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-mail0

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Senior Scientist and Head Krishi Vigyan Kendra, Junagadh Agricultural University, Keriya Road, Model farm, Amreli (Gujarat)-365601	02792 227122	02792 227122	kvkamreli@gmail.com	-----

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, Agril. Campus, Motibaugh, Junagadh-362001 (Gujarat)	0285 2672080-90	0285 2672004 2672653	-----	www.jau.in

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. N. S. Joshi Ph. D. (Horticulture)	02792 227122	9428191 963	nileshjoshi2207@gmail.com

1.4. Year of sanction: Deputy Secretary, ICAR, New Delhi, Letter No. 13-16/2003/1, Dt. 7.12.2004

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

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay	Date of joining	
1	Senior Scientist and Head	Dr. N. S. Joshi	Horticulture	37400-67000	9000	24/03/2015	-
2	Subject Matter Specialist	Er. P. S. Jayswal	Agriculture Engineering	15600-39100	6000	10/09/2012	-
3	Subject Matter Specialist	Dr. Neha Tiwari	Home Science	15600-39100	6000	01/04/2013	-
4	Subject Matter Specialist	Mr. N. M. Kachhadia	Plant Protection	15600-39100	6000	31/03/2015	-
5	Subject Matter Specialist	Mr. P. J. Prajapati	Crop Production	15600-39100	6000	31/03/2015	-
6	Subject Matter Specialist	Mr. V. S. Parmer	Agriculture Extension	15600-39100	6000	12/05/2016	-
7	Subject Matter Specialist	Vacant	Animal Science	-----	-----	-----	-
8	Programme Assistant/ Agricultural Officer	Ms. K. K Gadhiya	Plant pathology	09300-34800	-----	30/07/2018	-
9	Computer Programmer	Mr. S .N. Joshi	-----	39900-126600	-----	01/07/2010	-
10	Farm Manager	Mr. S. G Baria	Agriculture	09300-34800	-----	30/07/2018	-
11	Accountant/ Superintendent	Mr. H. J. Ravaliya	-----	39900-126600	-----	01/12/2011	-
12	Stenographer	Mr. A. H. Parmar	-----	28376	-----	18/11/2013	-
13	Driver 1	Out sourcing	-----	-----	-----	-----	Out sourcing
14	Driver 2	Out sourcing	-----	-----	-----	-----	Out sourcing
15	Supporting staff 1	Out sourcing	-----	------	-----	-----	Out sourcing
16	Supporting staff 2	Vacant	-----	-----	-----	-----	-

1.6. Total land with KVK (in ha): 17.75 ha

S. No.	Item	Area (ha)
1	Under Buildings	3.0
2.	Under Demonstration Units	1.0
3.	Under Crops	13.00
4.	Horticulture	0.50
5.	Pond	0.25
6.	Others if any	-

1.7. Infrastructural Development:

A) Buildings

Sr. No.	Name of building	Source of funding	Stage			
			Complete			In-complete
			Completion Year	Plinth area (Sq. m)	Expenditure (Rs.)	
1.	Administrative Building	ICAR	2008	500	3190000	-
2.	Farmers Hostel	ICAR	2008	305	2088000	
3.	Staff Quarters (6)	ICAR	2008	400	3204000	
4.	Farm Wall	ICAR	2008	-	-	
5.	RWH system	ICAR	2008	-	960000	
6.	Threshing yard	ICAR	2009	-	-	
7.	Godown and processing shed	RKVY	2009	70.62	500000	
8.	Poly House	RKVY	2010	320	281600	
9.	Net House	RKVY	2010	150	64450	
10.	Training hall	RKVY	2010	190.99	1396300	
11.	Pilot scale Process plant	RKVY	2010	197.31	1536400	
12.	Implement shed	RKVY	2010	77.33	286300	
13.	Farm Wall	ICAR	2016	-	497475	
14.	Goat Shed	ICAR	2016	14.05	69760	
15.	Vermicompost unit	ICAR	2016	45	73640	
16.	Administrative building (Renovation)	ICAR	2017	-	300000	
17.	Farm Wall	ICAR	2017	-	282554	

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
M&M, Bolero XL	2006	4,86,500	301190	Condition is not good
Tractor	2005	3,80,000	---	
Motor Cycle	2010	42,831	17805	Working condition
Power Tiller with implements	2011	1,42,000	---	
Mini Tractor with implements	2014	3,74,820	---	
M&M, Bolero XL	2020	7,81,025	14243	

C) Equipments & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Digital camera	2008-09	11070	Working condition
Air assisted blast type sprayer	2008-09	98750	Working condition
Vacuum cleaner, RO, water cooler	2008-09	41780	Working condition
Samsung A/C, Nos.-2	2008-09	47300	Working condition
Fax machine	2008-09	17500	Working condition
LCD projector	2008-09	98799	Working condition
Winnowing fan	2008-09	8500	Working condition
Chaff cutter	2008-09	30188	Working condition
Plasma TV, Nos.-2 (21 and 52")	2008-09	139952	Working condition
Cotton stock shredder-Nos.-3	2008-09	363000	Working condition
Spiral binding machine	2008-09	9090	Working condition
Rotavator with cultivator, Nos.-2	2008-09	180000	Working condition
Inverter	2008-09	19800	Working condition
Manually operated seed dressing drum	2008-09	20930	Working condition
Exhibition display	2008-09	39974	Working condition
Decorticator groundnut machine	2008-09	98850	Working condition
Cotton shredder, Nos.-2	2008-09	242000	Working condition
Battery operated sprayer	2008-09	4940	Working condition
Aspee knapsack sprayer	2008-09	7400	Working condition
Bullock drawn pipe farm seed drill	2008-09	161000	Working condition
Zero till drill	2008-09	66725	Working condition
Bullock drawn clod breaker	2008-09	52000	Working condition
Tractor operated groundnut digger	2008-09	235500	Working condition
Multipurpose thresher (engine operated)	2008-09	114000	Working condition
Mobile seed processing unit	2008-09	1685000	Working condition
Electronic balance	2008-09	19425	Working condition
Power generated	2008-09	49500	Working condition
RO system	2008-09	24450	Working condition
Air condition Nos.-2	2008-09	51580	Working condition
Air condition, Nos.-3	2008-09	89970	Working condition
Photo copier	2008-09	124000	Working condition
LCD and accessories	2008-09	103912	Working condition

Oven and freeze	2008-09	30605	Working condition
Tractor drawn harrow cum cultivator	2008-09	75000	Working condition
Planter	2008-09	44000	Working condition
Rotavator	2008-09	96000	Working condition
Laptop	2008-09	47500	Working condition
Pipe frame blade harrow piece	2008-09	11000	Working condition
Solar equipments	2008-09	81830	Working condition
Gas connection for lab.	2009-10	9700	Working condition
Digital Sony Camera	2009-10	24750	Working condition
Post Whole Digger	2009-10	38000	Working condition
Motor, 1 Hp	2009-10	8650	Working condition
Power Generator	2009-10	45576	Working condition
Multi Crop thresher	2010-11	38000	Working condition
BOD incubator	2010-11	75863	Working condition
Compound light microscope	2010-11	90851	Working condition
Motor 7.5 Hp	2010-11	28600	Working condition
Motor 5 Hp	2010-11	17000	Working condition
Desktop Computer	2010-11	34810	Working condition
Hot air Oven	2010-11	15215	Working condition
Hot plate	2010-11	4725	Working condition
Physical Balance	2010-11	3623	Working condition
Refrigerator	2010-11	19200	Working condition
PH meter	2010-11	3990	Working condition
Conductivity bridge	2010-11	9450	Working condition
Chemical Balance	2010-11	45066	Working condition
Shaker-2 no.	2010-11	49000	Working condition
Flame Photometer	2010-11	44887	Working condition
Spectrophotometer	2010-11	39480	Working condition
Water Distillation Still	2010-11	157500	Working condition
Seed Drill	2010-11	27500	Working condition
Winnower	2010-11	37000	Working condition
Disc Plow	2012-13	30400	Working condition
Disc Harrow	2012-13	37500	Working condition
Nine tine Cultivator	2012-13	19600	Working condition

PC with Accessories (2 No.)	2013-14	65970	Working condition
Printer (2 No.)	2013-14	13898	Working condition
Scanner	2013-14	4309	Working condition
PC with Accessories (2 No.)	2015-16	77590	Working condition
Printer	2015-16	11900	Working condition
Rotavator (NICRA)	2015-16	70000	Working condition
Mobile shredder(NICRA)	2015-16	146000	Working condition
Chaff cutter(NICRA)	2015-16	57000	Working condition
Multi crop thresher(NICRA)	2015-16	155000	Working condition
Rear mounted reaper (NICRA)	2015-16	95000	Working condition
Digital Camera	2016-17	14400	Working condition
Desktop Computer	2016-17	34115	Working condition
Printer	2016-17	12546	Working condition
Automatic seed cum fertilizer drill(NICRA)	2016-17	66412	Working condition
Dibbler (03 nos.)	2016-17	6000	Working condition
Seed dressing drum (5 nos.) (NICRA)	2016-17	15000	Working condition
Rotavator (NICRA)	2016-17	89040	Working condition
Bund former (NICRA)	2016-17	13650	Working condition
Air conditioner (02 nos.)	2016-17	79980	Working condition
Desktop Computer	2016-17	34115	Working condition
Photo copier	2016-17	144391	Working condition
Integrated community computer	2016-17	110644	Working condition
Multi crop thresher	2017-18	187040	Working condition
Computer with UPS	2017-18	42889	Working condition
Computer with UPS (2 Nos.)	2018-19	88400	Working condition
Printer	2018-19	11416	Working condition

1.8. Details of SAC meetings conducted in the year 2020

Sr. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1	11/02/2020	Dr. B. K. Sagarka Director of Extension Education, Junagadh Agricultural University, Junagadh	To arrange demonstrations on MDT in cotton crop.	Suggestion accepted and total 10 demonstrations on MDT in cotton were done in area of 2.5 ha.
			To arrange demonstrations on Bio-pesticides.	Suggestion accepted and 40 demonstrations on bio-pesticides arranged in cotton & groundnut in area of 10 ha.
			To arrange training on IFS.	Suggestion accepted and 3 trainings dated 5/12/2020, 8/12/2020, 19/12/2020 was conducted for 76 farmers participants
			To arrange soil testing of farmers' INM FLD.	Suggestion accepted and INM based 20 FLDs given to farmers who have soil health card
			To arrange training on Prakrutik kheti.	Suggestion accepted and 3 trainings dated 18/06/2020 (online), 14/12/2020, and 19/12/2020 was conducted and 85 farmers participated
2	11/02/2020	Dr. H. C. Chhodvadia, Associate Extension Educationist, JAU, Junagadh	To arrange training on Market intelligence.	Suggestion accepted and training programme in Bordi village for 51 participants dated 19/12/2020 was organized
			To arrange vocational training on Bakery	Suggestion accepted and two days vocational training programme on bakery for 56 participants was arranged on 15/12/2020 and 17/12/2020
3	11/02/2020	Dr. B. V. Radadiya, Associate Research Scientist, ARS, JAU, Amreli	To add disease and pest infestation observation in high density planting of cotton crop OFT	Suggestion accepted and taken observation of sucking pest and pink bollworm
4	11/02/2020	Dr. M. L. Patel, Assistant Research Scientist, MDFRS, JAU, Targhadia	To increase numbers of Field days.	Suggestion accepted and number of Field day in a current year was 28.

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	Dry Farming
2	Rainfed : Cotton, Groundnut, Sesame, Black gram, Green gram, Mango, Onion
3	Agriculture – Horticulture (Mango)
4	Agriculture – Dairy
5	Agriculture – Fisheries
6	Cotton based cropping system
7	Groundnut based cropping system
8	Sesame based cropping system
9	Enterprise: Poultry, Fishery, Dairy, Sericulture, Vermicompost

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

a) Soil type

Agro-climatic Zone	Characteristics
North Saurashtra Agro climatic Zone VI	Medium black soil, coastal alluvial soil, rocky soil and alkaline soil
	The climate of the district varies from moderately hot throughout the year except in winter. The climate is humid along with the coastal belt. The temperature varies from 8.01° C in January to 43.7° C in May. The average rainfall of last three years is 706 mm.

b)Topography

S. No.	Agro ecological situation	Characteristics
1	Medium black soil with 400-700 mm rainfall	-
2	Shallow black soils with 600-700 mm rainfall	-
3	Saline - alkali (Heavy texture) soils with 500-600 mm rainfall	Saline groundwater
4	Hilly soils with 300-600 mm rainfall	Well drained soils
5	Coastal alluvial soil with medium rainfall 750-1000 mm.	Saline groundwater

2.3 Soil Types

S. No	Soil type	Characteristics
1	Medium black	Major portion of the district is covered by the medium black soil, which is considered very productive. It is rich in lime, magnesia and alumina but poor in phosphorus, nitrogen and organic matters. It can retain considerable moisture and is much suitable for agriculture.
2	Coastal alluvial	The coastal alluvial soil is found on the coastal areas of Jafrabad and Rajula. Among the whole of the coastal areas, the land is sandy. However, the soils in Rajula and Jafrabad are less productive as they are saline. The soils in the northern part of the district including Babra and parts of Kunkavav Vadia and Dhari talukas are shallow and rocky. Certain areas in Amreli taluka known as Kharapat are poor in cultivation; but this taluka possesses the best land along the north and the south banks of the Shetrunji.
3	Rocky soils	The soil of Dhari taluka is lighter and near the Gir forest redder. The soil on the southern part of the district is light in colour with only few fertile gradients, and in many places, it is rocky and barren.

