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

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Junagadh Agricultural University Nana-Kandhasar-363 520 **Dist: Surendranagar**	(02751) 294120	02751 280121	surendranagar.kvk@gmail.com	NA

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 – 360 002	0285-2672080-90	0285-2672653	dee@jau.in	-

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

Name	Telephone / Contact		
	Office	Mobile	Email
Mr. M. F. Bhoraniya	--	094282 97863	surendranagar.kvk@gmail.com

1.4. Year of sanction: October, 2005

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

If Permanent, Please indicate							If Temporary, pl. indicate the consolidated amount paid (Rs./month)
Sl. No.	Sanctioned post	Name of the incumbent	Discipline	Current Pay Band	Current Grade Pay	Date of joining	
1.	Senior Scientist and Head	-	-	-	-	-	-
2.	Subject Matter Specialist	Mr. M. F. Bhoraniya	Plant Protection	57700-182400 (UL-10)	6000/-	18-09-12	-
3.	Subject Matter Specialist	Dr. B. C. Bochalya	Extension Education	57700-182400 (UL-10)	7000/-	23-08-06	-
4.	Subject Matter Specialist	Dr. R. P. Kalma	Animal Science	57700-182400 (UL-10)	6000/-	07-12-16	-
5.	Subject Matter Specialist	Mr. D. A. Patel	Horticulture	57700-182400 (UL-10)	6000/-	20-01-17	-
6.	Subject Matter Specialist	-	Agronomy	-	-	-	-
7.	Subject Matter Specialist	-	Home Science	-	-	-	-
8.	Programme Assistant	Mr. A. K. Vala	B. Sc. (Agri)	39900-126600(L-7)	-	10-08-18	-
9.	Computer Programmer	Mr. P. T. Patel	Computer Science	39900-126600(L-7)	-	30-12-08	-
10.	Farm Manager	Mr. M. N. Patel	B. Sc. (Agri)	39900-126600(L-7)	-	27-07-18	-
11.	Accountant/ Superintendent	Mr. R. P. Vagadiya	Assistant	39900-126600(L-7)	-	01-12-11	-
12.	Stenographer	Mr. S. H. Shukla	Junior Steno	25500-81100(L-4)	-	19-11-13	-
13.	Driver 1	-	-	-	-	-	-
14.	Driver 2	-	-	-	-	-	-
15.	Supporting staff 1	Mr. A. M. Dhadvi	Peon	14800-47100(L-lS-1)	-	01-10-15	-
16.	Supporting staff 2	-	-	-	-	-	-

1.6. Total land with KVK (in ha) : 26. 35

S. No.	Item	Area (ha)
1	Under Buildings	03.56
2.	Under Demonstration Units	01.04
3.	Under Crops	16.84
4.	Horticulture	02.97
5.	Pond	00.24
6.	Under Road	01.70
	Total	**26.35**

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	23/7/09	595	30,20,600	-	-	-
2.	Farmers Hostel			296	20,74,700	-	-	-
3.	Staff Quarters (6)			--	30,55,000	-	-	-
4.	Demonstration Units (2)			78	6,16,000	-	-	-
5	Fencing	RKVY	1/4/10	77	3,00,000	-	-	-
6	Rain Water harvesting system			191	13,94,500	-	-	-
7	Threshing floor			198	15,72,000	-	-	-
8	Farm godown			71	5,00,000	-	-	-
9	ICT lab	-	-	-	-	-	-	-
10	Other	-	-	-	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2006-07	4,96,000	374000	Working but requires costly repairs
Splender Bike	2010-11	42,980	53000	Working
Scorpio S5	2019-20	1044743	11800	Working

C) Equipments & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer	2006-07	49968	Working Cond.
Copier Machine	2006-07	49816	Working Cond.
Automatic Seed Drill	2006-07	31500	Working Cond.
Tractor mounted Sprayer (200ltr)	2007-08	43000	Working Cond.
Shredder	2007-08	43000	Working Cond.
Dibbler	2007-08	900	Working Cond.
Cotton stock puller	2007-08	1200	Working Cond.
Digital copier with network	2008-09	115300	Working Cond.
Rain gun	2007-08	19800	Working Cond.
LCD projector	2008-09	89985	Working Cond.
Rotavator	2008-09	96000	Working Cond.
Laptop	2008-09	47500	Working Cond.
Harrow cum cultivator (2)	2008-09	75000	Working Cond.
Groundnut Decorticator	2008-09	96530	Working Cond.
Mobile seed processing unit	2008-09	1685000	-
Thresher	2008-09	114000	Working Cond.
Zero till drill	2008-09	66700	Working Cond.
Air assisted blower type sprayer	2008-09	98750	Working Cond.
Digital Camera	2008-09	23600	Not working
Plasma TV	2008-09	73750	Working Cond.
Power Tiller	2010-11	1,15000	Working Cond.
Mini Tractor (Mahindra)	2011-12	1,98,000	Working Cond.

Trinocular Microscope	2012-13	2,90,000	Working Cond.
B.O.D. Incubator	2012-13	1,14,000	Working Cond.
Laminar Air Flow	2012-13	1,99,000	Working Cond.
Batch top centrifuge	2012-13	46,524	Working Cond.
Electronic Balance	2012-13	19,905	Working Cond.
TDS meter	2012-13	6,333	Working Cond.
Temp & humidity indicator & controller	2012-13	33,071	Working Cond.
Digital Hot Air Oven	2012-13	46,333	Working Cond.
Deep Fridge	2012-13	47,571	Working Cond.
Computer -2	2012-13	72,618	Working Cond.
Vertical Autoclave	2012-13	27,900	Working Cond.
Computer-3	2016-17	34115	Working Cond.
Kyan	2016-17	130000	Working Cond.
Copier Machine	2016-17	144391	Working Cond.
RO System	2016-17	79900	Working Cond.
20 HP/10 STG Pump Set Falcon	2017-18	71750	Working Cond.
HP 280 G4 MT-Core i5 Computer-2	2018-19	98,888	Working Cond.
20 HP 13 Stage Sub-Marshible Pumo	2018-19	86436	Working Cond.
Nikon D5600 Digital Camera	2018-19	49,977	Working Cond.
Microtek Online UPS-2	2018-19	25,600	Working Cond.
Water Motor Pump Mono	2018-19	8870	Working Cond.
Mahindra Tractor	2019-20	4322205	Working Cond.
Grass Cutting Machine	2020-21	29500	Working Cond.

1.8. Details of SAC meetings conducted in the year 2021

The 16th Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, JAU, Surendranagar was held at seminar hall of KVK, Nana Kandhasar (Surendranagar) on 12th February, 2021. Following members were remained present in the meeting.

Sr. No.	Name & Designation	Position
1.	**Dr. V. P. Chovatia** Hon'ble Vice Chancellor, JAU, Junagadh	Chairman
2.	**Dr. H. M. Gajipara** Director of Extension Education, JAU, Junagadh	Member
3.	**Dr. D. S. Hirpara** ADR, DFRS, Targhadia	Member
4.	**Shri. G. C. Bhalodi** Deputy Director of Agriculture (Extension), Surendranagar	Member
5.	**Shri P. M. Makwana** Range Forest Officer, Chotila	Member
6.	**Shri K. S. Bhuva** Representative of Project Director (ATMA), Surendranaga	Member
7.	**Shri Arasu Basesa** Manager, NABARD, Surendranagar	Member
8.	**Shri H. B. Parmar** Représentative of Deputy Director, Horticulture, Surendranagar	Member
9.	**Shri D. D. Sharma** Lead Bank Manager, Surendranagar	Member
10.	**Shri R. J. Chaudhari** Representative of ARS & Head, CRS, Surendranagar	Member
11.	**Shri. Punabhai Laljibhai Chauhan** Progressive Farmer, Village : Karmad, Taluka : Chuda, Dist. : Surendranagar	Member
12.	**Shri Narayanbhai Gangarambhai Lakum** Progressive Farmer, Village : Chuda, Dist. : Surendranagar	Member
13.	**Shri Chavada Vanrajbhai Jaymalbhai** Progressive Farmer, Village : Rampara, Taluka : Wadhvan, Dist. : Surendranagar	Member
14.	**Shri. Chavda Jayeshbhai Kanabhai** Progressive Farmer, Village: Rampara, Taluka : Wadhwan, Dist. : Surendranagar	Invitee Farmer
15.	**Shri. Bhimbhai Jadavbhai** Progressive Farmer, Village: Lakhchokiya, Taluka: Chotila, Dist. : Surendranagar	Member
16.	**Smt. Jashuben D. Bavaliya** Village:Navagam, Taluka :Sayla, Dist. : Surendranagar	Farm women Member
17.	**Shri Mohbatbhai Amarsangbhai Kathiya** Progressive Farmer, Village: Ramdevgadh, Taluka: Chuda, Dist. : Surendranagar	Special invitee
18.	**Dr. B. C. Bochalya** Scientist - Extension Education, KVK, JAU, Surendranagar	Participant
19.	**Dr. H. C. Chhodvadia**	Participant

	Associate Extension Educationist, JAU, Junagadh	
20.	**Dr. R. P. Kalma** Scientist - Animal Science, KVK, JAU, Surendranagar	Participant
21.	**Shri D. A. Patel** Scientist - Horticulture, KVK, JAU, Surendranagar	Participant
22.	**Mr. M. F. Bhoraniya** Senior Scientist and Head (I/c), KVK, JAU, Surendranagar	Member-Secretary

The meeting was chaired by Dr. V. P. Chovatia, Hon'ble Vice Chancellor, JAU, Junagadh and Chairman of SAC meeting. Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh welcomed Hon'ble Chairman and all the members of the Scientific Advisory Committee.

Mr. M. F. Bhoraniya, (I/c) Senior Scientist and Head, KVK, JAU, Surendranagar presented action taken report on suggestions made during 15th SAC meeting and summerized progress report of KVK, Surendranagar for the period of January 2020 to December, 2020 & action plan for the period of January 2021 to December, 2021. Detailed discipline wise progress reports for the period of January 2020 to December, 2020 & action plan for the period of January 2021 to December, 2021 were presented by Dr. B. C. Bochalya (Agronomy and Extension Education), Mr. M.F.Bhoraniya (Plant Protection), Mr. D. A. Patel (Horticulture) and Dr. R. P. Kalma (Animal Husbundry & Home Science) Scientist, KVK, JAU, Surendranagar. House approved the same with some suggestions.

Dr. V. P. Chovatia, Hon'ble Vice Chancellor, JAU, Junagadh and Chairman of SAC meeting gave the presidential speech and made valuable suggestions. He emphasized on promotion and popularizing organic farming as a present need for food safety in the Surendranagar district through training and the house discused advantages and disadvantages of organic crop growers.

During discussion, Chairman and members of SAC made some suggetions for strengthening activities for improving KVK performance.

COMMITTEE MADE THE FOLLOWING SUGGESTIONS AFTER ACTIVE INTERACTION

- Increase the number of message in mKisan portal for this action should be taken to higher authority of the portal.
- The training on use of MDP for pink ball worm control should be organized.
- Training feedback should be recorded.
- Training on castor crop should be organized.
- The training on spice crops (cumin & ajwain) for quality seed production should be organized.
- The training on soil health should be organized.
- The training on water harvesting should be organized.
- Registration of farmers local varieties in Protection of Plant Varieties & Farmers' Rights Authority, India.

- Entrepreneur related training should be organize for rural youth to enhance the employment.
- Training on micro irrigation system should be organize to enhance the irrigated area.
- Prepare the proposal of ARYA project for KVK Surendranagar.
- Success or case study should be made on cotton stalks recycling for compost in Surendranagar district.
- Adverse weather condition in normal season, advisory to aware farmers community through mKisan portal at harvesting time.
- Technological back-stopping should be strengthening with NABARD to promote FPOs activities in the district.

The meeting was ended with suggestion by Dr. V. P. Chovatia, Hon'ble Vice Chancellor, JAU, Junagadh gave the speech and stressed on proper follow of extension procedure and also emphasized to ensure optimum use of ICT tools among the clientele farmers. He appriciated about progress made by KVK.

Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh emphased on secondary agricultural activites especially on value addition so the farmers can fetch higher income and also said that intergrated farming is the need of hours, so the farmers may sustain their income in adverse weather condtions. He complemented KVK team for better performanceand said that KVK, Surendranagar is doing very good work and it should be continued for betterment of farming community. The meeting was ends with vote of thanks extended by Dr. R. P. Kalma, scientist, KVK, JAU, Surendranagar.

