ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2021
(1st January 2021 to 31st December 2021)

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, Junagadh Agricultural University, Targhadia- 360 023, Rajkot-I, Dist.: Rajkot, Gujarat State	Office (0281) 2784170	FAX 0281) 2784170	kvkrajkot@gmail.com	www.jau.in

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

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

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. G.V. Marviya	(0281) 2784170	9825554434	gvmaravia@jau.in

1.4. Year of sanction: September – 2004

1.5. Staff Position (as on 31 December, 2021)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	Discipline	If Permanent, please indicate		Date of joining
					Current Pay Band	Current Grade Pay	
1.	Senior Scientist and Head	Dr. G. V. Marviya	9825554434	Bio-chemistry	131400-217100 (UL-13A)	135300/-	4-1-2022
2.	Subject Matter Specialist	Dr. M. M. Tajpara	9427667135	Animal Science	68900-205500 (UL-11)	92600/-	4-8-2015
3.	Subject Matter Specialist	Dr. J. H. Chaudhary	9978303111	Agronomy	57700-182400 (UL-10)	66800/-	1-8-2017
4.	Subject Matter Specialist	Dr. M. K. Jadeja	7016848659	Agril. Extension	57700-182400 (UL-10)	95300/-	5-10-2019
5.	Subject Matter Specialist	Vacant	-	Horti-culture	.	-	-

6.	Subject Matter Specialist	Shri D. P. Sanepara	9426449712	Agril. Engg.	68900-205500 (UL-11)	101200/-	1-11-2016
7.	Subject Matter Specialist	Vacant	-	Home Science	-	-	-
8.	Programme Assistant	Shri A. B. Dabhi	7990446090	Agronomy	39900-126600 (L-7)	44900/-	7-8-2014
9.	Computer Programmer	Miss. R. T. Padaliya	9979027064	-	39900-126600 (L-7)	49000/-	3-1-2009
10.	Farm Manager	S. R. Rathva	9712313538	Plant Breeding	39900-126600 (L-7)	38090/-	30-7-2018
11.	Accountant/ Superintendent	J.M.Adhiya	-	-	39900-126600 (L-7)	44900/-	1-1-2022
12.	Stenographer	U.C.Suthar	-	-	25500-81100 (L-4)	29600/-	1-1-2022
13.	Driver 1	Vacant	-	-	-	-	-
14.	Driver 2	Vacant	-	-	-	-	-
15.	Supporting staff 1	Smt.U.G.. Zala	-	-	14800-47100 (L-IS-1)	29700/-	16-9-2005
16.	Supporting staff 2	Vacant	-	-	-	-	-

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**

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Comple-tion Year	Plinth area (Sq. m)	Expenditure (Rs.)	Starting year	Plinth area (Sq. m)	Status of construction
1.	Administrative Building	KVK	31-3-2011	550	5500000	-	-	-
2.	Farmers Hostel	KVK	31-3-2011	305	3000000	-	-	-
3.	Staff Quarters (6)	KVK	31-3-2011	400	4000000	-	-	-

4.	Demonstration Units: (8)					-	-	-
	Solar water pumping system	ATIC	2019	7.5 HP	262500	-	-	-
	Bio gas plant	RKVY	2007	10 cu.m	42000	-	-	-
	Farm implement demo	RKVY	2009	Diff. farm implements	-	-	-	-
	Vermi-compost unit	KVK	2018	-	-	-	-	-
	Farm waste compositing	KVK	2019	7 m x 5 m	-	-	-	-
	Entomophagous park	KVK	2018	0.10 ha	-	-	-	-
	Crop cafeteria	KVK	2012	0.10 ha	-	-	-	-
	Kitchen garden	KVK	2018	0.05 ha	-	-	-	-
5	Fencing					-	-	-
6	Rain Water harvesting system: (5)					-	-	-
	Farm pond-1	KVK	2012	9000 cu.m capacity	105000	Old farm pond (cap: 6500 cu.m) was deepen and water holding capacity increased up to 9000 cu.m (Runoff is collecting from 12 ha agricultural land)		
	Farm pond-2	KVK	2010	850 cu.m capacity	-	Runoff is collecting from 2 ha agricultural land and 3 ha building area		
	Roof water harvesting tank	KVK	2017	Size: L: 6.10 x W: 3.10 x H: 2.50 m	204285	Rain water harvesting in underground tank (Cap: 50000 lt.) from 300 sq.m office roof area		
	Open well recharging structure	KVK	2013	Size: L: 2.0 x W: 2.0 x H: 1.5 m	9500	Runoff from 5 ha area for open well recharging		
	Bore well recharging structure	KVK	2018	Size: L: 1.5 x W: 1.0 x H: 1.0 m	12500	Rain water harvesting from 190 sq.m roof area for bore well recharging		
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	KVK	2012	-	400000	-	-	-
9	Seed hub godown	ICAR	2019	196.80	3500000	-	-	-
10	ICT lab	-	--	-	-	-	-	-
11	Store room	RKVY	9-2-10	70.61	454500	-	-	-
12	Training hall	RKVY	11-2-10	190.99	1395800	-	-	-
13	Processing unit	RKVY	11-2-10	197.31	1536400	-	-	-
14	Implement shed	RKVY	9-2-10	77.33	297800	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Running	Present status
Toyota Qualis (GJ-3AB-8192)	2004	590000	389861	DEE letter no. JAU/DEE/AC-2/ Permi/ 6805-06 /21 dt 25-10-21
Tata Sumo (GJ-3G-1612)	2008	600000	255729	DR letter no. JAU/DR/ADM-3/ Write off /8373-75 /2021 dt 27-10-21
Motorcycle (GJ-3DF-5781)	2010	50000	50700	Working
Bolero New (GJ-3GA-1805)	2022	830000	1500	Working
Tractor: Mahindra 39 HP (GJ-3CL-7668)	2011	440000	-	Working
Mini Tractor: Mistubishi 18.5 HP (GJ-3DD-8043)	2000	219000	-	Not working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Generator set	2002	24900	Working
Color TV (Akai) with Remote	2002	13850	Working
LCD Project (Panasonic PT LC 50)	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
Refrigerator - Electronic Kelvinator	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
10/02/2021	Dr. V.P. Chovatiya, Hon'ble Vice Chancellor, JAU, Junagadh. Dr. H. M. Gajipara, Directorate of Extension, JAU, Junagadh Dr. D. S. Hirpara, Research Scientist (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, Senior Scientist & Head, KVK, JAU, Pipalia (Dhoraji), Dist. Rajkot Dr.. L. L. Jivani, Senior Scientist & Head, KVK, JAU, Morbi, Dist: Morbi Shri R.R. Tilva, DAO, District Panchayat, Rajkot Shri J. K. Patel, Joint Director of Horticulture, Rajkot Shri. P.B. Chaudhary, Horticulture Officer, Dept. of Horticulture, Rajkot Dr. B. K. Dubey, Deputy Director, NHRDF, Naranka, Rajkot Dr. S. K. Tiwari, Technical Officer, NHRDF, Naranka, Rajkot Shri S. T. Kotadiya, I/c DCF, Rajkot Dr. H. C. Chhodvadia, Asstt. Directorate of Extension, JAU, Junagadh Prof. Pinky Sharma, AEE, DEE office, JAU, Junagadh Dr. D. K. Parsana, Rajkot Dairy (Gopal Dairy), Rajkot Dr. Vikramsinh Chauhan, District Agriculture Officer, Morbi, Dist: Morbi Shri Kiran Patel, Reliance Foundation, Jasdan, Dist: Rajkot Ritaben Vora, Centre for Environment Education, Jasdan, Dist: Rajkot Shitalben Vegda, MDT-CME, DWDU, Rajkot Shri Hiteshbhai P. Kyada, Village : Rafala, Tal: Rajkot, Dist.: Rajkot Shri Kalyanbhai C. Ramani, Village : Lilapur,Tal: Jasdan, Dist.: Rajkot Shri Manjibhai J. Topiya, Village : Magharwada, Tal & Dist.:Rajkot Shri Pankajbhai Ramani, Village : Lilapur, Tal: Jasdan, Dist.: Rajkot	➢ FLDs should be conducted with bio fortified pearl millet variety GHB-1129 during summer. ➢ FLDs should be conducted with newly released chick pea variety GJG-6 instead of GJG-5 in ATIC project. ➢ Correction should be made in Problem cause diagram i.e "More increases the length of monopodial as well as sympodial branch of cotton" instead of "More increases the length of monopodial branch" in OFT on "De-topping in cotton crop" ➢ OFT should be conducted on "Effect of plastic mulch on drip irrigated water melon or tomato crop" instead of "Summer sesame response to irrigation under drip and mulching technology". ➢ Treatment should be taken as "line sowing at 20 cm with drip irrigation" in OFT on "Performance of drip irrigation with line sowing method in cumin". ➢ More training should be planned on soil health and integrated farming system. ➢ To conduct training on value addition in pearl millet instead of groundnut.	All Suggestion Accepted & Implemented except training on value addition in pearl millet was not conducted due to vacant post of SMS (Home science)

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/ Chick pea, Cotton – Summer Groundnut/ Sesame/ Pulses
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 Saurashtra Agro Climatic Zone (VI)	The total geographical area of North Saurashtra Agro Climatic Zone is 35.2 Lacs ha. Out of total area, 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district is low in their availability of nitrogen while medium in 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 1156.5 mm during 2021.