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2015-16)

S. No	Crop	Area (ha)	Production (MT)	Productivity (Q/ha)
1	Green gram	2702	1372	5.07
2	Tur	742	912	12.28
3	Wheat	7311	22734	31.09
4	Gram	1736	2394	13.79
5	Groundnut	101505	219818	21.65
6	Sesamum	7390	3519	4.76
7	Castor	1283	2235	17.42
8	Irrigated Cotton (Lint)	253961	811755 (bales)	543.38 (lint)
9	UnIrrigated Cotton (Lint)	124796	248417 (bales)	338.40 (lint)
10	Cumin	1234	436	3.53
11	Onion	4328	128928	297.89

12	Garlic	1277	5261	41.19
13	Bajra	2706	6399	23.64
14	Udad	1720	1028	5.97
15	Math	130	62	4.76
16	Soyabean	357	275	7.69
17	Sugarcan	57	3928	689.12

Source: District wise Area, Production and Yield of Important Food & Non-food crops in Gujarat State Year: 2014-15 & 2015-16 https://dag.gujarat.gov.in/

Area and Production Horticultural crops cultivated in the district (Year 2016-17)

S. No.	Crop	Area (ha)	Production (M.T.)	S. No.	Crop	Area (ha)	Production (M.T.)
1	Mango	6996	60108	16	Tomato	1026	23598
2	Chiku	516	4118	17	Cauliflower	166	1909
3	Citrus	726	7896	18	Cluster bean	344	2752
4	Ber	172	1344	19	Cow Pea	376	4182
5	Banana	200	7070	20	Cucurbits	1166	11660
6	Guavava	279	2372	21	Cumin	1407	1027
7	Pomegranate	109	523	22	Chilli-Dry	227	503
8	Papaya	49	1916	23	Garlic	799	5785
9	Custard Apple	35	298	24	Coriander	786	1163
10	Aonla	36	373	25	Ginger	03	53
11	Coconut	150	1241	26	Turmeric	8	136
12	Onion	3175	79375	27	Fenugreek	75	125
13	Brinjal	633	11394	28	Ajwain	346	311
14	Cabbage	556	11231	29	Rose	24	170
15	Okra	486	4238	30	Marigold	06	43

Director of Horticulture, Estimate of the horticulture crops, Year 2017-18

2.5. Weather data (2020)

Month	Rainfall (mm)	Temperature (°C)		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	0.0	26.7	11.4	76.6	33.8
February	0.0	32.6	14.9	59.1	23.3
March	0.0	34.7	17.9	70.8	23.0
April	0.0	40.5	24.4	62.8	19.1
May	0.0	41.6	26.5	72.9	21.7

June	183.2	35.3	25.5	87.9	59.9
July	166.0	33.3	25.8	89.8	70.5
August	521.7	30.6	24.9	91.8	80.4
September	123.5	33.3	24.7	91.1	61.1
October	1.8	35.6	23.6	77.7	37.3
November	0	32.6	16.7	63.0	26.0
December	0	29.5	14.3	70.1	32.9
Total	**996.2**				

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

Category	Population	Production '000Tones	Productivity
Cattle			
Crossbred	3400	9.22	8.659 kg/day
Indigenous	121300	148.43	4.747 kg/day
Buffalo	146200	199.79	5.229 kg/day
Sheep	130800	168.74 MT	1.472 kg/sheep
Goats	163500	11.33	0.468 kg/day
Poultry			
Hens	00	00	00
Desi	8200	4.99 lakh	113.95/season/year/layer
Category		Production (Q.)	Productivity
Fish (Reservoir)	---	---	---

2.7. Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Lathi	Amreli	Kerala (Jogani)	Cotton, Groundnut, Cumin, wheat	• Lack of irrigation facility • Poor quality of irrigation water • Wild animal problem • Poor fertility status of Land • Low yield of major crops	INM, IPM, Conserve moisture Agriculture, Training on MIS
Lathi	Amreli	Harsupur Devaliya	Cotton, Groundnut, Green gram, wheat	• Lack of irrigation facility • Poor quality of irrigation water • Wild animal problem • Low yield of major crops	INM, IPM, Conserve Moisture agriculture
Liliya	Amreli	Saladi	Cotton, Green gram	• Saline land and poor quality of irrigation water • Poor fertility status of Land	Conserve Moisture agriculture, OFT in cotton on BBF, Training on MIS

Liliya	Amreli	Jatruda	Cotton, Groundnut	• Saline land and poor quality of irrigation water • Poor fertility status of Land • Low yield of major crops	INM, IPM, Conserve Moisture agriculture
Babra	Amreli	Vandaliya	Cotton, Groundnut, Cumin, Wheat	• Low yield of major crops • Wild animal problem • Lack of irrigation facility	ICM, introduction of new varieties, Scientific cropping
Kukavav	Amreli	Lunidhaar	Cotton, Groundnut, Green gram, black gram	• Low yield of major crops • Wild animal problem • Lack of irrigation facility	ICM, introduction of new varieties, Scientific cropping
Bagasra	Amreli	Haalariya	Groundnut, cotton, Green gram, black gram	• Low yield of major crops • Wild animal problem • Lack of irrigation facility	ICM, introduction of new varieties, Scientific cropping
Dhari	Amreli	Ditla	Cotton, Groundnut, Mango	• Low yield of major crops • Wild animal problem	ICM, introduction of new varieties, Scientific cropping
Amreli	Amreli	Babapur	Cotton, Castor, Wheat	• Low yield of major crops • Wild animal problem • Poor quality of irrigation water	ICM, introduction of new varieties, Scientific cropping
Amreli	Amreli	Shedubhar	Cotton, Groundnut, Green gram, black gram	• Low yield of major crops • Wild animal problem • Poor quality of irrigation water	ICM, introduction of new varieties, Scientific cropping
Amreli	Amreli	Vaankiya	Cotton, Groundnut, pigeon pea	• Low yield of major crops • Wild animal problem • Poor quality of irrigation water	ICM, introduction of new varieties, Scientific cropping
Kham-bha	Amreli	Lakha-padar	Cotton, Groundnut, wheat, Pigeon pea	• Low yield of major crops • Wild animal problem	ICM, introduction of new varieties, Scientific cropping
Savar-kundla	Amreli	Nesdi	Cotton, Groundnut, wheat, Pigeon pea, lemon	• Low yield of major crops • Wild animal problem	ICM, introduction of new varieties, Scientific cropping
Savar-kundla	Amreli	Oliya	Cotton, Groundnut, wheat, Pigeon pea, lemon	• Low yield of major crops • Wild animal problem	ICM, introduction of new varieties, Scientific cropping
Rajula	Amreli	Maan-dardi	Cotton, Groundnut, wheat, Pigeon pea	• Low yield of major crops • Wild animal problem	ICM, introduction of new varieties, Scientific cropping

2.8. Priority thrust areas:

Sr. No.	Crop/Enterprise	Thrust area
1.	Cotton, Groundnut, Castor, Cumin, Wheat, vegetables, fruits, etc.	Integrated Crop Management in major crops
2.	Farm waste	Recycling of farm waste through composting, vermi-compost, green manuring, etc.
3.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
4.	Soil	Reclamation of saline & alkaline soils
5.	Farm Women	Farm women empowerment by training in value addition, handicrafts, and small scale enterprises
6.	Horticulture	Promotion of arid horticulture fruit crops
7.	Improved Implements	Popularization of the mechanized technological know how

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 (Crops/Component)		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
05	05	18	18	29 **(FLDs under KVK, ATIC, NICRA, NFSM, NMOOP, PKVY)**	29	530	530

Trainings (Including sponsored, vocational etc.)					Extension Activities			
3					4			
Number of Courses			Number of participants		Number of Activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	53	55	1595	1732	378	417	10072	11014
Rural youth	2	2	90	66				
Ext. Functionaries	1	1	40	24				
Other Scheme Trainings (ATIC, NICRA, NFSM, NMOOP)	NICRA **-03** ATIC-**11** NMOOP-**03** NFSM-**05**	NICRA - **03** ATIC-**11** NMOOP-**03** NFSM-**05**	NICRA - **92** ATIC- **342** NMOOP- **72** NFSM- **178**	NICRA - **92** ATIC- **342** NMOOP- **72** NFSM- **178**	NICRA **-30** ATIC -**10** NMOOP-**9** NFSM-**14**	NICRA **-38** ATIC -**14** NMOOP-**9** NFSM-**18**	NICRA -**1000** ATIC -**70** NMOOP-**268** NFSM-**100**	NICRA-**1205** ATIC -**110** NMOOP-**268** NFSM-**157**

Seed Production (Qt.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	142.56	2000	9270

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.	Groundnut, Cotton, Sesamum, Wheat, Cumin, Chickpea, Garlic, Onion, Mango, lemon Enterprises are dairy business, vermi composting,	Heavy infestation of sucking pest in cotton, Sesame leaf blight, Stem rot disease in Groundnut, Mango Malformation, Less area under Horticultural crops	Every village of this district is facing problem.	Kerala(Jogani)	• IPM and INM in major crops of this area, • Motivate the farmers for arid Horticultural crops. • To create the awareness for grading, processing and marketing (value addition) • Various OFT, FLD, trainings, extension activities were carried out.
2.				Harsupur Devaliya	
3.				Saladi	
4.				Jatruda	
5.				Vandaliya	
6.				Lunidhaar	
7.				Halariya	
8.				Ditla	
9.				Babapur	
10.				Shedubhar	
11.				Vankiya	
12.				Lakhapadar	
13.				Nesdi	
14.				Oliya	
15.				Mandardi	

* 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	Commercial Crops	TOTAL
Integrated Nutrient Management	1			1
Varietal Evaluation				
Integrated Pest Management		2		2
Integrated Crop Management			1	1
Integrated Disease Management				
Small Scale Income Generation Enterprises				
Weed Management				
Resource Conservation echnology			1	1
Farm Machineries				
Integrated Farming System				
Seed / Plant production				
Value addition				
Drudgery Reduction				
Storage Technique				
Mushroom cultivation				
Total	**1**	**2**	**2**	**5**

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

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers	Area in ha (Per trial covering all the Technological Options)
Integrated Nutrient Management	Wheat	Effect of zinc on growth and yield of wheat	5	5	1.0
Integrated Pest Management	Groundnut	Management of white grub in Groundnut	3	3	0.6
	Sesame	Management of leaf Webber in Sesame	3	3	0.6
Integrated Crop Management	Cotton	High Density Planting in Cotton	3	3	0.4
Resource Conservation Technology	Watermelon	Effect of plastic mulch on yield of watermelon.	3	3	0.6
Total			**22**	**22**	**3.2**

B.2. Technologies assessed under Livestock and other enterprises: NIL

C1.Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Wheat	Irrigated	Farmers do not use Zinc	Effect of zinc on growth and yield of wheat	5	Farmers' practices: Use only DAP and Urea in various dose (Farmers Practices)	Yield (q/ha)	44.0	Intervention of zinc with RDF increases yield	Application of zinc with RDF increased yield	-	-
					Recommended Practice:120-60-60 NPK kg/ha (Recommended Practices)		47.4				
					Intervention: 120-60-60 NPK kg/ha+$ZnSO_4$ @ 20 kg/ha as basal dose and foliar spray of $ZnSO_4$ @ 0.5% at heading and milking stage (Intervention)		51.1				
Cotton	Rainfed	Farmers do not adopt closer planting, there for get low cotton	High Density Planting in Cotton	2	Farmers' practices:120 X 45-60 cm (18519-13888 plants/ha)	Yield (q/ha)	17.11	As compare to treatments T1 and T2 production of cotton higher in treatmen	Increases production due to number of plants per area is more than treatment T1	-	-
						Sucking	Above ETL				
						Pink bollworm (%)	42				
					Recommended Practice : 90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (bt))	Yield (q/ha)	23.50				
						Sucking	Above ETL				

		yield due to less soil moisture and incidence of pest and disease.				Pink bollworm (%)	39	t T3			
					Intervention: T2 + De-topping at 75 DAS (Var. GTHH-49 (bt))	Yield (q/ha)	25.3				
						Sucking	Above ETL				
						Pink bollworm (%)	35				
Sesame	Rainfed	Injudicious use of pesticides	Management of leaf Webber in Sesame	3	T1: Farmers' practices: High dose and Use of conventional Chemical pesticides (Farmers Practices- Monocrotophos 50 ml, fenvalrate 20 to 25 ml and cypermathrin 20 to 25 ml/ 15 lit. of water)	Yield (q/ha)	2.9	As compare to T1 treatment production of sesamum higher in treatment T2	Increase in production in treatment T2 because of judicious use of recommonded dose of pesticideas compare to treatment T1	-	-
						No. of Larva per Plant /1mt. row length before spray	2.70				
						No. of Larva per Plant /1mt. row length after spray	1.68				
					T2 Spray of *Beuveria*	Yield (q/ha)	3.3				

					bassiana 75gm /10 lit + emamectin benzoate 5 SG 0.0035% (4g/10 lit. water) and 2nd spray at 15 days after 1st spray)	No. of Larva per Plant /1mt. row length before spray	2.1				
						No. of Larva per Plant /1mt. row length after spray	0.45				
Ground nut	Rainfed	No seed treatment & Soil application of bio pesticides	Management of white grub in Ground nut	3	T1: Farmers' practices: No Seed treatment and application of chlorpyriphos 4 lit/ha with irrigation water)	Yield (q/ha)	15.8	As compare to T1 treatment production of cotton	-	-	-
						No. of Larva per Plant /1mt. row length before spray	2.35				

