
1	Grain	evaluation	(GJG-5)	2019-20	4.0	4.0	0	10	10	_

Others

a		Th4:-					No.		rmers/	
Sr.	Crop	Thematic		Season	Area	(ha)		onstrati	on	ns for
No.	СТОР	area	Demonstrated	and year	Propo sed	Actual	SC/ ST	Others	Total	short- fall
1	Cumin	IPM	Management of wilt through bio agent	Rabi 2019-20	2.0	2.0	0	5	5	-
2	Buffalo	Nutrient Manage ment	By pass protein	-	-	-	4	16	20	1
3	Buffalo	Nutrient Manage ment	By pass fat	-	-	-	3	7	10	-
4	Buffalo	Manage	Jinjavo	Kharif 2020	-	-	-	10	10	-
1	Seasonal vegetables	Nutritional Garden		Kharif 2020	-	-	-	50	50	-

Details of farming situation

Сгор	Season	rming situation (RF/Irrigated)	Soil type	Stat	us of	soil	Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
	9 1	Farming (RF/Irri	Š	N	P	K					
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	Kharif	RF	M. B.	L	M	Н	Wheat/ Cumin	13/6/20	18/10/20	1160.4mm	-
Groundnut	Kharif	RF	M. B.	L	M	Н	Wheat/ Cumin	5/6/20	1/10/20	1160.4mm	-
Cumin	Rabi	Irrigated	M. B.	L	M	Н	-"- Cotton/ G'nut	18/11/19	22/2/20	-	-
Gram	Rabi	Irrigated	M. B.	L	M	Н	_"_	25/11/19	21/2/20	-	-

Technical Feedback on the demonstrated technologies

C	T. In. I
5.	Feed Back
No.	
1	To enhance the farmers to use recently developed certified varieties of different crops.
2	Proper use of fertilizers, Irrigation, insecticides and fungicide as per recommendation to
	reduce the production cost.
3	Low yield of Garlic variety G-4 to compare local variety.
4	High yield and big size of Onion variety Red-3 to compare local variety

Farmers' reactions on specific technologies

S.	Feed Back
No.	
1.	White grub problem in groundnut
2.	Pink boll worm in cotton
3.	Reddening in cotton
4.	Late and poor germination was observed in cumin variety GC-4
5.	Cumin variety GC-4 is high yielding but gradually loosing wilt resistant character
6.	Heavy infestation of thrips in crops like garlic, onion, cotton
7.	Research needed for control of insect-pests and diseases in organic farming

Extension and Training activities under FLD

SI.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	7	August and February	152	-
2	Farmers Training	5	2020	121	-
3	Media coverage	2	-	•	-
4	Training for extension functionaries	•	-		-

C. Performance of Frontline demonstrations

Crop	Thematic	technology	Variety	No. of	Area		Yiel	d (q/ha)		% Ingresses		omics of o (Rs.)		ation	Е	conomics (Rs.		k
Crop	Area	demon-strated	variety	Farmers	(ha)	High	Demo Low	O Average		in yield	Gross	Gross Return			1 1	Gross Return	Net Return	BCR (R/C)
Groundnut	Pest Management	Varietal evaluation+ IPM through Chlorpyriphos	GJG-22	10	4.0	35.00	26.00	30.5	25.50	19.60	37200	115200	78000	3.09	35900	101000	65100	2.81
Groundnut		Variety+ INM+ IPM+IDM	GJG-22	10	4.0	32.00	25.00	28.50	23.00	23.9	39000	130000	91000	3.33	37000	115500	78500	3.12

Frontline demonstrations on oilseed crops

Frontline demonstration on pulse crops :

Cron	Thematic	technology	Vonicty	No. of	Area		Eq Yi	eld (q/ha)		% Ingresses	Econo	omics of o (Rs.		ation	E	Conomics (Rs.	s of check /ha)	S
Crop	Area	demon- strated	Variety	Farmers	(ha)	High	Demo	o Average	Check	in yield	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Gram	Varietal evaluation	Varietal evaluation	GJG-5	10	4	35.20	28.50	31.78	26.15	21.53	31700	127120	95420	4.01	30500	104600	74100	3.43

FLD on Other crops

Category		Name of the		Area		Yield	l (q/ha)		% Change in Yield	Parai disease	her meters percent			demonstra /ha)	tion	Ecoi	nomics of o	check (Rs./	ha)
& Crop	Area	technology	rarmers	(ha)	High	Demo Low	Average	Check	in rieia	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
	Pest Manage ment	GC-4	5	2.0	11.35	9.75	10.57	8.99	17.60	6	14.3	38300	116325	78025	3.04	35500	98917	63417	2.79

FLD on Livestock

Category		Name of the		No.of Units	Major p	arameters	%		her	Econon	nics of der	nonstratio	n (Rs.)	E	conomics		
	area	technology demonstrated	Farmer	(Animal/ Poultry/ Birds, etc)	Demo	Check	change in major parameter	Demo	meter Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	(Rs. Gross Return) Net Return	BCR (R/C)
	Nutrient Manage- ment	Bypass Protein (22%)	20	1	1680 kg/lactation	1490 kg/lactation	12.75	-	_	59852	79533	19681	1.32	53598	68540	14942	\$î
	Nutrient Manage- ment	By Pass Fat	10	1	8.1% Fate	6.6% fat	22.72	-	-	-	-	-	-	-	-	-	_
	fodder Manage- ment	Jinjvo	10	1	83 q/ha	72 q/ha	15.28	-	-	-	-	-	-	-	-	-	-

FLD on Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units
Vegetables	Nutritive & fresh healthy vegetables	Kitchen garden	50	50

Farm women reaction

- Kitchen gardening gives continues supply of fresh vegetables at lower cost which gives daily nutritious diet
- In kitchen gardening farm women are not applying any agrochemicals so they produce organic vegetables
- Before demonstration, farm women were growing only three to four vegetable crops in their backyard but after demonstration they said that they will grow different vegetable crops through kitchen gardening in scientific way
- They gave extra vegetables to their neighbors
- Farm women said that now we will generate income by selling of extra vegetables because now they are aware about precious organic vegetables
- Due to kitchen gardening children learned to about plant cognization and bio diversity.