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, Calcareous	Well drained soils	

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

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

Source: District agriculture department

2.4 Weather data (2021)

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	0	26.8	10.1	66.9	37.7
February	0	32.1	14.3	70.6	28.1
March	0	37.5	18.6	69.4	24.6
April	0	40.4	21.9	73.8	21.1
May	53.7	39.6	24.8	77.4	34.5
June	150.5	37.1	25.3	79.6	51.3
July	177.0	34.4	25.0	82.8	62.6
August	22.1	33.0	23.1	84.9	60.3
September	699.8	30.7	23.7	91.4	79.7
October	51.4	33.7	20.6	73.9	44.6
November	0.0	32.5	16.5	57.1	38.3
December	2.0	27.9	12.7	73.0	45.5
Total/Ave.	**1156.5**	**33.8**	**19.7**	**75.1**	**44.0**

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

Category	Population	Production (tonne)	Productivity
Cattle			
Crossbred	4,52,000	33,26,900 (Milk)	
Indigenous			
Buffalo	3,62,000	52,84,700 (Milk)	
Sheep	2,63,400	2,66,810 (Wool)	
Goats	1,97,000	2,31,240 (Milk)	
Pigs	1,000		
Crossbred			
Indigenous			
Rabbits			
Poultry		**Production of eggs (No.)**	
Hens (*Crossbred)*	13,400	32,52,000 (Egg)	
Desi	7,800	3,92,000 (Egg)	
Category			
Fish (Reservoir)			

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 Shivrajpur Nani lakhavad	Groundnut, Cotton, Sesame, Wheat, Cumin, Chickpea, Garlic, Onion. * Enterprises are dairy business, Vermi composting, Preparation of roasted groundnut and chikki from groundnut and sesame	Pink ball worm in cotton, Heavy infestation of sucking pest in cotton, Phytopthora disease in sesame and White grub infestation in groundnut, Long inter-calving period in buffalo, Nutritional deficiency in animal feed and fodder, Less area under horticultural crops, Anemia problem in adolescent girls	• IPM and INM in major crops of this area • Increase drainage of soil • Reducing the inter-calving period in buffalo • Motivate the farmers for arid horticultural crops. • Efficient use of irrigation water • To create the awareness for grading, processing and marketing (value addition)
2	Vinchhiya	Cluster II	Amrapur Hingolgadh Gundala Bhoyara Lalavadar			
3	Rajkot	Cluster III	Haripar Makanpar Umrali Khachharia Hodathali			

2.8 Priority thrust areas

Sl. No	Crop/ Enterprise	Thrust area
1	Groundnut, Sesame etc	Increasing the productivity of the major crops by adopting the recommended dry farming technologies and to create awareness for value addition.
2	Water conservation	*In situ* soil moisture conservation and rainwater harvesting. Use of cotton stalk for organic manure.
3	Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.
4	Arid Fruits	Promoting the arid horticulture.
5	Livestock production	Enhancing productivity of milch animals by proper feeding and breeding management.
6	Women empowerment	Providing self employment through skill oriented income generating activities
7	Agriculture	Developing interest among youth for agriculture as a profession.
8	Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
9	PHT	Minimizing the post harvest losses and to create the awareness for proper storage.
10	Income generating activities	Self employment among rural youth and skill oriented income generating activities.
11	Nutrition management	Care and importance of nutrition in children & pregnant women.

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
12	04	37	12	195	155	195	155

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
97	78	2425	2119	-	107	-	2668

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
150	227	-	-

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

3.1. B. Operational areas details during 2021

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	Cumin	Wilt	-		FLD, OFT and Training
3	Gram	Variety	-	All cluster	FLD and Training
4	Chilli	Leaf curl and fruit rot	-	All cluster	OFT

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

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management		1								1
Varietal Evaluation										
Integrated Pest Management		1								1
Integrated Crop Management										
Integrated Disease Management				1	1					2
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
TOTAL		**2**		**1**	**1**					**4**

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	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	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management	Groundnut	Organic farming in Kharif Groundnut	1	1	0.4
Varietal Evaluation					
Integrated Pest Management	Groundnut	Infestation of white grub in organic Kharif Groundnut	1	1	0.4
Integrated Crop Management					
Integrated Disease Management	Chilli	Effect of the fungicide on disease of chilli	1	3	0.4
	Cumin	Use of *Trichoderma* for wilt disease management in cumin	1	3	0.4
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total			**4**	**8**	**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				

C. 1. Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Groundnut	Rainfed	Higher use of chemical fertilizers	Organic farming in Kharif Groundnut	**1**	1.RDF (Chemical)+ Seed treatment 2. Only cow based 3. All Bio product.	Yield Kg/ha and White grub infestation (%)					
Groundnut	Rainfed	Higher use of pesticides	Infestation of white grub in organic Kharif Groundnut	**1**	T-1 : Chemical + seed treatments for white grubs and sucking pests. T-2 : Cow base farming T-3 5 t FYM/ha + Bio-fertilizer	Yield Kg/ha and White grub infestation (%)					
Chilli	Irrigated	Problem of diseases in chilli	Effect of the fungicide on disease of chilli	**1**	**T1**: 2 spray of Hexaconazol @ 1ml per litre @ 15 days interval **T2**: Seed treatment of Carbendazime @ 3 gm per seed + soil application of Trichoderma @2.5 kg/ha + Soil drenching of COC@ 40gm/10 lit **T3**: 2 spray of Hexaconazol @ 1ml per litre @ 15 days interval + Soil drenching of COC@ 40gm/10 lit	Yield Kg/ha and infestation (%)					

Cumin	Irrigated	Heavy incidence of wilt disease in cumin	Use of Trichoderma for wilt disease management in cumin	**1**	**T1** :No use of trichoderma or fungicide at the time of sowing **T2:** Trichoderma @ 5 kg /ha with organic manure @500 kg / ha at the time of sowing.. **T3**: Application of Trichoderma @ 5 kg /ha along with organic manure @500 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination.	Yield Kg/ha and infestation (%)					

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 *Kharif* Groundnut					
T1 RDF (Chemical) + Seed treatment	National Centre of Organic farming, Ghaziabad (U.P.)	2250	Kg/ha	81,100	4.8
T2 Only Cow Based		1700	Kg/ha	71,200	3.2
T3 All Bio Products		1930	Kg/ha	77,300	3.8

Infestation of white grub in organic *Kharif* Groundnut					
1. RDF Chemical + seed treatments for white grubs and sucking pests.	National Centre of Organic farming, Ghaziabad (U.P.)	2250 (1.9%)	Kg/ha (% plant infestation)	81,100	4.8
2. Only cow based		1700 (2.5%)	Kg/ha (% plant infestation)	71,200	3.2
3. All Bio product		1930 (1.3%)	Kg/ha (% plant infestation)	77,300	3.8
Effect of the fungicide on disease of chilli					
T 1: spray of Hexaconazol @ 1ml per litre @ 15 days interval	JAU, Junagadh	9917 (15%)	Kg/ha (% plant infestation)	97750	2.81
T2: Seed treatment of Carbendazime @ 3 gm per seed + soil application of Trichoderma @2.5 kg/ha + Soil		13167 (8 %)	Kg/ha (% plant infestation)	145275	3.78
T3: 2 spray of Hexaconazol @ 1ml per litre @ 15 days interval + Soil drenching of COC@ 40gm/10 lit		10125 (10 %)	Kg/ha (% plant infestation)	98875	2.87
Use of Trichoderma for wilt disease management in cumin					
T1 : No use of trichoderma or fungicide at the time of sowing	JAU, Junagadh	1063.5 (14.8 %)	Kg/ha (% plant infestation)	97235	2.72
T2 : Application of Trichoderma @ 5 kg /ha with organic manure @500 kg / ha at the time of sowing		1250 (8.9 %)	Kg/ha (% plant infestation)	120560	3.37
T3 : Application of Trichoderma @ 5 kg /ha along with organic manure @500 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after		1375 (3.2 %)	Kg/ha (% plant infestation)	136095	3.80

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

4. Source of technology : JAU

5. Production system and thematic area : NCDF, Ghaziabad (UP)

6. Production system and thematic area : NRM

7. Performance of the Technology with performance indicators:

No	Name of the farmer	Name of the Village	Yield (Kg/ha)		
			T1	T2	T3
1	KVK Farm	Targhadia	2250	1700	1930
Average			2250	1700	1930

8 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.