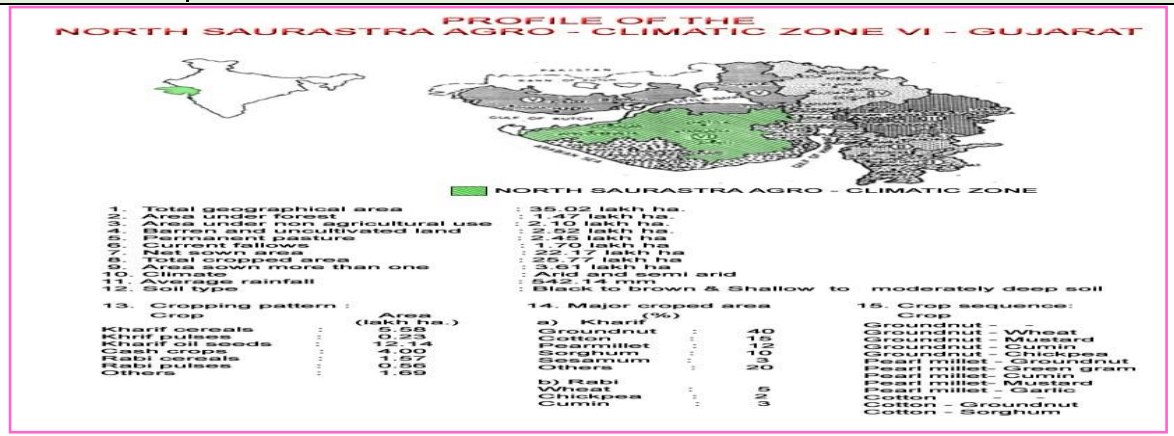
2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

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

S. No	Farming system/enterprise
1	The district Surendranagar mainly falls in north Saurashtra agro-climatic zone. The district located in India at 22.30° to 23.45° North latitude and 71.00° to 72.15° East longitude. Surendranagar district is bounded in north by Gulf of Kutch and Mehasana district, in the south by Bhavnagar and part of Ahmedabad district, on the east by part of Ahmedabad and west by Rajkot district. The average annual rainfall is 585 mm. The average temperature of the district ranges with 41°C maximum to 11°C minimum. The soil is mostly medium black, shallow to moderately deep and calcareous in nature, therefore cotton is the major crop of the district. Some patches of saline soil found in Dasada and Lakhtar talukas, calcareous sandy soil found in some part of Chotila, Sayla, Thangadh & Dhrangdhra taluka and loamy soil is found in some part of Dhrangdhra taluka. The pH of the soil is alkaline and underground water is non saline in nature. The district covers 10.45 lakh ha geographical area out of which 6.49 lakh ha under cultivation, of which only 0.62 lakh ha is irrigated. Major area comes under rainfed farming. The main sources of irrigation are wells, tube wells, ponds and canals. The major crops of this region are cotton, sesame & pearl millet and others are sorghum, wheat, chick pea, groundnut, mustard, cumin, green gram, black gram, onion, garlic and vegetables. The fruit orchard area is very less.

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

a) Soil type

Sl. No.	Agro-climatic Zone	Characteristics
		

b)Topography

S. No.	Agro ecological situation	Characteristics
North Saurashtra agro-climatic zone-VI, Gujarat		
Eight agro-climatic zones have been identified in Gujarat. The North Saurashtra Agro climatic Zone-VI falls in Saurashtra region. The influence area of North Saurashtra Agro climatic Zone is spread among five districts of Saurashtra region viz., Amreli (9 talukas out of 11), Bhavnagar (6 talukas out of 10), Jamnagar (all the 6 talukas), Rajkot (11 talukas out of 11), Morbi (all the 5 talukas) and Surendranagar (7 talukas out of 10) covering 44 talukas in all. It is bounded in the north by the gulf of Kutch and parts of Rajkot as well as Surendranagar district, in the east by the Ahmadabad district and coastal part of Bhavnagar district, on the south by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arabian sea. The farming situation of the district Surendranagar is *Rainfed*.		

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black	Wadhwan & Muli	
2	Saline & Alkaline soils	Dasada & Lakhtar	
3	Shallow calcareous sandy soil	Dhranghadhra	
4	Red Loamy soil	Dhanghdhra	
5	Low land soils	Limbdi, Lakhtar	
6	Calcareous Sandy soil	Chotila, Thangadh, Sayla	

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2017-18)

S. No	Crop	Area (ha)	Production (MT)	Productivity (q/ha)
1	Bajara	5828	6215	1066
2	Green gram	3987	1810	454
3	Pigeon pea	672	761	1132
4	Groundnut	29786	77917	2616
5	Castor	43572	74948	1720
6	Sesame *(Kharif)*	13281	6108	460
7	Sesame *(Summer)*	6220	32	510
	Total Sesame	19501	6140	485
8	Kharif-Cotton (Irrigated)	233651	17719	1289
9	Kharif-Cotton (*Rainfed*)	126074	5953	803
	Total Cotton	359725	23672	1046
10	Guar seed	1735	1231	710
11	Wheat (Irrigated)	32348	93471	2890
12	Wheat (Unirrigated)	675	529	783
	Total Wheat	33023	94000	1836
13	Gram	11145	8133	730
14	Cumin	93287	70685	758
15	Funnel	10213	16617	1627

Source: District agriculture department.

2.5. Weather data (2020)

Month	Rainfall (mm)	Month	Rainfall (mm)
06-06-2020	15	14-08-2020	34
09-06-2020	21	15-08-2020	06
14-06-2020	08	18-08-2020	02
15-06-2020	01	19-08-2020	23
01-07-2020	05	20-08-2020	07
05-07-2020	16	21-08-2020	03
06-07-2020	22	24-08-2020	116
07-07-2020	10	25-08-2020	05
14-07-2020	36	29-08-2020	03
15-07-2020	07	31-08-2020	52
16-07-2020	10	12-09-2020	59
19-07-2020	16	15-09-2020	23
25-07-2020	32	16-09-2020	09
31-07-2020	06	20-09-2020	09
05-08-2020	12	21-09-2020	29
06-08-2020	23	19-10-2020	10
07-08-2020	24		
09-08-2020	09	**Total Rainy Days**	**33**
13-08-2020	11	**Total Rainfall (mm)**	**674**

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

Category	Population	Production	Productivity
Cattle			
Crossbred	201	16,55,20,681 lit	-
Indigenous	2,93,557	-	-
Buffalo	2,02,939	-	-
Sheep	-	-	-
Crossbred	-	-	-
Indigenous	1,00,589	-	-
Goats	1,79,648	-	-
Pigs	22,948	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Rabbits	-	-	-
Poultry			
Hens	-	-	-
Desi	-	-	-
Category		Production (Q.)	Productivity
Fish (Reservoir)	-	-	-

2.7. Details of Operational area / Villages

Taluka / Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Chotila	Lakhchokiya	Cotton, Bajra, Sesame, Pulses, Diary Farming,	Uncertain and scattered rainfall, pink bollworm in cotton, Reddening in cotton, Wild animals, Lower milk production.	Dry farming technology Awareness for vaccination & artificial insemination of animals
Chotila	Bhimora	Cotton, Bajra, Groundnut, Sesame, Pulses Diary Farming,	Uncertain and scattered rainfall, infestation of pink boll worm in cotton, sucking pest in vegetables, HS disease	Dry farming technology Awareness for vaccination & artificial insemination of animals
Chotila	Rajawad	Cotton, Cumin, Groundnut, Sesame, Pulses, Vegetables Diary Farming,	Lack of irrigation facility, Uncertain and scattered rainfall, Lower milk production, HS disease	Dry farming technology, Awareness for vaccination & artificial insemination of animals
Chotila	Sanosara	Cotton, Bajra, Cumin, Wheat, Sesame, Diary Farming,	Uncertain and scattered rainfall, Injudicious use of fertilizers & Pesticides, Black quarter disease	Adoption of organic farming, Bio-fertilizers & Vermi-compost Dry farming technologies Awareness for vaccination & artificial insemination of animals
Sayla	Hadala	Cotton, Groundnut, Cumin, Wheat, Sesame, Diary Farming	Lack of knowledge of modern dry land technologies, lack of Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals
Sayla	Chorvira	Cotton, Castor, G'nut, Wheat Dairy Farming,	Lack of knowledge of modern dry land technologies, FMD	Dry farming technologies, Awareness for vaccination & artificial insemination of animals

Sayla	Mangalkui	Cotton, Wheat, Cumin, Sesame, Bajra	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies
Sayla	Dharadungari	Cotton, Bajra, Sesame, Wheat, Cumin, Dairy Farming,	Lack of knowledge about weed, pest and diseases & nutrient management HS disease, Trypanosomesis disease	To motivate farmers to grow arid and semi arid horticultural crops. Awareness for vaccination & artificial insemination of animals
Chuda	Karmad	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra, Gram	Soil salinity, poor drainage system FMD, Lack of knowledge of modern dry land technologies, INM and IPM etc	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
Chuda	Ramdevgadh	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Gram, Cumin, Bajra	Soil salinity, Awareness for vaccination & artificial insemination of animals	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
Chuda	Melapur	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, low knowledge of scientific cultivation of crops , HS disease, Injudicious use of fertilizers & Pesticides	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals
Chuda	Chhatariyala	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, poor water quality for irrigation, , low knowledge about INM, IPM , in crops,	Irrigated farming technology, Awareness for vaccination & artificial insemination of animals

2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Cotton	✓ Increase productivity of the crops by adopting recommended practices of integrated pest management (Pink boll worm in Bt-cotton (IPM) and INM in cotton ✓ Recycling of the cotton stalk by cotton shredder
Groundnut, Sesame Castor and Wheat	✓ Increase productivity of the crops by adopting recommended dry farming technologies, newly released varieties and INM in sesame
Cumin	✓ Integrated Diseases Management and IPM
Chickpea	✓ Increase productivity of the crops by newly released varieties and storage grain for seed purpose to farmers for next year.
Horticulture (Pomegranate, Lemon, Guava and chilly	✓ Value addition in fruits and vegetables, INM, training and pruning orchard and promote the farmers to adopting arid horticulture crops
Agriculture	✓ Providing information and create interest to young generation for agriculture as a profession.
Farm waste	✓ Recycling of the warm waste through composting, Vermi-composting and green manuring.
Micro Irrigation	✓ Effective use of water by micro irrigation system, water harvesting structure and water harvesting techniques.
Animal Science	✓ Increase productivity of the milk by adopting scientific feeding and breeding technologies and to create awareness about clean milk production.
Post Harvesting Technology (PHT)	✓ Create awareness for proper storage and reduce post harvest losses.

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
6	6	20	20	15	16	235	275

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
59	64	1475	4498	226	223	18175	21609

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
00	67.75	15300	10320

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
00	00	00	00

3.1. B. Operational areas details during the year 2020

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1.	Lakhchokiya	Cotton, Bajra, Sesame, Pulses, Diary Farming	Uncertain and scattered rainfall, pink bollworm in cotton, Reddening in cotton, Wild animals, Lower milk production.	--	--
2.	Bhimora	Cotton, Bajra, Groundnut, Sesame, Pulses Diary Farming	Uncertain and scattered rainfall, infestation of pink boll worm in cotton, sucking pest in vegetables, HS disease	--	--
3.	Rajawad	Cotton, Cumin, Groundnut, Sesame, Pulses, Vegetables Diary Farming	Lack of irrigation facility, Uncertain and scattered rainfall, Lower milk production, HS disease	--	--
4.	Sanosara	Cotton, Bajra, Cumin, Wheat, Sesame, Diary Farming	Uncertain and scattered rainfall, Injudicious use of fertilizers & Pesticides, Black quarter disease	--	--
5.	Hadala	Cotton, Groundnut, Cumin, Wheat, Sesame, Diary Farming	Lack of knowledge of modern dry land technologies, lack of Awareness for vaccination & artificial insemination of animals	--	--
6.	Chorvira	Cotton, Castor, G'nut, Wheat Dairy Farming	Lack of knowledge of modern dry land technologies, FMD	--	--
7.	Mangalkui	Cotton, Wheat, Cumin, Sesame, Bajra	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	--	--
8.	Dharadungari	Cotton, Bajra, Sesame, Wheat, Cumin, Dairy Farming	Lack of knowledge about weed, pest and diseases & nutrient management HS disease, Trypanosomesis disease	--	--

9.	Karmad	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra, Gram	Soil salinity, poor drainage system FMD, Lack of knowledge of modern dry land technologies, INM,I PM etc	--	--
10.	Ramdevgadh	Dairy Farming, Cotton, G'nut, Sesame, Wheat, Gram, Cumin, Bajra	Soil salinity, Awareness for vaccination & artificial insemination of animals	--	--
11.	Melapur	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, low knowledge of scientific cultivation of crops ,HS disease, Injudicious use of fertilizers & Pesticides	--	--
12.	Chhatariyala	Dairy Farming, Cotton, G'nut, Sesame, Gram, Wheat, Cumin, Bajra	Soil salinity, poor water quality for irrigation, , low knowledge about INM, IPM , in crops,	--	--

* Support with problem-cause and interventions diagram

3.2. Technology Assessment (Kharif 2020, Rabi 2019-20, Summer 2020)

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	1	0	0	0	0	0	0	0	0	1
Varietal Evaluation	0	1	0	0	2	0	0	0	0	3
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	1	0	0	0	0	0	1
Integrated Disease Management	0		0	1	0	0	0	0	0	1
Small Scale Income Generation Enterprises	0	0	0	0	0	0	0	0	0	0

Weed Management	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technology	0	0	0	0	0	0	0	0	0	0
Farm Machineries	0	0	0	0	0	0	0	0	0	0
Integrated Farming System	0	0	0	0	0	0	0	0	0	0
Seed / Plant production	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Drudgery Reduction	0	0	0	0	0	0	0	0	0	0
Storage Technique	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	2	0	0	0	0	6

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	0	0	0	0	0	0
Nutrition Management	0	0	0	0	0	0
Disease of Management	0	0	0	0	0	0
Value Addition	0	0	0	0	0	0
Production and Management	0	0	0	0	0	0
Feed and Fodder	0	0	0	0	0	0
Small Scale income generating enterprises	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

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	Wheat	Assessment of response of Bio fertilizers to wheat crop yield	1	3	1.20
Varietal Evaluation	Sesame	Varietal assessment of sesame in Surendranagar district	1	3	0.75
	Brinjal	Varietal assessment of Brinjal GJLB-4 in Surendranagar district	1	4	1.00
	Tomato	Varietal assessment of Tomato GT-6 in Surendranagar district	1	4	1.00
Integrated Pest Management	Cumin	Management of wilt in cumin.	1	3	1.20
Other (Pls Specify)	Cotton	Assessment use of plant growth regulator and detopping technique enhance yield of cotton.	1	3	1.20
		Total	6	20	6.35

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	0	0	0	0
Nutrition management	0	0	0	0
Disease management	0	0	0	0
Value addition	0	0	0	0

Production and management	0	0	0	0
Feed and fodder	0	0	0	0
Small scale income generating enterprises	0	0	0	0
Total			0	0

C1.Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed
1	2	3	4	5	6
Cumin	Irrigated	1. Lack of knowledge about the use of particular pesticides 2. Less adoption of recommended practices. 3. Farmers follow instruction given by the local pesticides retailer.	Management of wilt in cumin	3	Management of wilt in cumin
Wheat	Irrigated	1. Low adoption of recommended practice 2. Farmers follows instruction given by the local pesticides retailer 3. Lack of knowledge about the required of specific dose of fertilizer.	Assessment of Response of Bio fertilizers to wheat yield	3	Response of bio fertilizers to wheat yield

Sesame	Rainfed	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the location specific variety.	Varietal assessment of sesame in Surendranagar district	3	Introduction new variety of Sesame
Brinjal	Irrigated	1. Less adoption of recommended Variety 2. Low knowledge about improved variety 3. Use of loose seed or old variety for production	Varietal assessment of Brinjal GJLB-4 in Surendranagar district	4	Varietal assessment of Brinjal GJLB-4 in Surendranagar district
Tomato	Irrigated	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.	Varietal assessment of Tomato GT-6 in Surendranagar district.	4	Varietal assessment of Tomato GT-6 in Surendranagar district.

Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
7	8	9	10	11	12
1. Yield 2. Per cent Disease Incidence (PDI) 3. Gross-cost 4. Net Return 5. B:C Ratio	Yield, Per cent Disease Incidence (PDI)	Wilt disease infestation was observed minimum in T_2 (Recommended practices), seed yield was increased by 14.73 per cent in T_2 over T_1 treatment and net return Rs. 13090 high then T_2 over T_1 treatment.	More return obtained from recommended practices then local practices.	-----	-----
1. Grain Yield (kg/ha) 2. Cost of Production (Rs/ha) 3. Gross return: (Rs/ha) 4. Net return: (Rs/ha) 5. B: C Ratio	Yield	Maximum grain yield was was observed in T_3 (Recommended practices), seed yield was increased by 5.81 and 2.10 over T_1 and T_2. Net return Rs. 1600 high then T_3 over T_2 treatment.	BC ratio is higher in recommended dose of fertilizer	-----	-----
1. Cost of Production (Rs/ha) 2. Gross return: (Rs/ha) 3. Net return: (Rs/ha) B: C Ratio	Yield	Yield of sesame was recorded maximum in recommended practices T_3 (5.40qtl./ha) followed by T_2 (5.20 qtl/ha). Highest net return was obtained from T_3- GJT-6 (Rs. 36550/ha) followed by T_2, variety GT-4(Rs. 34650/ha) recommended practices.	BC ratio is higher in recommended variety	-----	-----

1. Yield 2. Cost of production 3. Gross cost 4. Net Return 5. B:C Ratio	Yield	Yield of Brinjal was recorded maximum in recommended practices T_2 (288.18 qtl/ha) followed by T_3 (267.97 qtl/ha). Highest net return was obtained from T_2- GJLB-4 (Rs. 32564/ha) followed by T_3, variety GNRB-1(Rs. 27064/ha) recommended practices.	BC ratio is higher in recommended variety	-----	-----
1. Yield 2. Cost of production 3. Gross cost 4. Net Return 5. B:C Ratio	Yield	Yield of Tomato was recorded maximum in recommended practices T_2 (304.09 qtl./ha) followed by T_3 (288.86 qtl/ha). Highest net return was obtained from T_2 (Rs. 32407/ha) followed by T_3, variety (Rs. 27778/ha) recommended practices.	BC ratio is higher in recommended variety	-----	-----

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1	Farmer's practice	5.97	Qt/ha	56058	3.04
Technology option 2	Department of Plant Pathology, CoA, JAU, Junagadh-2015	8	Qt/ha	82570	3.81
Technology option 3	Department of Plant Pathology, CoA, JAU,	7.63	Qt/ha	78237	3.73

	Junagadh-2015				
Technology option 1	Farmer's practice	30.50	Qt/ha	32400	2.44
Technology option 2	Dept. Agronomy, JAU, Junagadh -2015	31.80	Qt/ha	33440	2.40
Technology option 3	Dept. Agronomy, JAU, Junagadh -2015	32.50	Qt/ha	35400	2.53
Technology option 1	Farmer's practice	15.97	Qt/ha	62058	3.03
Technology option 2	CRS, JAU, Junagadh (2016)	18.90	Qt/ha	78675	3.62
Technology option 3	DFRS, JAU, Targhadia (2016)	17.43	Qt/ha	70067	3.32
Technology option 1	Farmer's practice	4.8	Qt/ha	30850	3.09
Technology option 2	Agricultural Research Station, JAU, Amreli	5.2	Qt/ha	34650	3.35
Technology option 3	Agricultural Research Station, JAU, Amreli	5.4	Qt/ha	36550	3.47
Technology option 1	Farmer's practice	189.73	Qt/ha	8603	1.80
Technology option 2	VRS, JAU, Junagadh	288.18	Qt/ha	17481	2.15
Technology option 3	VRS, NAU, Navsari	267.97	Qt/ha	13548	2
Technology option 1	Farmer's practice	262.65	Qt/ha	10156	1.8
Technology option 2	VRS, JAU, Junagadh	304.9	Qt/ha	16727	2.06
Technology option 3	VRS, AAU, Anand	288.86	Qt/ha	13418	1.93

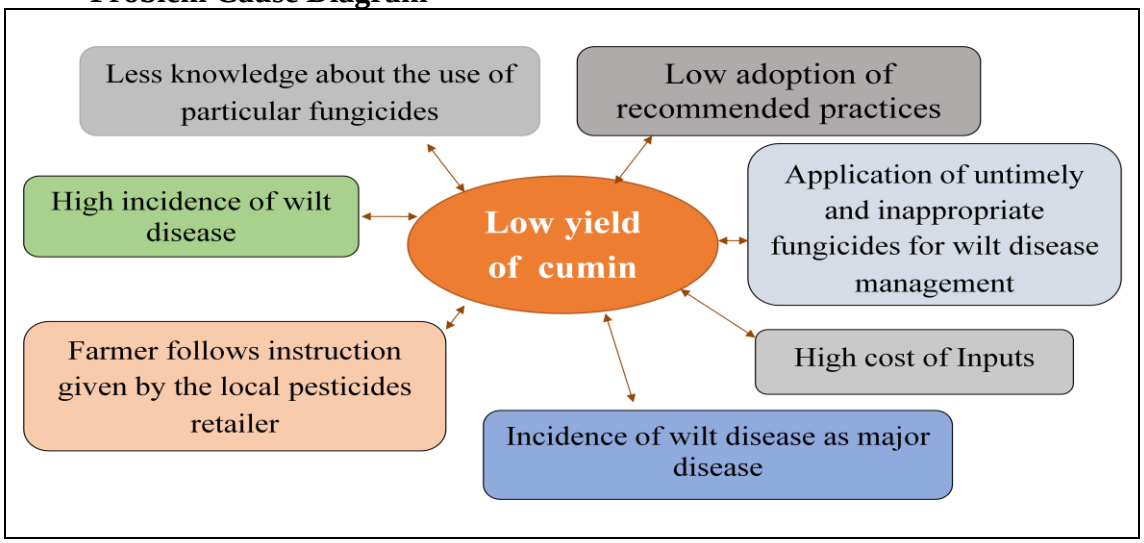
C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

OFT : 1

1. **Title of Technology:** Management of wilt in cumin
2. **Problem Definition:**

Gujarat, which was the biggest producer of spices in the country, has slipped to third rank. Now, Andhra Pradesh tops in spice production with Rajasthan ranked second. Spice output, including that of coriander and cumin seeds, has dropped by 20% in Gujarat. In 2015-16 a disease had hit production of cumin and coriander in the state. Productivity of cumin crop first rank in India as well Asia in the world. Now a day productivity reduced and quality point of view suffering due to incidence of diseases and pest. Farmers are practicing excess use fungicides without followed recommended dose as prescribed by concerned scientist. Therefore cost of cultivation inevitably increase and some time, crop get failure due to inappropriate and excessive use of fungicides. Application of recommended dose for the control of wilt disease in the cumin crop is being undertaken for OFT. This OFT traces the transformation in the cumin production through recommended technology in the Surendranagar district.

- **Problem Cause Diagram**



3.	Details of technologies selected for assessment	:	T_1-Farmers practice (Use of mancozeb, copper oxychloride and sulphur etc fungicides after infestation). T_2-Recommended practices Application of the *Trichoderma harzianum* ($2x10^6$cfu/gm) @ 5.0 kg mixed in 1000 kg of FYM/ha at the time of sowing. T_3: Application of the *Trichoderma harzianum* ($2x10^6$cfu/gm) @ 5.0 kg mixed in 100kg of sand/ha at the one month after germination of crop.
4.	Source of technology	:	Department of Plant Pathology, CoA, JAU, Junagadh-2015
5.	Production system and thematic area	:	Irrigated in *Rabi* season

6. Performance of the technology with performance indicators : 2019-20

Technology Assessed / Refined	Disease Intensity (%)	% Yield increase over farmer's practice	Seed Yield (Qt/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
T_1	18.33	-	5.97	56058	3.04
T_2	0.33	34.00	8.00	82570	3.81
T_3	3.00	27.80	7.63	78237	3.73

* Data indicated Disease Intensity in per cent before harvest the crop.

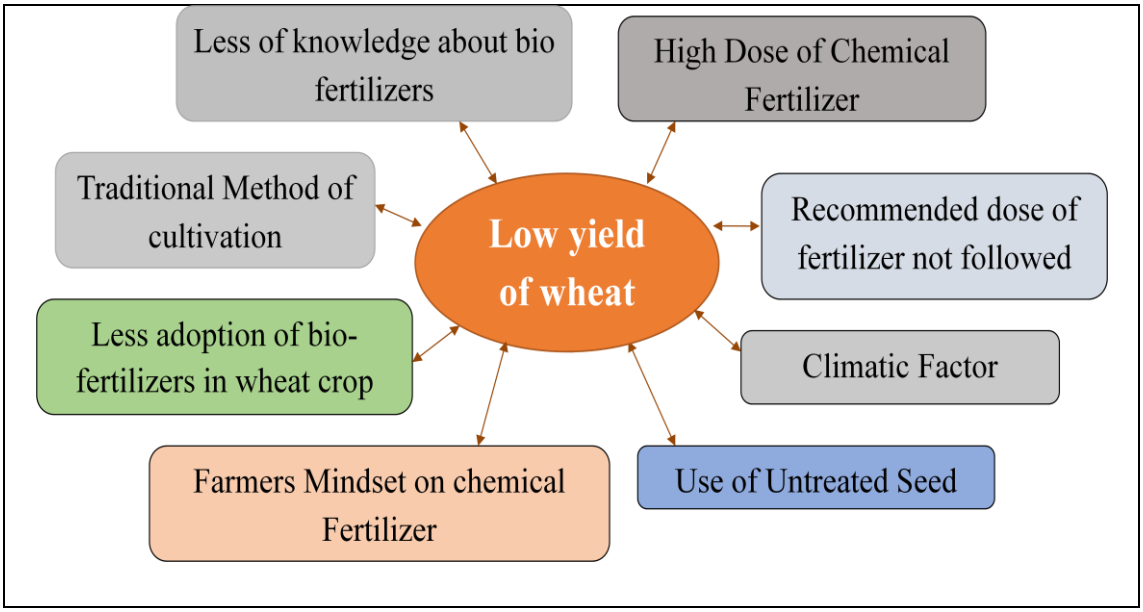
Results : Data in the table revealed maximum wilt disease intensity was observed in T_1 ie. 18.33. Seed yield was higher in recommended practices. More net return Rs. 26514/ha obtained from recommended practices of application of the *Trichoderma harzianum* ($2x10^6$cfu/gm) @ 5.0 kg mixed in 1000 kg of FYM/ha at the time of sowing.

OFT : 2

1. **Title of Technology Assessed:-** Assessment of response of Bio fertilizers to wheat crop yield
2. **Problem Definition :**

In Rabi season the area of wheat cultivation in Surendranagar district is higher after cumin crops as compare to other crops. Due to canal facilities increased in this area the area under wheat crop also increased. But the continuous use of chemical fertilizer in this crops the productivity is stagnate day by day and cost of cultivation increased. High uses of chemical fertilizer in crops the soil fertility also reduced. In this situation the KVK decide to increase uses of bio-fertilizers to reduce cost of cultivation and increase soil fertility as well as quality and quantity of wheat yield.

Problem Cause Diagram:



3. Details of technologies selected for assessment : T_1- Farmer's practice: - 125- kg DAP & 190- Kg Urea /ha
T_2- Recommended dose of fertilizer: 132Kg DAP + 206

Kg Urea (120-60-00).

T_3-75 percent RDF+ *Azotobacter* & PSB (100- Kg DAP+156- Kg Urea+3.0 lit *Azotobacter* + 3.0 lit. PSB)

4. Source of technology **:** Dept. Agronomy, JAU, Junagadh -2015

5. Production system and thematic area **:** Irrigated in *Rabi* season

6. Performance of the Technology with performance indicators : 2019-2020

Technology Option	Yield (qtl/ha)	% Increase in yield	Total Cost (Rs/ha)	Gross return / ha	Net Return (Profit) in Rs. / ha	BC Ratio
T_1- Farmer's practice	30.50	--	22500	54900	32400	2.44
T_2- Recommended	31.80	4.26	23800	57240	33440	2.40
T_3- Recommended	32.50	6.55	23100	58500	35400	2.53

Result: Data in the table revealed maximum grain yield was observed in T3 (Recommended practices) and T2 grain yield was increased by 6.55 and 4.26 per cent over control T1. More net return obtained Rs. 3000 from T3 (75 percent RDF+ *Azotobacter* & PSB (100- Kg DAP+156- Kg Urea+3.0 lit *Azotobacter* + 3.0 lit. PSB) over control treatment.