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of			Participants						
	courses		Others			SC/ST		G	rand To	tal
		Male		Total	Male		Total		Female	
I Crop Production										
Cropping Systems	1	100	24	124				100	24	124
Crop Diversification	2	42	8	50				42	8	50
Seed production	1	25		25				25		25
Production of organic inputs	3	65	10	75				65	10	75
Others (pl specify)	1	41	10	51	5		5	46	10	56
Total	8	273	52	325	5	0	5	278	52	330
II Horticulture										
a) Vegetable Crops	1	55	10	65				55	10	65
Total (a)										
b) Fruits										
Training and Pruning	1	29	5	34				29	5	34
Total (b)										
c) Ornamental Plants										
Total (c)										
d) Plantation crops										
Total (d)										
e) Tuber crops										
f) Spices										
Production and Management										
technology	1	42		42				42		42
Total (f)										
g) Medicinal and Aromatic										
Plants										
Others (pl specify)	1	16		16				16		16
Total (g)										
GT (a-g)	4	142	15	157	0	0	0	142	15	157
III Soil Health and Fertility										
Management										
Soil fertility management	1	46	05	51				46	05	51
Production and use of										
organic inputs	1	23		23				23		23
Soil and Water Testing	1	52		52	10		10	62		62
Others (pl specify)	1	40	10	50				40	10	50
Total	4	161	15	176	10	0	10	171	15	186
IV Livestock Production										
and Management										
Dairy Management	2	36		36	3		3	39		39
Animal Nutrition Manage.	1	19		19	5		5	24		24
Disease Management	2	41		41	2		2	43		43
Feed & fodder technology	1	18		18	2		2	20		20
Production of quality animal										
products	1	20		20	3		3	23		23
Others (pl specify)										
Total	7	134	0	134	15	0	15	149	0	149

V Home Science/Women										
empowerment										
Household food security by										
kitchen gardening and										
nutrition gardening	1		36	36		4	4		40	40
Design and development of										
low/minimum cost diet	1		10	10					10	10
Value addition										<u> </u>
Women empowerment	1		11	11					11	11
Location specific drudgery										
reduction technologies										
Rural Crafts										
Total	3	0	57	57	0	4	4	0	61	61
VI Agril. Engineering										
Farm Machinary and its										
maintenance	1	27		27				27		27
Use of Plastics in farming										
practices										<u> </u>
Repair and maintenance of										
farm machinery and										
implements										
Small scale processing and										
value addition	1	25		25				25		25
Operation and maintenance										
of MIS	1	13		13	2		2	15		15
Resource conservation										
Total	3	65	0	65	2	0	2	67	0	67
VII Plant Protection										
Integrated Pest Management	1	17		17				17		17
Bio-control of pests and										
diseases	2	50		50				50		50
Production of bio control		Ţ								
agents and bio pesticides	1	29		29				29		29
Others (pl specify)	1	40		40				40		40
Total	5	136	0	136	0	0	·		0	
GRAND TOTAL	34	911	139	1050	32	4	36	943	143	1086

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of	Participants								
	courses		Others			SC/ST		Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Integrated Crop Management	2	52		52	2	1	3	54	1	55
Integrated nutrient										
management	2	66		66	5	3	8	71	3	74
Total	4	118	0	118	7	4	11	125	4	129
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	2	40	5	45	4		4	44	5	49
Total (a)										
b) Fruits	2	60		60	9		9	69		69
Total (b)										

c) Ornamental Plants										
Total (c)										
d) Plantation crops										
Total (d)										
e) Tuber crops										
Total (e)										
f) Spices										
Processing and value addition	1	35		35	2		2	37		37
Others (pl specify)		33		35				37		37
Total (f)										
g) Medicinal and										
Aromatic Plants	1	23	2	25				23	2	25
Total (g)		25								
GT (a-g)	6	158	7	165	15	0	15	173	7	180
III Soil Health and	<u> </u>	130	,	105	10	U	15	175		100
Fertility Management										
Balance use of fertilizers	2	52		52	9		9	61		61
Total	2	52 52		52 52	9		9	61		61
IV Livestock Production		34		32	9		9	01		- 01
and Management										
Dairy Management	1	21		21	4		4	25		25
Disease Management	2	38		38	2		2	40		40
Feed & fodder technology	1	24		24	1		1	25		25
Production of quality	1	24		24	1		1	23		
animal products	1		20	20		2	2		22	22
-	1		20	20		<i></i>				
Others (pl specify) Total	5	83	20	103	7	2	9	90	22	112
V Home Science/Women	5	0.5	20	103	/	4	9	90		112
empowerment Household food security by										
kitchen gardening and										
	1		21	21		2	2		23	23
nutrition gardening Design and development of	1		21	21		2				
low/minimum cost diet	2		32	32		6	6		38	38
Value addition	$\frac{2}{2}$		43	43		4	4		47	47
			43	43		4	4		4/	47
Women empowerment										
Rural Crafts	1		10	10					10	10
Child and women health	1		10	10					10	10
Storage loss minimization	1		22	22					22	22
techniques	1 7	0	23	23	0	10	10	0	23	23
Total	7	0	129	129	0	12	12	0	141	141
VI Agril. Engineering										
Farm machinery and its	1	22		22	2		2	25		25
maintenance	1	22		22	3		3	25		25
Installation and maintenance	1	26		26	1		1	27		27
of micro irrigation systems	1	26		26	1		1	27		27
Use of Plastics in farming	1	25		25	4		4	2.5		2.
practices	1	25		25	1		1	26		26
Production of small tools										
		i l								
and implements		1						1		
Repair and maintenance of farm machinery & implement										

Small scale processing and										
value addition										
Post Harvest Technology	1	21		21	2		2	23		23
Others (Rain water										
harvesting)	1	23		23	4		4	27		27
Total	5	117	0	117	11	0	11	128	0	128
VII Plant Protection										
Integrated Pest Management	2	50		50	6		6	56		56
Bio-control of pests and										
diseases	2	55		55				55		55
Production of bio control										
agents and bio pesticides	2	53	2	55				53	2	55
Total	6	158	2	160	6	0	6	164	2	166
GRAND TOTAL	35	687	158	845	54	18	72	741	176	917

 $\label{eq:consolidated} Farmers'\ Training\ including\ sponsored\ training\ programmes-CONSOLIDATED$ $(On+Off\ campus)$

