(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)
Krishi Vigyan Kendra, Junagadh Agricultural University, Morbi Dist Morbi (Gujarat) – 363641	**Office**	**FAX**	kvkmorbi@gmail.com	www.jau.in
	02822-224853	-		

1.2 Name and address of host organization with Phone, Fax and E-mail:

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

1.3 Name of the Senior Scientist and Head with Phone, Mobile No.and E-mail :

Name	Telephone / Contact		
	Mobile	**Office**	**E mail**
Dr. L. L. Jivani	94269 72590	02822-224853	lljivani@gmail.com

1.4 Year of Sanction: 2017 (Grant & Staff from March-2017)

1.5 Faculty Information : (as on December 31, 2020)

				If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
No	**Sanctioned post**	**Name of the incumbent**	**Discipline**	**Current Pay Band**	**Current Grade Pay**	**Date of joining**	
1.	Senior Scientist and Head	Dr. Lalji L. Jivani	Genetics & Plant Breeding	131400 - 217100	UL - 13A	01/12/20	-
2.	Subject Matter Specialist	D. A. Saradava	Plant Protection	57700 - 182400	UL - 10	01/03/17	-
3.	Subject Matter Specialist	Dr. Hemangi D. Mehta	Home Science	57700 - 182400	UL - 10	01/08/17	-
4.	Subject Matter Specialist	Vacant	-	-	-	-	-
5.	Subject Matter Specialist	Vacant					
6.	Subject Matter Specialist	Vacant	-	-	-	-	-
7.	Subject Matter Specialist	Vacant	-	-	-	-	-
8.	Agriculture Officer	Gamansinh S. Zala	B.Sc. Agri.	Fix Pay	Fix Pay	03/08/18	-
9.	Programme Assistant	Vacant	-	-	-	-	-
10.	Computer Programmer	R. R. Sida	B.C.A.	Fix Pay	Fix Pay	01/04/19	-
11.	Farm Manager	Vinuji V. Thakor	B.Sc. Agri.	Fix Pay	Fix Pay	31/07/18	-

12.	Accountant / Superintendent	Niraj P. Vaidya	B.Sc.	39900 - 126600	L - 7	01/03/20	-
13.	Stenographer	Vacant	-	-	-	-	-
14.	Driver 1	Vacant	-	-	-	-	-
15.	Driver 2	Vacant	-	-	-	-	-
16.	Supporting staff 1 & 2	Vacant	-	-	-	-	-

1.6 Total land with KVK (in ha): 26.2 ha. :

Sr. No.	Item	Area (ha)
1	Under Buildings and Road	2.0 ha
2.	Under Demonstration Units	1.8 ha
3.	Under Crops	8.0 ha
4.	Horticulture	Nil
5.	Others (Barren submerged under Machchhu-3 dam , Bund and Water drain)	14.4 ha
Total		**26.2 ha**

1.7 Infrastructural development:

A. Buildings:

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	KVK	2019-20	575.32	143.00 Lacs	-	-	-
2.	Farmers Hostel	KVK	2019-20	443.96	61.00 Lacs	-	-	-
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demonstration Units (1) Azola Unit	SAU	2019-20	18.0	10000/-	-	-	-
5	Fencing	JAU	2017-18	4535	7,95,480/-	-	-	-
6	Rain Water harvesting system	-	2018-19	-	2,00,000/-	-	-	-
7	Threshing yard	JAU	2020-21	400	3,15,838/-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9	ICT lab	-	-	-	-	-	-	-
10	Roof Rain Water harvesting structure	SAU	2019-20	1.40 lac ltr.	4.6 Lacs	-	-	-

B. Vehicles:

Type of vehicle	Year of purchase	Cost (Rs.)	Present status
Tractor Massey DI-241	2017	607137/-	Working
Tractor Mini Trishul 10 H.P.	2007	183000/-	Working
Tractor Trailer Mini Trishul	2007	47000/-	Working
Mahindra Bolero	2019	800000/-	Working

C. Equipments & AV aids:

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer System Acer 18.5	2017	34115/-	Working
Computer System Acer 18.5	2017	34115/-	Working
Printer MF 3010 canon	2017	10266/-	Working

Printer LBP 6230 canon	2017	8761/-	Working
Computer System SIS Agiledag-2277 LG	2010	24210/-	Working
Computer System Intel core i3 processor HCL		34569/-	Working
Printer MF 4350d canon		14327/-	Working
Xerox Machine RICHO Digital	2013	113755/-	

2. DETAILS OF MORBI DISTRICT:

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

S. No	Farming System/Enterprise
1	Cotton-Wheat/Cotton-Cumin/Groundnut-Wheat/Groundnut-Cumin/Cotton-Summer Sesame
2	Animal husbandry – crop based enterprise /Dairy product
3	Farm Waste Management/ Crop residue management
4	Value addition in Groundnut/ Sesame