						No. of Larva per Plant /1mt. row length after spray	0.55	higher in treatment T2			
					T2 : Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of Metarhizium anisopliae 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination	Yield (q/ha)	18.3				
						No. of Larva per Plant /1mt. row length before spray	---				
						No. of Larva per Plant /1mt. row length after spray	0.30				
Watermelon	Irrigated	Low yield	Effect of plastic	3	T1 (Farmers' practices): No mulch	Yield (q/ha)	215.9	Treatment T2	Number of fruits per		

		potential of watermelon	mulch on yield of waterm elon			Per fruit weight	2.71	was found better than T1 and T3.	plant and weight of fruit was highest under mulching condition.		
					T2 (Recommended Practice): Silver Black Plastic Mulch (20 micron) under drip irrigation system	Yield (q/ha)	347.1				
						Per fruit weight	3.59				
					T3 (Technology assessed or Refined): Wheat straw mulch	Yield (q/ha)	254.4				
						Per fruit weight	2.79				

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
Farmers' practices: Use only DAP and Urea in various dose (Farmers Practices)	Main Dry Farming Research Station, JAU, Targhadia	44.0	q/ha	59777	3.09
Recommended Practice:120-60-60 NPK kg/ha (Recommended Practices)		47.4		69565	3.53
Intervention: 120-60-60 NPK kg/ha+$ZnSO_4$ @ 20 kg/ha as basal dose and foliar spray of		51.1		89048	4.12

$ZnSO_4$ @ 0.5% at heading and milking stage (Intervention)					
T1:(Farmers' practices): 120 X 45-60 cm (18519-13888 plants/ha)	Cotton Research Station, JAU, Junagadh	17.11	q/ha	52128	2.74
T2 :(Recommended Practice): 90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (BT)		23.50		83150	3.60
T3: T2 + De-topping at 75 DAS (Var. GTHH-49 (bt))		25.3		96030	3.91
T1:Farmers' practices: High dose and Use of conventional Chemical pesticides (Farmers Practices- Monocrotophos 50 ml, fenvalrate 20 to 25 ml and cypermathrin 20 to 25 ml/ 15 lit. of water) pesticides	ARS, Amreli	2.9	q/ha	8900.8	1.55
T2: Spray of Beuveria bassiana 75gm /10 lit + emamectin benzoate 5 SG 0.0035% (4g/10 lit. water) and 2nd spray at 15 days after 1st spray)		3.3		12967.9	1.83
T1:(Farmers' practices): No seed treatment & Soil application of bio pesticides	Dept. of Entomology, COA, JAU, Junagadh	15.8	q/ha	47236.3	2.32

and chlorpyriphos 4 lit /ha two times					
T2 :(Recommended Practice): Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of Metarhizium anisopliae 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination		18.3		62245.1	2.80
T1 (Farmers' practices): No mulch	Dept. of Renewable Energy and Rural Engg., CAET, JAU, Junagadh	215.9	q/ha	19313	1.17
T2 (Recommended Practice): Silver Black Plastic Mulch (20 micron) under drip irrigation system		347.1		179778	1.68
T3 (Technology assessed or Refined): Wheat straw mulch		254.4		45830	1.41

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

separately as per the following details

OFT – 1: Agronomy (Ongoing)

1) Title of technology: Effect of zinc on growth and yield of wheat

2) Problem Diagnosed/Defined: Farmers do not use Zinc

3) Detail of technologies selected for assessment/refinement

(1) Crop : Wheat

(2) Season/Year : Rabi 2019-20 to Rabi 2020-21

T1: (Farmers' practices)	1. Use only DAP and Urea in various dose (Farmers Practices)
T2 : (Recommended Practice)	2.120-60-60 NPK kg/ha (Recommended Practices)
T3 : (Intervention)	3.120-60-60 NPK kg/ha+$ZnSO_4$ @ 20 kg/ha as basal dose and foliar spray of $ZnSO_4$ @ 0.5% at heading and milking stage (Intervention)

(4) Source of technology : Main Dry Farming Research Station, JAU, Targhadia

(5) Production system thematic area : Irrigated

(6) Performance of the Technology with performance indicators

(7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

(8) Final recommendation for micro level situation

(9) Constraints identified and feedback for research and developmental departments

(10) Process of farmers participation and their reaction

OFT -2: Agronomy (Ongoing)

1) Title of technology: High Density Planting in Cotton

2) Problem Diagnosed/Defined: Farmers do not adopt closer planting, there for get low cotton yield due to less soil moisture and incidence of pest and disease.

3) Detail of technologies selected for assessment/refinement

(1) Crop : Cotton

(2) Season/Year : Kharif 2017-18 to Kharif 2019-20

T1: (Farmers' practices)	120 X 45-60 cm (18519-13888 plants/ha)
T2 : (Recommended Practice)	90 X 30 cm (37037 plants/ha) (Var. G. cot-8 (bt)
T3: (Intervention)	T2 + De-topping at 75 DAS (Var. GTHH-49 (bt))

(4) Source of technology : Cotton Research Station, JAU, Junagadh

(5) Production system thematic area : Rainfed Farming

(6) Performance of the Technology with performance indicators

(7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

(8) Final recommendation for micro level situation

(9) Constraints identified and feedback for research and developmental departments

(10) Process of farmers participation and their reaction

OFT – 3: Plant Protection (Ongoing)

(1) Title: Management of leaf Webber in Sesame

(2) Problem Diagnosed / Defined: Injudicious use of pesticides

(3)Details of technologies selected for assessment/refinement:

(1) Crop : Sesame

(2) Season/ Year : Kharif -2019-20 to Kharif –2021-22

(3) Spacing : 120 x 45 cm

T_1	Farmer practices	1.High dose and Use of conventional Chemical pesticides (Farmers Practices) **(**one spray of chlorantraniliprol 18.5 SC 5-10 ml/lit and second spray spinosad 45% SC 5-7ml /lit)
T_2	Assessment/ refined Practices	2. One spray of *beuveria bassiana* @ 50gm/10 liter water and two sprays of lamda cyhalothrin 5 EC 0.005% (10 ml/10 lit. water) or emamectin benzoate 5 SG 0.0035% (7g/10 lit. water) and 2nd spray at 15 days after 1st spray)

(4) Source of technology : ARS, Amreli

(5) Production system thematic area : Rainfed Farming

(6) Performance of the Technology with performance indicators

(7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

(8) Final recommendation for micro level situation

(9) Constraints identified and feedback for research and developmental departments

(10) Process of farmers participation and their reaction

OFT –4: Plant Protection (Ongoing)

(1) Title: Management of white grub in Groundnut

(2) Problem Diagnosed / Defined: No seed treatment & Soil application of bio pesticides

(3) Details of technologies selected for assessment/refinement:

(1)Crop : Groundnut

(2) Season/ Year : Kharif -2019-20 to Kharif –2021-22

(3)Spacing : 45 x 10

T_1	Farmer practices	No seed treatment & Soil application of bio pesticides and chlorpyriphos 4 lit /ha two times
T_2	Assessment/refined Practices	Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of Metarhizium anisopliae 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination

(4) Source of technology : Dept. of Entomology, COA, JAU, Junagadh

(5) Production system thematic area : Rainfed Farming

(6) Performance of the Technology with performance indicators

(7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques

(8) Final recommendation for micro level situation
(9) Constraints identified and feedback for research and developmental departments
(10) Process of farmers participation and their reaction

OFT -5: Agriculture Engineering (Ongoing)

1	**Title**	**:**	Effect of method of sowing on ridges on yield of Cotton
2	Problem Diagnose	:	Decreasing productivity of Cotton due to water logging, soil salinization in salt-affected lands. Heavy mortality, difficulties in intercultural operation due to lodging.
3	Treatments		
	T1- Farmers' practice	:	Traditional Sowing of Cotton on Flat bed
	T2-Recommended Technology	:	To prepare the field by ploughing followed by blade harrowing & planking and sow the crop on ridges (120 cm apart). (Year 2013-14, Department of Agronomy, JAU, Junagadh)
4	Source of Technology	:	JAU Recommendation and interaction with scientists
5	Thematic area	:	Soil conservation and improvement

(6) Performance of the Technology with performance indicators
(7) Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring
techniques
(8) Final recommendation for micro level situation
(9) Constraints identified and feedback for research and developmental departments
(10) Process of farmers participation and their reaction

3.3. FRONTLINE DEMONSTRATION

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

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

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	Sesame	Variety evaluation	GT-3	Trainings, demonstration, field days	7	10	4
2	Black Gram	Variety evaluation	Guj. Urd-1	Trainings, demonstration, field days	7	10	4
3	Green Gram	Variety evaluation	GM-4	Trainings, demonstration, field days	4	10	4
4	Okra	Variety evaluation	GO-6	Trainings, demonstration, field days	2	5	2
5	Castor	Variety evaluation	GCH-9	Trainings, demonstration, field days	3	10	4
6	Cotton	Nutrient	INM	Trainings, demonstration, field days	4	10	4
7	Groundnut	Variety evaluation	GJG-22	Trainings, demonstration, field days	6	10	4
8	Wheat	Nutrient	INM	Trainings, demonstration, field days	5	10	4
9	Cumin	Disease	IDM	Trainings, demonstration, field days	6	10	4
10	Coriander	Variety evaluation	GC-2	Trainings, demonstration, field days	5	10	4

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	INM	INM	Rabi 19-20	4	4	2	8	10	-
2	Cumin	IDM	IDM		4	4	2	8	10	
3	Coriander	Variety	GC-2		4	4	2	8	10	
4	Sesame	Variety	GJT-5	Summer 2020	4	4	2	8	10	
5	Black Gram	Variety	Guj. Urd-2		4	4	2	8	10	
6	Green Gram	Variety	GM-4		4	4	2	8	10	
7	Castor	Variety	GCH-9	Kharif-20	4	4	2	8	10	
8	Cotton	Variety	INM		4	4	2	8	10	

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	M	L	H	Groundnut	2nd to 3rd Week of November 2019	2nd to 3rd Week of March 2020	948.4	45
Cumin		Irrigated	Medium Black	L	M	H	Groundnut	3rd to 4th Week of November 2019	1nd to 2nd Week of March 2020		
Coriander		Irrigated	Medium Black	M	M	H	Groundnut	2nd to 3rd Week of November 2019	1nd to 2nd Week of March 2020		
Sesame	Summer 2020	Irrigated	Medium Black	L	M	H	Wheat	4th Week of February 2020	4th week of April 2020	-	-

Black Gram	Summe r 2020	Irrigated	Medium Black	L	M	H	Wheat	2nd to 3rd Week of February 2020	3rd week of April 2020	-	-
Green Gram	Summe r 2020	Irrigated	Medium Black	L	M	H	Wheat	3rd to 4th Week of February 2020	3rd week of April 2020	-	-
Castor	Kharif-20	Rainfed	Medium Black	L	M	H	Sesame	4th week of August 2020	Yield awaited	998.6	47
Cotton	Kharif-20	Rainfed	Medium Black	M	M	H	Wheat	2nd Week of June to 2nd week of July 2020	3rd week of December 2020 to 2nd week of January 2021		

Farmers' reactions on specific technologies

Crop	Variety/Input	Farmers' reaction
Gram	GJG-3	►High Yield Variety ►Bold seeded Variety ►Stunt virus resistant Variety
Cumin	IDM	►Less problem of wilt due to application of Trichoderma ►Less problem of blight and powdery mildew due to spraying of carbendazim and Hexaconazole
Wheat	GW-173	►Resistant to Shoot borer ►High yielding ►Best for late sowing
Wheat	GJW-463	►High Yield Variety ►Grain quality is good
Green Gram	GAM-5	►Highly resistant to Yellow Mosaic Virus (YMV) ►Bold seed size with attractive shiny grain appearance
Groundnut	GJG-22	►Higher production ►Less stem rot problems ►Quality of seed is good
Sesame	GT-4	►Bold seeded, whiteness more and higher production then other varieties
Cotton	INM	► Less reddening of leaves ►Higher Yield
Cotton	GTHH-49	► Higher Yield ►Suitable for High density planting
Cotton	IPM	► Better control of pests ►Economic to other chemical pesticides
Castor	GCH-9	►Resistance to wilt, root rot and tolerant to sucking pests ►Higher Yield
Sorghum	GFS-5	►High yielder ►Resistance to major pests and diseases and suitable under drought condition
Pigeon Pea	GJP-1	►High yielding ►Bright white colored seed gives good price in market