Thematic area	No. of									
	courses		Others			SC/ST		G	rand To	tal
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Crop Diversification	2	42	8	50				42	8	50
Seed production	1	25		25				25		25
Integrated Crop Management	2	52		52	2	1	3	54	1	55
Integrated nutrient management	2	66		66	5	3	8	73	3	76
Production of organic inputs	3	65	10	75				65	10	75
Others (pl specify)	1	41	10	51	5		5	46	10	56
Cropping system	1	100	24	124				100	24	124
Total	12	391	52	443	12	4	16	405	56	461
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	3	95	15	110	4	0	4	99	15	114
Total (a)										
b) Fruits										
Training and Pruning	3	89	5	94	9		9	98	5	103
Total (b)										
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
Total (c to d)										
f) Spices										
Production and Management										
technology	1	42	0	42				42	0	42
Processing and value addition	1	35		35	2		2	37		37
Total (f)										
g) Medicinal and Aromatic										
Plants										
Others (pl specify)	2	39	2	41				39	2	41
Total (g)										
GT (a-g)	10	300	22	322	15	0	15	315	22	337

III Soil Health and Fertility										
Management										
Soil fertility management	1	46	05	51				46	05	51
Production and use of organic										
inputs	1	23		23				23		23
Balance use of fertilizers	1	52		52	10		10	62		62
Soil and Water Testing	1	40	10	50				40	10	50
Others (pl specify)	2	52		52	9		9	61		61
Total	6	213	15	228	19	0	19	232	15	247
IV Livestock Production and	-									
Management										
Dairy Management	3	57		57	7		7	64		64
Animal Nutrition Management	1	19		19	5		5	24		24
Disease Management	4	79		79	4		4	83		83
Feed & fodder technology	2	42		42	3		3	45		45
Production of quality animal		12		12	3			13		
products	2	20	20	40	3	2	5	23	22	45
Others (pl specify)		20	20	40	3			23	22	
Total	12	217	20	237	22	2	24	239	22	261
V Home Science/Women	12	21/	20	237			<u> </u>	233	22	
empowerment										
Household food security by										
kitchen gardening and nutrition										
gardening	2		57	57		6	6		63	63
Design and development of			31	31		U	0		0.5	- 03
low/minimum cost diet	3		42	42		6	6		48	48
Storage loss minimization	3		42	42		U	0		40	40
techniques	1		23	23					23	23
Value addition	2		43	43		4	4		47	47
Women empowerment	1		11	11		4	4		11	11
-	1		11	11					11	11
Location specific drudgery										
reduction technologies Rural Crafts										
	1		10	10					10	10
Women and child care	1	Λ	10	10	0	1.0	17	Λ	10	10
Total	10	0	186	186	0	16	16	0	202	202
VI Agril. Engineering										
Farm Machinary and its	1	27		27				27		27
maintenance	1	27		27				27		27
Installation and maintenance of		20		20	2		2	10		10
micro irrigation systems	2	39		39	3		3	42		42
Use of Plastics in farming	1	25		25	1		1	26		26
practices	1	25		25	1		1	26		26
Production of small tools and										
implements										
Repair and maintenance of farm				22	2		•	2.5		2.5
machinery and implements	1	22		22	3		3	25		25
Small scale processing and										_
value addition	1	25		25				25		25
Post Harvest Technology	1	21		21	2		2	23		23
Others (Rain water harvesting)	1	23		23	4		4	27		27
Resource conservation										
Total	8	182	0	182	13	0	13	195	0	195

VII Plant Protection										
Integrated Pest Management	3	67	0	67	6	0	6	73	0	73
Integrated Disease Management										
Bio-control of pests and diseases	4	105	0	105				105	0	105
Production of bio control										
agents and bio pesticides	3	82	2	84				82	2	84
Others (pl specify)	1	40	0	40				40	0	40
Total	11	294	2	296	6	0	6	300	2	302
GRAND TOTAL		159						168		
	69	7	297	1894	87	22	109	4	319	2003

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

	No. of	No. of Participants												
Area of training	- 101 0-	(General		SC/ST			Grand Total						
	Courses	Male	Female	Total	Male	Female	Total	Male	Female	Total				
Tailoring and Stitching	1		34	34		6	6		40	40				
Beauty Parlor training	1		23	23		2	2		25	25				
for a rural girl														
TOTAL	2	0	57	57	0	8	8	0	65	65				

Sponsored training programmes

Sponsored training programme	No. of				No. of	Partic	ipants	3		
A voc of training	Cours		Genera	l		SC/ST	_	Gı	rand To	tal
Area of training	es	Ma le	Fem ale	Tot al	Ma le	Fem ale	Tot al	Ma le	Fem ale	Tot al
Crop production and										
management										
Increasing production and	1	18	5	23				18	5	23
productivity of crops										
Commercial production of	1	15	3	18				15	3	18
vegetables										
Production and value addition										
Fruit Plants	1		49	49		11	11		60	60
Ornamental plants										
Spices crops										
Soil health and fertility management	1	52		52				52		52
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total										
Post harvest technology and										
value addition										
Processing and value addition	1		28	28					28	28
Others (pl. specify)			-						_	
Total										
Farm machinery										
Farm machinery, tools and	1	25		25				25		25
implements										
Others (pl. specify)										
Total										

Livestock and fisheries										
Livestock production and										
management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of										
women										
Drudgery reduction of women										
Others (pl. specify)										
Total										
Agricultural Extension										
CapacityBuilding and Group										
Dynamics										
Others (pl. specify)										
Total										
GRAND TOTAL	6	110	85	195	0	11	11	110	96	206

3.5. Extension Programmes

A	No. of	No. of	No. of Extension	TOTA
Activities	programmes	farmers	Personnel	L
Advisory Services	11	21	1	22
Diagnostic visits	2	11	2	13
Field Day	7	152	2	154
Group discussions	5	78	-	78
KisanGhosthi	9	121	2	123
Film Show	1	55	1	56
Self -help groups	1	25	1	26
Exhibition	1	-	•	-
Scientists' visit to farmers field	24	146	2	148
Plant/animal health camps	1	54	2	56
Farm Science Club	-	-	1	-
Ex-trainees Sammelan	1	72	5	77
Farmers' seminar/workshop	2	345	4	349
Method Demonstrations	3	22	1	23
Celebration of Soil health card	1	308	1	309
Celebration of international women day	1	49	•	49
Celebration of Phoshan Maah	1	216	5	221
A Live food day celebration	1	8	1	8
Tree plantation programme	1	3	1	3
Celebration of Mahila Kisan Divas	1	19	1	19
Celebration of Swachht hi Seva	1	102	3	105
Celebration of Soil health Day	1	55	2	57
Celebration of Kisan Divas	1	72	2	74
Celebration of Good governance, Kishan	1	38		
and Vigyan Day			1	39
Total	78	1972	37	2009

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	1
Extension Literature (Booklet)	-
News paper coverage	13
Popular articles	-
Radio Talks	-
TV Talks	2
Animal health camps (Number of animals treated)	1(81)
Others (pl. specify)	
Total	17

Celebration of International woman day

On 8th March 2020 "International Women Day" was celebration at Paddhari Taluka of Rajkot Dis. Total 49 Anganwadi workers and farm women were participated in this programme. In this programme given information regarding Kitchen Garden, Women and child health, Women improvement, Value addition of different fruit crops etc. and competition of Nutrition dish was organized by the Anganwadi Working Sisters.