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

A. Soil Type:

No.	Agro-climatic Zone	Characteristics
1	North Saurashtra Agro Climatic Zone Morbi,Wankaner and Tankara (Agro – eco-situation –No.7)	Semi arid – region with annual rainfall 550 - 600 mm. Maximum temp – 44˚C, Minimum range – 5 to 12˚C & high evaporation
2	North west agro climatic Zone- 5 Maliya (mi) and Halvad block	Arid to semi arid region with annual rain fall – 500 to 550 mm maximum temp - 45˚C, Minimum range – 3 to 12˚C & high evaporation

B. Topography:

No.	Agro ecological situation	Characteristics
1	Situation No. 7	Plain & hilly areas in Wankaner Tehsil.
2	Situation No. 5	Plain costal region (saline) affected with desertification

2.3 Basic information of Morbi District:

Sr. No.	Details	Morbi
	Nickname(s):	Paris of Saurashtra
1	Total geographical area	481958 ha.
2	Forest land	26058 ha.
3	Net sown area	309369 ha
4	Gross cropped area	329654 ha
5	Net irrigated area	111661 ha
6	Average annual rainfall	608 mm.

7	Soil type	Black & Loamy, Salty, Rocky, Shallow Sandy loam
8	Major Crop	Groundnut
		Cotton
		Wheat
		Cumin
		Sesame
		Vegetables
9	Other Crop	Chick pea
		Garlic
		Onion
		Chilly
10	Number of Taluka(Five),	Morbi
		Maliya
		Tankara
		Halvad
		Wankaner
	Total number of villages	407
	Total population	10.08 lakh

2.4 Priority thrust areas:

Crop/Enterprise	Thrust area
Groundnut, Sesame etc	Increasing the productivity of the major crops by adopting recommendation of dry farming technologies and to create awareness for value addition.
Water conservation	*In situ* soil moisture conservation and rainwater harvesting. Use of cotton stalk for organic manure.
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.
Women empowerment	Providing self employment through skill oriented income generating activities
Agriculture	Developing interest among youth for agriculture as a profession.
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
Income generating activities	Self employment among rural youth and skill oriented income generating activities.
Nutrition management	Care and importance of nutrition in children & pregnant women.
Spices crop	Adopt recommended practice of IDM in spices crop i.e. cumin & ajwain.

2.5 Details of operational area / villages:

Village	Land(ha)			Population		Animal				Major Crop			Major Problems
	Unirrigate	Irrigated	Total	Male	Female	Cow	Buffalo	Ship	Goat	Name	Area(ha)	Productivity	
Palas (Wankaner)	228	75	347	413	315	700	750	180	280	Groundnut	125	1300-1500	- Low productivity of almost all crop than dist. aveg. -Stem root & white grub in groundnut. -Pink ball in cotton.
										Cotton	125	1400-1600	
										Sesame	20	600-700	
										Wheat	30	3300-3500	
										Cumin	20	600-700	
Panchasia (Wankaner)	426	1000	1426	720	680	300	1700	600	190	Groundnut	625	1800-2000	-Low productivity of almost all crop than dist. aveg. -Stem root & white grub in groundnut. -Pink ball in cotton.
										Cotton	600	1500-1700	
										Sesame	175	800-900	
										Wheat	400	3800-4000	
										Cumin	150	800-900	
										Chickpea	300	2000-2200	
										Garlic+Onion	150	7000-7500	
										Othesr	25	3500-4000	
Shekhradi (Wankaner)	237	152	389	504	482	259	483	-	10	Groundnut	50	1800-2000	-Low productivity of all crop due light soil. -Stem root in groundnut. -Pink ball warm in cotton. -Phytopthora blight in cumin
										Cotton	200	1700-1900	
										Sesame	50	600-700	
										Fodder	89	700-800	

Amarsar (Wankaner)	314	258	576	891	870	120	490	300	200	Groundnut	200	1900-2200	-Stem root in groundnut. -Pink ball warm in cotton. -Blight and wilt in cumin. -Soft root in onion. -Tip burning in garlic. -Phytopthora blight in sesame. -Para wilt in cotton.
										Cotton	300	1500-1700	
										Cumin	100	900-1000	
										Onion	100	3000-3300	
										Wheat	50	3600-3800	
										Others	76	-	
Pipaliyaraj (Wankaner)	1300	681	1981	2075	2043	200	2250	250	150	Groundnut	600	1900-2200	-Stem root in groundnut. -Pink ball warm in cotton. -Blight and wilt in cumin. -Soft root in onion. -Tip burning in garlic. -Phytopthora blight in sesame. -Para wilt in cotton.
										Cotton	1200	2000-2200	
										Sesame	50	800-900	
										Wheat	100	3200-3300	
										Cumin	100	800-900	
										Chickpea	250	1800-2200	
										Garlic+Onion	50	3800-4000	
										Castor	50	2500-3000	