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	12	68	-
2	Farmers Training	5	132	-
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										
Sesamum	Varietal evaluation	Variety	GJT-5	10	4	12.2	8.9	10.21	8.22	24.40	21378.4	79280.0	57901.6	3.72	20575.0	57540.0	36965.0	2.82

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Blackgram	Varietal evaluation	Variety	Guj. Urd-2	10	4	12.9	5.8	10.74	8.71	28.09	19,023.0	35,428.8	16,405.8	1.87	18,733.0	26,304.2	7,571.2	1.42
Greengram	Varietal evaluation	Variety	GM-4	10	4	13.5	8.2	11.26	8.77	28.57	20698.4	73190.0	52491.6	3.55	21,115.0	52,620.0	31,505.0	2.54

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Wheat	INM	INM	10	4	53.8	39.5	45.12	40.91	10.42			28,196	97,279	69,083	3.46	27,088	84,266	57,179	3.12
Vegetables																			
Coriender	Varietal evaluation	GC-2	10	4	17.5	6.6	11.04	9.03	22.0			21,378	51,888	30,510	2.42	20,548	39,732	19,184	1.95
Spices & condiments																			
Cumin	IDM	IDM	10	**4**	8.2	5.1	7.86	6.62	18.6			20,053	97,071	77,017	4.84	19,693	75,468	55,774	3.84
Commercial Crops																			
Cotton	INM	INM	10	4	25.3	13.6	15.6	14.1	11.0			30582	82574	51992	2.69	32300	69139	36839	2.14

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
Cotton Shredder	Cotton	**Implement**	10	82	-	0.20	0.02		-	-	--	-	-	-	-	-

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Crop	Varieties	Varieties Qty. (Gram)	Qty. (Gram)		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)
Vegetable	Kitchen garden	Kitchen garden	20	20	Cowpea	Kashi Kanchan	25	NIL									
					Cucumber	Pusa Uday	5										
					Bottle Gourd	Pusa naveen	5										
					Drumstick	PKM -1	5										
					Okra	Ark Anamika	10										
					Chilli	Pusa Jawala	2										
Vegetable	Kitchen garden	Kitchen garden	100	100	Coriander	-	5	NIL									
					Fenugreek	-	5										
					Radish	-	5										
					Spinach	-	5										
					Carrot	-	5										

FLD on Demonstration details on crop hybrids

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Oilseed crop													
Castor	Varietal evaluation	GCH-9	10	4	30.6	10.5	25.82	22.66	14.45	29,450.00	1,07,298.72	77,848.72	3.64

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

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservation										
Integrated nutrient management										
Production of organic inputs										
Soil analysis and its importance	1	32	00	32	00	00	00	32	00	32
Good Agricultural Practices of cotton & Groundnut	1	21	00	21	00	00	00	21	00	21
Organic Farming	1	27	00	27	00	00	00	27	00	27
Integrated Nutrient Management in Rabi crops	1	19	00	19	03	00	03	22	00	22
Use and Importance of Bio fertilizers	1	30	00	30	00	00	00	30	00	30
Organic farming	2	58	00	58	00	00	00	58	00	58
Scientific cultivation of cotton (Online)	1	58	14	72	00	00	00	58	14	72
Vermicompost and vermin wash	2	60	00	60	00	00	00	60	00	60
Bio-fertilizer	1	75	00	75	00	00	00	75	00	75
Total	**11**	**380**	**14**	**394**	**03**	**00**	**03**	**383**	**14**	**397**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	37	00	37	03	00	03	40	00	40
Off-season vegetables										
Nursery raising	1	30	00	30	10	00	10	40	00	40
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										

Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Post harvest technology and value addition	1	44	10	54	10	05	15	54	15	69
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	1	33	00	33	05	00	05	38	00	38
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	**4**	**144**	**10**	**154**	**28**	**5**	**28**	**172**	**5**	**177**

III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	00	30	30	00	00	00	00	30	30
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	00	47	47	00	08	08	00	55	55
Women empowerment	2	00	78	78	00	11	11	00	89	89
Location specific drudgery reduction	1	00	20	20	00	00	00	00	20	20

technologies										
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**5**	**0**	**175**	**175**	**0**	**19**	**19**	**0**	**194**	**194**
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems	1	39	00	39	07	00	07	46	00	46
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements	1	10	14	24	04	03	07	14	17	31
Small scale processing and value addition										
Post Harvest Technology	1	10	16	26	06	00	06	16	16	32
Others (pl specify)										
Total	**3**	**59**	**30**	**89**	**17**	**3**	**20**	**76**	**33**	**109**
VII Plant Protection										
Integrated Pest Management	**4**	**83**	**0**	**83**	**8**	**0**	**8**	**91**	**0**	**91**
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Others (pl specify)										
Total	**4**	**83**	**0**	**83**	**8**	**0**	**8**	**91**	**0**	**91**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										

Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity0Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Upgrade the knowledge of farmers about ICT (online)	1	33	00	33	00	00	00	33	00	33
Awareness regarding organic farming	1	20	00	00	00	00	00	20	00	20
Entrepreneurship development	1	30	00	00	00	00	00	30	00	30
Upgrade the knowledge about new varieties of *rabi* crops and its cultivation practices	1	18	00	18	00	00	00	18	00	18
Total	**4**	**101**	**00**	**00**	**00**	**00**	**00**	**101**	**00**	**101**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**31**	**767**	**229**	**895**	**56**	**27**	**78**	**823**	**246**	**1069**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservatioin										
Integrated nutrient management										
Production of organic inputs										
Soil and water analysis	1	29	0	29	0	0	0	29	0	29
Nutrient management in Kharif crops	1	60	0	60	7	0	7	67	0	67
Preparation procedure of liquid organic fertilizer	1	27	0	27	0	0	0	27	0	27
Organic farming certification procedure	1	34	0	34	0	0	0	34	0	34
Package of practices of rabi crops	1	35	0	35	0	0	0	35	0	35
Total	**5**	**185**	**0**	**185**	**7**	**0**	**7**	**192**	**0**	**192**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising	1	20	00	20	06	00	06	26	00	26
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)										
b) Fruits										
Training and Pruning										
Layout and Management of Orchards	1	42	10	52	04	03	07	45	14	59
Cultivation of Fruit										
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation										

systems of orchards										
Plant propagation techniques										
Others (pl specify)										
Total (b)										
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)										
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	**2**	**62**	**10**	**72**	**10**	**3**	**13**	**71**	**14**	**85**
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of										

Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	00	62	72	00	10	10	00	72	72
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	00	34	34	00	00	00	00	34	34
Women empowerment	1	00	17	17	00	00	00	00	17	17
Location specific drudgery reduction technologies	1	00	50	50	00	07	07	00	57	57
Rural Crafts										
Women and child care										
Gender mainstreaming through SHGs	1	00	43	43	00	00	00	00	43	43
Total	**7**	**00**	**206**	**216**	**0**	**17**	**17**	**0**	**223**	**223**
VI Agril. Engineering										
Farm Machinery and its maintenance										
Installation and maintenance of micro										

irrigation systems										
Use of Plastics in farming practices	1	12	26	38	00	00	00	12	26	38
Production of small tools and implements	1	00	44	44	00	00	00	00	44	44
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Rainwater harvesting	1	18	35	53	00	00	00	18	35	53
Total	**3**	**30**	**105**	**135**	**0**	**0**	**0**	**30**	**105**	**135**
VII Plant Protection										
Integrated Pest Management	3	91	00	91	00	00	00	91	00	91
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Honeybee farming	1	32	00	32	00	00	00	32	00	32
Management of fall armyworm and pink bollworm in cotton	4	112	6	118	00	00	00	112	6	118
Soil Heath Awareness and IPM in chickpea	2	50	12	62	00	00	00	50	12	62
Pest management in organic farming	2	65	15	80	00	00	00	65	15	80
Pest Management in Rabi crops	2	61	00	61	00	00	00	61	00	61
Total	**14**	**411**	**33**	**444**	**0**	**0**	**0**	**411**	**33**	**444**
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										

Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Upgrade knowledge on seed treatment	01	30	00	30	00	00	00	30	00	30
Market intelligent	01	51	00	51	00	00	00	51	00	51
Total	**02**	**81**	**00**	**81**	**00**	**00**	**00**	**81**	**00**	**81**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**33**	**769**	**354**	**1133**	**17**	**20**	**37**	**785**	**375**	**1160**

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										

Integrated Farming										
Micro Irrigation/irrigation										
Seed production										
Nursery management										
Integrated Crop Management										
Soil & water conservatioin										
Integrated nutrient management										
Production of organic inputs										
Soil analysis and its importance	1	32	00	32	00	00	00	32	00	32
Good Agricultural Practices of cotton & Groundnut	1	21	00	21	00	00	00	21	00	21
Integrated Nutrient Management in Rabi crops	1	19	00	19	03	00	03	21	00	21
Use and Importance of Bio fertilizers	1	30	00	30	00	00	00	30	00	30
Organic farming	3	85	00	85	00	00	00	85	00	85
Scientific cultivation of cotton (Online)	1	58	14	72	00	00	00	58	14	72
Vermicompost and vermin wash	2	60	00	60	00	00	00	60	00	60
Bio-fertilizer	1	75	00	75	00	00	00	75	00	75
Soil and water analysis	1	29	0	29	0	0	0	29	0	29
Nutrient management in Kharif crops	1	60	0	60	7	0	7	67	0	67
Preparation procedure of liquid organic fertilizer	1	27	0	27	0	0	0	27	0	27
Organic farming certification procedure	1	34	0	34	0	0	0	34	0	34
Package of practices of rabi crops	1	35	0	35	0	0	0	35	0	35
Total	**16**	**565**	**14**	**579**	**10**	**0**	**10**	**574**	**14**	**588**
II Horticulture										
a) Vegetable Crops										
Production of low value and high volume crops	1	37	00	37	03	00	03	40	00	40
Off-season vegetables										
Nursery raising	2	50	00	50	16	00	16	56	00	56
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Others (pl specify)										
Total (a)	3	87	0	87	19	0	19	96	0	96
b) Fruits										
Training and Pruning										
Layout and Management of Orchards	1	42	10	52	04	03	07	46	13	59
Cultivation of Fruit										

Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
Post harvest technology and value addition	1	44	10	54	10	05	15	54	15	69
Total (b)	**2**	**86**	**20**	**106**	**14**	**08**	**22**	**100**	**28**	**128**
c) Ornamental Plants										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
Others (pl specify)										
Total (c)										
d) Plantation crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (d)										
e) Tuber crops										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (e)										
f) Spices										
Production and Management technology	1	33	00	33	05	00	05	38	00	38
Processing and value addition										
Others (pl specify)										
Total (f)	1	33	00	33	05	00	05	38	00	38
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)										
GT (a-g)	**6**	**206**	**20**	**226**	**38**	**8**	**46**	**234**	**28**	**262**
III Soil Health and										

Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total										
IV Livestock Production and Management										
Dairy Management										
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total										
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	4	00	92	92	00	10	10	00	102	102
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	00	81	81	00	08	08	00	86	86
Women empowerment	3	00	85	85	00	11	11	00	96	96
Location specific drudgery reduction	2	00	70	70	00	07	07	00	77	77

technologies										
Rural Crafts										
Women and child care										
Gender mainstreaming through SHGs	1	00	43	43	00	00	00	00	43	43
Total	**12**	**0**	**371**	**371**	**0**	**36**	**36**	**0**	**404**	**404**
VI Agril. Engineering										
Farm Machinary and its maintenance										
Installation and maintenance of micro irrigation systems	1	39	00	39	07	00	07	46	00	46
Use of Plastics in farming practices	1	12	26	38	00	00	00	12	26	38
Production of small tools and implements										
Repair and maintenance of farm machinery and implements	1	10	14	24	04	03	07	14	17	31
Small scale processing and value addition										
Post Harvest Technology	2	10	60	70	06	00	06	16	60	86
Rainwater harvesting	1	18	35	53	00	00	00	18	35	53
Total	**6**	**89**	**135**	**224**	**17**	**3**	**20**	**106**	**138**	**254**
VII Plant Protection										
Integrated Pest Management	7	174	00	174	08	00	08	182	00	182
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Honeybee farming	1	32	00	32	00	00	00	32	00	32
Management of fall armyworm and pink bollworm in cotton	4	112	6	118	00	00	00	112	6	118
Soil Heath Awareness and IPM in chickpea	2	50	12	62	00	00	00	50	12	62
Pest management in organic farming	2	65	15	80	00	00	00	65	15	80
Pest Management in Rabi crops	2	61	00	61	00	00	00	61	00	61
Total	18	494	33	527	8	0	8	502	33	535
VIII Fisheries										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										

Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
Others (pl specify)										
Total										
IX Production of Inputs at site										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total										
X Capacity Building and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Upgrade knowledge on seed treatment	1	30	00	30	00	00	00	30	00	30
Market intelligent	1	51	00	51	00	00	00	51	00	51
Upgrade the knowledge of farmers about ICT (online)	1	33	00	33	00	00	00	33	00	33
Awareness regarding organic farming	1	20	00	00	00	00	00	20	00	20
Entrepreneurship development	1	30	00	00	00	00	00	30	00	30
Upgrade the	1	18	00	18	00	00	00	18	00	18

knowledge about new varieties of *rabi* crops and its cultivation practices										
Total	**6**	**182**	**0**	**132**	**0**	**0**	**0**	**182**	**0**	**182**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**64**	**1536**	**573**	**2059**	**73**	**47**	**120**	**1598**	**617**	**2225**

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

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
TOTAL										

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Entrepreneurship development	01	30	00	30	00	00	00	30	00	30
Women development though micro saving	01	00	36	00	36	00	00	00	36	36
TOTAL	**02**	**30**	**36**	**30**	**36**	**00**	**00**	**30**	**36**	**66**

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Entrepreneurship development	01	30	00	30	00	00	00	30	00	30
Women development though micro saving	01	00	36	00	36	00	00	00	36	36
TOTAL	**02**	**30**	**36**	**30**	**36**	**00**	**00**	**30**	**36**	**66**

Training programmes for Extension Personnel including sponsored training (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										

Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Organic farming	1	20	4	24	0	0	0	20	04	24
TOTAL	**1**	**20**	**4**	**24**	**0**	**0**	**0**	**20**	**04**	**24**

Training programmes for Extension Personnel including sponsored training (off campus)

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL										

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**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										

Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Organic farming	1	20	4	24	0	0	0	20	04	24
TOTAL	**1**	**20**	**4**	**24**	**0**	**0**	**0**	**20**	**04**	**24**

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										
Commercial production of vegetables										
Organic farming	2	58	00	58	00	00	00	58	00	58
Scientific cultivation of cotton (Online)	1	58	14	72	00	00	00	58	14	72
Vermicompost and vermin wash	2	60	00	60	00	00	00	60	00	60
Bio-fertilizer	1	75	00	75	00	00	00	75	00	75
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Processing and value addition										
Others (pl. specify)										
Total										
Farm machinery										
Farm machinery, tools and implements										
Others (pl. specify)										
Total										
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total										
Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total										
Plant Protection										

Management of fall armyworm and pink bollworm in cotton	4	11 2	6	118	00	00	00	11 2	6	118
Soil Heath Awareness and IPM in chickpea	2	50	12	62	00	00	00	50	12	62
Pest management in organic farming	2	65	15	80	00	00	00	00	00	00
Pest Management in Rabi crops	2	61	00	61	00	00	00	00	00	00
Agricultural Extension										
CapacityBuilding and Group Dynamics										
Others (pl. specify)										
Total										
GRAND TOTAL	**16**	**539**	**47**	**586**	**00**	**00**	**00**	**539**	**47**	**586**

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

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										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify)										
Total										
Post harvest technology and value addition										
Value addition										
Others (pl. specify)										
Total										
Livestock and fisheries										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming										
Others (pl. specify)										
Total										
Income generation activities										
Vermicomposting										
Production of bio-agents, bio-pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm machinery										
and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Bakery products	1	00	50	50	00	06	06	00	56	56
Total	1	00	50	50	00	06	06	00	56	56

Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total	**1**	**00**	**50**	**50**	**00**	**06**	**06**	**00**	**56**	**56**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)				
Diagnostic visits	12	62	-	62
Field Day	28	218	-	218
Group discussions	10	52	-	52
KisanGhosthi	5	123	-	123
Film Show	8	604	-	604
Self -help groups	-	-	-	-
KisanMela	-	-	-	-
Exhibition	-	-	-	-
Scientists' visit to farmers field	68	459	-	459
Plant/animal health camps	-	-	-	-
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	-	-	-	-
Method Demonstrations	15	438	-	438
Celebration of important days	3	86	-	86
Special day celebration	4	2100	-	2100
Exposure visits	-	-	-	-
Farmers visit to KVK	296	570	-	570
Total	**449**	**4703**	**0**	**4703**

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

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	-
Newspaper coverage	18
Popular articles	9
Radio Talks	-
TV Talks	-
Animal health amps (Number of animals treated)	-
Social Media (No. of platforms Used)	2
Others (pl. specify)	-
Total	**29**

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/ Webexetc)	Title of Program	No. of Programmes	No. of Participants/ Views
A	Farmers training				
	Training	Video conferencing	Prakrutik kheti	1	85
	Total			1	85
	Grand Total (A+B+C+D+E)			**1**	**85**

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

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Wheat	GJW-463	-	47.80		
Oilseeds	Groundnut	GJG-22	-	74.45		
	Sesame	GJT-5	-	0.31		
Pulses	Chickpea	GJG-6	-	20.00		
Total				**142.56**		

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal	GJRB-5	-	2550	1275	36
	Tomato	GT-3	-	3250	1625	46
	Chilli	Double Patto	-	3470	1735	50
Total				**9270**	**4635**	**132**

Selling of Bio-Products

Bio Products	Name of the bio-product	Quantity (No.)	Value (Rs.)	No. of Farmers
Others	Pheromone trap	843	20	52
	Gossy Lure	1210	10	83
	MDT	4	500	1
Total				**136**

Production of livestock materials: NIL

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

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	A study about physical and mental problems of senior citizens	Neeta Chaudhari, Neha Tiwari and Jiju N. Vyas	1
	To study opinion regarding necessity of marriage among female of the Mehsana and Ahmadabad city	Neeta P. Chaudhari, Jiju N. Vyas and Neha Tiwari	1
	A Study of Attitude of Parents Regarding Gender Discrimination	Dr. Jiju Vyas Dr. Neeta Chaudhary and Dr. Neha Tiwari	1
	Farmers Perceptions about Sawaj Bio Fertilizer	P. J. Prajapati, V. S. Parmar and N. S. Joshi	1
	Impact of frontline demonstrations on yield of chickpea (*Cicer arietinum* L.) in Amreli district of Gujarat state	PJ Prajapati, Dr. NS Joshi, Dr. ML Patel, VS Parmar, KK Gadhiya and NJ Hadiya	1
	Adoption of climate resilient practices under NICRA project	NJ Hadiya, VS Parmar, Dr. NS Joshi, NM Kachhadiya and PJ Prajapati,	1
Technical reports	Monthly (Gujarati, English)		24
	Quarterly (Gujarati, English)		8
	Six monthly (Gujarati, English)		4
	Nine monthly (Gujarati, English)		2
	Annual report (Gujarati, English)		2
	ZREAC Rabi 2020-21 Summer 2020		1
	ZREAC Kharif 2020-21		1
	SAC 2020-21		1
News letters	4	-	1
Technical bulletins	-	-	-
Popular articles	Asparagus : A power house vegetable for all the nutrients	Neha Tiwari, N.S. Joshi and Jiju N. Vyas	1
	Wood apple (Bael)- A fruit of high medicinal value	Neha Tiwari and Jiju N. Vyas	1
	Khetima Hydrogel no upyog ane bhalaman	PJ Prajapati, NS Joshi, ML Patel, VS Parmar, and NJ Hadiya	1
	Jiru na pak ma rog jivat niyantran	PJ Prajapati, NS Joshi, VS Parmar, NM Kachhadiya and NJ Hadiya	1
	Vanspati Adharit Vividh Kitnashak Banavani Padhtio	PJ Prajapati, NS Joshi, VS Parmar, NM Kachhadiya and NJ Hadiya	1

	Coconut termite and its management	NM Kachhadiya, NS Joshi, VS Parmar and PJ Prajapati,	1
	Modern day transfer of technology in agriculture	VS Parmar, NS Joshi, PJ Prajapati, and NJ Hadiya	1
Extension literature	-	-	-
Books	Self Made India	Dr. Jiju Vyas and Dr. Neha Tiwari	10
	Knowledge and attitude of women regarding infant feeding practices	Dr. Neha Tiwari	10

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	Junagadh Agricultural University	1
2	Facebook page/ Account	Krishi Vigyan Kendra, Amreli	1
3	Mobile Apps	0	0
4	WhatsApp groups	To send information to farmers	**25**
5	Twitter Account	Krishi Vigyan Kendra, Amreli	1
6	Any other (Pl. Specify)	0	0

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).

SUCCESS STORY-1: GONIL PRODUCTION FROM THE COW URINE

Name	Karshanbhai Bhimabhai Zapadiya
Address	At- Sukhpur Ta- Babara Di-Amreli
Age	55
Contact No.	9725111466
Land	2.72 ha
Live Stock	30 Cow

Intervention	Karashanbhai has 20 cows, a cow urine of these cows is purchased by some organic farmer during monsoon. All the cow urine after that is going to waste. Then they started making Cow urine Arc and then they got information through internet and thought of making phenyl (gonil), for that they needed pine oil to make gonil. With the help of Krishi Vigyan kendra Amreli, he fully cooperated in the purchase of pine oil and succeeded in making phenyl (gonil) Gonil (Phenyl) composition: For Preparation of 1 lit, 700 ml Water Ark, 150 ml cow urine Ark, 150 ml Pine oil
Economic Gain	For making phenyl (gonil), he has to purchase only pine oil (Rs. 175 / liter). Cow urine and neem leaf are freely available. But including all this cow urin, pine oil and all the labour cost it cost around 30 rs./ lit. He is selling it at 50rs./lit. He is producing 2500 liter gonil per year and generate Net income of Rs.50000/year from Gonil. He also extract pure Cow urine Arc which is selling at 30rs/ 200 ml for medicinal use and also earn rs.40000/- per year from the cow urine arc. They are earning around Rs. 90000/- only from the cow urine that is going to waste.
Employment Generation	Give employment to 1 to 2 person in Preparation of cow urine Arc and Gonil Production unit

SUCCES STORY-2: CHILLY FARMING IN NICRA VILLAGE KARJALA

Name	Dineshbhai Bhikhabhai Baraiya
Address	At- Karjala, Ta- savarkundla, Di-Amreli
Age	45
Contact No.	9712236339
Land	2.64 ha
Live Stock	2 Cow
Intervention	Majority of the Farmer from NICRA village karjala are growing cotton and groundnut. But Dineshbhai is diverted in the Horticultural Farming Recently he has planted 400 lemon tree,and in 0.88 ha He is growing Chilly Hybrid variety Gondal Wonder (F1 hybrid chilly BSS-919
Economic Gain	He is selling green chilly to market at average price rs. 70/kg. He produced 62.81 qtl (71.37qtl/ha) and earning net profit of rs. 330000 (rs.375000/ha) from 0.88 ha.

Success Story:3 Kitchen Gardening

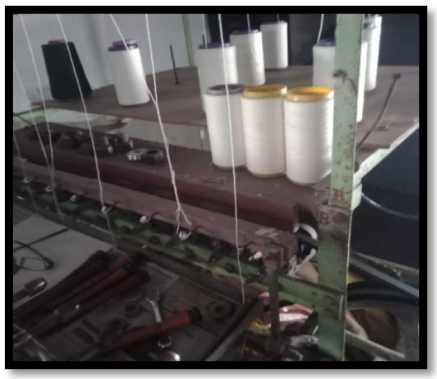
Farm women Name	Chandrikaben M. Nakrani
Age	40
Farmers' address including Village, District, State	Village:Mangawapal Ta: Lathi District:Amreli State:Gujarat
Education	08th Std.
Farming experience	25 years
Crop (Kitchen gardening)	Vegetable grower according to different seasons

Description of work:- Chandrikaben M. Nakrani is a successful farmers of Amreli district. Due to Covid-19 situation she was badly suffer from lower economic condition. She came in contact with KVK, Amreli during one of the training programme on kitchen gardening. In this programme knowledge regarding kitchen gardening was given by scientist Dr. Neha Tiwari to farm women and kitchen gardening kit(kharif season) was distributed to all the participants and Chandrikaben M. Nakrani is one of them . Chandrikaben M. Nakrani used this kitchen gardening kit at her farm and found very good production of vegetable like bottle guard (5 gm.), cowpea (25gm.), Cucumber (05gm.), Drum stick (05gm.), Okra (25gm.), and Chilli (02gm.). She used this vegetables for her household chores and also distributed to her relatives. By that way she was retaining her economic condition by cutting down the expenses of vegetable. Again a new kit of kitchen gardening of Rabi season was given by kvk amreli to farm women and Chandrikaben M. Nakrani was used the same kit and good production without any harm was noticed by her. Instead of that all the vegetables are rich in several vitamins like Vitamin A, B, C, E and K also rich in iron, magnesium and phosphorous which very good for overall health development.