Celebration of Soil health Card day:

On 19th February 2020 "Soil health Card day" was celebration at Paddhari, Rajkot, Jasadan and vinchhiya Taluka of Rajkot Dis. collaboration with Agri. Department Rajkot. Total 308 farmers, farm women and extension workers were participated in this programme. In this programme given information regarding importance of soil in Agriculture. Role of soil health for crop production. How to take soil sample for analysis of available nutrients from soil. Importance of Soil Health Card. How to increase and maintain soil fertility for long run. Use of Bio-Fertilizers, Organic Matters, Green Manuring, Crop Residue Recycling for soil fertility improvement and increase crop production.

> Celebration of Poshan Maah:

KVK, Targhadia celebrated the Poshan Maah from 7th to 30th September, 2020 at KVK, Targhadia and different villages of Rajkot district. During the celebration of "Poshan Mah", various programs like distribution of Literature on Poshan Abhiyan in local language, Different training for labour women, farm women and Anganwadi workers, visit to Poshan Vatika, nutritional guidance by phone. Also given press notes of different programs which were organized by KVK during celebration of Poshan Maah. Total 216 farm women, anganwadi workers, officers and staffs participated in different activities. Organized special training for Anganwadi workers including information on importance of nutrition, importance of kitchen gardening, nutritious food for children and women as well as distribution of various vegetable seeds for kitchen garden to farm women and anganwadi workers. Farmers and students rally under SHS at KVK, Rajkot-I of Office area, and different activities under this programme. Total 290 farmers, farm women and students participated in this event.

> Celebration of Soil health day:

On 5th December, 2020 World Soil Health Day was celebration at Krishi Vigyan Kendra, Rajkot-I. Total 55 farmers were participated in this event. Dr. D.S.Hirpara, RS(DF), Targhadia, KVK Head Dr. B. B. Kabaria, Dr. G.R.Sharma, Principal(Polytechnic in Agril.Engg.), Targhadia and team of KVK present and they introduced farmers about soil health, SHC and how to improve soil fertility.

Celebration of Kisan Divas :

On 23rd December 2020 "Kisan Divas" was celebration at Krishi Vigyan Kendra, Rajkot-I. Total 72 farmers and farm women were participated in this programme. Total 35 Progressive farmers were honored with certificate & mementos by KVK. Who have done specific contribution in Agriculture, Horticulture, Animal Science, Value addition etc. Shree Govindbhai Patel, MLA, Rajkot (South),Dr. D. S. Hirpara, Research Scientist, DFRS, Targhadia, Dr. B. B. Kabaria, Senior Scientist and Head, KVK, Targhadia, Mrs. H. H. Padsumbiya and team of KVK and Reliance foundation and CEE, Jasdan officers companies were present in this event.

Also some farmers shared their views on innovativeness and cleanliness drive in Agriculture.

Celebration of Mahila Kisan Divas :

KVK, Targhadia organized Kisan Mahil Divas on 15th October 2020 at Targhadi village of Paddhari Taluka. Total 20 farm women participated in this programme. Training and a group discussion was organized to emphasis on their role in agriculture and all other activities. In the training given information regarding Kitchen Garden, Women and child health, Women improvement, Value addition of different fruit crops etc.

> Celebration of "Swachhta Pakhwada":

KVK, Targhadia celebration of "**Swachhta Pakhwada**" from 16th to 31st December, 2020 by KVK, Targhadia.

- Sapath taking and lunching of Swachh monitoring system by KVK staff.
- Cleaning and Sweeping of entire office premises / cleaning of KVK campus.
- Swachhta Awareness at local level
- Cleaning and beautification of surrounding areas,
- Vermicomposting/Composting of biodegradable waste management& other activities on generate of wealth for waste
- Total 102 farmers, farm women and officers participated in this event.

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

Production of seeds by the KVKs

Sr. No.	Стор	Variety	Area (ha.)	Expected Production (Kg)
OILSEEDS	Groundnut (Breeder)	GJG-22	5.70	3700
	Groundnut (Breeder)	GJG-9	3.6	2000
	Groundnut (Breeder)	GJG-32	1.05	800
	Groundnut (Breeder)	GJG-31	1.80	950
	Groundnut (TF)	GJG-32	1.64	1500
Pulse	Gram (TF)	GC-4	1.0	530
Other	Cumin (TF)	GJG-3	1.0	2850

Production of Bio-Products: Nil

	Name of the bio-product	Quantity		
Bio Products		Kg	Value (Rs.)	No. of Farmers
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
Total				

4. LITERATURE DEVELOPED/PUBLISHED (with full title, author & reference)

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

B. Literature developed/published

Sr.	Name of Articles	Name of Journals / Organised	Month	Authors
No.			& Year	
1.	Review on truth of organic	Journal of Pharmacognosy and	Sept-	Patel T.J., Vora
	farming	Phytochemistry, Sp. 9(5): 827-	Oct,	V.D., Hirpara D.S.,
		830.	2020	Vadar H R.,
				Sanepara D.P.,
				Modhavadiya V.L.,
				Vekariya P. D. and
				Jotangiya,K.S.
2	Effect of Alley Width,	Anmed Medhat Mohamed Al-	June,	Vekaria P. D.,
	Organic Manure and <i>In-situ</i>	Nagar (Eds), Cutting-edge	2020	Sanepara D. P.,
	Moisture Conservation on	Research in Agricultural		Vora V. D.,
	Groundnut Productivity	Sciencies Vol.1. Book Publisher		Hirpara D. S. and
	under Dryland Ecosystem.	International, London, UK.pp.		Poonia T. C.
		86-93 . Chapter 8 , ISBN: 978-		
		93-90149-71-1(Print), ISBN:		
		978-93-90149-24-7(eBook),		
		https://DOI: 10.9734/bpi/cras/v1		