9. 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.

10. Constraints identified and feedback for research : - White grub infestation was observed more in organic are as compare to chemical treatment.

11. 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

4. Source of technology : JAU

5. Production system and thematic area : NCDF, Ghaziabad (UP)

6. Production system and thematic area : NRM

7. Performance of the Technology with performance indicators:

No	Name of the farmer	Name of the Village	Unit	Result		
				T1	T2	T3
1	KVK Farm	Targhadia	Yield (Kg/ha)	2250	1700	1930
			(% plant infestation)	1.9	2.5	1.3

8. 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.
9. 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.
10. Constraints identified and feedback for research : - White grub infestation was observed more in organic are as compare to chemical treatment.
11. 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 the fungicide on disease of chilli**
2. Problem Definition : Wilt diseases in chilli
3. Details of technologies selected for assessment :
   T1: 2 spray of Hexaconazol @ 1ml per litre @ 15 days interval
   T2: Seed treatment of Carbendazime @ 3 gm per seed + soil application of Trichoderma @2.5 kg/ha + Soil drenching of COC@ 40gm/10 lit
   T3: 2 spray of Hexaconazol @ 1ml per litre @ 15 days interval + Soil drenching of COC@ 40gm/10 lit
4. Source of technology : JAU
5. Production system and thematic area : IDM
6. Production system and thematic area : IDM
7. Performance of the Technology with performance indicators:

No	Name of the farmer	Name of the Village	Unit	Result		
				T1	T2	T3
1	KVK Farm	Targhadia	Yield (Kg/ha)	9917	13167	10125
			(% plant infestation)	15	8	10

8. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : T2 has given higher production as compare to T1 & T3
9. Final recommendation for micro level situation : this is first year of trial final result will be obtained after two year trial
10. Constraints identified and feedback for research : - T2 has given higher production as compare to T1 & T3
11. Process of farmers participation and their reaction : This was first trial for experimentation and it will be waited for farmer participation & reaction

OFT-4

1. **Title of Technology Assessed : Use of *Trichoderma* for wilt disease management in cumin**
2. Problem Definition : Heavy incidence of wilt disease in cumin
3. Details of technologies selected for assessment :
   T1: No use of *Trichoderma* or fungicide at the time of sowing
   T2: Application of *Trichoderma* @ 5 kg /ha with organic manure @500 kg / ha at the time of sowing..

T3: Application of Trichoderma @ 5 kg /ha along with organic manure @500 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination.

4. Source of technology : JAU
5. Production system and thematic area : IDM
6. Production system and thematic area : IDM
7. Performance of the Technology with performance indicators:

No	Name of the farmer	Name of the Village	Unit	Result		
				T1	T2	T3
1	KVK Farm	Targhadia	Yield (Kg/ha)	1063.5	1250	1375
			(% plant infestation)	14.8	8.9	3.2

8. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques : T3 has given higher production as compare to T1 & T2
9. Final recommendation for micro level situation : This is first year of trial final result will be obtained after two year trial
10. Constraints identified and feedback for research : - T3 has given higher production as compare to T2 & T3
11. Process of farmers participation and their reaction : This was first trial for experimentation and it will be waited for farmer participation & 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 2021 and recommended for large scale adoption in the district

S. 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	Groundnut	IPM	Varietal evaluation+ IPM through Chlorpyriphos	Management of white grub through seed treatment	9	12	6.0
2	Groundnut	INM	Variety+ INM+ IPM+IDM	To test yield potentiality of newly released groundnut variety	8	11	5.0
3	Chickpea	Varietal evaluation	GJG-5	To test yield potentiality of newly released gram variety	10	11	7.0
4	Cumin	Pest Management	IPM	Management of pest through bio agent	1	10	4.0
5	Cumin	Disease Management	IDM	Management of wilt through bio agent	5	6	3.0

6	Buffalo	Nutrient Manage ment	Chelated mineral mixture power	Increased milk production	5	22	21
7	Cow	Nutrient Manage.	by Pass protein	Increased milk production	4	12	12
8	Cow	Nutrient Manage.	by pass fat	Increased milk fat %	4	14	14

B. Details of FLDs implemented during 2021 (*Kharif* 2021, *Rabi* 2020-21, Summer 2021)

Oilseeds (*Kharif*-2021)**:**

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall in achievem
					Proposed	Actual	SC/ ST	Others	Total	
1	Groundnut	Pest Managem ent	Varietal evaluation + IPM	*Kharif* 2021	4.0	4.0	1	9	10	-
2	Groundnut	Nutrient & Pest manageme	Varietal + INM+IDM + IPM	*Kharif* 2021	4.0	4.0	1	9	10	-

Pulses (*Rabi* 2020-21):

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ ST	Others	Total	
1	Chickpea	Varietal evaluati	Varietal evaluation	*Rabi* 2020-21	20	20	10	40	50	-

Others (Spices & livestock):

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ ST	Others	Total	
1	Cumin	IPM	GC-4	*Rabi* 2020-21	4	4	1	9	10	-
2	Cumin	IDM	GC-4	*Rabi* 2020-21	2	2	1	4	5	-
3	Cow	Nutrient Managem ent	Bypass Protein (22%)	-	-	-	2	18	20	-
4	Cow	Nutrient Managem ent	ByPass Fat	-	-	-	1	9	10	-
5	Buffalo	Nutrient Managem ent	Chelated Mineral Mixture	-	-	-	4	36	40	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	*Kharif*	RF	M. B.	L	M	H	Wheat/ Cumin	11/6/ 2021	16/10/ 2021	1156 mm	-
Groundnut	*Kharif*	RF	M. B.	L	M	H	Wheat/ Cumin	4/6/ 2021	2/10/ 2021	1156 mm	-
Chickpea	*Rabi*	Irrigated	M. B.	L	M	H	G'nut / Cotton	16/11/ 2020	21/2/ 2021	-	-
Cumin	*Rabi*	Irrigated	M. B.	L	M	H	G'nut / Cotton	24/11/ 2020	20/2/ 2021	-	-

Technical Feedback on the demonstrated technologies

S. No.	Feed Back
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. No.	Feed Back
1.	Reddening in cotton
2.	Pink boll worm in cotton
3.	Pod borer / wire worm and ear wing problem in groundnut in sporadic area
4.	White grub damage was observed in groundnut in sporadic area
5.	Infestation of stem rot, rust and tikka disease were observed in groundnut
6.	Research needed for control of insect-pests and diseases in organic farming
7.	*Colletotricum* fungus (Onion ring disease) in *Kharif* onion
8.	Longer inter calving period in buffalo
9.	Mastitis problem in cow and buffalo

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	6	August and February	131	-
2	Farmers Training	4	2021	113	-
3	Media coverage	1	-	-	-
4	Training for extension functionaries	1	September	21	-

C. Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	Pest Management	Varietal evaluation+ IPM	GJG-32	10	4.0	31.00	23.00	27.00	21.00	28.6	36000	105000	69000	**2.91**	35100	95000	59900	**2.70**
Groundnut	Nutrient & Pest management	Varietal + INM+IDM + IPM	GJG-32	10	4.0	33.00	25.00	29.00	23.00	26.08	38000	115000	77000	**3.02**	35500	98500	63000	**2.77**

Frontline demonstration on pulse crops :

Crop	Thematic Area	technology demon-strated	Variety	No. of Farmers	Area (ha)	Eq 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										
Chickpea	Varietal evaluation	Varietal evaluation (GG-5)	GG-5	50	20	26.50	22.25	23.75	20.50	15.85	27500	121125	93625	**4.40**	26500	104550	78050	**9.95**

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 disease percent		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												
Cumin	IPM	GC-4	10	4	12.50	10.62	11.69	9.73	20.00			36220	147500	111280	**3.07**	32100	121625	89526	**2.78**
Cumin	IDM	GC-4	5	2	13.75	11.25	12.25	10.50	14.28			35550	153125	117575	**3.30**	32100	131250	99150	**3.08**

Frontline Demonstration on Nutri cereals : Nil

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										

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No.of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cow	Nutrient Management	Bypass Protein (22%)	20	20	1686	1494	12.85			59852	79533	19681	**1.32**	53598	68540	14942	**1.28**
Buffalo	Nutrient Management	By Pass Fat	10	10	8.0 %	6.7 %	19.40										
Buffalo	Nutrient Management	Chelated Mineral Mixture	40	40	1613	1491	8.18			59130	75086	15956	**1.34**	58126	69657	11531	**1.27**