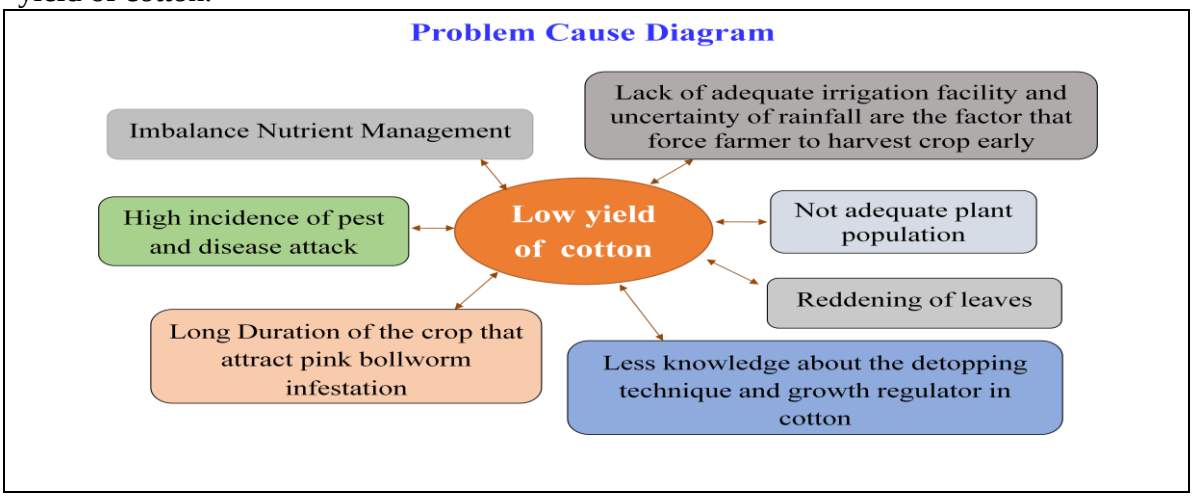
OFT: 3

1. Title of Technology Assessed: - Assessment use of plant growth regulator and detopping technique enhance yield of cotton.

2. Problem Definition:

Surendranagar district ranks first in total cotton production of the state (22 %), followed by Rajkot (16.6 %), Bhavnagar (15.8 %) respectively. Thus cotton is very mportant crop of the district for sustainability point of view.

Since last two to three years, infestation of pink bollworm in cotton, uncertainty of rainfall and scattered rain and changing climatic condition, now farmers are forced to harvest crop as against they assumed for 180 to 240 days period. Ultimately this resulted in low production due to inadequate plant population and less no. of bolls per plant and per unit area. So that use of plant growth regulator and detopping technique enhance yield of cotton.



Objective	:	To enhancement yield of cotton low cost technology
Reason for low yield of Cumin	:	1. No adoption of recommended practices. 2. Farmers follows instruction given by the local pesticides retailer 3. Lack of knowledge about the new technique and growth regulator.
Technical Intervention	:	Enhancement yield of cotton through low cost technique.
Treatments	:	T_1-Farmer practice : Natural growth of cotton plant T_2-Detopping the cotton plant at 75 day after sowing for uniform height T_3- Foliar spray with Ethylene 39% @ 2.0 ml/15 lit of water at 90 DAS
Source of Technology	:	T_2 : CRS, JAU, Junagadh (2016) T_3 : DFRS, JAU, Targhadia (2016)
Area	:	1.2 ha (0.40 ha each farmer)
No. of replication	:	03
Cost of OFT	:	975

Performance of the Technology: 2020-21 (Selling Price: 5750/qui)

Treat	Average Yield (q/ha)	Cost of Cultivation (`/ha)	Gross return (`/ha)	Net return (`/ha)	BCR	% Increase yield over farmer's practice
T_1	15.97	29750	91808	62058	3.09	-
T_2	18.90	30000	108675	78675	3.62	18.37
T_3	17.43	30175	100242	70067	3.32	9.19

Results: Data in the table revealed that seed cotton yield was recorded maximum I recommended practices T_2 (18.90 qtl/ha) followed by T_3 (17.43 qtl/ha). Highest net return was obtained from T_2- Detopping the cotton plant at 75 day after sowing for uniform height (Rs. 78675/ha) followed by T_3 treatment that is foliar spray with Ethylene 39% @ 2.0 ml/15 lit of water at 90 DAS (Rs. 70067/ha) recommended practices.

OFT: 4

Title of Technology Assessed:- Varietal assessment of sesame in Surendranagar district

Objective	To increase yield of Sesame
Reason for low yield of Sesame	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the location specific variety.
Technical Intervention	Introduction new variety of Sesame
	T_1-Variety: Local or GT-2 T_2-Variety: GT-4 T_3-Variety:GJT-6
Excepted cost	Rs 1800
Area	0.75
No. of replication	03
Source of Information	Agricultural Research Station, JAU, Amreli.
Technical Indicator	Economic Indicator

Yield (qui/ha)	Cost of Production (Rs/ha)
	Gross return: (Rs/ha)
	Net return: (Rs/ha)
	B:C Ratio

Performance of the Technology: 2020-21 (Price 9500/Q)

Treatment	Average Yield (q/ha)	Cost of Cultivation (`/ha)	Gross return (`/ha)	Net return (`/ha)	BCR	% Increase yield over control
T_1	4.80	14750	45600	30850	3.09	-
T_2	5.20	14750	49400	34650	3.35	8.33
T_3	5.40	14750	51300	36550	3.47	12.5

Results: Data in the table revealed that yield of sesame was recorded maximum in recommended practices T_3 (5.40qtl./ha) followed by T_2 (5.20 qtl/ha). Highest net return was obtained from T_3- GJT-6 (Rs. 36550/ha) followed by T_2, variety GT-4(Rs. 34650/ha) recommended practices.

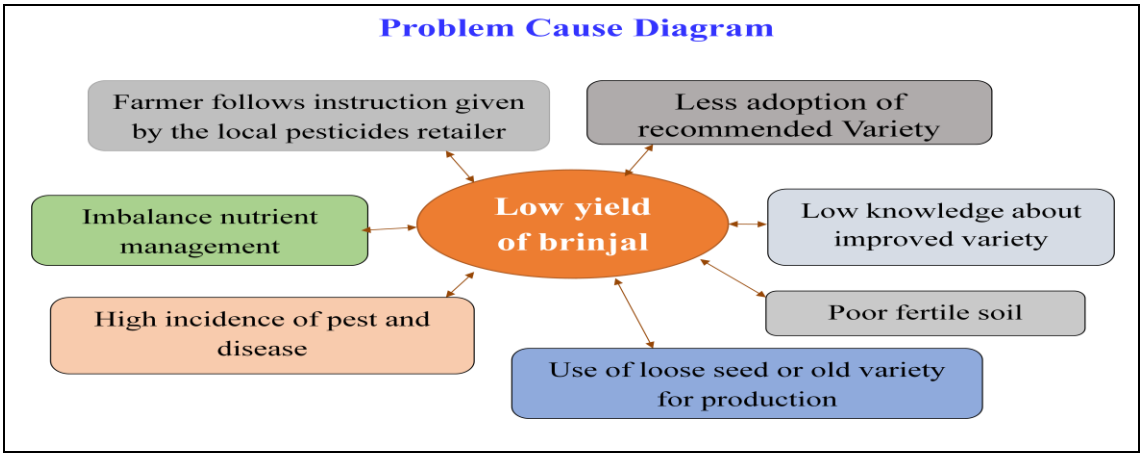
OFT: 5

1. Title of Technology Assessed: - Varietal assessment of Brinjal GJLB-4 in Surendranagar district.

2. Production system:-

Brinjal or eggplant (*Solanummelongena*L.) is an important solanaceous crop of sub-tropics and tropics. In India, it is one of the most common, popular and principal vegetable crops grown throughout the country except higher altitudes. It is a versatile crop adapted to different agro-climatic regions and can be grown throughout the year. It is a perennial but grown commercially as an annual crop. Brinjal cultivation in India is estimated to cover about 8.14% vegetable area with a contribution of 9% to total vegetable production. The crop is largely grown in small plots or as inter crop both for cash and domestic consumption by farmers all over India. The major brinjal producing states are West Bengal, Orissa, Gujarat, and Maharashtra. The state has a great potential for brinjal production for domestic and exports markets but the yield of this crop is relatively low especially in rainy season due to lack of improved varieties as well as resistance to insect-pest and disease of economic importance and suitability to changing climatic conditions.

Brinjal variety GJLB-4 found suitable for cultivation in North Saurashtra Region of Gujarat. This variety resistance to jassid and fruit borer were less compared to local checks.



Objective	To increase yield of Brinjal
Reason for low yield of Brinjal	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.
Technical Intervention	Introduction new variety of brinjal
Treatments	T_1- Variety: Local T_2- Variety: GJLB-4- 50 gm and Beauveria-2.0 kg T_3- Variety: GNRB-1 - 50 gm and Beauveria-2.0 kg
Excepted cost	2900
Area	0.25 ha
No. of replication	04

Performance of the Technology: 2020-21

Treatment	Average Yield (q/ha)	Cost of Cultivation (`/ha)	Gross return (`/ha)	Net return (`/ha)
T_1	189.73	10700	19303	8603
T_2	288.18	15083	32564	17481
T_3	267.97	13516	27064	13548

Results: Data in the table revealed that yield of sesame was recorded maximum in recommended practices T_2 (288.18 qtl/ha) followed by T_3 (267.97 qtl/ha). Highest net return was obtained from T_2- GJLB-4 (Rs. 17481/ha) followed by T_3, variety GNRB-1(Rs. 13548/ha) recommended practices.

OFT: - 6

1. Title of Technology Assessed:- Varietal assessment of Tomato GT-6 in Surendranagar district.

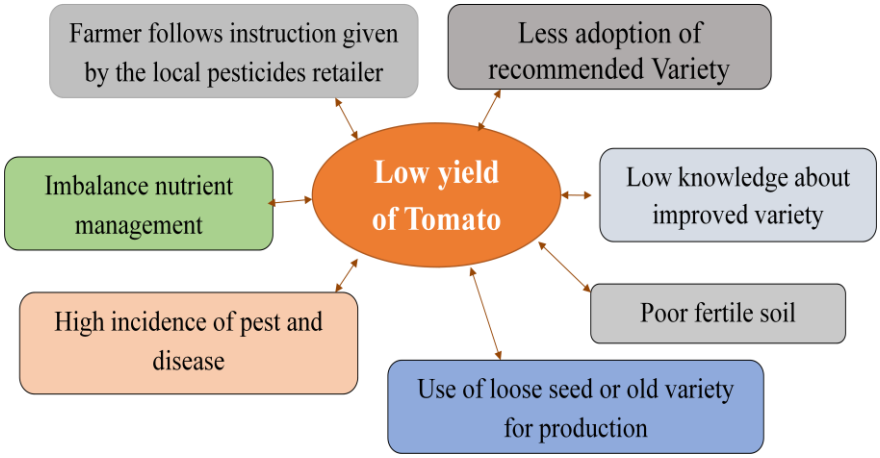
2. Production system:-

Tomato (*Lycopersicon esculentum*) belongs to the genus Lycopersicon under Solanaceae family. Tomato is one of the most important "protective foods" because of its special nutritive value. It is one of the most versatile vegetable with wide usage in Indian culinary tradition. It is a perennial but grown commercially as an annual crop. Tomato cultivation in India is estimated to cover about 8.14% vegetable area with a contribution

of 9 % to total vegetable production. The crop is largely grown in small plots or as inter crop both for cash and domestic consumption by farmers all over India. The major tomato producing states are Andhra Pradesh, Bihar, Chhattisgarh and Gujarat.

Tomato variety GT-6 found suitable for cultivation in North Saurashtra Region of Gujarat. This variety tolerant against leaf curl disease compared to local checks.

Problem Cause Diagram



Objective	To increase yield of Tomato
Reason for low yield of Brinjal	1. No adoption of recommended varieties. 2. Farmers follows instruction given by the local agro input retailer 3. Lack of knowledge about the specific variety.
Technical Intervention	Introduction new variety of brinjal
Treatments	T_1- Variety: Local/Private sector T_2- Variety: GT-6 50 gm and *Beauveria*-2.0 kg T_3- Variety: - GAT-5 - 50 gm and *Beauveria*-2.0 kg
Excepted cost	2600
Area	0.25 ha
No. of replication	04

Treatment	Average Yield (q/ha)	Cost of Cultivation (`/ha)	Gross return (`/ha)	Net return (`/ha)
T_1	262.65	12681	22837	10156
T_2	304.09	15680	32407	16727
T_3	288.86	14360	27778	13418

Results: Data in the table revealed that yield of sesame was recorded maximum in recommended practices T_2 (304.09 qtl./ha) followed by T_3 (288.86 qtl/ha). Highest net return was obtained from T_2 (Rs. 16727/ha) followed by T_3, variety (Rs. 13418/ha) recommended practices.