3	Estimation and Assessment of Productivity and Economics of Cotton (Gossypium hirsutum) - based Intercropping System under Rainfed Conditions of North Saurashtra Agro-	Aneta T. Popova (Eds), Cutting- edge Research in Agricultural Sciences Vol.4. Book Publisher International, London, UK.pp. 58-63. Chapter 4, ISBN: 978- 93-90431-98-4 (Print), ISBN: 978-93-90431-01-	August, 2020	Vekariya P. D., Vadaria K. N., Vora V. D., Sanepara D. P. and Hirpar, D. S.
	climatic Zone of Gujarat.	4(eBook), https://DOI: 10.9734/bpi/cras/v4		
4	Transgenic plant based edible vaccine- A review	International Journal of Animal & Veterinary science	2020	Tajpara M.M., Savsani H.H., Shah N.M., Padodara R.Jand Kathiriya J.B.
5	Application of Climate Resilient technologies in NICRA village of Rafala	Gujarat Journal of Extension Education	2020	Tajpara M.M., Kalsariya B.N., Dadhania V.P. Kabaria B.B.
6	Knowledge of Dairy farmers toward animal husbandry practices	Gujarat Journal of Extension Education	2020	Tajpara M.M., Kalsariya B.N., Dadhania V.P., Kabaria B.B.
7	Epidemiological surveillance of dengue fever -an overview	International journal of veterinary sciences and animal husbandry	2020	Kathiriya J.B., Shah N.M., Patel J.S. and Tajpara M.M.
8	Transmissible spongiform encephalopathies - Emerging threats	International journal of veterinary sciences and animal husbandry	2020	Kathiriya J.B., Shah N.M., Sindhi S.H. and Tajpara M.M
9	Impediments confronted and suggestion offered by farm women towards Animal Husbandry practices	International Journal of Live stock Research, Vol. 10(12)	Dec. 2020	Khushbuba Mahavirsinh Jadeja, B.N.Kalsariya, M.K.Jadeja and Divya Patel

C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
1	DVD	Success Story	1

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

૧. શિવણ વ્યવસાય દ્રારા સ્વરોજગાર

નામ : સોનીયાબેન જેન્તીભાઈ વાંધાણી ઉમર : ૨૦ વર્ષ

ગામ ઃ કમળાપુર અભ્યાસ ઃ ૧૨ ધોરણ પાસ (કોલેજ

તાલુકો : જસદણ ચાલું

જીલ્લો : રાજકોટ જમીન : ૧૦ વીધા મો. : ૭૩૫૯૪૭૨૭૩૮ પશઓ : ૨ બળદ

કુ. સોનીયાબેન જેન્તીભાઈ વાંઘાણી રાજકોટ જીલ્લાના જસદણ તાલુકાના કમળાપુર ગામના વતની છે. છેલ્લા બે વર્ષથી કૃષિ વિજ્ઞાન કેન્દ્ર, જુ.કૃ.યુ., તરઘડીયા સાથે સંકળાયેલ છે. આ ગામમાં વર્ષ ૨૦૨૦ માં મહિલા તાલીમ કેન્દ્ર, પયા વરણ કેન્દ્ર જસદણ અને કૃષિ વિજ્ઞાન કેન્દ્ર, જુ.કૃ.યુ., તરઘડીયાના સંયુક્ત ઉપક્રમે બે મહિનાની શિવણ અંગેની વ્યવસાયલક્ષી તાલીમનું આયોજન કરેલ. સોનીયાબેન આ તાલીમમાં ભાગ લઈ અને વિવિધ પ્રકારના કપડાની સિલાઈ કામ શિખ્યા. તાલીમ પૂણ થયા બાદ પોતે પોતાના ઘરે જુનુ મશીન દ્વારા ગામના લોકોના કપડાઓ સીવવાનુ શરૂ કયુ . શરૂઆતમાં તેઓ મહિનામાં રૂા.૮૦૦ થી ૧૦૦૦ ની કમાણી કરવા લાવ્યા. માચ ૨૦૨૦માં કોવિડ–૧૯ ના લીધે લોક ડાઉન આવતા બહેનો બહાર ખરીદિ કરવા ન જતા સોનીયાબેન પાસે કપડા સિવડાવવા લાગ્યા અને સોનીયાબેન મહિને રૂા.૨૦૦૦ થી ૨૨૦૦ સુધીની કમાણી કરવા લાગ્યા. શિવણના વ્યવસાય માંથી મળેલ આવક માંથી સોનીયાબેને નવુ શિવણ માટેના મશીનની ખરીદી કરી અને પોતાના માટે નવી સાયકલ પણ ખરીદિ અને પોતાના પિતાને ઘર ખચ માં મદદ કરવા લાગ્યા.

હાલમાં સોનીયાબેન કોલેજનો અભ્યાસ અને શિવણની કામગીરી બને સાથે સાથે ચાલ રાખી કમાણી કરે છે.





ર. ધનિષ્ટ ખેતી દ્વારા વધુ આવક મેળવો

નામ: વલ્લભભાઇ રવજીભાઇ મુંગપરા ઉંમર : ૫૧ વર્ષ

ગામ: પાડાસણ અભ્યાસ : ૭ પાસ

તાલુકો : રાજકોટ ખેતી/પશુપાલન : ૪૦ વર્ષથી જીલ્લો: રાજકોટ પશુઓ : ગીર ગાય: ૪, ભેંશ : ૧

જમીન ખુબ જ અગત્યનું ઘટક છે. કૃષિમાં જમીનનું મહત્વ અકલ્પનીય છે. જમીનની જાળવણી કરવી એ દરેક નાગરિકની ફરજ છે. જમીનનું ભૌતિક, રાસાયણિક, જૈવિક બંધારણ જાળવવું પણ જરૂરી છે. વલ્લભભાઇ એ ઘનિષ્ઠ ખેતી અપનાવીને સમગ્ર ખેડૂત સમુદાયને પ્રેરણા મળે એવું કાર્ય કર્યું છે.