Otala (Tankara)	560	720	1280	1663	1587	35	70	550	271	Groundnut	600	2400-2500	-Stem root in groundnut. -Pink ball warm in cotton. -Blight and wilt in cumin. -Tip burning in garlic. -Phytopthora blight in sesame. -Para wilt in cotton.
										Cotton	580	2200-2500	
										Sesame	80	800-1000	
										Wheat	150	4500-5000	
										Cumin	250	800-1000	
										Chickpea	150	2800-3000	
										Garlic	50	7000-7200	
Saraya (Tankara)	350	416	766	728	725	290	117	1200	230	Groundnut	440	2300-2500	-Stem root in groundnut. -Pink ball warm in cotton. -Blight and wilt in cumin. -Phytopthora blight in sesame. -Para wilt in cotton.
										Cotton	300	2400-2600	
										Sesame	10	800-1000	
										Wheat	100	4800-5000	
										Cumin	100	700-800	
										Chickpea	200	2400-2500	
										Others	15	-	
Neknam (Tankara)	700	176	2461	1801	1735	337	620	670	160	Groundnut	1300	1800-2200	-Stem root in groundnut. -Pink ball warm in cotton. -Blight and wilt in cumin. -Soft root in onion. -Tip burning in garlic. -Phytopthora blight in sesame. -Para wilt in cotton.
										Cotton	1110	2000-2200	
										Wheat	100	4000-4200	
										Chickpea	200	2800-3000	
										Cumin	75	700-800	
										Sesame	50	800-900	
										Garlic-Onion	75	-	

Lakhdhirgadh (Tankara)	576	20	596	536	518	188	243	-	-	Groundnut	180	2400-2500	-Stem root & white grub problem in groundnut. -Pink ball worm problem in cotton. -Phytopthora blight in sesame. -Wilt & blight in cumin. -Soft root in onion.
										Cotton	180	2100-2200	
										Sesame	150	900-1000	
										Pulses	90	800-900	
										Wheat	160	4000-4200	
										Chickpea	150	3000-3200	
										Cumin	60	700-900	
										Others	20	-	
Bhutkotda (Tankara)	533	350	883	882	823	200	100	700	300	Groundnut	450	2500-2700	-Wilt and stunt disease in chickpea.
										Cotton	350	2000-2200	
										Sesame	50	800-1000	
										Garlic+Onion	25	3500	
										Wheat	100	6000-7000	
										Chickpea	150	800-900	
										Cumin	50	3800-4200	
										Others	30	2500-2800	

Chakamapar (Maliya)	425	1207		1001	1207	233	346	720	207	Groundnut	502	1800-2000	-Pink ball warm in cotton. -White grub in groundnut. -Wilt & blight in cumin. -FMP
										Cotton	270	1700-2000	
										Cumin	200	750	
										Chickpea	100	2250	
										Wheat	225	4100	
Jivapar (Maliya)	310	1040		1021	956	109	256	196	55	Groundnut	780	1800-2000	-Pink ball warm in cotton. -White grub in groundnut. -Wilt & blight in cumin. -FMP
										Cotton	350	1800-2000	
										Cumin	75	850	
										Chickpea	100	2200-2400	
										Wheat	200	3800-4200	
										Sesame	60	1200	
										Garlic	50	-	
Kharachia (Maliya)	12	870		797	779	200	365	371	112	Cotton	500	1000-1050 (R.F.)	-Pink ball warm in cotton. -White grub in groundnut. -Wilt & blight in cumin. -FMP
										Ajwain	150	750 (R.F.)	
										Pigeonpea	50	1200 (R.F.)	
										Groundnut	60	1000-1100 (R.F.)	
										Sesame	60	600-750 (R.F.)	

Thorala (Maliya)	388	434		852	785	110	398	150	35	Groundnut	260	1250	-Low yield of groundnut due to salinity problem. -Pink ball warm in cotton. -Phytophora blight in sesame. -FMP in
										Cotton	245	1670	
										Cumin	60	780	
										Chickpea	70	2200	
										Sesame	50	700	
Andarana (Maliya)	1322	1780		1220	1180	100	300	200	400	Groundnut	500	1500-1600	-Pink ball warm in cotton. -White grub in groundnut. -Wilt & blight in cumin. -FMP
										Cotton	450	1700-2000	
										Sesame	250	700-800	
										Wheat	200	4000-4200	
										Chickpea	200	1800-2000	
										Garlic	60	7000-7200	
										Onion		35000-40000	