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	15	2	17	7	3	10	22	5	27
Resource Conservation Technologies	2	32	8	40	12	8	20	44	16	60
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs	2	31	7	38	13	6	19	44	13	57
Others (pl. specify)										
Total	**5**	**78**	**17**	**95**	**32**	**17**	**49**	**110**	**34**	**144**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	19	4	23	0	0	0	19	4	23
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques	1	21	5	26	0	0	0	21	5	26
Others (pl specify)										
Total (b)	**2**	**40**	**9**	**49**	**0**	**0**	**0**	**40**	**9**	**49**

c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
Grand Total (a to g)	**2**	**40**	**9**	**49**	**0**	**0**	**0**	**40**	**9**	**49**
III Soil Health and Fertility Management										
Soil fertility management	1	12	0	12	5	3	8	17	3	20
Integrated water management	1	15	5	20	7	2	9	22	7	29
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total	**2**	**27**	**5**	**32**	**12**	**5**	**17**	**39**	**10**	**49**

IV Livestock Production and Management										
Dairy Management	3	54		54	8		8	62		62
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	1	18		18	2		2	20		20
Feed & fodder technology	1	19		19	3		3	22		22
Production of quality animal products	1	21		21	2		2	23		23
Others (pl specify)										
Total	**6**	**112**	**0**	**112**	**15**	**0**	**15**	**127**	**0**	**127**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
VI Agril. Engineering										
Farm Machinery and its maintenance	1	32	0	32	3	0	3	35	0	35
Installation and maintenance of micro irrigation systems	1	27	0	27	3	0	3	30	0	30
Use of Plastics in farming practices	1	11	0	11	4	0	4	15	0	15
Production of small tools and implements										
Repair and maintenance of farm machinery and implements	1	21	0	21	2	0	2	23	0	23
Small scale processing and value addition	1	0	23	23	0	4	4	0	27	27
Post Harvest Technology										
Others (pl specify)	2	47	6	53	5	1	6	52	7	59
Total	**7**	**138**	**29**	**167**	**17**	**5**	**22**	**155**	**34**	**189**

VII Plant Protection										
Integrated Pest Management	2	47		47		3	3	47	3	50
Integrated Disease Management	1	19		19	4		4	23		23
Bio-control of pests and diseases	1	22		22	2		2	24		24
Production of bio control agents and bio pesticides	1	24		24	1		1	25		25
Others (pl specify)										
Total	**5**	**112**	**0**	**112**	**7**	**3**	**10**	**119**	**3**	**122**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										

X CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**27**	**507**	**60**	**567**	**83**	**30**	**113**	**590**	**90**	**680**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
I Crop Production										
Weed Management	3	66	5	71	15	5	20	81	10	91
Resource Conservation Technologies	3	62	3	65	11	4	15	73	7	80
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservation	3	61	13	74	15	5	20	76	18	94
Integrated nutrient management	1	20	3	23	3	2	5	23	5	28
Production of organic inputs	2	45	5	50	7	2	9	52	7	59
Others (pl specify)										
Total	**12**	**254**	**29**	**283**	**51**	**18**	**69**	**305**	**47**	**352**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables	1	20	2	22	3		3	23	2	25
Nursery raising	1	19	4	23	4		4	23	4	27
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**2**	**39**	**6**	**45**	**7**		**7**	**46**	**6**	**52**

b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	1	25		25				25		25
Plant propagation techniques										
Others (pl specify)										
Total (b)	**1**	**25**		**25**				**25**		**25**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
Grand Total (a to g)	**3**	**64**	**6**	**70**	**7**	**0**	**7**	**71**	**6**	**77**

III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management	1	20	0	20	7	0	7	27	0	27
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers	1	19	0	19	7	0	7	26	0	26
Soil and Water Testing	1	22	4	26	5	2	7	27	6	33
Others (pl specify)										
Total	**3**	**61**	**4**	**65**	**19**	**2**	**21**	**80**	**6**	**86**
IV Livestock Production and Management										
Dairy Management	2	33		33	7		7	40		40
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	2	36		36	5		5	41		41
Feed & fodder technology	2	29		29	10		10	39		39
Production of quality animal products	1		21	21		3	3		24	24
Others (pl specify)										
Total	**7**	**98**	**21**	**119**	**22**	**3**	**25**	**120**	**24**	**144**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										

VI Agril. Engineering										
Farm Machinery and its maintenance	1	21	0	21	2	0	2	23	0	23
Installation and maintenance of micro irrigation systems	1	23	0	23	3	0	3	26	0	26
Use of Plastics in farming practices	1	25	0	25	2	0	2	27	0	27
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology	1	15	0	15	0	0	0	15	0	15
Others (pl specify)	1	37	0	37	5	0	5	42	0	42
Total	**5**	**121**	**0**	**121**	**12**	**0**	**12**	**133**	**0**	**133**
VII Plant Protection										
Integrated Pest Management	3	72		72	2		2	74		74
Integrated Disease Management	3	60		60	3		3	63		63
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides	1	22		22	1		1	23		23
Others (pl specify)	1	21		21	1		1	22		22
Total	**8**	**175**	**0**	**175**	**7**	**0**	**7**	**182**	**0**	**182**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										

Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**38**	**773**	**60**	**833**	**118**	**23**	**141**	**891**	**83**	**974**

Farmers' Training including sponsored training programmes – CONSOLIDATED

(On + Off campus)

Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
I Crop Production										
Weed Management	4	81	7	88	22	8	30	103	15	118
Resource Conservation Technologies	5	94	11	105	23	12	35	117	23	140
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										

Soil & water conservation	3	61	13	74	15	5	20	76	18	94
Integrated nutrient management	1	20	3	23	3	2	5	23	5	28
Production of organic inputs	4	76	12	88	20	8	28	96	20	116
Others (pl specify)										
Total	**17**	**332**	**46**	**378**	**83**	**35**	**118**	**415**	**81**	**496**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables	1	20	2	22	3		3	23	2	25
Nursery raising	1	19	4	23	4		4	23	4	27
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	**2**	**39**	**6**	**45**	**7**		**7**	**46**	**6**	**52**
b) Fruits										
Training and Pruning										
Layout and Management of Orchards										
Cultivation of Fruit	1	19	4	23				19	4	23
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards	1	25		25				25		25
Plant propagation techniques	1	21	5	26				21	5	26
Others (pl specify)										
Total (b)	**3**	**65**	**9**	**74**				**65**	**9**	**74**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										

e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
Grand Total (a to g)	**5**	**104**	**15**	**119**	**7**	**0**	**7**	**111**	**15**	**126**
III Soil Health and Fertility Management										
Soil fertility management	1	12	0	12	5	3	8	17	3	20
Integrated water management	1	15	5	20	7	2	9	22	7	29
Integrated Nutrient Management	1	20	0	20	7	0	7	27	0	27
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers	1	19	0	19	7	0	7	26	0	26
Soil and Water Testing	1	22	4	26	5	2	7	27	6	33
Others (pl specify)										
Total	**5**	**88**	**9**	**97**	**31**	**7**	**38**	**119**	**16**	**135**
IV Livestock Production and Management										
Dairy Management	5	87		87	15		15	102		102
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										

Disease Management	3	54		54	7		7	61		61
Feed & fodder technology	3	48		48	13		13	61		61
Production of quality animal products	2	21	21	42	2	3	5	23	24	47
Others (pl specify)										
Total	**13**	**210**	**21**	**231**	**37**	**3**	**40**	**247**	**24**	**271**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total										
VI Agril. Engineering										
Farm Machinery and its maintenance	2	53	0	53	5	0	5	58	0	58
Installation and maintenance of micro irrigation systems	2	50	0	50	6	0	6	56	0	56
Use of Plastics in farming practices	2	36	0	36	6	0	6	42	0	42
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	21	0	21	2	0	2	23	0	23
Small scale processing and value addition	1	0	23	23	0	4	4	0	27	27
Post Harvest Technology	1	15	0	15	0	0	0	15	0	15
Others (pl specify)	3	84	6	90	10	1	11	94	7	101
Total	**12**	**259**	**29**	**288**	**29**	**5**	**34**	**288**	**34**	**322**
VII Plant Protection										
Integrated Pest Management	5	119	0	119	2	3	5	121	3	124
Integrated Disease Management	4	79	0	79	7	0	7	86	0	86