કૃષિ વિજ્ઞાન કેન્દ્ર-તરઘડિયાના સંપર્કમાં આવ્યા બાદ તેઓએ જમીનનું મહત્વ, જમીનના નમૂનાનું પૃથ્થકરણ, જમીનની ફળદ્રુપતા, સૂકી ખેતીમાં આંતર પાક/મિશ્ર પાક/રીલે પાક પદ્ધતિ, સંકલિત ખેતી પદ્ધતિ, જૈવિક ખેતી પદ્ધતિ વગેરેનું મહત્વ સમજીને પોતાના ખેતર પર આધુનિક ખેતીની શરૂઆત કરેલ. ગત વર્ષ દરમ્યાન યોમાસામાં વાવણી વખતે તુવેર (બીડીએન-૨) ની એક હાર પછી મગફળી (જીજેજી-૪૧) ની પાંચ હાર વાવેલ હતી તેમજ તુવેર અને મગફળીમાં મકાઈ (ધાસચારા) મિશ્ર પાક તરીકે વાવેલ હતો. આ ઉપરાંત મગફળીની કાપણી બાદ તુવેરની વચ્ચે મકાઈની હારનું વાવેતર કરી ધનિષ્ઠ ખેતી પદ્ધતિ દ્વારા વધુ આવક મેળવેલ છે.

આ ધનિષ્ઠ ખેતી પદ્ધતિ દ્વારા તેઓએ ચોમાસા (૨૦૧૯-૨૦) દરમ્યાન બે ફેક્ટરની મગફળીમાંથી ૪૮૦૦ કિલો ઉત્પાદન કરીને રૂ. ૨,૪૪,૩૨૦/- ની આવક તથા ૮૦૦૦ કિલો પાલા માંથી રૂ. ૫૦,૦૦૦/- ની આવક મેળવેલ છે. આમ મગફળીના પાક માંથી કુલ રૂ. ૨,૯૪,૩૨૦/- ની આવક મેળવેલ છે. આ સાથે જ ૧૪૦૦૦ કિલો લીલી તુવેર ના વેચાણથી રૂ. ૪,૯૦,૦૦૦/- અને ૩૬૦૦ કિલો સૂકી તુવેરના વેચાણથી રૂ. ૧,૮૯,૦૦૦/- ની આવક મેળવેલ છે. આમ તુવેરના પાકમાંથી કુલ રૂ. ૬,૭૯,૦૦૦/- ની આવક મેળવેલ છે. આમ તુવેરના પાકમાંથી કુલ રૂ. ૬,૭૯,૦૦૦/- ની આવક મેળવેલ છે. મકાઈના પાકની ધાસચારા જાતનું વાવેતર કરેલ હોવાથી મકાઈના લીલા ચારાનું વેચાણ કરીને રૂ. ૮૦ પ્રતિ ૨૦ કિલોના ભાવે રૂ. ૮૦,૦૦૦/- ના ચારાનું વેચાણ કરેલ છે.

આમ વલ્લભભાઇ એ ધનિષ્ઠ ખેતી દ્વારા મગફળી, તુવેર અને મકાઈના પાકમાં આંતર પાક/મિશ્ર પાક/રીલે પાક પદ્ધતિ અપનાવીને ચોમાસાની ઋતુ દરમ્યાન કુલ રૂ. ૧૦,૫૩,૩૨૦/- નો ચોખ્ખો નફો મેળવેલ છે.

કૃષિ વિજ્ઞાન કેન્દ્ર ખાતે તાલીમ મેળવીને વૈજ્ઞાનિકશ્રીઓ ના માર્ગદર્શન હેઠળ જંતુનાશક દવાઓ, રાસાયણિક ખાતરો વગેરેનો સમજણપૂર્વકનો ઉપયોગ કરીને ધનિષ્ઠ ખેતી પદ્ધતિ દ્વારા વધુમાં વધુ યોખ્ખો નફ્રો મેળવેલ છે તેમજ મકાઈના પાકમાં પરભક્ષીઓનું રક્ષણ થતાં રોગ-જીવાત પાછળ ઓછો ખર્ચ થવાથી યોખ્ખો નફ્રો વધુ મળેલ છે.

3. Derisking farming through orchard – Raidhanbhai Suvan

Raidhanbhai a young age farmers of Fuljar Village of Vinchhiya block of Rajkot District. He got the land of 11.5 bigha from his father for farming. Since from getting responsibility of farming, he used to cultivate only cotton crop in his land. But due to uncertain rain and sometimes the year with low rainfall, he could not able to get return of investment. He was fed up with traditional farming practices. In year 2016, Representative from Krishi Vighyan Kendra, Rajkot organize training in the Village. He enthusiastically participated in training program where he came to know about the de-risking farming through orchard development. After returning from training, the idea of orchard development was inspiring for the orchard development. In first phase, he has developed orchard of lemon plants in 2 bigha of land in year 2017. After getting the successful survival rate and growth of plants, he was motivated for more area under orchard. And he has planted 150 sapling of guava in his 2 bigha of land. Through this initiative, he is able to earn additional income of Rs. 60000. Right now, he was sowing groundnut and pulses as inter crop. He was not stopped from here, last year in 2018, he has initiated the creeper v egetables and earned around Rs 50000 in 1 bigha of land. So he got additional income of Rs 110000 without affecting the previous income of Rs 100000 from his 11.5 bigha of land.

Now he become the role model for other farmers in Fuljar village and outside also. Through training inputs of KVK, Rajkot and linkages with Govt. scheme and Reliance Foundation support, he has established the model of De-Risking farming.





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

- Use of cow urine, butter milk, bajra flour etc for insect pest and disease management.
- Use of small or wrinkle seeds of groundnut for sowing purpose.
- Farmers grow maize as a mixed crop in groundnut and inter crop in cotton is best practices for sucking pest management by attracting the natural enemies.
- Cotton Stalk Shredder, Wheel Hoe
- Cotton Stalk Puller
- Tractor mounted spryer
- Chaff Cutter for Minimizing the Animal Fodder Waste
- IPM in Cotton-Use of Trap crop, Pheromone trap, etc.
- Minimizing the chemical Fertilizer and Maximizing organic manure.
- Value addition in different agriculture crops like groundnut, sesame etc.