Success Story: 4 Aatma Nirbhar Chadnrikaben Dhoraajiya- A Shawl queen of Amreli district

Entrepreneur Name	Chandrikaben Tusharbhai Dhorajiya
Age	43
Farmers' address including Village, District, State	Village:Hathigadh Ta: Liliya District:Amreli State:Gujarat
Education	10th Std.
Type of machine and tools used for weaving	Weaving Loom, Thread wheel, Needles
Raw materials used for weaving	Threads are terewool, ruffle and cashmere
Entrepreneur experience (Years)	05 Years

Type of products developed	Shawl weaving, Dupatta making in different colour and design (cotton and woolen)
Income per month	30,000 in winter seasons and 10, 000 in other seasons
Social appreciation/ recognitions/Awards for his innovation	Award for rural women entrepreneur at village level .
Distribution of prepared material	Rajkot, Amreli, Ahmedabad, Mandali, Lilliya, Mumbai and Surat



Introduction of entrepreneur- Chandrikaben Tusharbhai Dhorajiya is a successful entrepreneur of Gujarat state. She got inspiration and motivation from Krishi Vigyan Kendra, Juangadh Agricultural University, to start their own enterprise. Initially she faced some constraints like procuring of raw material, transportation problem and reaching to the end customers then she came in contact with KVK, amreli and team KVK help her a lot to solve the above problem. The materials that she prepared by weaving are shawl of different color and preparation of different colored duppata in both cotton and woolen material. She earned 30,000 per month in season of winter and marriage and 10,000 per month in off season. The shawls are woven from different types of thread like terewool, ruffle and cashmere – that are soft to the touch and sourced from Mumabai (Thane) market. Earlier a coarser, warmer wool – per wool – was used to weave simple shawls. Due to her work as a entrepreneur she got social appreciation by village people by giving her award of rural women entrepreneur at village level. The materials that she prepared by weaving were shawls of different colours and preparation of different kinds of *duppatas*. The shawls and *duppatas* were woven from different types of threads like Teri wool, ruffle and cashmere that are soft to touch and sourced from Mumbai (Thane) market.

Table shows type of material, expenditure, final products price and income of entrepreneur

S. No.	Types of materials	Expenditure	Final product price	Income of expenditure (after excluding expenditure)
1.	Shawl (White)	200/per shawl	600	300
2.	Shawl (Black)	180/per shawal	500	320
3.	Dupatta (Coloured)	80/Duppata	350	280
4.	Bandhani Dupatta	100/Duppata	450	350

Success Story: 5 Use of Azolla as feed for animals

Name	Shri Ashishbhai Jodhani
Address	Village: Khicha, Taluka: Dhari, District: Amreli
Age	**32** years
Education	Graduation
Source of income	Agriculture, Dairy Farming
Land	15 ha
Number of Animals	02
Introduction	Azolla is a aquatic ferns. Azolla contains all kinds of nutrients. Contains 5 to 20% protein, is the main source of lysine, arginine and methionine. Azolla is low in lignin and is easily digested. Nutrients like calcium, phosphorus, potassium, iron and magnesium and also vitamin-A and B-12 are found. Azolla can also be called green gold in terms of nutrient content. Ashishbhai is a progressive farmer from Amreli district. He has been involved in agriculture and animal husbandry for 5 years. They cultivate cotton, groundnut, wheat and chickpeas. They have a cow and a buffalo.
Subject matter	Ashishbhai used to feed cottonseed meal to his cattle. After that, he came in contact with KVK and got information about raising Azolla and animal feed and then feeding the animals.
Economic output	Ashishbhai has built an azolla rearing unit (14 X 8 feet) with 1.5 feet height on the roof of his house. Azolla is cultivated by mixing 10 kg of vermicompost, 20 gm potash, 20 gm SSP, 20 gm sulfur and 50 gm humic and 500 gm azolla with water. After 15 days azolla ready for feed to animal

Unit	**Cost (Rs.) Size (14 X 8 feet)**	**Production of azolla per month (kg)**	**Azolla feed per day (kg)**	**Milk production per day**		**Income/ month (Rs.)**
				Buffalo	**Cow**	
Azolla	2000	50-60	1-2	12	10	30000-35000

Impact of success story on other farmers' locality (Horizontal spreads) or Horizontal spread of innovation	Ashishbhai has given information about Azolla cultivation to 10 to 12 other farmers and set up units. Conclusion:
Conclusion:	The use of azolla as animal feed reduces the cost of animal feed and increases milk production.

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

Sr. No.	Crop/ Enterprise	Innovative Technology
1	Cumin	Line sowing instead of broadcasting
2	Cotton	Irrigation in alternate furrow
		Application of fertilizer in nitrogenous form
3	Groundnut	Application of fertilizer in SSP and Ammonium Sulphate form
4	Wheat	Spraying of DiEthane M-45 at milking stage to avoid diseases.

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	All Line sowing crops	Manually operated seed drill	Sowing purpose
2.	Groundnut/Cotton	Sprayer operating by Bicycle	Spraying purpose
3.	Cotton	Extraction of cow urine with dhatura and desi akda	For the control of sucking pest of cotton
4.	Cotton	Fermented Bajra extract	Larvae of cotton pest
5.	Pulses and cereals	Use of Neem leaves	Storage purpose
6.	Castor	Use of milk of Castor	Stem rot of castor

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

A. Practicing Farmers

a) Power point presentation
b) Posters
c) Live samples

B. Rural Youth

a) Power point presentation
b) Posters
c) Live samples
d) Film/ video show

C. In-service personnel

a) Power point presentation
b) Posters
c) Live samples

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Field level observations
iii) Farmer group discussions

For FLD:

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

5.3. Field activities

Name of villages identified/adopted with Amreli block name (from which year)	No. of farm families selected per village	No. of survey /PRA conducted	No. of technologies taken to the adopted villages	Name of the technologies found suitable by the farmers of the adopted villages	Impact (production, income, employment, area/technologicalhorizontal/ vertical)	Constraints if any in the continued application of these improved technologies
Kerala (Jogani)	Whole village	15	07	• New varieties of various crops like groundnut, cotton, sesame, wheat etc. • INM • IPM • IDM • Natural resource conservation	• Overall increase in production of crops and income of farmers. • Due to good results of crop demonstration adoption of new varieties increased and area under crop increased.	Getting farmers convinced about new technology adoption.
Harsupur Devaliya						
Saladi						
Jatruda						
Vandaliya						
Lunidhaar						
Haalariya						
Ditla						
Babapur						
Shedubhar						
Vaankiya						
Lakhapadar						
Nesdi						

Oliya Maandardi				• New farm machineries • Animal feed managemen t		

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dy. Director of Agriculture.	Conducting training programmes
Dy. Director of Agril. Extension (FTC)	Conducting training programmes
Dy. Director of Horticulture	Conducting training programmes
Dy. Director of Animal Husbandry	Conducting training programmes
Dy. Director of Soil Conservation	Conducting training programmes
Dy. Director of Social Forestry	Conducting training programmes
Amreli Jilla Madhya sahakari bank	Conducting training programmes
Milk Co-Operative Society	Conducting training programmes
State Bank of India	Conducting training programmes
National Bank for Agriculture & Rural Development (NABARD)	Conducting training programmes
NHRDF	Conducting training programmes
Doordarshan Kendra	Conducting training programmes
All India Radio	Conducting training programmes
District Rural Development Agency	Conducting training programmes
ATMA	Conducting training programmes
Mahindra & Mahindra Co. Ltd.	Conducting training programmes
GGRC	Conducting training programmes

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Agricultural Technology Information Centre (ATIC)	2005-06	State Government	9,00,000
National Initiative on Climate Resilient Agriculture (NICRA)	2015-16	CRIDA, Hyderabad	440,856
Cluster base FLD of Rabi Pulses under NFSM	2015-16	ICAR, New Delhi	6,44,502
National Mission on Oilseeds and Oil Palm (NMOOP)	2015-16		1,26,704
DAMU	2019-20		41,906

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district? **Providing field data.**

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**	Field day	3	-	-
02	**Research projects**	-	-	-	-
03	**Training programmes**	6	6	-	-
04	**Demonstrations**				
05	**Extension Programmes**				
	Kisan Mela	1	1	-	-
	Technology Week	-	-	-	-
	Exposure visit	-	-	-	-
	Exhibition	-	-	-	-
	Soil health camps	-	-	-	-
	Animal Health Campaigns	-	-	-	-
	Special day celebration	3	-	3	-
06	**Publications**	-	-	-	-
07	**Other Activities**				
	Farmers field visit	20			ATMA & KVK combined activity
	Best farmer award visit	21			
	ATMA AMC/GB/ KVK SAC meeting	5			
	ATMA & KVK combine planning meeting	8			

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

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

F. Details of linkage with RKVY: NIL

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

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
1	Trainings and FLDs	Trainings and FLDs	3,60,000/-	72,950/-	-

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

7. Convergence with other agencies and departments: NIL

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
1	Have you conducted Farm Innovators meet in your district?	No

9. Farmers Field School (FFS): NIL

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

Crop	Variety/Input	Farmers' reaction
Gram	GJG-3	► High Yield Variety ► Bold seeded Variety ► Stunt virus resistant Variety
Cumin	IDM	►Less problem of wilt due to application of Trichoderma ►Less problem of blight and powdery mildew due to spraying of Carbendazim and Hexaconazole
Wheat	GW-173	►Resistant to Shoot borer ►High yielding ►Best for late sowing
Wheat	GJW-463	►High Yield Variety ►Grain quality is good
Green Gram	GAM-5	►Highly resistant to Yellow Mosaic Virus (YMV) ►Bold seed size with attractive shiny grain appearance
Groundnut	GJG-22	►Higher production ►Less stem rot problems ►Quality of seed is good
Sesame	GT-3	►Bold seeded, whiteness more and higher production then other varieties ►Better for Summer cultivation
Cotton	INM	► Less reddening of leaves ►Higher Yield
Cotton	GTHH-49	► Higher Yield ►Suitable for High density planting
Cotton	IPM	► Better control of pests ►Economic to other chemical pesticides
Castor	GCH-9	►Resistance to wilt, root rot and tolerant to sucking pests ►Higher Yield
Sorghum	GFS-5	►High yielder ►Resistance to major pests and diseases and suitable under drought condition
Pigeon Pea	GJP-1	►High yielding ►Bright white colored seed gives good price in market

10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities: We have presented in ZREAC and AGRESCO meetings of university.

11. Technology Week celebration during 2020: No

12. IMPACT

INTRODUCTION

The Education Commission (1964-66) recommended that a vigorous effort be made to establish specialized institutions to provide vocational education in agriculture and allied fields at the pre and post matriculate levels to cater the training needs of a large number of boys and girls coming from rural areas. The Commission, further, suggested that such institutions be named as 'Agricultural Polytechnics'. The recommendation of the Commission was thoroughly discussed: during 1966-72 by the Ministry of Education, Ministry of Agriculture, Planning Commission, ICAR and other allied institutions. Finally, the ICAR mooted the idea of establishing Krishi Vigyan Kendras (Agricultural Science Centres) as innovative institutions for imparting vocational training to the practicing farmers, school dropouts and field level extension functionaries. The ICAR Standing Committee on Agricultural Education, in its meeting held in August, 1973, observed that since the establishment of KVKs was of national importance which would help in accelerating the agricultural production as also in improving the socio-economic conditions of the farming community, the assistance of all related institutions should be taken in implementing this scheme. The ICAR, therefore, constituted a committee in 1973 headed by Dr. Mohan Singh Mehta of Seva Mandir, Udaipur (Rajasthan), for working out a detailed plan for implementing this scheme. The Committee submitted its report in 1974.The first KVK, on a pilot basis, was established in 1974 at Puducherry (Pondicherry) under the administrative control of the Tamil Nadu Agricultural University, Coimbatore.

Krishi Vigyan Kendra, an Institutional Innovation inspiring the World in 21st Century also known as Farm Science Centre, a grass root level scheme has been designed and nurtured by the ICAR for the past four decades. Since 1974 when the first KVK was established at Pondicherry, so far, ICAR has established 694 KVKs across the country under different host organization like State Agricultural Universities, ICAR Institutes, Central Institutes/Deemed Universities, State Governments, Public Undertakings and Governmental Organization. Gujarat state is having 30 KVKs of which, 07 KVKs are under Junagadh Agricultural University and Amreli is one of them, established in March, 2005**.**

Gujarat farmers are really very hard working. It is the only state in the country which consistently maintains the highest annual growth rate of agricultural than the national average. It is one of five top five state of India. Gujarat gives the maximum adoration in agricultural technology and being a key institution at district level the KVKs play an important role in transfer of technology. KVK contribute all three dimensional activity like aware the farmers though all possible medium such as folder, leaf late, social media etc second imparting knowledge through on and off campus training with use of different PPT, video, exhibition and by exposure visit etc third one increase adoption of technology through personal contact, CFLD and OFT etc for betterment of farming

community. Here very important things do by the scientist to maintain rapport with farming community.KVK must work on the basis of felt and un felt need of farming community understanding their level of knowledge and availability of resources they have, all this to increase adoption of technology.KVK also imparting knowledge in vernacular language for easy understanding of farmers and also motivated them for entrepreneurship through skill development training. Considering these facts, a study entitled **"Image and impact of KVK''** was conducted.