3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2020 and recommended for large scale adoption in the district

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	Wheat	CP	GW – 366	FLD, Field Day & Training	29	3120	2380
2	Cumin	PP	G Cumin-4	FLD, Field Day & Training	228	128241	75000
3	Gram	CP	GJG-3	FLD, Field Day & Training	89	52329	28342
4	Sesame	CP	G Til-3	FLD, Field Day & Training	48	7356	2536
5	G'nut	PP	DM	FLD, Field Day & Training	19	614	175
6	G'nut-Bio agent	PP	*Trichoderma harzianum*	FLD, Field Day & Training	68	2104	2244
7	Cotton	CP	IPM	FLD, Field Day & Training	5	125	30
8	Groundnut (NMOOP)	CP	GJG-31	FLD, Field Day & Training	6	72	117

B. Details of FLDs implemented during 2020 **(Kharif 2020, Rabi 2019-20, Summer 2020)** (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops**.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Wheat	CP	GW – 451	*Rabi*-	08	08	3	17	20	-

				2019-20						
2	Cumin	PP	DM	*Rabi*-2019-20	08	08	6	14	20	-
3	Gram	CP	GJG-3	*Rabi*-2019-20	04	04	2	8	10	-
4	Sesame	CP	G Til-4	*Kharif*-2020	04	04	3	7	10	-
5	G'nut	PP	DM	*Kharif*-2020	04	04	4	6	10	-
6	G'nut-Bio	PP	*Trichoderma harzianum*	*Kharif*-2020	02	02	0	5	05	-
7	Cotton	CP	IPM	*Kharif*-2020	04	04	3	7	10	-
8	Onoin	CP	GAWO-2	*Rabi*-2019-20	01	01	3	7	10	-
9	Guava	IPM	Fruit Fly Trap	*Rabi*-2019-20	04	04	3	7	10	-
10	Lucern	CP	Anand Lucern-3	*Rabi*-2019-20	01	01	4	6	10	-
11	Buffalo	ALM	Mineral mixture	-	-	-	2	3	05	-
12	Groundnut (NMOOP)	CP	Bio Product of JAU	*Kharif*-2020	20	20	8	42	50	-
13	Chick pea (NFSM)	CP	GJG-6	*Rabi*-2019-20	20	20	18	32	50	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Wheat	Rabi-19-20	Irrigated	Medium Black	L	M	H	Sesame	17-Nov-19	15-Mar-20	**674**	**33**
		Irrigated	Medium Black	L	M	H	G'nut	14-Nov-19	18-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	20-Nov-19	21-Mar-20		
		Irrigated	Medium Black	L	M	H	Juwar	19-Nov-19	20-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	16-Nov-19	24-Mar-20		
		Irrigated	Medium Black	L	M	H	Juwar	10-Nov-19	22-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	15-Nov-19	17-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	16-Nov-19	13-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	21-Nov-19	15-Mar-20		
		Irrigated	Medium Black	L	M	H	Juwar	19-Nov-19	20-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	23-Nov-19	21-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	22-Nov-19	26-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	17-Nov-19	16-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	13-Nov-19	10-Mar-20		
		Irrigated	Medium Black	L	M	H	Juwar	24-Nov-19	20-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	20-Nov-19	17-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	16-Nov-19	16-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	19-Nov-19	20-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	24-Nov-19	17-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	16-Nov-19	20-Mar-20		
Cumin	Rabi-19-20	Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	03-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	2-Nov-19	28-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	8-Nov-19	08-Mar-20		

		Irrigated	Medium Black	L	M	H	Cotton	12-Nov-19	06-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	13-Nov-19	10-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	8-Nov-19	03-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	1-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	Gram	9-Nov-19	02-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	10-Nov-19	04-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	7-Nov-19	01-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	11-Nov-19	08-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	13-Nov-19	08-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	1-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Gram	8-Nov-19	04-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	6-Nov-19	01-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	10-Nov-19	09-Mar-20		
		Irrigated	Medium Black	L	M	H	Gram	8-Nov-19	27-Feb-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Nov-19	28-Feb-20		
		Irrigated	Medium Black	L	M	H	Gram	4-Nov-19	01-Mar-20		
		Irrigated	Medium Black	L	M	H	G'nut	10-Nov-19	10-Mar-20		
Gram	Rabi-2019-20	Irrigated	Medium Black	L	M	H	Cotton	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	Sesame	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Sesame	9-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Sesame	5-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	G'nut	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	G'nut	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	03-Mar-20		
		Irrigated	Medium Black	L	M	H	Sesame	23-Oct-19	08-Feb-20		
Gram (Pulse	Rabi-2019-20	Irrigated	Medium Black	L	M	H	Cotton	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	9-Nov-19	22-Feb-20		

		Irrigated	Medium Black	L	M	H	G'nut	5-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	G'nut	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	10-Nov-19	03-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	23-Oct-19	08-Feb-20		
		Irrigated	Medium Black	L	M	H	G'nut	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Sesame	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	9-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	5-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	03-Mar-20		
		Irrigated	Medium Black	L	M	H	Juwar	23-Oct-19	08-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	G'nut	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Juwar	9-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	5-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	3-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	23-Oct-19	8-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	9-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	5-Nov-19	26-Feb-20		

		Irrigated	Medium Black	L	M	H	Cotton	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	3-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	23-Oct-19	8-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	26-Oct-19	10-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	3-Nov-19	25-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	29-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	9-Nov-19	22-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	5-Nov-19	26-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	8-Nov-19	19-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	31-Oct-19	16-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	4-Nov-19	18-Feb-20		
		Irrigated	Medium Black	L	M	H	Cotton	10-Nov-19	3-Mar-20		
		Irrigated	Medium Black	L	M	H	Cotton	23-Oct-19	8-Feb-20		
Sesame	Kharif - 2020	Irrigated	Medium Black	L	M	H	Wheat	8-Jul-20	30-Sep-20		
		Irrigated	Medium Black	L	M	H	Wheat	10-Jul-20	28-Sep-20		
		Irrigated	Medium Black	L	M	H	G'nut	8-Jul-20	2-Oct-20		
		Irrigated	Medium Black	L	M	H	Cumin	8-Jul-20	25-Sep-20		
		Irrigated	Medium Black	L	M	H	Cotton	11-Jul-20	1-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Jul-20	28-Sep-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Jul-20	29-Sep-20		
		Irrigated	Medium Black	L	M	H	Cumin	10-Jul-20	1-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Jul-20	30-Sep-20		
		Irrigated	Medium Black	L	M	H	Juwar	10-Jul-20	27-Sep-20		
G'nut	Kharif - 2020	Irrigated	Medium Black	L	M	H	Gram	10-Jul-20	25-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	10-Jul-20	20-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	8-Jul-20	26-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Jul-20	24-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	8-Jul-20	16-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	9-Jul-20	20-Oct-20		

		Irrigated	Medium Black	L	M	H	Wheat	8-Jul-20	26-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	10-Jul-20	28-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	10-Jul-20	19-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	9-Jul-20	22-Oct-20		
G'nut (Bio-Agent)	Kharif - 2020	Irrigated	Medium Black	L	M	H	Gram	9-Jul-20	20-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	10-Jul-20	18-Oct-20		
		Irrigated	Medium Black	L	M	H	Wheat	8-Jul-20	18-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	9-Jul-20	22-Oct-20		
		Irrigated	Medium Black	L	M	H	Gram	9-Jul-20	26-Oct-20		
Cotton	Kharif - 2020	Irrigated	Medium Black	L	M	H	Wheat	18-Jun-20	25-Dec-20		
		Irrigated	Medium Black	L	M	H	Wheat	17-Jun-20	30-Dec-20		
		Irrigated	Medium Black	L	M	H	Cotton	20-Jun-20	29-Dec-20		
		Irrigated	Medium Black	L	M	H	Cotton	17-Jun-20	20-Dec-20		
		Irrigated	Medium Black	L	M	H	Wheat	20-Jun-20	15-Dec-20		
		Irrigated	Medium Black	L	M	H	Wheat	19-Jun-20	23-Dec-20		
		Irrigated	Medium Black	L	M	H	Cotton	18-Jun-20	26-Dec-20		
		Irrigated	Medium Black	L	M	H	Cotton	20-Jun-20	30-Dec-20		
		Irrigated	Medium Black	L	M	H	Cumin	19-Jun-20	28-Dec-20		
		Irrigated	Medium Black	L	M	H	Wheat	17-Jun-20	24-Dec-20		

Technical Feedback on the demonstrated technologies

Sr. No.	Sr. No.	Farmer's Feed back
1	Sesame	1. GT-4 is higher yielder over local varieties (GT-2). 2. Early maturity period 75 to 80 days. 3. More suitable for aberrant weather.
2	Groundnut	1. GJG-31 is higher yielder over local variety (GG-2). 2. Good for pod and fodder yield. 3. Gives high yield in aberrant weather situation.
3	Gir Sawaj *Beauveria*	1. This product of JAU, locally known as "*Kandhasar Powder*" very popular in the district. 2. This low cost technology very effective against specially cotton pests. 3. Farmers are used this product in large quantity.
4	Gir Sawaj *Trichoderma*	1. Popular and low cost as compare to private company's product. 2. Effective against groundnut (stem rot), cumin (wilt) and cotton (wilt) soil borne disease control.
5	Gir Sawaj *Metariazhum*	1. White grub in groundnut effectively controlled by *Metariazhum.* 2. Reduce the cost of cultivation & low cost technology 3. Farmers said termite population become reduce in the treated field.
6	Gir Sawaj MDP	Farmers are satisfied with Gir Sawaj MDP for effective control of pink boll worm in cotton and it is easy to use in field condition
7	Onion-GAWO-2	Less infestation of thrips was observed as compared to the checks.
8	Anand Lucerne-3	1. It suitable for multi cutting and good regeneration capacity with good fodder quality. 2. Pests and diseases incidence in the low as compare to local variety
9	Chickpea : GJG-3	1. It is good variety over local variety for all parameters. 2. Average 2-3 grains per pod is found in GJG-3 variety whereas in local variety only 1-2 grains were observed. 3. In nutshell, farmers preferred GJG-3 variety due to high yielding character and prominent to wilt and stunt resistant. 4. Farmers are adopting variety GJG-3 for irrigated conditions then GJG-6 due to grain colour and grain size.

10	Cumin : GC-4	1. High yielder and wilt resistance but delayed germination observed. 2. Farmer demanded blight resistant variety in cumin.
11	Wheat : GJW- 463	1. Yield better than Lok-1 and GW-496. 2. The variety observed more number tillers compare to Lok-1 3. Taste of chapatti for diet is good.
12	Wheat : GW- 451	1. 10 to 15 % more yield than Lok-1 and GW-496. 2. Suitable for chapatti making in diet. 3. Grain size smaller then GW-496.
13	Mineral mixture and by pass protein	1. Use of mineral mixture and by pass protein increase milk production and fat content. 2. Animal remain healthy throughout lactation period.

Farmers' reactions on specific technologies

S. No	**Feed Back**
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Extension and Training activities under FLD

Sl.No.	**Activity**	**No. of activities organised**	**Date**	**Number of participants**	**Remarks**
1	Field days	06	-----	145	-----
2	Farmers Training	-----	-----	-----	-----
3	Media coverage	-----	-----	-----	-----
4	Training for extension functionaries	-----	-----	-----	-----

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																		
	PM	*Metarizium*: 4 kg		10	04	16.38	10.38	13.36	12.16	9.89	29160	70153	40993	2.41	28040	63840	35800	2.28
	DM	Trichoderma		05	02	15.13	11	13.15	11.18	17.62	28860	69038	40178	2.39	28040	58695	30655	2.09
CFLD		Seed: 30 kg, 2. *Rhizobium*:- 0.5 lit, 3. PSB-0.5 lit, 4. *Beauveria*: 1 kg & 5. *Trichoderma* :2 kg	GJG-31	50	20	29.5	15	17.29	14.68	17.78	28820	90789	61969	3.15	28040	71448	43408	2.55
Sesame																		
	Varietal	Seed – 1kg	GT-4	10	04	6.5	4.38	5.50	4.87	12.94	14750	52250	37500	3.54	14680	46265	31585	3.15

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

** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea																		
	Varietal	Seed: 25kg	GJG-3	10	04	23	13	18.34	15.29	19.93	20980	73350	52370	3.50	20660	61160	40500	2.96
CFLD		Seed: 30 kg, 2. *Rhizobium*:- 0.5 lit, 3. PSB-0.5 lit, 4. *Beauveria*: 1 kg & 5. *Trichoderma* :2 kg	GJG-3	50	20	29.5	15	20.24	16.37	26.63	22580	80950	58370	3.59	21380	65480	44100	3.06

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change 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										
Cereals																	
Wheat																	
	Varietal	Seed-40kg (GW-451)	20	08	61.25	33.40	48.81	43.21	12.98	23140	81761	58621	3.53	22740	72368	49628	3.18
Vegetables																	
Tomato																	
	Varietal	GT-6	10	01	311.75	279.37	303.17	267.31	13.42	14612	36809	21477	2.46	12376	29136	16760	2.35
Onion																	
	Varietal	GAWO-2	10	01	331.13	267.89	327.19	256.8	27.41	12350	35560	23210	2.8	11370	29690	18320	2.6
Other Crops																	
Cotton																	
	PM	MDP : 400 gm	10	4	24.25	15.63	20.34	17.78	14.42	32910	109314	76404	3.32	30450	95541	65091	3.14
Cumin																	
	DM	Mancozeb 63% + Carbendezim 12% : 500 gm	20	08	11.88	7.5	9.99	8.74	14.34	27475	117427	89952	4.27	27255	102695	75440	3.77
Fodder Crops																	

Lucerne																	
	Varietal	Anand Lucerne-3	10	01			440.0	355.0	23.94	15000	70732	55732	4.7	12500	57068	44568	4.6

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)
Buffalo																	
	Mineral mixture and Bypass protein	Mineral mixture 30g/animal/day+ by pass protein supplement 800 gm animal/day for 60 days	10	5 Animal	13	7	25	00	00	23510	39000	15490	1.7	12960	21000	8040	1.6
	Probiotic	Probiotic supplement @ 50 gm/animal/day for 90 days	05	5 Animal	09	08	12.5	00	00	13058	40500	27442	3.1	12960	36000	23040	2.8

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)			
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total
Groundnut Decorticator	Groundnut	-----	25	10	-----	-----	-----	-----	-----	-----	----	-----	-----	-----	-----	-----

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Seed Packets	Nutrition	Brinjal Tomato Guar Valod Okra	10	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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

On Campus Training										
Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	17	0	17	3	0	3	20	0	20
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	2	36	0	36	4	0	4	40	0	40
Integrated nutrient management	1	20	0	20	0	0	0	20	0	20
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**4**	**73**	**0**	**73**	**7**	**0**	**7**	**80**	**0**	**80**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	1	20	1	21	0	0	0	20	1	21
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (a)	**1**	**20**	**1**	**21**	**0**	**0**	**0**	**20**	**1**	**21**
b) Fruits										
Balance use of fertilizers-Organic Farming	2	33	4	37	3	0	3	36	4	40
Total (b)	**2**	**33**	**4**	**37**	**3**	**0**	**3**	**36**	**4**	**40**
c) Ornamental Plants										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										

Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**3**	**53**	**5**	**58**	**3**	**0**	**3**	**56**	**5**	**61**
III Soil Health and Fertility Management										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IV Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	10	5	15	5	0	5	15	5	20
Disease Management	1	14	4	18	2	0	2	16	4	20
Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**2**	**24**	**9**	**33**	**7**	**0**	**7**	**31**	**9**	**40**
V Home Science/Women empowerment										
Bakery Product	1	0	52	52	6	0	6	6	52	58
Total	**1**	**0**	**52**	**52**	**6**	**0**	**6**	**6**	**52**	**58**
VI Agril. Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	1	20	0	20	8	0	8	28	0	28
Integrated Disease Management	1	21	0	21	4	0	4	25	0	25
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	1	20	0	20	3	0	3	23	0	23
Honey Bea Rearing	0	0	0	0	0	0	0	0	0	0
Total	**3**	**61**	**0**	**61**	**15**	**0**	**15**	**76**	**0**	**76**
VIII Fisheries										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**13**	**211**	**66**	**277**	**38**	**0**	**38**	**249**	**66**	**315**
(B) RURAL YOUTH										
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(C) Extension Personnel										
Capacity building for	1	20	0	20	0	0	0	20	0	20

ICT application										
TOTAL	**1**	**20**	**0**	**20**	**0**	**0**	**0**	**20**	**0**	**20**
Grand Total	14	231	66	297	38	0	38	269	66	335

Off Campus Training										
Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	2	33	3	36	2	2	4	35	5	40
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	15	0	15	5	0	5	20	0	20
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Organic Farming	1	20	0	20	3	0	3	23	0	23
Total	**4**	**68**	**3**	**71**	**10**	**2**	**12**	**78**	**5**	**83**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0

Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	1	17	0	17	3	0	3	20	0	20
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Cultivation pratices	1	17	6	23	0	2	2	17	8	25
Total (a)	**2**	**34**	**6**	**40**	**3**	**2**	**5**	**37**	**8**	**45**
b) Fruits										
Training and Pruning	1	28	0	28	4	0	4	32	0	32
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Total (b)	**1**	**28**	**0**	**28**	**4**	**0**	**4**	**32**	**0**	**32**
c) Ornamental Plants										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

GT (a-g)	**3**	**62**	**6**	**68**	**7**	**2**	**9**	**69**	**8**	**77**
III Soil Health and Fertility Management										
Others (pl specify)	1	20	3	23	0	0	0	20	3	23
Total	**1**	**20**	**3**	**23**	**0**	**0**	**0**	**20**	**3**	**23**
IV Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	13	11	24	0	0	0	13	11	24
Disease Management	0	0	0	0	0	0	0	0	0	0
Feed & fodder technology	1	16	7	23	0	0	0	16	7	23
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**2**	**29**	**18**	**47**	**0**	**0**	**0**	**29**	**18**	**47**
V Home Science/Women empowerment										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VI Agril. Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	1	23	0	23	0	0	0	23	0	23
Integrated Disease Management	2	18	17	35	5	2	7	23	19	42
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
Precaution while handing pesticides	1	19	0	19	3	0	3	22	0	22
Total	**4**	**60**	**17**	**77**	**8**	**2**	**10**	**68**	**19**	**87**
VIII Fisheries										

Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**14**	**239**	**47**	**286**	**25**	**6**	**31**	**264**	**53**	**317**
(B) RURAL YOUTH										
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(C) Extension Personnel										
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total	14	239	47	286	25	6	31	264	53	317

Training (On + Off training)										
Thematic area	**No. of courses**	**Participants**								
		Others			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	17	0	17	3	0	3	20	0	20
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	2	36	0	36	4	0	4	40	0	40
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	2	33	3	36	2	2	4	35	5	40
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	15	0	15	5	0	5	20	0	20
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	1	20	0	20	0	0	0	20	0	20
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	1	20	0	20	3	0	3	23	0	23
Total	**8**	**141**	**3**	**144**	**17**	**2**	**19**	**158**	**5**	**163**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0

Nursery raising	2	37	1	38	3	0	3	40	1	41
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	1	17	6	23	0	2	2	17	8	25
Total (a)	**3**	**54**	**7**	**61**	**3**	**2**	**5**	**57**	**9**	**66**
b) Fruits										
Training and Pruning	1	28	0	28	4	0	4	32	0	32
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	2	33	4	37	3	0	3	36	4	40
Total (b)	**3**	**61**	**4**	**65**	**7**	**0**	**7**	**68**	**4**	**72**
c) Ornamental Plants										
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GT (a-g)	**6**	**115**	**11**	**126**	**10**	**2**	**12**	**125**	**13**	**138**
III Soil Health and Fertility Management										
Others (pl specify)	1	20	3	23	0	0	0	20	3	23
Total	**1**	**20**	**3**	**23**	**0**	**0**	**0**	**20**	**3**	**23**
IV Livestock Production and Management										
Dairy Management	0	0	0	0	0	0	0	0	0	0
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	2	23	16	39	5	0	5	28	16	44
Disease Management	1	14	4	18	2	0	2	16	4	20
Feed & fodder	1	16	7	23	0	0	0	16	7	23

technology										
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**4**	**53**	**27**	**80**	**7**	**0**	**7**	**60**	**27**	**87**
V Home Science/Women empowerment										
Others (pl specify)	1	0	52	52	6	0	6	6	52	58
Total	**1**	**0**	**52**	**52**	**6**	**0**	**6**	**6**	**52**	**58**
VI Agril. Engineering										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	2	43	0	43	8	0	8	51	0	51
Integrated Disease Management	3	39	17	56	9	2	11	48	19	67
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	1	20	0	20	3	0	3	23	0	23
Others (pl specify)	1	19	0	19	3	0	3	22	0	22
Total	**7**	**121**	**17**	**138**	**23**	**2**	**25**	**144**	**19**	**163**
VIII Fisheries										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**27**	**450**	**113**	**563**	**63**	**6**	**69**	**513**	**119**	**632**
(B) RURAL YOUTH										
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(C) Extension Personnel										
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	1	20	0	20	0	0	0	20	0	20
TOTAL	**1**	**20**	**0**	**20**	**0**	**0**	**0**	**20**	**0**	**20**
Grand Total	**28**	**470**	**113**	**583**	**63**	**6**	**69**	**533**	**119**	**652**

Sponsored training programmes										
Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Crop production and management										
Increasing production and productivity of crops	3	100	105	205	0	0	0	100	105	205
Commercial production of vegetables	1	32	20	52	0	0	0	32	20	52
Production and value addition										
Fruit Plants	0	0	0	0	0	0	0	0	0	0
Ornamental plants	0	0	0	0	0	0	0	0	0	0
Spices crops	0	0	0	0	0	0	0	0	0	0
Soil health and fertility management	2	25	21	46	0	0	0	25	21	46
Production of Inputs at site	0	0	0	0	0	0	0	0	0	0
Methods of protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	6	157	146	303	0	0	0	157	146	303
Post harvest technology and value addition										
Processing and value addition	1	0	24	24	0	0	0	0	24	24
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	1	0	24	24	0	0	0	0	24	24
Farm machinery										
Farm machinery, tools and implements	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Livestock production and management	2	46	4	50	0	0	0	46	4	50
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Animal Disease Management	0	0	0	0	0	0	0	0	0	0
Fisheries Nutrition	0	0	0	0	0	0	0	0	0	0
Fisheries Management	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	2	46	4	50	0	0	0	46	4	50
Home Science										
Household nutritional security	0	0	0	0	0	0	0	0	0	0
Economic empowerment of women	0	0	0	0	0	0	0	0	0	0

Drudgery reduction of women	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Agricultural Extension										
Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	**9**	**203**	**174**	**377**	**0**	**0**	**0**	**203**	**174**	**377**

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

3.5. Extension Programmes

Sr. No.	Extension Programmes	No. of activities	Participants		
			Male	Female	Total
1	Krishi Mela	01	1320	1127	2447
2	Agri. Exhibition	02	1324	1190	2514
3	Literature distribution	00	1767	167	1934
4	Lecture delivered	119	7424	591	8015
5	Farmers visit to KVK	00	971	00	971
6	Scientific visit to farmers field	22	306	00	306
7	Exposure Visit	01	16	04	20
8	Pashupalan shibir	02	500	87	587
9	Farmer training	01	205	00	205
10	Farmer exhibition	01	50	20	70
11	Webinar	03	127	00	127
12	Telephonic information to farmers	00	2210	00	2210
13	Film Slide/ Video Show	06	136	126	262
14	Diagnostic visit	09	18	00	18
15	Press note	11	00	00	00
Total		**178**	**16374**	**3312**	**19686**

- **Special programmes and celebration of days**

Sr. No.	Extension Programmes	No. of activities	Participants		
			Male	Female	Total
1	Field Day	06	137	08	145
2	Global Potato Conclave -2020	01	26	20	46
3	Constitution Day	03	54	46	100
4	International Yoga Day	01	11	00	11
5	Webinar	03	127	00	127
6	International Women Day	01	00	43	43
7	Video Conference	03	52	33	85
8	Poshan Maah Pakhwada	04	00	91	91
9	Poshan Maah Abhiyaan Programe	01	04	63	67
10	Swachhta Pakhwada	14	398	249	647

11	Swachhta hi Sewa Diwas	01	15	09	24
12	Mahila Krishi Diwas	02	04	35	39
13	World Food Day	01	00	21	21
14	World Soil Day	01	27	09	36
15	Kisan Diwas	01	20	11	31
16	Consumer Day	01	11	12	23
17	Kisan and Vigyan Day & PMK (Video Conference)	01	260	127	387
Total		**45**	**1146**	**777**	**1923**

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

Details of other extension programmes

Particulars	**Number**
Electronic Media (CD./DVD)	00
Extension Literature	00
Newspaper coverage	16
Popular articles	00
Radio Talks	00
TV Talks	00
Animal health amps (Number of animals treated)	00
Social Media (No. of platforms Used)	00
Others (pl. specify)	00
Total	**16**

3.6 Online activities during year 2020

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	YouTube Live	Pink boll worm in cotton crop	1	448
1		YouTube Live	Disease management in ground crop	1	328
2		YouTube Live	Insect-pest and disease management in cotton crop	1	174
3		YouTube Live	Insect-pest and fisease management in cumin crop	1	173
4		YouTube Live	Insect-pest and disease management in chick pea & wheat	1	153
5		YouTube Live	Insect-pest and disease management in chick pea & wheat	1	63
6		YouTube Live	Insect-pest and disease management in cumin crop	1	43
7		YouTube Live	Pest management in groundnut crop	1	328
8		YouTube Live	Scientific cultivation of onion	1	173
9		YouTube Live	Scientific cultivation of chick Pea	1	153
10		YouTube Live	Scientific cultivation of cumin	1	173
11		YouTube Live	Scientific cultivation of wheat	1	153
12		YouTube Live	Nutriment management in cotton crop	1	174
			Total	13	2536
B Farmers scientist's interaction programme					
	Total	0	0	0	0
C	Farmers seminars				
1	-----	YouTube	Webinar	1	127
	Total	YouTube		1	127

D	Expert lectures	0	0	0	0
	Total	0	0	0	0
E Any other (Pl. specify)					
1	RAWE student training	Google meet	KVK Information and Discipline wise lectures	1	111
2	Farmers training	Telephonic Conference	Scientific cultivation of chick pea, cumin, Onion & wheat crop, Insect-pest and disease management in chick pea, cumin & wheat crop	3	106
3	Farmers training	Telephonic Conference	Scientific management in animal husbandry	1	45
			Total	4	262
			Grand Total (A+B+C+D+E)	**18**	**2925**

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		Quantity of seed (q)	Value (Rs)	Number of farmers
Oilseeds	Groundnut	GJG-9 **(A-Grade)**	Breeder	25.50	395250	-
		GJG-9 **(A-Grade)**	Truthful	5.35	35663.1	-
		GJG-32 **(A-Grade)**	Breeder	9.90	153450	-
		GJG-9 **(B-Grade)**	Breeder	2.60	15600	-
		GJG-9 **(B-Grade)**	Truthful	0.70	4200	-
		GJG-32 **(B-Grade)**	Breeder	0.30	1800	-
	Sesame	GT-3 **(A-Grade)**	Truthful	13.20	198000	745
		GT-3 **(A-Grade)**	Breeder	5.05	113625	-
		GT-3 **(B-Grade)**	Truthful	0.80	4000	-
		GT-3 **(B-Grade)**	Breeder	0.25	1250	-
Spices	Cumin	GC-4 **(A-Grade)**	Truthful	4.00	92000	-
			Total	**67.65**	**1014838**	
Other (Fruit Crop)						
	Sapota	Kalipatti	-----	32.08	48,120	-
	Mango	Kesar	-----	5.86	23,440	-
	Gunda	-----	-----	0.2	500	-
	Ravna	-----	-----	0.1	100	-
	Guava	-----	-----	0.33	660	-
			Total	**38.57**	**72,820**	

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Tomato	JT-3	-	2300	-----	241
		GT-6		2900	-----	215
	Brinjal	GJHB-4	-	2700	-----	320
	Onion	GJRO-11	-	970	-----	130
		GJWO-3	-	830	-----	87
	Chilli	*Wadhwani*	-	270	-----	67
Fruit	Papaya	GJP-1	-	350	-----	58
			Total	**10320**	**-----**	**1118**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Kg	Value (Rs.)	No. of Farmers
-----	-----	-----	-----	-----

University products made available to farmers

Sr. No.	Name of product	Quantity
1	**Sawaj *Beauveria* (kg)**	10
2	**Sawaj *Trichoderma* (kg)**	1296
3	**Lure of pink bollworm (No.)**	113
4	**Vegetable packets (No.)**	59
5	**Sawaj *Metaghizium* (kg)**	10
6	**Bio fertilizers: (Lit)**	
	Rhizobium	05
	Azotobacter	42
	PSM	30

Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows	Male	2	-----	-----
	Female	1	-----	-----
Goat	Male	3	-----	-----
	Female	3	-----	-----
	Total	**09**	-----	-----

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	Number
Research papers	Constraints in adoption of SAWAJ brand bio fertilizers under field condition by the farmers of Surendranagar district in Gujarat state. *Agriculture Update* 14(2):118-121.	M. S. Chandawat, M. F. Bhoraniya, R. P. Kalma and D. A. Patel	1
	Adoption level of SAWAJ *Trichoderma* among farmers of Surendranagar district in Gujarat state. *Agriculture Update* 14(2):143-147.	M. S. Chandawat, M. F. Bhoraniya, R. P. Kalma, P. R. Kanani and D. A. Patel	1
	Adoption of organic farming practices and constraints faced in adoption by the farmers of Surendranagar district of Saurashtra region in Gujarat state. *International J. Agric. Sci.* 11(9): 8370-8373.	M. S. Chandawat, B. C. Bochalya, M. F. Bhoraniya and R. P. Kalma	1

	Perception of end users about effectiveness of Sawaj brand *Trichderma. International Journal of Farm Sciences* **9(3):** 1-4.	M. S. Chandawat, M. F. Bhoraniya, R. P. Kalma and D. A. Patel	1
	Perception about effectiveness of Sawaj brand bio-fertilizers under field conditions perceived by its end users in Surendranagar district of Gujarat. *International Journal of Farm Sciences* **9(3):** 1-5.	M. S. Chandawat, M. F. Bhoraniya, R. P. Kalma and D. A. Patel	1
	Constraints in adoption of Sawaj Trichoderma under field condition by the farmers of Surendranagar district in Gujarat state. *International Journal of Plant Protection.* **12(1):** 45-48.	M. S. Chandawat, M. F. Bhoraniya, R. P. Kalma and D. A. Patel	1
Technical reports	ZREAC *(Kharif)*	Mr. M. F. Bhoraniya, Mr. D. A. Patel, Dr. R. P. Kalma and Dr. B. C. Bochalya	0
	ZREAC *(Rabi)*		
	AGRESCO		
	SAC		
	Annual Progress Report		
News letters	Quaterly	Mr. M. F. Bhoraniya, Mr. D. A. Patel, Dr. R. P. Kalma and Dr. B. C. Bochalya	4
	e-news letter		4
Technical bulletins	0	0	0
Popular articles	0	0	0
Extension literature	0	0	0
Others (Pl. specify)	0	0	0
TOTAL	**-----**	**-----**	**8**

C. Details of Electronic Media Produced

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

D. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel	01	00
2	Facebook page/ Account	01	00
3	Mobile Apps	00	00
4	WhatsApp groups	11	1540
5	Twitter Account	01	00
6	Any other (Pl. Specify)	00	00

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).

❖ Sugarcane Sweetens Farmers' Life

A. Farmer Profile:-

1.	**Farmers Name**	Rameshbhai Manjibhai Mori
2.	**Village Name**	Shapar, Ta.- Sayla, Dist.- Surendranagar
3.	**Date of Birth**	07/08/1984
4.	**Family Member**	06
5.	**Mobile Number**	9979342271
6.	**Other Information**	
	Total area	2 ha
	Season wise crop	
	Kharif	Cotton, Groundnut and Seasame
	Rabi	Wheat, Cumin and Sweet corn
	Summer	Vegetable crop likewise Brinjal, Okra and Guar
7.	**Animals**	Four buffalo and two cows

- **Success Point:** Introduction of new crop

Mr. Rameshbhai is small land holder of Sapar village of Sayala taluka. Earlier Rameshbhai was farming Cotton, groundnut, cumin, wheat, Vegetables crops traditionally way of farming, in which he was getting very low yield and income due to this reason he was not fulfill his home requirements. Later on, he knows about sugarcane crop which was earlier grown at nearby village Dedhuki. To know more about Sugarcane cultivation he comes in contact with KVK Nana-Kandhasar. He regularly visits at KVK through various programmes like trainngs, meetings to satisfy the hunger of his knowledge about latest agricultural technology.

After knowing about the sugarcane cultivation, he adopted the recommendations of agricultural university like selection of planting material, time of sowing, integrated pest and disease management, right application of recommended fertilizers and irrigation. System for plantation, He used nine months old good quality sugarcane sett as a planting

material for sugarcane. He trated them with fungicides (Bavistin) and insecticide (Melathione) solution. Sugarcane setts were also treated using bio-culture like Azctobactor and P.S.B. solution. Such sugarcane Sets were planted using dual row method. By balanced use of fertilisers including chemical fertilizer, organic fertilizer, micro nutrients and bio culture, fertilizer consumption was reduced by 23 %. Due to good taste of local variety, it fetches better market price than sugarcane varieties.

Year	Yield (q/ha)	Gross cost (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
2017-2018	346.25	73661	173000	99339	2.34
2018-2019	387.31	76750	232386	155636	3.02
2019-2020	471.87	84760	330309	245549	3.89
2020-2021	578.35	87850	462680	374830	5.26

- **Interventions adopted**

Practices	Traditional farming	Technical farming
Soil Testing	Not Doing	Doing
Crop- Rotation	Not Applying	Applying
Deep Ploughing	Not Doing	Doing
Seed Selection	Using Normal varieties	High yielding varieties.
Cane planting techniques	Using normal cane as seed	Using healthy, disease and pest free seed
Nutrient management	Only using Urea and DAP	Using NPK, Urea, Biofertilizers.
Irrigation	Flood	Trench
Weed Management	By Manually	Mechanized and Manual
Disease and pest management	By using chemicals	Using integrated disease and pest management


Farmer Field visited by KVK Scientist

- **Notable Innovations on Rameshbhai Farm:**

✓ Use of high yielding Varieties
✓ Direct contact with KVK Nana Kandhasar, State department and other agenesis
✓ Timely use new varieties and crop rotation

- ✓ Attending training regularly conducted by KVK and attached with KVK Scientist.

❖ Securing Nutri-rich food for school students through Kitchen Gardening

Balanced nutrition essential for good health & wellbeing of growing human beings.This is crucial to the development of children and their future live hood. Nutrition garden can provides freshly grown nutritious vegetables that may be utilized for mid-day meals in schools. Nutrition garden give a firsthand experience with nature and also contribute as a platform for learning. Children who garden get a close-up look at natural processes and the living organisms that thrive in these environments. By learning to care for a living, breathing ecosystem, children develop an understanding of nature's importance in their lives and the lives of other beings.

- **Basic Information:-**

School Name	Shree Nawagam (Than) Primary School
Taluko and District	Than, Surendranagar (Gujarat)
Teachers	19
Children	630
Area of Kitchen Garden	01 Acre
Crops	➢ Vegetable Crops:- Brinjal, Tomato, Cabbage, Chilli, Methi, Raddish, Garlic etc as per season ➢ Fruit crops:- Guava, Pomogranate, Lemon

This activity comes in the existence when the staff of Nava School visited at KVK during their educational tour of KVK. KVK Scientist give them firsthand knowledge about the Nutritions aspects for the school children for secured and low cost outputs. Then the staff of school planned to adopt kitchen gardening at school area for Mid Day Meal Yojana

Initially Kitchen gardening started in small area for the practical purpose to assess the success of its. Now since the past two years, children at the Shree Nawagam (Than) Primary School have planted, tended, and harvested fruits and vegetables in their school. Staff of the school takes the garden as part of their hands-on science learning. The garden currently includes raised beds, trees and medicinal plants along with a compost bin. With a primary goal of teaching children, the garden also provides fresh produce for children. That's important, because the Shree Nawagam (Than) Primary School, and some families don't have access to fresh, affordable fruits and vegetables.

Goals	Scope and skills
To allows the students to grows plants from start to finish	Measurements:- area and volumes
No grater reward than watching a tinny seed turn in to a beautiful flower or something for eat	Data Gathering
Learn nature nurturning	Presentation and for literacy labeling of plants
Teamwork, social skills, healthy food alternatives can all be taught in the garden area	Recording and describing plant developments researching

Given responsibilities	
Responsibilities to care for living organism	

- **Objective of nutrition garden at school compound:-**

✓ To help address malnutrition and micronutrient deficiencies
✓ To enhance the knowledge of children regarding nutritional aspects of vegetables and harmful effects of junk food.
✓ To give children 1st hand experience with nature and gardening.
✓ Gardening strengthens children's immune systems.
✓ Working in a school garden helps children stay active, reducing obesity.

❖ **Points:-**

Practical of nutrition garden	Educational benefit of nutrition garden
To produce vegetables and fruit for school	How to grow a things in a safe and sustainable way
To improve produce children's diet with garden produce.	To understand concept of organic garden
To improve children eating habit	How improve diet and prepare healthy meals with garden produce
To improve the school environment	Respect for an interest in their school environment
To help children survivor and proposer in the world	To relate to adults in various ways and to be aware of gardening practices in the community
Getting their hands dirty helps connect children with nature.	
To bring together school, children, families and community in a common endeavour	

❖ **Photographs**:-

Education Innovation Bank
1 Dec 2020 at 17:31 ·

મારું ન્યુટ્રીશન કિચન ગાર્ડન

#COVID19 ના કારણે બંધ વિદ્યાર્થીઓ વગર સુના પડેલા શાળાના વર્ગો, શાળાના મેદાનો ફરી એકવાર વિદ્યાર્થીઓનું સ્વાગત કરવા તૈયાર થાય તે માટે આપણી સરકારી શાળાના શિક્ષકો અથાગ પરિશ્રમ કરી રહ્યા છે. ઘણી શાળાઓ એ મધ્યાહ્ન ભોજન માટે જરૂરી શાકભાજી બજારમાંથી લાવવું ના પડે તેમજ પુરતો જથ્થો મળી રહે તે હેતુથી શાળાના મેદાન માં "મારું ન્યુટ્રીશન કિચન ગાર્ડન" બનાવ્યું છે.

સુરેન્દ્રનગર જીલ્લાના થાનગઢ તાલુકાની શ્રી નવાગામ થાન પ્રા.શાળા ધોરણ ૧ થી ૮ ની શાળા છે જેમાં ૬૪૫ વિદ્યાર્થીઓ, ૧૭ શિક્ષકો અને ૨૦ વર્ગો તેમજ ૧૪ વિઘામાં શાળાનું મેદાન છે. શિક્ષકો અવાર-નવાર શાળાને સુશોભિત કરવા વિવિધ પ્રવૃતિઓ કરતા રહે છે. વર્ષ ૨૦૧૯-૨૦ માં આ શાળામાં દિવાળી પછી ભીંડો, ગુવાર અને ચોળી શાકભાજી વાવી કિચન ગાર્ડન ની શરૂઆત કરેલી.

- **Impact:-**

  This is new imitative from the Shri NAVAGAM school for nutria-rich Kitchengardening for the awareness and spreading of the technology. The first hand information gathered from the KVK- Nana Kandhasar

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

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

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

5.1. Indicate the specific training need analysis tools/methodology followed for
A. Practicing Farmers
B. Rural Youth
C. In-service personnel

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Problem identified from Matrix
iii) Field level observations
iv) Farmer group discussions
v) Others if any

For FLD:

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

5.3. Field activities

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

6. LINKAGES
A. Functional linkage with different organizations

Name of organization	Nature of linkage
State department of Agriculture	Technology backstoping
Dy. Director of Agriculture (Extension)	Technology backstoping
Dy. Director of Horticulture	Technology backstoping
Dy. Director of Animal husbandry	Technology backstoping
Dy. Director of Soil Conservation	Technology backstoping
Dy. Director of Social Forestry	Technology backstoping
Dy. Director of Fisheries	Technology backstoping
NABARD	Technology backstoping
Jilla Udyog Kendra	Technology backstoping
Milk Co-operative Society	Technology backstoping
State bank of India (Lead bank)	Technology backstoping
Doordarshan Kendra	Technology backstoping
All India Radio	Technology backstoping
ATMA, Surendranagar	Technology backstoping
NHRDF	Technology backstoping
Farmers Training Centre	Technology backstoping
Information department, Surendranagar	Technology backstoping
RSETI, Surendranagar	Technology backstoping

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.)
----	***---***	***-----***	***-----***

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/~~No?~~
If yes, role of KVK in preparation of SREP of the district?