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

S.	Crop /	ITK Practiced	Purpose of ITK
No.	Enterprise		
1	Groundnut	Farmers maintain a set furrow system and apply manure and fertilizers every year in the same furrow.	_
2	Groundnut	Some farmers near the river bed, apply sand in the set furrow for increasing	
3	Kharif crops	Farmer apply life saving supplementary irrigation to the crops during moisture stress condition	
4	Cotton	Farmers grow Maize after 3-4 rows of cotton	To increase the natural enemies and fodder
5	Cotton	balance the salt concentration at top of soil	To balance the salt concentration
6	Groundnut	Farmers grow maize as mix crop in groundnut	To increase natural enemies & fodder purpose

5. No. and Name of villages adopted for Doubling Farmers Income. Indicate whether benchmark survey of the villages are done or not.: Yes, 1. Khoran and 2. Adhiya

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dy. Director of Agriculture.	Most of the Organizations are members of
Dy. Director of Agril. Extension (FTC)	Scientific Advisory Committee (SAC) of
Dy. Director of Horticulture	KVK and have linkage with different
Dy. Director of Animal Husbandry	activities of KVK viz., Training
Dy. Director of Social Forestry	Programme, Khedut Sibir, Farmers day,
Jilla Udhyong Kendra	
Milk Co-Operative Society (Gopal Dairy)	Animal treatment Camp, Farmers fair,
Bank of Baroda	Film Show, Ex-training meeting and Soil
National Bank for Agriculture & Rural Development	health card etc.
NABARD)	
NHRDF	

Doordarshan Kendra	
All India Radio	
WALMI	
District Rural Development Agency(DRDA)	
ATMA	
GLDC	
District Watershed Development Agency (DWDA)	
GGRC	
Reliance foundation	
GSFC	
GNFC	
IFFCCO	
KRIBHCO	

B. Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	Staff meeting	3	-	-
02	Research Projects	-	-	-	-
03	Training Programmes	Farmers Training	10	3	-
04	Demonstrations	Technology Deminstrations	5	5	
05	Extension Programmes				
	KisanMela	Participant in Mela	-	-	-
	Technology Week		-	-	-
	Exposure visit	Exposure visit by ATMA of Progresive farmers	10	-	-
	Exhibition	Exhibition organized at KVK	-	-	
	Soil health camps	-	5	1	-
	Animal Health Campaigns	-	-	-	-
	Others (Pl. specify)	-	-	-	-
06	Publications	-	-	-	-
	Video Films	-	-	-	-
	Books	-	-	-	-
	Extension Literature	-	-	-	-
	Pamphlets	-	-	-	-
	Others (Pl. specify)	-	-	-	-
07	Other Activities (Pl.specify)	-	-		
	Watershed Approach	-	-	-	-
	Integrated Farm Development	-	-		

7. Convergence with other agencies and departments: Yes

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
1	Have you conducted Farm Innovators meet in your district?	Yes
	On 23 rd December 2020 "Kisan Divas" was celebration at Krishi Vigyan	
	Kendra, Rajkot-I. Total 72 farmers and farm women were participated in	
	this programme. Total 35 Progressive farmers were honored with	
	certificate & mementos by KVK. Who have done specific contribution in	
	Agriculture, Horticulture, Animal Science, Value addition etc.	
	Shree Govindbhai Patel, MLA, Rajkot (South), Dr. D. S. Hirpara, Research	
	Scientist, DFRS, Targhadia, Dr. B. B. Kabaria, Senior Scientist and Head,	
	KVK, Targhadia, Mrs. H. H. Padsumbiya and team of KVK and Reliance	
	foundation and CEE, Jasdan officers companies were present in this event.	
	Also some farmers shared their views on innovativeness and cleanliness	
	drive in Agriculture.	

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

- 1. To enhance the farmers to use recently developed certified varieties of different crops.
- 2. Proper use of fertilizers, Irrigations, insecticides and fungicides as per recommendation to reduce the production cost.
- 3. Cumin variety GC-4 is high yielding but gradually loosing wilt resistant character
- 4. Pink ball worm in cotton
- 5. Reddening in cotton
- 6. Heavy infestation of thrips in crops like garlic, onion, cotton
- 7. Late and poor germination was observed in cumin variety GC-4
- 8. Research needed for control of insect-pests and diseases in organic farming
- 9. White grub problem in groundnut
- 10. Problem of repeat breeding in cattle & buffaloes.
- 11. Anoestrus problem in Cow and Buffaloes

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

Yellowing and drying of cotton plants immedialtiy often rainfall.

Newly released garlic variety is poor in yield.

Management of thrips is problem in all the major crops in district.

10. Technology Week celebrationduring - No

11. Interventions on drought mitigation (if the KVK included in this special programme)

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Gujarat	Groundnut	1300	900

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	1300	900
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
Farmer's meeting	2	98	
Farmer's seminar	-	-	
Group meeting	3	57	
Total	5	155	

D. Animal health camps organized

State	Number of camps	No.of animals	No.of farmers
Gujarat	1	110	85
Total	1	110	85

E. Seed distribution in drought hit states

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Gujarat	Chick pea	12.50	20	50
Total				

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Gujarat	Adoption of Trichoderma culture powder for the management of stem rot disease in groundnut	5322	46789
	Adoption of <i>Bt.</i> cotton varieties.	328897	82224
	Farmers prefers to sow semi spreading and high yielding variety of groundnut i.e. GG-20 and GJG-22.	204808	51702
	Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wilt disease	20108	5102
	Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies	21789	6342
	Farmers are ready to use of rotavator/ cotton shredder/ mobile chopper for increasing the organic matter in soil particularly in cotton system.	174532	43633
Total			

G. Awareness campaign

State	Mee	etings	Go	sthies	Fie	eld days	Fari	ners fair	Exh	ibition	Film	show
	No.	No.of	No.	No.of	No.	No.of	No.	No.of	No.	No.of	No.	No.of
		farmers		farmers		farmers		farmers		farmers		farmers
Gujarat	5	236	7	109		-	-		1	602	2	54
Total	5	236	7	109					1	602	2	54

12. IMPACT

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

Name of specific technology/skill	No. of	% of adoption	Change in in	come (Rs.)
transferred	participants		Before	After
			(Rs./Unit)	(Rs./Unit)
Cumin Variety (GC-4)	232	84	30000	45000
Improved variety of Gram (GJG-3)	157	72	27500	35000
Wheat variety (GW-496, 366)	268	75	32500	37500
Use of Trichoderma culture powder for	347	67	28125	31500
the control of stem rot in groundnut				

B. Cases of large scale adoption

- Adoption of *Trichoderma* culture powder for the management of stem rot disease in groundnut
- Adoption of *Bt.* cotton varieties with INM and IPM concepts.
- Farmers prefers to sow semi spreading and high yielding variety of groundnut i.e. GG-20 and GJG-22.
- Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wilt disease
- Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies.
- Farmers are ready to use of rotavator/ cotton shredder/ mobile chopper for Increasing the organic matter in soil particularly in Bt. Cotton cropping system