Objectives

1. To study the profile of beneficiaries of villages adopted by Krishi Vigyan Kendra, Amreli
2. To find out the image and impact of Krishi Vigyan Kendra, Amreli on the beneficiaries of adopted villages.
3. To assess the association between profile of beneficiaries farmers and image Krishi Vigyan Kendra.

Methodology

The present investigation was conduct in adopted villages of KVK Amreli of North saurashtra region of Gujarat. An ex-post facto design was used for this study. For the selection of respondents, a comprehensive list of beneficiaries and villages adopted by Krishi Vigyan Kendra were identified purposively with discuss with senior scientist and scientist of KVK, Amreli.

Table 1 - Name of selected villages adopted by KVK, Amreli

Sr. No.	Selected District	Selected Villages	Selected size of Respondents
1	Amreli	Nesadi	20
		Oliya	20
		Shedubhar	20
		Saldi	20
		Babapur	20
		Lunidhar	20
		Kerala	20
		Ditla	20
		Lakhapadar	20
		Halariya	20
		Total	**200**

Twenty respondents from each selected village were randomly selected. Thus the total sample size for the study was 200. The interview schedule was developed keeping in view the specific objectives of the study and the data was collected by survey method during 2019-20.

Image of KVK

To measure the image of KVK, Amreli. Twenty questions about its objectives, activities, and usefulness, helpfulness of the officials, benefit gained by the farmers and general and overall impressions of the centre were asked to the respondents.

The answers of the respondents to each question were marked yes or no. A score of one was assigned to yes answer of response and zero to a no answer or response.

Impact of KVK

For this study the resultant changes occurred due to adoption of recommended agricultural technologies which are transmitted by KVKs in the form of changes have been taken account as impact of KVKs. It is finally defined as the resultant changes occurred due to adoption of recommended agricultural technologies which are transmitted by KVKs in the form of changes those prospered within beneficiary farmers of adopted villages of KVKs.

The change was measured in terms of eight aspects

1) Change in area under field crops
2) Change in use of improved varieties
3) Change in crop production
4) Change in annual income
5) Change in household possession
6) Change in food habit
7) Change in clothing pattern
8) Change in savings and expenditures

1) Change in area under field crops

It refers to the increase in area under field crops after adoption of recommended agricultural technologies which are transmitted by KVKs. Actual area increased in hectare(s) under field crops was taken as a change. The increase in area was statistically measured by using paired "t" test

2) Change in use of improved varieties

It refers to the increase in use of improved varieties after adoption of recommended agricultural technologies which are transmitted by KVKs. The addition found in use of improved varieties of different crops was considered as change. One score was assigned to each new improved variety which was adopted by the farmers after adoption of recommended agricultural technologies which are transmitted by KVKs. The paired "t" test was applied to know whether the difference found in use of improved varieties was significant.

3) Change in crop production

It refers to the increase in crop production per unit area after adoption of recommended agricultural technologies which are transmitted by KVKs. The more production attained by the farmers as compared to the production had attained before adoption of recommended agricultural technologies which are transmitted by KVKs. The significance of difference in crop production of before and after use was known by using paired “t” test.

4) Change in annual income

Change in annual income from agriculture and other resources after adoption of recommended agricultural technologies which are transmitted by KVKs was operational as change. The paired “t” test was applied to know whether the difference between annual incomes obtained during study year annual income of base year.

5) Change in household possession

Additional household items purchased by the farmers after adoption of recommended agricultural technologies which are transmitted by KVKs were operationalzed as change. Scoring procedure was followed as under:

Eleven statements regarding change in household possession were prepared. The respondents were asked to give their reply to each statement in form of Yes' or No'. The score assigned for 'Yes' and 'No' was 1 and 0, respectively. The score of each statement was summed up to obtain final score indicating change in household possession.

6) Change in food habit

Eight statements regarding change in food habit were prepared. The respondents were asked to give their reply to each statement in form of Yes' or No'. The score assigned for 'Yes' and 'No' was 1 and 0, respectively. The score of each statement was summed up to obtain final score indicating change in food habit.

7) Change in clothing pattern

Six statements regarding change in clothing pattern were prepared. The respondents were asked to give their reply to each statement in form of Yes' or No. The score assigned for ‘Yes’ and ‘No’ was 1 and 0, respectively. The score of each statement was summed up to obtain final score indicating change in clothing pattern.

8) Change in savings and expenditures

Eight statements regarding change in savings and expenditure were prepared. The respondents were asked to give their reply to each statement. The reply to each statement was bipolar i.e. Yes or No.

The score assigned for Yes and No was 1 and 0 respectively. The score of each statement was summed to obtain final score indicating change in savings and expenditure.

RESULT AND DISCUSSION

Personal profile of the beneficiaries of KVK

The data presented in table 2 indicated that majority of the respondents were found in middle age group (59.50 percent), whereas 30.00 per cent and 10.50 per cent of them were in the old age and young age group respectively. The probable reason might be that due to migration very less young farmers associated with farming.

In case of education 36.50 per cent of the respondents were found in secondary education, whereas 33.50 per cent and 13.00 per cent of them were primary education and college and above education respectively. Only 10.00 per cent and 07.00 per cent were illiterate and high education level. The probable reason might be that due to secondary level education easily available at village level.

Majority of the respondents (58.00 per cent) were found in large family followed by 42.00 per cent lived in small family.

Majority of the respondents (60.00 per cent) have farming with animal husbandry occupation, whereas 31.00 per cent have occupation farming. Only 05.50 per cent and 3.00 have Farming +Animal husbandry+ business and Farming + Animal husbandry+ business+ horticulture occupation respectively. The probable reason might be that due to that most of the respondents livelihood totally depended on agricultural and for regular income they keep the milch animal and also might be that majority of the respondents live in large family.

Majority of the respondents (68.00 per cent) have high level of experience in farming whereas, 20.00 per cent and 12.00 per cent of them have middle and low level of experience respectively.

In case of annual income 39.50 per cent of the respondents have annual income above 2 lakh, whereas 35.00 per cent and 25.50 per cent of them have annual income low and medium level of annual income respectively. The probable reason might be that due to a majority of the respondents occupation was farming + animal husbandry.

Majority of the respondents (52.50 per cent) of the respondents have large land holding whereas, 17.50 per cent and 17.00 per cent have of them have medium and marginal land holding respectively. Moreover 13.00 per cent respondents have small land holding.

Majority of the respondents (61.00 per cent) were found in no social participation where as 30.50 per cent and 6.00 percent of them have poor and good social participation. Only 2.50 per cent of the respondents were found in moderate level of social participation. The probable reason might be that most of the respondents were very active in daily agricultural activities and they have no time for any social activity.

Table 2: Distribution of respondents according to their personal profile

Sr. No.	Personal profile	(n=200)

		Frequency	Per cent
1	**Age**		
	Young age (up to 35 year)	21	10.50
	Middle age (36 to 50 year)	119	59.50
	Old age (above 50 year)	60	30.00
2	**Education**		
	Illiterate	20	10.00
	Primary education	67	33.50
	Secondary education	73	36.50
	High education	14	07.00
	College and above	26	13.00
3	**Family Size**		
	Small (up to 5 member)	84	42.00
	Large (above 6)	116	58.00
4	**Occupation**		
	Farming	62	31.00
	Farming + animal husbandry	121	60.50
	Farming + Animal husbandry+ business	11	05.50
	Farming +Animal husbandry+ business + horticulture	06	03.00
5	**Farming experience**		
	Low level of experience (Up to 5)	24	12.00
	Medium level of experience (05 to 08)	40	20.00
	High level of experience (above 08)	136	68.00
6	**Annual income**		
	Low (up to 1,00,000)	70	35.00
	Medium (1,00,000 to 2,00,000)	51	25.50
	High (above 2, 00, 000)	79	39.50
7	**Land Holding**		
	Marginal farmers (up to 1 ha)	34	17.00
	Small farmers (1.01 to 2 ha)	26	13.00
	Medium farmers (2.01 to 4 ha)	35	17.50
	Large farmers (More than 4 ha)	105	52.50
8	**Social Participation**		
	No social participation	122	61.00
	Poor social participation	61	30.50
	Moderate social participation	5	02.50
	Good social participation	12	06.00
9	**Mass media exposure**		
	Low (Score up to 09)	62	31.00
	Medium (Score 09 to 16)	112	56.00
	High (Score above 16)	26	13.00

10	**Innovativeness**		
	Low level of innovativeness	67	33.50
	Medium level of innovativeness	109	54.50
	High level of innovativeness	24	12.00

Majority of the respondents (56.00 per cent) were found in medium level of mass media exposure group whereas, 31.00 per cent and 13.00 per cent of them found in low and high level of mass media exposure respectively. The probable reason might be compulsion of internet use by society.

Majority of the respondents (54.00 per cent) were found in medium level of innovativeness whereas, 33.50 per cent and 12.00 per cent of them found in low and high level of innovativeness respectively.

Image and Impact of KVK

According to standard dictionary of education, an image means a form of centrally grouped experience bearing resemblance in structure to a perception. Although, images are based on past perception, they are not simple reflections of these perceptions. To measure the image of KVK, Amreli twenty questions about KVKs' objectives, activities, and usefulness, helpfulness of the officials, benefit gained by the farmers and general and overall impressions of the centers were asked to the beneficiaries.

Table 3: Distribution of respondents according to image of KVK Amreli n=200

Sr. No.	Statement	F	%	Rank
1.	KVK organizes short and long term vocational training courses for higher production on farms and for self-employment.	**159**	**79.50**	**VII**
2.	KVK conducts Front Line Demonstration to demonstrate the production potentiality of various crops under the farmer's condition and resources.	**176**	**88.00**	**IV**
3.	Training given by KVK is an important medium to impart latest know-how to the farmers.	**173**	**86.50**	**V**
4.	KVK organizes field days to communicate the innovations to the potential users.	**179**	**89.50**	**III**
5.	KVK provides facility for soil and water testing which helps to assess the fertility status of soil.	**147**	**73.50**	**VIII**
6.	KVK provides knowledge on need based application of fertilizer and pesticides which helps farmers to save expenditure on fertilizers and pesticides.	**190**	**95.00**	**I**
7.	In training programme of KVK communication of field problems to researcher and getting solution is quicker.	**135**	**67.50**	**X**
8.	KVK suggests solution to farmers' problems in view of their economic condition.	**171**	**85.50**	**VI**
9.	KVK gives knowledge of high yielding variety which is beneficial to increase the yield of crops.	**146**	**73.00**	**IX**

10.	KVK personnel, explains the importance of technology in local language through which communication barriers can be avoided.	**186**	**93.00**	**II**

The data presented in table 3 indicated that KVK provides knowledge on need based application of fertilizer and pesticides which help farmers to save expenditure on fertilizers and pesticides (95.00 per cent) and ranked first followed by KVK personnel, explains the importance of technology in local language through which communication barriers can be avoided (93.00 per cent), KVK organizes field days to communicate the innovations to the potential users (89.50 per cent), KVK conducts Front Line Demonstration to demonstrate the production potentiality of various crops under the farmer's condition and resources (88.00 per cent), Training given by KVK is an important medium to impart latest know-how to the farmers (86.50 per cent), KVK suggests solution to farmers' problems in view of their economic condition (85.50 per cent), KVK organizes short and long term vocational training courses for higher production on farms and for self-employment (79.50 per cent), KVK provides facility for soil and water testing which helps to assess the fertility status of soil (73.50 per cent), KVK gives knowledge of high yielding variety which is beneficial to increase the yield of crops (73.00 per cent) and In training programme of KVK communication of field problems to researcher and getting solution is quicker were ranked II,III,IV,V,VI,VII,VIII,IX,X respectively. The probable reason might be that young and enthusiastic scientist and total number of projects like NICRA, NFSM, ATIC; NMOOP and DAMU run which cover more number of farmers. Also there were good understanding with line department of agriculture and NGO works in Amreli districts.

Table 4: Relationship between respondent and image of KVK n=200

Sr. No.	Independent Variables	Coefficient of correlation (r)
1	Age	0.0049 NS
2	Education	0.1655*
3	Family size	-0.0553 NS
4	Occupation	0.0330
5	Farming experience	0.1889**
6	Land holding	0.0887 NS
7	Annual income	-0.0040 NS
8	Social participation	0.0786 NS
9	Mass media exposure	0.1990**
10	Innovativeness	0.1732*

* = significant at 0.05 level, ** = significant at 0.01 level

The data presented in table 4 revealed that farming experience (0.1889**) and mass media exposure (0.1990**) were positively and highly significantly correlated at 0.01 level of probability with the image of KVK. It can be concluded that farming experience and mass media exposure level

of respondents influence image of KVK. The probable reason might be due to mass media exposure respondents regularly in the contact of KVK scientist.