Bio-control of pests and diseases	1	22	0	22	2	0	2	24	0	24
Production of bio control agents and bio pesticides	2	46	0	46	2	0	2	48	0	48
Others (pl specify)	1	21	0	21	1	0	1	22	0	22
Total	**13**	**287**	**0**	**287**	**14**	**3**	**17**	**301**	**3**	**304**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										

X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total										
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**65**	**1280**	**120**	**1400**	**201**	**53**	**254**	**1481**	**173**	**1654**

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated farming	1	23	0	23	5	0	5	28	0	28
TOTAL	**1**	**23**	**0**	**23**	**5**	**0**	**5**	**28**	**0**	**28**

Training programmes for Extension Personnel including sponsored training (off 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
Integrated Nutrient management	2	25	5	30	8	3	11	33	8	41
TOTAL	**2**	**25**	**5**	**30**	**8**	**3**	**11**	**33**	**8**	**41**

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
Crop production and management										
Increasing production and productivity of crops	1	31	0	31	4	0	4	35	0	35
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops	1	20	0	20	3	0	3	23	0	23

Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total	**2**	**51**	**0**	**51**	**7**	**0**	**7**	**58**	**0**	**58**
Post harvest technology and value addition										
Processing and value addition	1	0	23	23	0	4	4	0	27	27
Others (pl. specify)										
Total	**1**	**0**	**23**	**23**	**0**	**4**	**4**	**0**	**27**	**27**
Farm machinery										
Farm machinery, tools and implements	1	32	0	32	3	0	3	35	0	35
Others (pl. specify)										
Total	**1**	**32**	**0**	**32**	**3**	**0**	**3**	**35**	**0**	**35**
Livestock and fisheries										
Livestock production and management	1	24	0	24	2	0	2	26	0	26
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total	**1**	**24**	**0**	**24**	**2**	**0**	**2**	**26**	**0**	**26**
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	**5**	**107**	**23**	**130**	**12**	**4**	**16**	**119**	**27**	**146**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General/Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Crop production and management										
Organic farming	1	15	0	15	6	0	6	21	0	21
Total	**1**	**15**	**0**	**15**	**6**	**0**	**6**	**21**	**0**	**21**
Agricultural Extension										
Capacity building and group dynamics	4	217	1	218	10	1	11	227	2	229
Total	**4**	**217**	**1**	**218**	**10**	**1**	**11**	**227**	**2**	**229**
Grand Total	**5**	**232**	**2**	**233**	**16**	**1**	**17**	**248**	**2**	**250**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	10	19	1	20
Diagnostic visits	2	10	2	12
Field Day	6	131	2	133
Group discussions	4	61	-	61
Kisan Ghosthi	2	411	2	413
Film Show	1	51	1	52
Self -help groups	1	25	1	26
Kisan Mela	1	-	-	-
Exhibition	24	146	2	148
Scientists' visit to farmers field	12	23	2	25
Plant/animal health camps	1	13	1	14
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	3	22	1	23
Method Demonstrations	9	18	1	19
Celebration of world water day	1	47	2	49
Celebration of international women day	1	23	2	25
Celebration of honey bee day	1	25	2	27
Celebration of world milk day	1	31	1	32
Celebration of environment day	1	15	1	16
Celebration of food & nutrition day	1	46	1	47
Celebration of poshan maah	1	30	3	33
Celebration of Technology week	1	682	4	686
Priminister Programme	1	187	2	189
Celebration of swachta pakhwadia	3	78	3	81
Celebration National Pension day	1	32	3	35
Celebration of Mahila kisan diwas	1	30	3	33
Celebration of World food day	1	35	4	39
Celebgration of World soil day	1	70	3	73
Pradhanmantri Natural farming Programme	1	156	3	159
Celebration of Kisan Diwas	1	51	2	53
Celebration of world pulse day	1	65	4	69
Total	**95**	**2533**	**59**	**2592**

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

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	1
Extension Literature	1
Newspaper coverage	10
Popular articles	-
Radio Talks	-
TV Talks	-
Animal health camps (Number of animals treated)	1 (78)
Others (pl. specify)	-
Total	**13**

3.6 Online activities during year 2021

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webex etc.)	Title of Program	No. of Programmes	No. of Participants/ Views
A	Farmers training	Audio conferencing	Agriculture & Animal science	6	324
1		Video conferencing	Pre seasonal training kharif	1	53
2		Google meet	Pre seasonal training Rabi	1	57
3		Zoom	Care & management of livestock	1	68
	Total			**9**	**502**
B	Farmers scientist's interaction programme	Video conferencing	Plant protection	1	46
	Total			**1**	**46**
C	Farmers seminars	-	-	-	-
	Total			-	-
D	Expert lectures	-	-	-	-
	Total			-	-
E	Any other (Pl. specify)				
1	With the help of KVK and Reliance Foundation, information about the precautions of Covid-19, Arogya setu app and information about the distribution of groundnuts by the university was given to the farmers who were connected by phone	Audio conferencing	-	1	2400
	Total			**1**	**2400**
	Grand Total (A+B+C+D+E)			**11**	**2948**

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
Oilseeds	Groundnut (Breeder)	GJG-31	-	2650	-	-
	Groundnut (Breeder)	GJG-32	-	3000	-	-
	Groundnut (TF)	GJG-32	-	8200	-	-
	Groundnut (TF)	GJG-22	-	6000	-	-
Pulses	Chickpea (Foundation)	GJG-6	-	2880	-	-
Total				**22730**		

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

Item	Title	Authors name	Name & Number
Research papers	Incidence of Peste des petits ruminants virus infection in small ruminants of saurashtra region of Gujarat state	**M. M. Tajpara**, A.N. Kanani, H.H.Savsani, J.B. Kathiriya, P.V.Gohil, D.R. Patel and N.M.Shah	International Journal of Current Microbiology & Applied Sciences 10(7): 257-269 July 2021
	Molecular Detection & Sequencing of peste des petits ruminants virus of saurashtra region of gujarat	**M. M.Tajpara**, N.M.Shah, B.B. Javia, D.B. Barad, U.V. Ramani, D.R. Patel, V.A.Kalaria	The Indian Journal of Veterinary Science & Biotechnology 17(4): 17-22 October 2021
	Evaluation of Blackgram [(*Vigna mungo* (L.)] Genotypes for Saline Tolerance at Seedling Stage Using Sea Water	Mukul Kumar Gandhi, Abhay Kumar, **G. V. Marviya** and Prasenjit Paul	International Journal of Environment and Climate Change 11(10):136-145 October 2021
	Productivity and economics of groundnut + castor (3:1) intercropping system as influenced by nutrient management under rainfed condition of saurashtra region	**D.S.Hirapara**, P.D.Vekaria	5th International Agronomy Congress (Abstract) November 2021
	Altered expression levels of transcripts of GNAC TFs during drought stress in susceptible and tolerant cultivaras of groundnut	Feba Jacob, Mahesh Mahatma, Yogita Deshmukh, Umesh K. Kandoliya, **G. V. Marviya**, Meera Joshi and Ashish Vala	Plant Stress 3:1-8 January 2022
Technical reports	Monthly, quart, Six monthly and Annual	Junagadh Agri. University	19
Others	Achievement and Endeavours of KVK Since inception	KVK-Targhadia	Agri. Extn. Publication Series No.: 3-1-3 August-2021

C. 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		
2	Facebook page/ Account		
3	Mobile Apps		
4	WhatsApp groups	4	112
5	Twitter Account		
6	Any other (Pl. Specify)		

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).

1) Higher Yield of Chickpea through seed production

Name of Farmer: Kanjibhai Ranchhodbhai Mendpara
Village : Saal Pipaliya
Taluka : Paddhari
District : Rajkot
Mo. No.: 88490 39222
Age : 45 Years
Education : 10th Pass
Land Holding : 6 Acre
Livestock : Cows-2
Crops Grown : Chickpea, Cotton, Groundnut, Cumin, Wheat

Special Recognition:-

Kanjibhai Ranchhodbhai Mendpara is a very progressive farmer Saal Pipaliya village of Paddhari Taluka. He always adopting new technologies to obtain higher production and maximum net return from the farming. He is known as "Father of Seed Production" in local farming community. He has large experience of seed production of various crops like Chickpea, Cumin, Green gram, Groundnut, Wheat etc. under guidance of Krishi Vigyan Kendra, Targhadia. He is farmer friend of Paddhari taluka and doing awareness for the use of organic products, adoption of Natural Farming for farming communities. He has also done better work for soil and water conservation and upliftment of Agriculture.

Kanjibhai has cultivated Chickpea crop in 5 Acre areas with all practices recommended by Junagadh Agricultural University. He is producing certified stage seeds of chickpea varieties GJG-3, GG-5, GJG-6 from last 5-6 years and getting 25-30 % more net return as compare to other crops. He obtained 1100 kg/acre production and earned Rs. 68,750/acre monetary return. He is providing seeds of chickpea to farmers and helping them to get more benefits from farming.