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	**Meetings**	07	04	00	***------***
02	**Research projects**	00	00	00	***-----***
03	**Training programmes**	07	04	00	***------***
04	**Demonstrations**	00	00	00	***-----***

05	**Extension Programmes**	00	00	00	**------**
06	**Publications**	00	00	00	**------**
07	**Other Activities** (Pl.specify)	00	00	00	**------**

D. Give details of programmes implemented under National Horticultural Mission

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

E. Nature of linkage with National Fisheries Development Board

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

F. Details of linkage with RKVY

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

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

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

H. Details of linkage with NFSM

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

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: 3

8. Innovator Farmer's Meet

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

9. Farmers Field School (FFS)

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

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

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

11. Technology Week celebration during 2020: ~~Yes~~/No

12. IMPACT

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

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

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

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

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

13. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2020	0	56860	-----
Feb 2020	2		-----
March 2020	0		-----
April 2020	0		-----
May 2020	0		-----
Jun 2020	0		-----
Jul 2020	4		-----
Aug 2020	3		-----
Sept 2020	3		-----
Oct 2020	4		-----
Nov. 2020	2		-----
Dec. 2020	0		-----

Name of KVK	Message Type	Type of Messages						
		Crop	**Lives tock**	**Weat her**	**Mar ke-ting**	**Aw are-nes s**	**Other enter prise**	**Total**
KVK Surendran agar	Text only	04	00	05	00	00	09	18
	Voice only	00	00	00	00	00	00	00
	Voice & Text both	00	00	00	00	00	00	00
	Total Messages	04	00	05	00	00	09	18
	Total farmers Benefitted	**20,46,960**						

14. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1.	Vermi-Compost Unit	2017	0.025	-	-	1500 kg	-	-	Farm use only
2.	Guava plantation	2016	0.50	VNR and Lucknow-49	-	0.33 qtl	-	660	-
3.	Orchard (Sapota, Mango and Gunda)	Old Plantation	0.90	Kesar and Kalipatti	-	37.94 qtl	-	71560	-
4.	*Khati Aamblr* Orchard	Old Plantation	1.30	Local	-	-	-	-	-
5.	Organic farming unit	2017	0.94	Mega seed G'nut	-	-	-	-	-
6.	Technology museum	2009-10	0.008	Specimen	-	-	-	-	-
7.	Heap method of composting	2009-10	0.024	FYM	-	-	-	-	-
8.	Crop cafeteria	2018-19	0.04	Crop varieties	-	-	-	-	-
9.	Gir cow unit	2012-13	0.075	Gir	-	-	-	-	-
10.	Goat Unit	2016-17	0.04	Zalawadi Goat	-	-	-	-	-
11.	Bio Gas Unit	2012-13	0.003	Sintex Plastic body	-	-	-	-	-
12.	Poultry Unit	2012-13	0.01	RIR-Layer	-	-	-	-	-
13.	Fodder Demonstration	2012-13	0.02	12-Varieties	-	-	-	-	-
14.	Medicinal Plant	2009-10	0.30	38-Plants	-	-	-	-	-

15.	Nursery Unit	2009-10	0.03	Vegetable Plant	-	10320 No.	-	-	-
16.	Automatic Weather Station	2012-13	0.20	-	-	-	-	-	-
17.	Solar Photo voltaic Unit	2015-16	0.037	-	-	-	-	-	-
18.	Nadep Compost Unit	2016-17	0.003	-	-	-	-	-	-
19.	Farm Machinery unit	2019-10	0.25	Implement Demo	-	-	-	-	-
20.	Date Palm Plantation	2009-10	0.40	Local & Bihi Varieties	-	-	-	-	-

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	
Oilseeds									
Groundnut	09-10/07/2020	15/10/2020	9.45	GJG-9 **(A-Grade)**	Breeder	25.5	-	-	-
-	-	-	-	GJG-9 **(A-Grade)**	Truthful	5.35	-	-	-
-	-	-	-	GJG-32 **(A-Grade)**	Breeder	9.9	-	-	-
-	-	-	-	GJG-9 **(B-Grade)**	Breeder	2.6	-	-	-
-	-	-	-	GJG-9 **(B-Grade)**	Truthful	0.7	-	-	-
-	-	-	-	GJG-32 **(B-Grade)**	Breeder	0.3	-	-	-

Sesame	-	-	5.40	GT-3	Truthful	13.2	-	-	-
-	-	-		GT-3	Breeder	5.05	-	-	-
-	-	-		GT-3	Truthful	0.8	-	-	-
-	-	-		GT-3	Breeder	0.25	-	-	-
Spices & Plantation crops									
Cumin	1/12/2019	05/03/2020	-	GC-4	-	4	-	-	-

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

Sl. No.	Bio Products	Name of the Product	Qty (kg)	Amount (Rs.)		Remarks
				Cost of inputs	Gross income	
-----	-----	-----	-----	-----	-----	-----

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1.	Cow	Gir	-----	-----	-----	-----	-----
2.	Goat (Male)	Zalawadi	-----	-----	-----	-----	-----
3.	Goat (Female)	-----	-----	-----	-----	-----	-----

E. Utilization of hostel facilities: Accommodation available (No. of beds): 25

Months	**No. of trainees stayed**	**Trainee days (days stayed)**	**Reason for short fall (if any)**
January 2020	00	00	00
February 2020	00	00	00
March 2020	00	00	00
April 2020	00	00	00
May 2020	00	00	00
June 2020	00	00	00
July 2020	00	00	00
August 2020	00	00	00
September 2020	00	00	00
October 2020	19	01	00
November 2020	00	00	00
December 2020	00	00	00

F. Database management

S. No	**Database target**	**Database created**
-----	***-----***	***-----***

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

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

H. Performance of Nutritional Garden at KVK farm

If Nutritional Garden developed at KVK farm/Village Level? Yes/~~No~~

If yes, Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
-----	Vegetable crops	12	127
	Fruit crops	Citrus	
	Others if any	-----	

Nutritional Garden developed at Village Level

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
01	Vegetable crops	05	10
	Fruit crops	00	00
	Others if any	00	00

H. Details of Skill Development Trainings organized

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

15. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	-----	-----	-----	------	-----	-----	-----
With KVK	State Bank of India	Surendranagar (Chotila)	60104	Training Organizer K.V.K Nana Kandhasar	66002464030	363002521	SBIN0060104

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	135	133	80
2	**Traveling allowances**	0.6	0.6	06
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	00	00	0.5
B	POL, repair of vehicles, tractor and equipments	00	00	0.9
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	00	00	0.8
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	00	00	2.3
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	00	00	1.5
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	00	00	0.5

G	Training of extension functionaries	00	00	0.5
H	Maintenance of buildings	00	00	00
I	Establishment of Soil, Plant & Water Testing Laboratory	00	00	0.5
J	Library	00	00	00
TOTAL (A)				
B. Non-Recurring Contingencies		00	00	00
1	**Works**	00	00	00
2	**Equipments including SWTL & Furniture**	00	00	00
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	00	00	00
4	**Library** (Purchase of assets like books & journals)	00	00	00
TOTAL (B)		00	00	00
C. REVOLVING FUND		00	00	00
GRAND TOTAL (A+B+C)		147.1	145.1	91.73

C. Status of revolving fund (Rs. in lakh) for the three 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	5574835	5422216	4284740	6712311
April 2019 to March 2020	6712311	4823057	3295197	8240171
April 2020 to December, 2020	8240171	2091699	1024459	9307411

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/ Offline)	Dates
Mr. D. A. Patel	Scientist	Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Offline	07-09/01/2020
Mr. M. N. Patel	Agricultural Officer	Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Offline	07-09/01/2020
Mr. M. F. Bhoraniya	Scientist	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Mr. D. A. Patel	Scientist	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Dr. R. P. Kalma	Scientist	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Dr. B. C. Bochalya	Scientist	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Mr. A. K. Vala	Agricultural Officer	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Mr. M. N. Patel	Agricultural Officer	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Mr. S. H. Shukla	Steno grapher	National Webinar on Post COVID-19 Agribusiness: Challenges and Opportunities	JAU, Junagadh	Online	13-14/06/2020
Mr. D. A. Patel	Scientist	Recent advances in Seed Spices Production	SDAU	Online	04-08-2020
Mr. D. A. Patel	Scientist	Kharif Pakoma Pravartman Pak Sanrakshan Na Prashno Ane Nirakaran	AAU, Anand	Online	20-08-2020
Mr. D. A. Patel	Scientist	Nutrient management in rabi season	AAU, Anand	Online	09-11-2020

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

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/annual)	
				Before	After
Karmad	358	FLDs, Training & Field day	65	87714	119291
Ramdevgadh	130	FLDs, Training & Field day	75	90660	117858

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

S. No.	Name of the programme	No. of villages adopted	Key activities performed	No. of activities carried out	No. of families covered
-----	-----	-----	-----	-----	-----

19. Details of Progress of ARYA Project

Name of Enterprise	No of Training Conducted	No of Beneficiaries	No of Extension Activities	No of Beneficiaries	No of Unit established	Change in income		No. Of Groups Formed
						Before	After	
-----	-----	-----	-----	-----	-----	-----	-----	-----

20. Details of SAP

S. No.	Types of major Activity conducted- SwachhtaPakhwada, Cleaning, Awareness Workshop, Miccobial based Agricultural Waste Management by Vermicomposting etc.	No. of Programmes conducted	No. of Participants
1	Swachhta Pakhwada, SwachhtA hi Sewa Diwas, Waste Management by Vermicomposting, Cleaning, Awareness Workshop	14	671

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

❖ **Training programme under ATIC:-**

Sr. No.	Title	Participants		
		Others	SC/ST	Total
1	INM in cumin and wheat	17	04	21
2	IDM in cumin and wheat	18	04	22
3	Seed production techniques in cumin and wheat	16	05	21
4	Scientific cultivation of sesame	15	03	18
5	Pink boll warm control in cotton	13	02	15
6	INM in cotton and sesame	13	04	17
7	IPM in cotton and sesame crop	13	05	18
8	Seed production techniques in sesame	12	03	15
9	Detopping technique in cotton crop	14	07	21
10	Scientific cultivation of cumin	11	09	20
11	Scientific cultivation of wheat	14	09	23
Total		**156**	**55**	**211**

❖ **FLD's conducted under ATIC**

Particulars of the FLD	Season	Crop	Component	Area (in ha)	No. of Demo.
Oilseeds	*Rabi*	Cumin	1. GC-4 2. *Trichoderma* 3. *Beauveria* 4. *Azotobacter* 5. PSB	16	40
Other crop		Wheat	1. GJW-463 2. *Azotobacter* 3. PSB	16	40
Oilseeds	*Kharif*	Sesame	1. GT-4 2. Bio fertilizer (*Azotobacter* & PSB)	16	40
Other crop		Cotton	1. GCH-10 Bt 2. Bio fertilizer (*Azotobacter* & PSB) 3. *Beauveria bassiana*	16	40

- **Performance of FLD**

Sr. No.	Crop	Variety	Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check qtl./ha	(%) Increase in yield
					H	L	A		
1	Cumin	GC-4	40	16	7.2	3.8	6.8	6.2	9.67
2	Wheat	GJW- 463	40	16	42.5	22.6	33.5	30.2	10.92
3	Sesame	GT-4	40	16	06.70	02.30	05.40	04.80	12.50
4	Cotton	GCH 10 Bt	40	16	24.40	16.20	19.40	17.20	12.80

- **Economic Impact (Continuation of previous table)**

Crop	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		BC Ratio (Gross Return / Gross Cost)	
	Demon stration	Local Check	Demon stration	Local Check	Demon stration	Local Check	Demon stration	Local Check
Cumin	28425	28225	81600	74400	53175	46175	2.87	2.63
Wheat	24960	24460	60300	54360	35340	29900	2.41	1.44
Sesame	14750	14250	51300	45600	36550	31350	3.48	3.20
Cotton	32450	31920	106700	94600	74250	62680	3.28	2.96

❖ Mera Gauv Mera Gaurav

01. Detailed Progress:

No. of Team formed	No. of Scientists	No. of Villages selected	No. of Blocks	No. of Districts	Bench Mark Survey conducted (No. of villages)
02	04	10	-	01	00

02. Activities undertaken

S. No.	Name of activity	No. of activities conducted	No. of farmers benefitted
1	Awareness created	03	47
2	Demonstrations conducted	04	160
3	Interface meeting/ *Goshthies*	09	252
4	Literature support provided	04	471
5	Training organized	05	115
6	Visit to village by teams	15	315
7	Mobile based advisories	04	751
	Total	**44**	**2111**

03. Other activities organized by ICAR Institutes/ SAUs under MGMG

Table -2: Other activities organized by ICAR Institutes under MGMG

S. No.	Activity	Particulars	
1	**Linkages developed with other agencies**	No of Agency (No)	01
		Farmers Benefitted (No)	75
2	**Facilitation for**	**Note:- Cotton, Sesame, Cumin and Wheat (Seed, Bio agents and bio fertilizer)**	
	i) New varieties	Numbers	00
		Area (ha)	00
		Farmers Benefitted (No)	00
	ii) Technology (No)	Numbers	04
		Area (ha)	64
		Farmers Benefitted (No)	160
	iii) Seeds (q)	Area (ha)	00
		quantity (q)	00
		Farmers Benefitted (No)	00
	iv) New crops (No.)	Numbers	00
		Farmers Benefitted (No)	00
	v) Other (seedlings, biofert. Poultry bird etc.)	Numbers	04
		Area (ha)	64
		Farmers Benefitted (No)	160

APR SUMMARY

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

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	14	264	71	335
Rural youths	00	00	00	00
Extension functionaries	00	00	00	00
Sponsored Training	07	178	149	327
Collaborative Training	02	46	04	50
Vocational Training	00	00	00	00
RAWE/Student Training	06	169	106	275
YouTube Live Phone in Programme, Google Meet, Telephonic Conference	21	00	00	3194
Total	64	920	384	4498

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	75	30	-----
Pulses	60	24	-----
Cereals	20	08	-----
Vegetables	30	02	-----
Other crops	40	40	-----
Hybrid crops	00	00	-----
Total	225	104	-----
Livestock & Fisheries	25	01	10
Other enterprises	25	10	-----
Total	50	11	10
Grand Total	275	115	10

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	02	02	06
Livestock	00	00	00
Various enterprises	04	04	14
Total	06	06	20
Technology Refined			
Crops	00	00	00
Livestock	00	00	00

Various enterprises	00	00	00
Total	00	00	00
Grand Total	06	06	20

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	178	19686
Other extension activities	45	1923
Total	223	21609

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Lives tock	Weat her	Mar ke-ting	Awar e-ness	Other enter prise	Tota l
KVK Surendran agar	Text only	04	00	05	00	00	09	18
	Voice only	00	00	00	00	00	00	00
	Voice & Text both	00	00	00	00	00	00	00
	Total Messages	04	00	05	00	00	09	18
	Total farmers	**56860**			**Benefitted**		20,46,960	

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	67.75	00
Planting material (No.)	10320	00
Bio-Products (kg)	00	00
Livestock Production (No.)	00	00
Fishery production (No.)	00	00

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	0	0
Water	0	0
Plant	0	0
Total	**0**	**0**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	00
2	Conferences	00
3	Meetings	00
4	Trainings for KVK officials	00

5	Visits of KVK officials	00
6	Book published	00
7	Training Manual	00
8	Book chapters	00
9	Research papers	06
10	Lead papers	00
11	Seminar papers	00
12	Extension folder	00
13	Proceedings	01
14	Award & recognition	00
15	Ongoing research projects	00

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