3. Achievements

A. Details of target & achievements of mandatory activities by KVK during 2020

OFT				FLD			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
3	3	20	20	6	6	55	55

Training (including sponsored, vocational and other trainings carried out under rainwater harvesting unit)					Extension Activities			
3					4			
Number of courses			Number of participants		Number of activities		Number of participants	
	Targets	Achievement	T	A	T	A	T	A
Farmers	46	46	1150	1690	-	244	-	11386
Rural youth	-	-	-	-	-	-	-	-
Extension Functionaries / Input Dealer	01	02	40	74	-	-	-	-
Total	**47**	**48**	**1190**	**1764**	**-**	**244**	**-**	**11386**

B. Abstract of interventions undertaken

No.	Thrust Area	Crop / Enterprise	Identified Problem	Interventions
1	Integrated Pest Management	Groundnut	White Grub	OFT Conducted-1 , Training , Campaign Diagnostic visit
2	Integrated Disease Management	Cumin	Wilt Problem	OFT Conducted – 1 , FLDs-10 , Training , Campaign Diagnostic visit
3	Improved variety of Groundnut	Groundnut	Low yield	FLDs-10 , Training , Campaign Diagnostic visit
4	Improved variety of Chickpea	Chickpea	Low yield	FLDs-10 , Training , Campaign Diagnostic visit
5	Improved variety of Sesame	Sesame	Low yield	FLDs-10 , Training , Campaign Diagnostic visit
6	Integrated Pest Management	Cotton	Pink ball warm problem	FLDs-10 , Training , Campaign Diagnostic visit

4. On Farm Trials (OFT)

A. Technology assessment and refinement in details of pest and disease management

Problem definition: Heavy infestation of white grub in groundnut affecting yield loss up to 12 to 20 percent according to area specific.

Technology assessed or refined (as the case may be):

Management of white grub in groundnut crop.

Very low white grub infestation in groundnut was observed during *kharif*-2020 and 2.9% plant infested in farmer practice without seed treatment of chlorphyriphos where as 1.5% and 1.38% plant infestation observed in seed treatment with chlorphyriphos and soil application of metarhizium respectively. 5.3% yield loss was recovered due to white drub infestation in the treatments T1 , T2 & T3.

Table : Effect of chlorphyriphos in control of white grub in groundnut

No.	Technology Option	No. of Trials	Incidence of infested plant(%)	Yield (kg/ha)	B:C
T1	Sowing of groundnut without seed treatment. Farmers adopt drenching of chlorphyriphos or quinalphos @ 6 lit/ha with irrigation at initiation of pest incidence. (farmers practice)	5	2.9%	2493	2.20
T2	Seed treatment with chlorpyriphos 20ec @ 25 ml/kg seed.(gau reco.)		1.5%	2627	2.33
T3	Soil application of *metarhizium anisoplii* @ 5 kg/ha with 300 kg/ha castor cake at the time of sowing.(jau reco.)		1.38%	2633	2.34

B. Technology assessment and refinement in details of pest and disease management

Problem definition: Heavy incidence of wilt disease in cumin effecting yield loss up to 5 to 25% and monetary loss of Rs.15000/- to 20000/- per ha.

Technology assessed or refined (as the case may be):

Use of Trichoderma for wilt disease management in cumin

Cumin is an important commercial spice crop of Northern Saurashtra. There is high incidence of wilt disease resulting in yield loss. KVKs Morbi conducted on farm trial to assessed technology of application of Trichoderma as per treatment, Disease intensity at 75 DAS reduced from 8.6%, 2.79% and 2.05% in treatment T_1, T_2 and T_3 respectively. Yield increased 11.3% and 14.4% in T_2 and T_3 than T_1 respectively.

Table : Effect of trichoderma for management of wilt in cumin

No.	Technology Option	No. of Trials	Wilt (%)		Yield (kg/ha)	B:C
			60 Day	75 Days		
T1	Sowing without use of Trichodarma. but they use fungicides viz., Carbendazim, Hexaconazole, Difenconazole, Tebuconazole, Propiiconazole, , etc after initiation of diseases. (Farmers practices.)	5	6.7%	8.6%	976	2.4
T2	Application of Trichoderma @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)		10%	2.79%	1087	2.65
T3	Application of Trichoderma @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).		1.7%	2.05%	1117	2.65

Effect of trichoderma for management of wilt in cumin
(Last three years average)