2) Introduction of New Crop Tobacco

Name of Farmer:	Chhaganbhai B. Ramani
Village :	Maliyasan
Taluka :	Rajkot
District :	Rajkot
Mo. No.:	97272 04040
Age :	60 Years
Education :	8th Pass
Land Holding :	16 Acre
Livestock :	Cows-2, Bullock-2
Crops Grown :	Chickpea, Cotton, Groundnut, Cumin, Wheat, Leafy Vegetables, Tobacco

Special Recognition:-

Chhaganbhai B. Ramani is a very progressive farmer of Maliyasan village of Rajkot Taluka. He is an innovative farmer and always try to do some new technology or crop in his field. He has large experience of vegetable and oilseed crop production. He came to know about new crop Tobacco in his local area which is main crop of middle Gujarat. He has collected seeds from Bidi Tobacco Research Station, Anand Agricultural University, Anand under guidance of Krishi Vigyan Kendra, Targhadia. Now a days, he has grown tobacco in 2 acre of land. He is the first to bring new crop in his area. Due to his efforts, nearby 50 acres of land converted into new crop tobacco cultivation. In his first year, he earned Rs. 1,90,000 from 1.6 acre area which is near about double income than routinely grown crops. So he is very popular in his area as an innovative farmer for tobacco crop cultivation.

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
- 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. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Groundnut	Farmers maintain a set furrow system and apply manure and fertilizers every year in the same furrow.	To get residual effect of manure and fertilizers in succeeding crop
	Groundnut	Some farmers near the river bed, apply sand in the set furrow for increasing infiltration rate of the soil	To reduce the water Logging condition in the field
	Groundnut	Farmers grow maize as mix crop in groundnut	To increase natural enemies & fodder purpose
2	Kharif crops	Farmer apply life saving supplementary irrigation to the crops during moisture stress condition	For life saving irrigation to minimize the risk of crop failure
3	Cotton	Farmers grow Maize after 3-4 rows of cotton	To increase the natural enemies and fodder purpose
4	Cotton	After heavy rain, farmer apply irrigation to balance the salt concentration at top of soil	To balance the salt concentration
5	Livestock (Cow, Buffalo)	Use of salt in cotton seed cake	Increase milk production
		Use of calcium carbonate in water tank	For control of bacterial infection and calcium deficiency
		Use of petrol and diesel in wound	For control of maggot wound

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

A. Practicing Farmers: (a) Survey (b) Field survey (c) Group discussion

B. Rural Youth: (a) Survey (b) Field survey (c) Group discussion

C. In-service personnel: (a) Survey (b) Field survey (c) Group discussion

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT: i) Field level observations, ii) Farmer group discussions

or FLD : i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system

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

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

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Agricultural Technology Information Center (ATIC)	2004	Govt. of Gujarat	635000/-
Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India	2016-17	ICAR-New Delhi	-
Cluster Frontline Demonstrations on Pulses under NFSM	2015-16	ICAR-New Delhi	180000/-
Cluster Frontline Demonstrations on Oilseeds under NMOOP	2015-16	ICAR-New Delhi	255000/-
Attracting and Retaining Youth in Agriculture (ARYA)	2015-16	ICAR-New Delhi	1565000/-
Paramparagat Krishi Vikas Yojana (PKVY)	2019	ICAR-New Delhi	660000/-

C. Details of linkage with ATMA

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	2	-	-
02	Research Projects				-
03	Training Programmes	Farmer training	9	3	-
04	Demonstrations	Technology demonstration	4	4	
05	Extension Programmes				
	KisanMela		-	-	-
	Technology Week		1	1	-
	Exposure visit		4	1	-
	Exhibition		-	-	
	Soil health camps		-	-	-
	Animal Health Campaigns		-	-	-
	Others (Natural farming		3	1	-
06	**Publications**				**-**
	Video Films				**-**
	Books				**-**
	Extension Literature				**-**
	Pamphlets				**-**
	Others (Pl. specify)				**-**
07	**Other Activities (Pl.specify)**				
	Watershed Approach				**-**
	Integrated Farm Development				

D. Give details of programmes implemented under National Horticultural Mission : Nil

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

E. Nature of linkage with National Fisheries Development Board : Nil

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

F. Details of linkage with RKVY : Nil

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

G. Details of linkage with PKVY (Paramparagat Krishi Vikas Yojana)

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
	FLD on Wheat	-	0	34000	Fund received Rs. 330000/- during 2019-20
	FLD on Chickpea	-	0	51600	
	Telephone helpline	-	0	0	

H. Details of linkage with NFSM

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
	FLD, Training, Agro Advisory and Literature distribute	District Agri. Department , Rajkot	180000/-	129000/-	-

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

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

7. Convergence with other agencies and departments: Yes

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	No
	Brief report in this regard	

9. Farmers Field School (FFS) : Nil

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

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

1. Reddening in cotton
2. Pink boll worm in cotton
3. Pod borer / wire worm and ear wing problem in groundnut in sporadic area
4. White grub damage was observed in groundnut in sporadic area
5. Infestation of stem rot, rust and tikka disease were observed in groundnut
6. Research needed for control of insect-pests and diseases in organic farming
7. *Colletotricum* fungus (Onion ring disease) in *Kharif* onion
8. Longer inter calving period in buffalo
9. Mastitis problem in cow and buffalo

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

1. Research needed for control of insect-pests and diseases in organic farming
2. *Colletotricum* fungus (Onion ring disease) in *Kharif* onion
3. Longer inter calving period in buffalo

11. Technology Week celebration during 2021: Yes

Period of observing Technology Week: From to 13th to 18th September 2021
Online / Offline: offline
Total number of farmers visited : 682
Total number of agencies involved : 4
Number of demonstrations visited by the farmers within KVK campus: 6

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	-	-	
Lectures organized	12	682	Agronomy, plant protection, Livestock production and management
Exhibition	6	682	Agri equipment and demo unit
Film show	6	682	Crop and livestock technology
Fair	-	-	-
Farm Visit	6	682	Demo unit visit
Diagnostic Practical's	-	-	-
Supply of Literature (No.)	-	682	Pamphlet of agriculture and livestock
Supply of Seed (q)	-	-	
Supply of Planting materials(No.)	-	-	
Bio Product supply (Kg)	-	-	
Bio Fertilizers (q)	-	-	
Supply of fingerlings	-	-	
Supply of Livestock specimen (No.)	-	-	
Total number of farmers visited the technology week	-	682	

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

- Nil -

13. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Cumin Variety (GC-4)	243	85	30000	46000
Improved variety of Gram (GJG-3)	159	74	27500	36000
Wheat variety (GW-496, 366)	257	79	32500	37000
Use of Trichoderma culture powder for the control of stem rot in groundnut	351	71	28125	31000
Use of mineral mixture in buffalo	369	82	39000	44000

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

B. Cases of large scale adoption

(Please furnish detailed information for each case)

- 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

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	2	3000	
Feb 2021	2	3000	
March 2021	2	3000	
April 2021	2	3000	
May 2021	2	3000	
Jun 2021	2	3000	
Jul 2021	2	3000	
Aug 2021	2	3000	
Sept 2021	2	3000	
Oct 2021	2	3000	
Nov. 2021	2	3000	
Dec. 2021	2	3000	

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Rajkot-I	Text only	6	2	19	-	3	-	30
	Voice only							
	Voice & Text both							
	Total Messages							
	Total farmers Benefitted		**3000**	**3000**	**-**	**3000**	**-**	**-**

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.)		Remark
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Vermi composting	2018	0.05	-	-	-	-	-	-
2	Nadep composting	2019	7 x 5 m	-	-	-	-	-	-
3	Crop cafeteria	2012	0.10						
4	Kitchen garden	2018	0.05	-	-	-	-	-	-
5	Organic farming	2016	1.00	-	-	-	-	-	-

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Pulses:									
Gram			2.00	GJG-6	Foundation	2880			
Oilseeds:									
Groundnut			1.80	GJG-31	Breeder	2650			
Groundnut			1.70	GJG-32	Breeder	3000			
Groundnut			4.65	GJG-32	TF	8200			
Groundnut			4.01	GJG-22	TF	6000			

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

Sl. No.	Bio Products	Name of the Product	Qty (kg/lit)	Amount (Rs.)		Remarks
				Cost of inputs	Gross income	
1	Bio- Fertilizers					
2	Bio-Fungicides					
3	Bio- pesticides					
4	Bio-Agents					

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

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

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
60000	58000	Mini Sprinkler	2	2	-	62	2	-	4.00