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

13. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which	No. of feedback / query
		SMS was sent	on SMS sent
January	2	3000	-
February	2	3000	-
March	2	3000	-
April	2	3000	-
May	2	3000	-
June	2	3000	-
July	2	3000	-
August	2	3000	-
September	2	3000	-
October	2	3000	-
November	2	3000	-
December	2	3000	-

				Туре	of Messag	ges		
Name of KVK	Message Type	Crop	Livestock	Weather	Marke- ting	Aware -ness	Other enterpri se	Total
	Text only			22	2	1		25
Doileot	Voice only							
Rajkot	Voice & Text both							
	Total Messages							
	Total farmers Benefitted			3000	3000	3000		

14. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

G		0		Details	of produc	tion	Amou	nt (Rs.)	Remark
Sl. No.	Demo Unit	Year of establishment	Area (ha)				Cost of	Gross	
110.	Unit	Cstablishincht		Variety	Produce	Qty.	inputs	income	
1	Water Harvest Structure	2001	40x 30x 15 mt	-	-	-	-	-	-
2	Arid Horticulture	-	-	-	-	-	-	-	-
3	Soil Testing Lab	2006	-	-	-	-	710000	-	-
4	Bio Gas Plant	2006	-	-	-	-	42000	-	-
5	Tractor mounted sprayer	2007	-	-	-	-	43000	-	-
6	Dibbler	2007	-	-	-	-	900	-	-
7	Cotton Stalk Shredder	2007	-	-	-	-	43000	-	-
8	Cotton Stalk Puller	2007	-	-	-	-	1200	-	-
9	Wheel Hoe	2007	-	-	-	-	1260	-	-
10	Veterinary mobile unit	2008	-	-	-	-	600000	-	-
11	Processing Unit	2009					1685000		
12	Vermi composting unit	2009	0.05						
13	Nadep composting	2014							
14	Crop cafeteria	2009	0.10						
15	Agro-met advisory service	2013							
16	Farm pond	2001	0.48						
17	Organic farming unit in 1 ha.	2016	1.00						
18	KVK Museum	2011							

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

	Didi			Details of	of production	on	Amoun	t (Rs.)	Remarks
Name of the crop	Date of sowing	Date of harvest		Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals									
Pulses			1.0	GC-4	TF	530			
Oilseeds			1.05	GJG-32	Breeder	800			
			5.70	GJG-22	Breeder	3700			
			3.6	GJG-9	Breeder	2000			
			1.80	GJG-31	Breeder	950			
			1.64	GJG-32	TF	1500			
Others			1.0	GJG-3	TF	2850			
Spices & Plan	ntation cre	ops	<u> </u>	<u> </u>					
Floriculture									
Fruits									
Vegetables									
Others (speci	fv)								
Salets (speci									

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

Sl.	Name of the	0.1	Amou	D 1	
No.	Product	Qty	Cost of inputs	Gross income	Remarks
1					
2					

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

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

15. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branc h code	Account Name	Account Number	MICR Number	IFSC Number
With Host	SBI	Junagadh					
Institute							
With	SBI	Rajkot	463	TRAINING	10353003175	360002002	SBIN000046
KVK				ORG.KVK.JAU.			3
				TARGHADIA			ļ

B. Utilization of KVK funds during the year 2020-21 (Up to Dec. 2020) (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
13.1	Recurring Contingencies			
13.1.1	Pay & Allowances	85.00	61.00	68.00
13.1.2	Traveling allowances			
13.1.3	Contingencies	15.00	7.35	6.30
13.1.4.1	Stationery, telephone, postage and other			
	expenditure on office running, publication of			
	Newsletter and library maintenance			
В	POL, repair of vehicles, tractor and equipment			
C	Meals/refreshment for trainees			
D	Training material			
E	Frontline demonstration except oilseeds and pulses			
F	On farm testing			
G	Training of extension functionaries			
Н	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing			
	Laboratory			
J	Library			
13.1	Total Recurring	15.00	7.35	6.30
13.2	Non-Recurring Contingencies			
13.2.1	Works			
13.2.2	Equipment including SWTL & Furniture			
13.2.3	Vehicle (Four wheeler)			
24.2.4	Library			
13.2	Total Non-Recurring			
13.3	REVOLVING FUND			
13.4	GRAND TOTAL (A+B+C)	100.00	68.35	74.30

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2018 to March 2019	25,78,697	25,57,179	24,79,409	26,56,467
April 2019 to	26,56,467	19,39,208	19,41,027	26,54,648
March. 2020 April 2020 to	26,54,648	20,91,275	15,42,336	32,03,587
Dece. 2020	, ,	, ,	. ,	, ,

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

SN	Duration Name of Scientist		Topic/Objective	Venue	Type
1	2-3/01/2020	Dr. M. M. Tajpara	Annual Review workshop of TDC-NICRA	Ahmednagar, Maharashtra, India	Workshop
2	7-9/01/2020	Dr. M. M. Tajpara	To Improve Knowledge on Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Training
3	7-9/01/2020	Dr. J. H. Chudhriy	To Improve Knowledge on Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Training
4	7-9/01/2020	Dr. M. K. Jadeja	To Improve Knowledge on Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Training
5	10/02/2020	Dr. J. H. Chudhriy	Review Meeting of Seed Hub	Bhopal	Review Meeting
6	10- 12/02/2020	Dr. J. H. Chudhriy	Internation conference on " Pulses as the climate smart crops: Challenges and opportunities"	Bhopal	Conferenc e
7	12/06/2020	Dr.M.M. Tajpara Dr.B.B.Kabaria	Shaping future programme of NICRA (2020-25)	TDC-NICRA , CRIDA, Hyderabad	Workshop
8	13-14/06 2020	D.P. Sanepara	Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	National Webinar
9	16/06/2020	Dr. B. B. Kabaria D.P. Sanepara	Review Workshop of ARYA	Online	Workshop
10	10- 12/07/2020	Dr.M.M. Tajpara	Online Annual zonal workshop of KVK Maharashtra, Gujarat, Goa	ATARI-Pune	Workshop
11	07/08/2020	Dr.M.M. Tajpara	Online Annual Zonal Review workshop -NICRA	ATARI-Pune	Workshop
12	21/11/2020	Dr.M.M. Tajpara	World Fisheries Day	ICAR-New Delhi	workshop
13	28/11/2020	Dr M.M. Tajpara Dr B.B.kabaria	Transforming animal husbandry sector	ATARI-Pune	workshop