No.	Technology Option	No. of Trials	Wilt (%)	Yield (kg/ha)	B:C
T1	Sowing without use of Trichodarma. but they use fungicides viz., Carbendazim, Hexaconazole, Difenconazole, Tebuconazole, Propiiconazole, , etc after initiation of diseases. (Farmers practices.)	2017	11.2%	930	3.18
		2018	14.3%	1113	3.50
		2019	8.6%	976	2.4
T2	Application of Trichoderma @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)	2017	5.20%	1040	3.39
		2018	5.60%	1247	3.80
		2019	2.79%	1087	2.65
T3	Application of Trichoderma @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).	2017	3.40%	1100	3.42
		2018	3.70%	1300	3.87
		2019	2.05%	1117	2.65

The OFT trail was conducted for three years on cumin for management of wilt. The pooled results of three years revealed that, treatment T3 recovered 1172 kg/ha which was 16.5 and 4.1% higher seed yield than the treatments T1 and T2, respectively. The highest wilt disease infestation of 11.36% was observed in treatment T1 as compared to 4.53 and 3.05% in T2 and T3 respectively.

C. Preservation techniques of different pulses with organic method:

No. of Trial	Name of crop	Days (Period of preservation)	Treatments							
			T1 Use Of Dray Neem leaves		T2 Use Of Castor oil		T3 Airtight Plastic bag		T4 Without any treatment	
			S	D	S	D	S	D	S	D
10	Green gram	60 days	100%	-	100%	-	100%	-	100%	-
		90 days	100%	-	100%	-	100%	-	90%	10%
		180 days	100%	-	100%	-	100%	5%	80%	20%
	Chickpea	60 days	100%	-	100%	-	100%	-	100%	-
		90 days	100%	-	100%	-	100%	-	90%	10%
		180 days	100%	-	100%	-	100%	5%	80%	20%
*S=Secure , D = Demage										

Results:

1) T1 & T2 – No damage in pulses during entire test period of 60, 90 and 180 days.
2) T3 – Approx 5 % of damage in pulses at 180 days. The result causes by frequent opening of air tight plastic bag.
3) T4 – Approx 10% of damage in selected pulses at 90 days. However, approx 20% of damage at 180 days.

5. Frontline Demonstrations:

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

List of technologies demonstrated during previous year and popularized during *Kharif* 2020 & *Rabi* 2020-21 and recommended for large scale adoption in the district.

Sr. No	Crop/ Enterprise	Variety	Thematic Area*	Technology Demonstration	Horizontal spread of technology		
					No. of villa.	No. of farmer	Area in ha
1	2	3	4	5	6	7	8
1	Groundnut	GJG – 32	New Variety	New variety of Groundnut GJG22/GJG-32	3	10	4.0
2	Cotton	Bt. Cotton	IPM	Pink ball worm management through MDP	4	10	4.0
3	Sesame	GT - 5	New Variety	New variety of GT-5 Summer	3	10	4.0
4	Cumin	GC - 4	IDM	Management of wilt through trichoderma	6	10	4.0
5	Chickpea	GG - 5	New Variety	Popularized new variety GG-5	4	10	4.0
6	Pearl millet	GHB-538	New Variety	Popularization of new variety GHB-538	2	05	2.0

B. Details of FLDs implemented:

- **Oilseeds**

Sr. No.	Crop	Thematic area	Variety	Season and year	Area (ha)	No. of farmers/ Demonstration			Reasons for short-fall
						SC/ST	Others	Total	
1	Groundnut	New Variety	GJG - 32	*Kharif* - 2020	4.0	-	05	05	-
2	Sesame	New Variety	GT - 5	*Summer* - 2020	4.0	-	10	10	-

- **Cereals / Others**

Sr. No.	Crop	Thematic area	Variety	Season and year	Area (ha)	No. of farmers/ Demonstration			Reasons for short-fall
						SC/ST	Others	Total	
1	Cotton	IPM	Bt. Cotton	*Kharif* – 2020	4.0	01	09	10	-
2	Chickpea	New Variety	GG – 5	*Rabi*-2019	4.0	02	08	10	-
3	Pearl millet	New Variety	GHB-538	*Summer* - 2020	2.0	-	05	05	-

- **Commercial crops (Cumin & Wheat)**

Sr. No.	Crop	Thematic area	Variety	Season and year	Area (ha)	No. of farmers/ Demonstration			Reasons for short-fall
						SC/ST	Others	Total	
1	Cumin	IDM	GC - 4	*Rabi* - 2020	4.0	01	09	10	-

Performance of Frontline Demonstrations

(I) FLD on Oilseed Crops:

Crop	Thematic Area	Technology Demonstrated	Variety	No. of Farmer	Area (ha)	Yield (q/ha)				% Increased 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	Aver-age										
Groundnut	New Variety	Popularization of new variety GJG-32	GJG-32	10	4.0	37.77	28.51	33.45	26.46	26.95%	55400	172704	117304	3.11	53800	130362	76562	2.42
Sesame	New Variety	Popularization of new variety GT-5	GT - 5	10	4.0	13.40	11.30	11.09	9.75	13.7%	38600	81360	42760	2.10	38600	68250	29650	1.76