F. Performance of Nutritional Garden at KVK farm

If Nutritional Garden developed at KVK farm/Village Level: 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
0.1	Vegetable crops	25	193
	Fruit crops	3	
	Others if any	3	

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
5	Vegetable crops	25	50
	Fruit crops	5	
	Others if any	5	

16. 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	SBI	Junagadh					
With KVK	SBI	Rajkot	463	TRAINING ORG.KVK.JAU. TARGHADIA	10353003175	360002002	SBIN0000463

B. Utilization of KVK funds during the year 2021-22 (Rs. in lakh) (Till Dec, 2021)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	8200000	6845000	7488821
2	**Traveling allowances**			
3	**Contingencies**	1200000	801000	1013458
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
B	POL, repair of vehicles, tractor and Equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			

F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		9400000		
B. Non-Recurring Contingencies			7646000	8502279
1	**Works**			
2	**Equipments including SWTL & Furniture**			
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)				
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		9400000	7646000	8502279

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2018 to March 2019	25,78,697	25,57,179	24,79,409	26,56,467
April 2019 to March 2020	26,56,467	19,39,208	19,41,027	26,54,648
April 2020 to March 2021	26,54,648	20,91,275	15,42,336	35,15,340
April 2021 to December, 2021	35,15,340	6,64,605	19,07,330	22,72,615

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
Dr. B. B. Kabaria	Senior Scientist & head	State level annual action plan workshop of KVK (Gujarat)	ATARI Pune	Online	18/02/21
Dr. M. M. Tajpara Dr. J. H. Chudhray Dr. M. K. Jadeja	Subject Matter Specialist	Participatory Programme & Planning, Monitoring, & Evaluation	EEI Anand	Online	9/03/2021 to 10/03/2021
Dr. M. M. Tajpara	Subject Matter Specialist	Annual Review workshop of TDC-NICRA KVK	ATARI Pune	Online	15/05/2021

Dr. J. H. Chudhray	Subject Matter Specialist	Organization of Training Programme on Pulse with respect to seed Minikit Programme during Kharif 21	ATARI-Pune	Online	09/06/21
Dr. D. S. Hirpara	Senior Scientist & head	Online Annual zonal workshop of KVK Maharashtra, Gujarat, Goa	ATARI-Pune	Online	04/08/21 to 06/08/21
Dr. D. S. Hirpara	Senior Scientist & head	ARYA Project Team Meeting	ATARI-Pune	Online	27/08/21
Dr. M. M. Tajpara, Dr. J. H. Chudhray Dr. M. K. Jadeja D. P. Sanepara	Subject Matter Specialist	Use of Mass Media for Transfer of Technology	EEI Anand	Online	01/09/21 to 03/09/21
Dr. D. S. Hirpara	Senior Scientist & head (I/C)	Review Meeting of Pulse Seed hub	ATARI-Pune	Online	14/10/21
Dr. D. S. Hirpara	Senior Scientist & head (I/C)	ARYA Research Project Review meeting	ATARI-Pune	Online	22/11/21
Dr. D. S. Hirpara	Senior Scientist & head (I/C)	5th International Agronomy Congress	PJTSAU, Hyderabad	Offline	23/11/21 to 27/11/21
Dr. M. M. Tajpara	Subject Matter Specialist (I/C)	Natural Farming Training	Adalaj, Gandhinagar	Offline	26/11/21 to 01/12/21
Dr. M. K. Jadeja D. P. Sanepara	Subject Matter Specialist (I/C)	Presentation skills for professional excellence	JAU, Junagadh	Offline	01/12/21 to 03/12/21

Details of Other Projects running at KVK, Rajkot-I

I. Agricultural Technology Information Center (ATIC)

Kharif-2021

Area, technology demonstrated and performance of FLDs:

Sr. No.	Crop/ Enterprise	Tech. Demons treated	Variety	No. of Farmers	Area (ha)	Demo. Yield (qt/ha)			Yield of local Check (qt/ha)	Increase in yield (%)
						H	L	A		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1	Groundnut	Variety & INM	GJG-22	50	20	23.20	18.15	20.60	17.90	15.08

Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
12	*13*	*14*	*15*	*16*	*17*	*18*	*19*
40500	115360	74860	2.85	39300	100240	60940	2.55

Rabi-2020-21

Area, technology demonstrated and input details:

Sr. No.	Crop/ Enterprise	Tech. Demons treated	Variety	No. of Farmers	Area (ha.)/ No.	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)
						H	L	A		
1	Chick pea	Varietal evaluation (GG-5)	GG-5	50	20	26.50	22.25	23.75	20.50	15.85

Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
27500	121125	93625	4.40	26500	104550	78050	3.95

Details of training and other extension activities:

Nature of Extension Activity	No. of activities	Total Participants
On + Off campus Training	3	68
Kisan Ghosthi	2	53
Group meetings	2	38
Scientific visit to farmers field	3	27
Farmers visit to KVK	7	43
Extension Literature distribute	-	150

II. Cluster Frontline Demonstrations on oil seeds under NMOOP

Kharif-2021

Area, technology demonstrated and performance of CFLDs:

Sr. No.	Crop/ Enterprise	Tech. Demons treated	Variety	No. of Farmers	Area (ha)	Demo. Yield (qt/ha)			Yield of local Check (qt/ha)	Increase in yield (%)
						H	L	A		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1	Groundnut	Variety & INM	GJG-22	50	20	23.75	18.75	21.25	18.50	14.86

Economics of demonstration (Rs/ha)				Economics of check (Rs/ha)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
12	*13*	*14*	*15*	*16*	*17*	*18*	*19*
40700	119000	78300	2.92	39500	103600	64100	2.62

Summer-2021

Area, technology demonstrated and input details:

Sr. No.	Crop/ Enterprise	Tech. Demons treated	Variety	No. of Farm-ers	Area (ha.)/ No.	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)
						H	L	A		
1	Sesame	Sesame Variety G.Til-3	G.Til-3	50	20	11.75	9.50	10.50	8.95	17.32

Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
28500	78750	50250	2.76	27800	67025	39325	2.41

Details of training and other extension activities:

Sr. No.	Extension Activities	No. of activities	Number of Participant
1	On campus training	1	24
2	Off campus training	1	26
3	Field day	1	22
4	Telephone help line	-	27
5	Scientist visit to farmer's field	3	17

III. Cluster Frontline Demonstrations on oil seeds under (NFSM)

Detail of FLDs

Sr. No.	Crop	Tech. Demons treated	Critical Inputs (Variety)	No. of Farmers	Area (ha.)/ No.	Crop yield (q/ha) (Average)		Increase in yield (%)
						Demo	Local	
1	Chickpea	Variety + INM + IDM + IPM	Seed of GJG-6 + bio fertilizer + *Trichoderma* + *Behvaria*	50	20	24.00	20.00	20.00

Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
28000	122400	94400	4.37	26000	1,02,000	76000	3.92

Trainings programs conducted

Sr. No	On/Off Campus	No. of Training Conducted	Total No. of Participants
1	On Campus	2	53
2	Off Campus	2	55

Awareness programs / exposure visits / field days/Camps conducted

Sr. No.	Particulars	No. of Programmes	No. of participants
1	Agro advisory services	10	325
2	Literature Distributed	5	200

IV. Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India

Overview of Seed Production :

Year	Season	Total Production (kg)	Selling as certified seed (kg)	Amount Paid to farmers (Rs.)	Total Income (Rs.)	Difference (Loss/ Profit)
2020-21	Rabi Chickpea (GG-5)	29600	-	1702000	1010000	692000
	Summer Green gram (GAM-5)	2080	-	164320	-	-

Trainings programs conducted

Sr. No	On/Off Campus	No. of Training Conducted	Total No. of Participants
1	On Campus	1	30
2	Off Campus	1	30

Awareness programs / exposure visits / field days/Camps conducted

Sr. No.	Particulars	No. of Programmes	No. of participants
1	Agro advisory services	5	200
2	Literature Distributed	3	150

V. Paramparagat Krishi Vikas Yojana (PKVY)

"PramparagatKrishiVikasYojana (PKVY)" a sub-component of Soil Health Management (SHM) scheme under National Mission of Sustainable Agriculture (NMSA) aims at development of sustainable models of organic farming through a mix of traditional wisdom and modern science to ensure long term soil fertility buildup, resource conservation and helps in climate change adaptation and mitigation..

Objectives of the Scheme :

- ❖ To promote natural resource based integrated and climate resilient sustainable farming systems that ensure maintenance and increase of soil fertility, natural resource conservation, on-farm nutrient recycling and minimize dependence of farmers on external inputs.
- ❖ To sustainably produce chemical free and nutritious food for human consumption.
- ❖ To protect environment from hazardous inorganic chemicals by adoption of ecofriendly low cost traditional techniques and farmer friendly technologies.
- ❖ To empower farmers through their own institutional development in the form of clusters and groups with capacity to manage production, processing, value addition and certification management.