(II) FLD on other Crops

Crop	Thematic Area	Technology Demonstrated	No. of Farmer	Area (ha)	Yield (q/ha)				% Increased in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
					H	L	A										
Cotton	IPM	Management of pink ball warm through MDP	10	4.0	15.80	14.35	15.05	14.14	6.43%	47500	82775	35275	1.73	44600	77055	33170	1.72
Cumin	IDM	Management of wilt through trichoderma	10	4.0	12.80	10.70	11.49	10.25	10.79%	46150	132135	85985	2.86	44800	112750	67950	2.50
Chick-pea	New Variety	Popularization of new variety GJG-5	10	4.0	32.75	26.75	28.99	25.60	13.2%	37400	139152	101752	3.7	35800	122880	87080	2.4
Pearl millet	New Variety	Popularization of new variety GHB-538	5	2.0	36.30	31.20	33.86	34.62	-2.1%	35200	80492	45292	2.28	35400	75240	39840	2.12

C. Technical Feedbacks:

(I)Technical feedbacks on demonstrated technologies

No.	Crop	Variety / Technology	Feed Back
1.	Groundnut	IPM	Application of chlorphyriphos 25ml/kg as a seed treatment of groundnut seed reduce infestation of white grub(Very less white grub infestation).
2.	Groundnut	Varietal	GJG – 32 variety gives higher yield as compared to other bunch varieties during *kharif* season.
3.	Cotton	IPM	Integrated approach for management of pink boll worm i.e. MDP tube and two or three spray of Beauveria reduce incidence of pink boll worm.
4.	Cumin	IDM	Application of Trichoderma with castor cake reduce wilt in cumin and increase yield.
5.	Chickpea	Varietal	Less incidence of wilt in GG-5 variety of chickpea and higher yield as compared to other varieties.
6.	Sesame	Varietal	GT – 5 is bold and white seeded and higher yielder (*summer*).

(II) Farmer's Feedback:

No.	Feed Back
1.	Sucking pest particularly thrips problem in cotton, onion , chilly , garlic and cumin crops.
2.	Salinity problem in coastal area of Malia , Morbi and Halvad Taluka.
3.	Wilt problem in chickpea
4.	Research needs for control of Insect-Pest and disease in organic farming
5.	Value addition in pomegranate
6.	Pink ball warm problem in Bt. cotton
7.	Nematode problem in pomegranate.
8	Cracking of pomegranate fruit.
9	Soft root in onion (Seed production).

6. Farmers training programmes:

(I)Farmer's trainings including sponsored training programmes (on + off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
1) Crop Production										
Integrated farming	01	30	00	30	01	00	01	**31**	**00**	**31**
Integrated crop management	01	51	00	51	01	00	01	**52**	**00**	**52**
2) Horticulture										
a) Vegetable Crops										
Grading and standardization	03	32	66	98	01	02	03	**33**	**68**	**101**
B) Fruits	Nil									
C) Ornamental plants	Nil									
D) Plantation crops	Nil									
E) Tuber crops	Nil									
F) Spices	Nil									
G) Medicinal & aromatic plants	Nil									
3) Soil Health and Fertility Management										
Soil fertility management	01	78	00	78	02	00	02	**80**	**00**	**80**
Integrated nutrient management	01	19	00	19	00	00	00	**19**	**00**	**19**
Production and use of organic inputs	01	11	00	11	00	00	00	**11**	**00**	**11**
Soil and water testing	03	131	07	138	04	00	04	**135**	**07**	**142**
4)Livestock Production and Management	Nil									
5) Home Science/Women Empowerment										
Designing and development for high nutrient efficiency diet	03	00	68	68	00	12	12	**00**	**80**	**80**
Storage loss minimization techniques	01	00	00	00	00	10	10	**00**	**10**	**10**
Value addition	03	00	72	72	00	07	07	**10**	**79**	**79**
Women empowerment	05	05	67	72	27	26	53	**32**	**93**	**125**
Rural crafts	02	15	53	68	00	02	02	**15**	**55**	**70**
Women and child care	03	24	58	82	08	31	39	**32**	**89**	**121**
6) Agril. Engineering	Nil									
7) Plant Protection										
Integrated pest management	08	349	04	353	06	00	06	**355**	**04**	**359**
Integrated disease management	06	253	04	257	04	00	04	**257**	**04**	**261**
Bio-control of pests and diseases	02	104	00	104	02	00	02	**106**	**00**	**106**
8) Fisheries	Nil									

9) Production of Inputs at site	Nil									
10)Capacity Building and Group Dynamics	Nil									
11) Agro-forestry	Nil									
12) Any Other										
Irrigation management in *rabi* crop	01	26	00	26	01	00	01	**27**	**00**	**27**
Others (pl specify)	01	16	00	16	00	00	00	**16**	**00**	**16**
Grand Total	**46**	**1144**	**399**	**1543**	**57**	**90**	**147**	**1211**	**489**	**1690**

(II)Training programmes for extension personnel including sponsored training – consolidated (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
Integrated pest management	01	42	00	42	03	00	03	**45**	**00**	**45**
Integrated nutrient management	01	25	02	27	02	00	02	**27**	**02**	**29**
TOTAL	**02**	**67**	**02**	**69**	**05**	**00**	**05**	**72**	**02**	**74**

7. Extension Activities:

Activities	No. of Programmes	No. of Farmers	No. of Extension Personnel	TOTAL
Advisory services	1	5	1	**6**
Diagnostic visits	3	12	4	**16**
Field day	2	33	4	**37**
Farmer shibir/group discussion	2	551	13	**564**
Kisan ghosthi	20	207	26	**233**
Film show	3	99	9	**108**
Self –help groups	0	0	0	**0**
Kisan mela	0	0	0	**0**
Exhibition	0	0	0	**0**
Scientists' visit to farmers field	5	28	12	**40**
Plant/animal health camps	0	0	0	**0**
Farm science club	0	0	0	**0**
Ex-trainees sammelan	0	0	0	**0**
Farmers' seminar / workshop	4	318	29	**347**
Farmers visit to kvk	6	781	65	**846**
Phone advisory	10	2136	161	**2297**
Farmer's meeting	2	13	3	**16**

Distribution of extension literature	5	568	54	**622**
Lectures delivered	18	820	31	**851**
Field diagnosis	5	21	9	**30**
Celebration of technology week	0	0	0	**0**
No. of soil & water sample tested	8	8	0	**8**
Method demonstrations	0	0	0	**0**
International yoga day	1	4	1	**5**
World soil day	1	49	3	**52**
Kisan day	1	33	2	**35**
Mahila krishi day	1	17	2	**19**
Constitution day	1	7	1	**8**
National nutrition month	1	613	41	**654**
Swatchata pakhavadiyu	1	204	20	**224**
Parthenium day	1	4	1	**5**
Exposure visits	0	0	0	**0**
Others (pl. Specify)	44	4155	208	**4363**
Total	**146**	**10686**	**700**	**11386**

A. Details of other extension programmes:

Particulars	Number
Electronic media (CD/DVD)	-
Extension literature publish	-
News paper coverage	54
Popular articles	44
Radio talks	-
TV talks	-
Animal health camps (number of animals treated)	-
Others (pl. Specify)	-
Total	**98**

B. Message advisory service:

Name of KVK	Message Type	Type of Messages						
		Crop	Live-stock	Weather	Marketing	Awareness	Other enterprise	Total
Morbi	Text only	5	-	-	-	-	-	**5**
	Voice only	-	-	-	-	-	-	**-**
	Voice & Text both	-	-	-	-	-	-	**-**
	Total Messages	**5**	**-**	**-**	**-**	**-**	**-**	**5**
	Total Farmers Benefitted	**44905**	**-**	**-**	**-**	**-**	**-**	**44905**

8. Production of seed/planting materials, sales of bio-products and publications

A. Seeds production:

No.	Crop	Variety	Area(Ha.)		Quantity(kg)	Provided to No. of farmers
1	Chickpea (Labeled)	GG - 5	1.15	A Grade	1469	30
				B Grade	27	-
2	Groundnut (Labeled)	GJG - 22	-	A Grade	376	-
				B Grade	163	-
3	Cumin (Labeled)	GC - 4	1.55	A Grade	702	22
				B Grade	112	-
4	Black gram (Labeled)	GU - 2	1.40	A Grade	677	-
				B Grade	27	-
5	Sesame (Breeder)	GT - 2	0.8	A Grade	102	-
				B Grade	07	-
6	Sesame (Labeled)	GT - 2	0.6	A Grade	38	-
				B Grade	03	-
Total					**3164**	**52**

B. Sale of bio-products by the KVKs:

Name of the Bio-product	Quantity	Value (Rs.)	No. of farmers
	Kg/Lit		
Trichoderma (Gir Savaj)	212 kg	14840/-	25

C. Publications:

Category	Number
Research paper	4
Technical bulletins	-
Technical reports	6
Others (Book)	2

9. Success Story:

(A) New Crop : Dragon Fruit

- Name :- Satishbhai Ranjibhai Ghodasara
- Village :- Sajjanpar
- Age :- 32 years
- Mobile No. :- 9979027790
- Education :- Graduate
- Total land :- 2 ha.
- Land under Dragon fruit cultivation :- 0.32 ha.