1. Performance of FLDs:

(A) Frontline Demonstrations of *Rabi* Chickpea (2020-21)

Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield
					Demo			Check	
					High	Low	Average		
Chickpea	Varietal+ INM+IDM+IPM	GJG-6	20	8	27	19	23	19	21.05

Crop	No. of Farmers /demos	Area (ha)	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Chickpea	20	8	28400	117300	88900	4.13	25000	96900	71900	3.87

(B) Frontline Demonstrations of Wheat (2020-21)

Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield
					Demo			Check	
					High	Low	Average		
Wheat	Varietal+ INM+IDM+IPM	GW-451	20	8	55	49	52	45	15.55

Crop	No. of Farmers /demos	Area (ha)	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
			Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Wheat	20	8	34000	110200	76200	3.24	31000	97000	66000	3.12

2. Others Extension Activities:

Sr. No.	Activity	No. of Participants
1	Training	2 (42)
2	Field day	1 (18)
3	Telephone help line	30
4	Farmers visit to KVK farm	30
5	Scientist visit to farmer's field	3 (40)

VI. Attracting and Retaining Youth in Agriculture (ARYA)

The ARYA project was started during the year 2015-16 at KVK Rajkot-1, Gujarat. At present KVK, Rajkot-1 is working for four talukas of Rajkot district namely (i) Jasdan (ii) Padadhari (iii) Vinchhiya (iv) Rajkot. KVK, Rajkot-1 was identified for the objective of post-harvest technology, processing and value addition concept under ARYA project. Entrepreneurship development activities have been started with focus of processing, value addition, milk processing and nursery management.

1. Objectives of the ARYA Project:

- To attract and empower the youth in rural areas to take up various agriculture, allied and service sector enterprises for sustainable income and gainful employment in selected districts.
- To enable the farm youth to establish network groups to take up resources and capital intensive activities like post-harvest technology, processing & value addition, nursery management, milk processing and marketing.
- To demonstrate functional linkage with different institutions and stakeholders for convergence of opportunities available under various schemes/program for sustainable development of youth

2. Training and Skill Development Programmes:

Sr	Training	No. of Youth participated
1	Nursery management	22
2	Post-harvest technology and value addition	25

3. Establishment of Enterprises at different villages under ARYA Project:

The groups of youth having age of 18 to 35 years have been formed and established various enterprises in selected villages of Rajkot district.

Group 1: (15 youths)**:** Enterprise of Mini Oil Mill Unit at Targhadi village of Paddhari talukas ***(Enterprise: Year 2017-18)***

Group 2: (15 youths)**:** Enterprise of Mini Oil Mill Plant at Raningpar village of Jasdan talukas ***(Enterprise: Year 2017-18)***

Group 3: (7 youths)**:** Pulverizer Machine Unit at Gadhaka village of Rajkot talukas ***(Enterprise: Year 2017-18)***

Group 4: (5 youths)**:** Namkeen (Farsan) Machine at Targhadia village of Rajkot taluka ***(Enterprise: Year 2017-18)***

Group 5: (8 youths)**:** Milk-Mava making unit at Amabardi village of Jasdan taluka ***(Enterprise: Year 2017-18)***

Group 6: (10 youths)**:** Mini Dal Mill Unit at Sal Pipaliya village of Paddhari taluka ***(Entrepreneurial : Year 2020)***

Group 7: (10 youths)**:** Mini Cleaning cum Grading Machine Unit at Dungarka village of Paddhari taluka ***(Entrepreneurial : Year 20-20)***

Group 8: (2 youths)**:** Nursery Unit at Gunda village of Rajkot taluka ***(Entrepreneurial : Year 2020)***

4. Critical Inputs/Equipment/Machinery provided for various enterprise under ARYA :

1. Two Mini Oil Mill Units for processing of groundnut and other oilseeds (Rs. 3,61,200/- x 2 unit= Rs. 7,22,400/-)
2. One Pulverizer machine (Masala Mill) for processing of spices (Rs. 82,110/-)
3. One Namkeen (Farsan) making machine (Rs. 16,800/-)
4. One Milk-Mava making unit for milk processing (Rs. 63,000/-)
5. One Mini Dal Mill Unit (Rs. 1,62,000/-)
6. One Mini Cleaning cum Grading Machine Unit (Rs. 56,000/-)
7. One Nursery Unit (Rs. 24.050/-)

5. Brief about enterprise-wise interventions:

5.1 Mini Oil Mill Unit at Targhadi village of Paddhari taluka:

An entrepreneurial group of 15 rural youths in Taraghadi village started enterprise of Mini Oil Mill unit and producing groundnut oil through processing of groundnut. The group earning net profit of Rs. 1,74,800 per month by selling groundnut oil and cake. This enterprise is run more than 8 month during the year and earning net profit of Rs. 13,11,000 per year.

5.2 Mini Oil Mill Plant at Raningpar village of Jasdan taluka:

The group of 15 rural youths in Raningpar village is earning upto Rs. 1,42,025 per month through processing of groundnut by enterprise of mini oil mil plant. This enterprise is run more than 8 month during the year and earning net profit of Rs. 10,62,750 per year.

5.3 Entrepreneurship development through spices processing:

An enthusiastic group of 7 rural youths in Gadhaka village started enterprise of Spice processing unit and earning upto Rs. 61,500 per month. This enterprise is run more than 6 month during the year and earning net profit of Rs. 3,69,125 per year.

5.4 Entrepreneurship development through Namkeen (*Farsan*) making:

An entrepreneurial group of 5 youths at Targhadia village started Namkeen making enterprise. They making and selling Namkeen (Farsan) products and earning net profit of Rs. 3,90,000 per year.

5.5 Milk-*Mava* making at Ambardi village:

The active group of 8 youths at Ambardi village of Jasdan taluka started milk processing enterprise. They are producing milk-*mava* by processing of raw milk. The group generated net profit of Rs. 43,750 per month. This enterprise earning net profit of Rs. 4,37,500 per year.

5.6 Mini cleaning cum grading machine unit at Dungarka village of Paddhari taluka:

An entrepreneurial group of 8 rural youths in Dungarka village started enterprise Mini cleaning cum grading machine unit. This enterprise is run 5 month during the year and earning net profit of Rs. 2,80,000 per year.

5.7 Mini Dall Mill unit at Sal Pipaliya village of Paddhari taluka:

An entrepreneurial group of 10 rural youths in Sal Pipaliya village started enterprise Mini Dall Mill unit. This enterprise is run 6 month during the year and earning net profit of Rs. 3,90,000 per year.

5.8 Nursery unit at Gunda village of Rajkot taluka:

An entrepreneurial group of 4 rural youths in Gunda village started enterprise Nursery unit. This enterprise earning net profit of Rs. 1,80,000 per year.

VII. Mera Gaon Mera Gaurav (MGMG)

On the basis of agro climatic conditions, soil types, and cropping pattern; Gujarat has been divided into eight agro climatic zones. Rajkot district falls under North Saurashtra Agro climatic Zone. The total geographical area of North Saurashtra Agro Climatic Zone is 35.2 Lack ha. Out of total area, 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district is medium in their availability of nitrogen while low in phosphorus and high in available potash except the available phosphorus and potash is in medium category in adopted villages. Monsoon commences usually by the middle of June and withdraws by middle of September. Average annual rainfall of districts is 1214.6 mm. Monsoon in this area commences in the end of June and retreats by the middle of September. Most of the precipitation is received from South – West monsoon, concentrating in the month of July and August. The maximum rainfall and number of rainy days are observed in July. The winter season sets by the end of October. This district is situated near seashore hence; there are no drastic fluctuations in the temperature. The average maximum and minimum temperatures are 42.0° C and 16.9 °C respectively. Overall climate of this station is humid and convenient for coastal crops

The main crops of the region are groundnut, cotton, wheat, cumin, onion, garlic, castor, green gram, black gram, pearl millet, etc.

Seasonal vegetables are also grown in limited area. Lift irrigation through tube well & dug well are the main sources of irrigation.

Sr. No.	Name of Institute	Total No. of Group	No. of Scientist Involved	No. of Village covered
1	KVK, JAU, Targhadia	2	6	10

Activities organized by KVK-Targhadia, Rajkot-I under MGMG

S. No.	Name of activity	No. of activities conducted	No. of benefitted
1	Visit to village by teams	1	28
2	Interface meeting/ Goshthies	2	31
3	Training organized	3	87
4	Mobile based advisories	4	113
5	Literature Support Provided	4	128