Satishbhai is a progressive young farmer of sajjanpar village. He is cultivating groundnut and cotton crops for long period. But he is interested to know innovatives from news papers, whats app, television, krishi darshan and krishi mahotsav and Satishbhai has decided to planting of dragon fruit in area of 0.32 hector out of his total 2 hector land. For plantation of dragon fruit, he has purchased cement polls from Kutch and planting materials of dragon fruit variety “Alish red” from Bangalore and planted during 2017-18. The harvesting of dragon fruit was started during the year 2019 but they received profitable fruit yield during 2020.

Satishbhai has harvested 1.5 kg fruits per poll in first year. Total 447 polls of dragon fruits in 0.32 hector planted and he has harvested total 670 kg fruits during first year of harvest and he got 200 Rs/kg price at on his farm and he has not necessity to go for marketing. From successively cultivation of dragon fruit, they have prepared seedling by self and planted in 0.32 ha. for area expansion during the year 2019-20. Thus, they succeed for cultivation of new crop as dragon fruit in this area. From successively dragon fruit cultivation by Satishbhai, two to three farmers of neighbouring villages have also planted dragon fruit as a new crop.

(B) Organic Farming of Turmeric

- Name :- Ami Ahmed Kadivar
- Village :- Pipaliyaraj
- Age :- 32 years
- Mobile No. :- 9725622575
- Education :- Draft man (Civil)
- Total land :- 3.5 ha.
- Area of Turmeric :- 0.32 ha.

Amibhai is a farmer of Pipaliyaraj village. He is cultivating cotton and groundnut, but due to continuous farming of these crops, he has not get profitable income. Therefore he has surveyed different region and decided to introduce new crop *i.e.* turmeric instead of cultivation of cotton and groundnut crops and he cultivate organic turmeric by drip irrigation for last three years in which he is not using chemical fertilizers and insecticides. In this crop, he using organic fertilizer and jivamrut and getting good production of turmeric Amibhai himself drying the turmeric produced from his own farm and making turmeric power and selling all produced turmeric powder at his home instead of selling green or dry turmeric and thus he got higher remuneration and good profit per hector under low expenditure for turmeric sowing by value addition. He has prepared special seed drill for turmeric.

Looking to the successivity of profitable turmeric cultivation by Ami Ahmedbhai, other farmers of neighbouring 8 to 10 villages have started cultivation of turmeric. Thus Amibhai adopted three concepts *viz.,* new crop, organic farming and value addition. During the year 2020 he has sown 4.5 ha. of turmeric at three places *viz.*, his own farm , Kutch and Palitana in different regions of Gujarat state.

(C)Income through tailoring work from home during COVID-19 pandemic

Name	(1) Kantaben Bhankhodiya (2) Gangaben Bhankhodiya
Date of Birth	(1) 10th January 1948 (2) 24th January 1977
Village	Laxminagar
Yearly Income	Parul Chamunda Sakhi Mandal

Kantaben and Gangaben is running small scale business through Parul Chamunda Sakhi Mandal. In the context of this business, they used to produce different handicraft items like swings made from rope, variety of items made from wool, paper boxes, variety of items of embroidery, cushion covers, mobile covers, letter boxes, decorative items, napkin stands etc. The annual income of endeavor is approximately Rs. 80,000/-.

During this year due to the COVID-19 pandemic many businesses impacted due to broken chain of the customer and this endeavor also impacted accordingly. However, this Sakhi Mandal decided to do tailoring work through sewing machines as per the need of society rather than being hopeless in pandemic. With this approach, even during the pandemic, they managed to earn Rs.7500/- as monthly income by majorly sewing masks. This year also they have their yearly income around Rs.90,000/- which help them to support their family needs through this supplementary income.

10. Budget - Details of Budget Utilization

No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	55,00,000/-	36,30,000/-	50,38,066/-
2	**Traveling Allowances**	1,00,000/-	-	10,242/-
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	6,00,000/-	3,40,000/-	3,40,801/-
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	8,00,000/-	5,00,000/-	5,05,560/-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
A. TOTAL		**70,00,000/-**	**44,70,000/-**	**58,94,669/-**
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Equipments Including SWTL & Furniture**	-	-	-
3	**Vehicle** (Four wheeler / ~~Two wheeler~~, please specify)	-	-	-
4	**Library** (Purchase of assets like books & journals)	-	-	-
B. TOTAL		**-**	**-**	**-**
C. REVOLVING FUND		**7,35,036/-**	**2,20,000/-**	**3,20,546/-**
GRAND TOTAL (A+B+C)		**77,35,036/-**	**46,90,000/-**	**62,15,215/-**