Education (0.1655*) and innovativeness (0.1732*) were positively significantly correlated at 0.05 level of probability with the image of KVK. It can be concluded that education and innovativeness level of respondents influence image of KVK. The probable reason might be educated respondent easy to understand technology and innovative farmers ready to adopt this technology first.

Age (0.0049 NS), land holding (0.0887 NS), Social participation (0.0786 NS) were positively and family size (-0.0553 NS), annual income (-0.0040 NS) were negatively but not significantly correlated with image of KVK.

Impact of KVK

Webster describes the impact as the force, impressions or operations of one thing on another, affect a forceful control and collusion. In simple words, it is the effect of one on the other.

For this study, the resultant changes occurred due to adoption of recommended agricultural technologies in the form of changes have been taken as impact of KVKs. It is finally defined as the resultant changes occurred due to adoption of recommended agricultural technologies in the form of changes that prospered within beneficiary farmers of adopted villages of Amreli KVKs. An effort has been made to asses such resultant changes in terms of 8 aspects, *viz.*, Change in area under field crops, change in use of improved varieties, change in crop production, change in annual income, change in household possession, change in food habit , change in clothing pattern, change in savings and expenditures.

Table 5: Aspect wise change occurred as a result of KVK activities n=200

Sr. No.	Particulars	Mean Difference	"t" value
1	Area under field crops	0.8826	1.7451 *
2	Use of improved varieties	2.5075	19.3999**
3	Crop production	28.5124	16.1258**
4	Annual income	0.2851	11.4824**
5	Household possession	1.6069	11.3950**
6	Food habit	0.7960	5.5643**
7	Clothing pattern	0.3333	02.7022**
8	Savings and expenditures	1.3284	13.3788**
	Over all change	4.5784	10.7833**

* = significant at 0.05 level, ** = significant at 0.01 level

The data presented in table 5 revealed that change in use of improved varieties, change in crop production, change in annual income, change in household possession, change in food habit , change in clothing pattern, change in savings and expenditures were highly significant at 0.01 level of probability. This result gives indication that, these seven aspects were increased /improved after adoption of villages by KVKs. The probable reason for increase in use of improved varieties might be its easy availability at university and Gurabini. Moreover, due to different project like NICRA, NMOOP and NFSM varieties like GG-5, GJG-3, GJG-22, GJP-1,Vaishali , GT-3, GT-4,GCH-7,GCH-9, GW-366 and GW496 and GW-173 very popular among the farmers because regular field day conducted by KVK Amreli and this varieties have own potentiality to gives high returns to the respondents. Crop production increased might be due to the adoption of crop production technology and regular suggestion adopted from KVK scientist. The annual income was increased due to more farm production and decrease in crop production crop. It was also due to majority of the respondents have occupation were animal husbandry and farming.

The improvement found in household possession, food habit and clothing pattern might be due to that the respondents have increased their annual income of respondent and also influence of mass media in the society.

The improvement found in savings and expenditures might be due to that the farmers have awareness about economic security and now governments gives all their benefits to farming community directly on their account.

Changes in area under field crops were significant at 0.01 level of probability. The improvement found in area under field crop might be due to the respondents have started intercropping specially grown pulse crops in area because of influence of CFLDs under NFSM.

. The findings lead to conclude that positive and effective impact occurred in adopted villages due to large scale activities likes training, diagnostic visit, and FLDs given by KVK, Amreli. Thus, KVK played an important role in accelerating agricultural production and affecting a positive change in daily routine life of farmers.

Table 6: Distribution of respondents according to their constraints n=200

Sr.	Constraints	F	%	Rank
1	Don’t provide improved seed materials	97	48.50	VII
2	Suggest technology unavailable at local market	69	34.50	VIII
3	Limited veterinary service	120	60.50	V
4	Only focused on university technology	147	73.50	III
5	Limited information regarding market	164	82.00	I
6	Less number of village training	103	51.50	VI
7	No any kind of exposure visit	152	76.50	II
8	Don’t provide transport facility in on campus training	138	69.00	IV

Table 6 shows that major constraints faced by respondents were limited information regarding market (82.00 percent) and first rank followed by no any kind of exposure visit (76.50 percent), Only focused on university technology (73.50 percent), Don't provide transport facility in on campus training (69.00 percent), Limited veterinary service (60.50 percent), Less number of village training (51.50 percent), Don't provide improved seed materials (48.50 percent) and Suggest technology unavailable at local market (34.50 percent) were ranked II,III,IV,V,VI,VII and VIII.

The data presented in Table 7 indicated that major suggestions given by respondents were market information and analysis provided to farmers (83.00 percent) and ranked first followed by transport facility provided to the farmers (76.00 percent), government providing set up for availability of technology at cheaper rate in KVK (71.00 percent), Providing veterinary service (61.00 percent), exposure visit should be arranged(60.00 percent), increase village training (47.50 percent), Improve seed should be available (46.00 percent) were ranked II,III,IV,V,VI and VII.

Table 7: Distribution of respondents according to their suggestions n=200

Sr. No.	Suggestion	F	%	Rank
1	Improve seed should be available	92	46.00	VII
2	Providing veterinary service	122	61.00	IV
3	Transport facility provided to the farmers	152	76.00	II
4	Market information and analysis provided to farmers	166	83.00	I
5	Government providing set up for availability of technology at cheaper rate in KVK	142	71.00	III
6	Increase village training	95	47.50	VI
7	Exposure visit should be arranged	120	60.00	V

Conclusion

From above study it can be concluded that major image made activities done by KVK were KVK provides knowledge on need based application of fertilizer and pesticides which help farmers to save expenditure on fertilizers and pesticides and ranked first followed by KVK personnel, explains the importance of technology in local language through which communication barriers can be avoided, KVK organizes field days to communicate the innovations to the potential users , KVK conducts Front Line Demonstration to demonstrate the production potentiality of various crops under the farmer's condition and resources and the major factor influence image of KVK were farming experience, mass media exposure ,education and innovativeness. In case of impact effective changes occurred in all eight aspect for impact analysis.

Moreover, major constraints faced by respondents were limited information regarding market, no any kind of exposure visit, Only focused on university technology , Don't provide

transport facility in on campus training, limited veterinary service and major suggestions given by respondents were market information and analysis provided to farmers and ranked first followed by transport facility provided to the farmers, government providing set up for availability of technology at cheaper rate in KVK, Providing veterinary service.

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	1	85646	NIL
Feb 2020	0	0	
March 2020	0	0	
April 2020	0	0	
May 2020	0	0	
Jun 2020	0	0	
Jul 2020	2	86029	
Aug 2020	2	621	
Sept 2020	4	37548	
Oct 2020	1	85851	
Nov. 2020	0	0	
Dec. 2020	0	0	

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awa re-ness	Other enterprise	Total
KVK, JAU, Amreli	Text only	2		4		4		10
	Voice only							
	Voice & Text both							
	Total Messages	**2**		**4**		**4**		**10**
	Total farmers Benefitted	**171497**		37548		86650		**295695**

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.	Herbal Garden	May-2007	0.5	40	-	-	-	-	Demonstration purpose
2.	Orchard Unit	2008	0.5	62	-	-	-	-	
3.	Net House	2009	0.15	-	-	-	-	-	
4.	Poly House	2009	0.25	-	-	-	-	-	

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. (q)	Cost of inputs	Gross income	
Cereals									
Wheat	09/11/20	08-10/03/21	1.0	GJW-463	Truthful	47.80	50,000	-	-
Pulses									
Gram	20/11/20	04-06/03/21	1.0	GJG-6	Truthful	20.00	40,000	-	
Oilseeds									
Groundnut	10-12/06/20	12-17/10/20	10.5	GJG-22	Foundation	74.45	3,15,000	-	-
Sesame	01/07/20	19/09/20	1.5	GJT 5	Breeder	0.31	30,000	-	-
Fibers	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
Floriculture	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-

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

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

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	60	8	-
February 2020	40	5	-
March 2020	-	-	-
April 2020	-	-	-
May 2020	-	-	-
June 2020	-	-	-
July 2020	-	-	-
August 2020	-	-	-
September 2020	-	-	-
October 2020	-	-	-
November 2020	-	-	-
December 2020	-	-	-

F. Database management

S. No	Database target	Database created
1.	**-**	5731

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

H. Performance of Nutritional Garden at KVK farm: NIL

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

H. Details of Skill Development Trainings organized

S. N.	Name of KVKs/SAUs/IC	Name of QP/Job role	Duration (hrs)	No. of participants		
				SCs/STs	Others	Total

	AR Institutes			Male	Female	Male	Female	Male	Female
1	KVK, JAU, Amreli	Agricultural Machinery Demonstrator	200	1	1	17	1	18	2
2		Mushroom Grower	200	0	0	19	1	19	1

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	State Bank of India	Agril campus, Junagadh	-	-	-	-	-
With KVK		Amreli (Current A/C) Amreli (Saving A/C)	0312	KVK Fund A/c	10837874780 10837877690	365002601	SBIN0000312

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

Sr. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	97.00	55.58	61.00
2	Traveling allowance	1.00	6.91	00.28
3	Contingencies	12.00		6.00
	Total (A)	**110.00**	**62.49**	**67.28**
B. Non-Recurring Contingencies				
1	Equipments including SWTL & Furniture/Vehicle/Library	00	00	00
	Total (B)	**00**	**00**	**00**
C.	**Revolving fund**	00	00	00
	GRAND TOTAL (A+B+C)	**110.00**	**62.49**	**67.28**

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	44,32,715	19,93,508	10,04,278	54,42,575
April 2019 to March 2020	54,42,575	2130032	1980100	5592507
April 2020 to December 2020	55,92,507	8,27,507	5,45,967	58,74,047

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	Dates
Mr. V. S. Parmar	Scientist (Agril. Extension)	Resource conservation and Energy self reliance for suistanable agricultural development	DEE, SDAU	Online	28-30/05/20
		e NAM: challenges and prospects	AAU, Anand		10/06/2020
		National webinar on Organic Farming	Balaghat		16-20/06/20
		National webinar on Scope and scenario of agriculture after covid 19	MPUAT, Udaipur		29/05/2020
		National webinar on Post covid -19 Agribussiness: challenges and opportunities	JAU, Junagadh		13-14/06/20
		Use of mass media for transfer of technology	EEI, Anand		18-19/06/20
		Academic writing and research ethics	IQAC, Janta college, Kabuganj in association with Don Bosco college central library , Itanagar		27-29/06/20
Mr. N. M. Kachhadiya	Scientist (Plant Protection)	e NAM: challenges and prospects	AAU anand	Online	10/06/2020
		Resource conservation and Energy self reliance for suistanable agricultural development	DEE, SDAU		28-30/05/20
		National webinar on Organic Farming	Balaghat		16-20/6/20
		National webinar on Scope and scenario of agriculture after covid 19	MPUAT, Udaipur		29/05/2020
		National webinar on Post covid -19 Agribussiness: challenges and opportunities	JAU, Junagadh		13-14/06/20
		use of mass media for transfer of technology	EEI, Anand		18-19/06/20
		Traditional Agriculture : self reliant bharat	Kshitij foundation		20-21/06/20
		Farmer producer organization and commodity market	AAU, anand		27-28/07/20
		Kharif pakoma pak sanrakshan na pravartman prashno ane nirakaran	PPAG, AAU, Anand		20/08/2020
		Non insect pest management mites,crabs,snails,slugs and avians	NIPHM, Hyderabad		11-13/08/20
		National webinar on Recents trends in horticultural entomology	SDAU, Jagudan		27/08/2020
		Kapasna pakma pak sarankshan	PPAG, AAU, Anand		16/09/2020

		Fruitfly : surveillance and management	NIPHM, Hyderabad		21-25/09/20
		shiyalu shakabhaji paakoma paak saraxan	PPAG, AAU, Anand		06/10/2020
		diagnostics & remedial mesures for common errors in application of statastics	COA, NAU, Bharuch		20-21/10/20
		National webinar on Plant health management for sustainable Agriculture	NIPHM, Hyderabad		04/09/2020
		Sajeev khetima pak sarakshan	PPAG, AAU, Anand		27/10/2020
		Bio fertilizer production Technology	JAU Junagadh		28/10/2020
		Online webinar on farmer Bill	KVK Navsari		30/10/2020
Mr.P. J. Prajapati	Scientist (Agronomy)	Webinar on e-NAM Challenges and Prospects	AAU, Anand	**Online**	10/06/2020
		National Webinar on Organic Farming	JNKV, Jabalpur		16-20/06/20
		Designing E-learning Content	Online (ICAR-NAARM)		1-31/07/2020
		Best KVK Scientist Award (Agronomy)	Society of Krishi Vigyan, Kolkata		28/09/2020
Dr. Neha Tiwari	Scientist (Home Science)	Webinar on e-NAM Challenges and Prospects	AAU, Anand	**Online**	10/06/2020
		Art of parenting and child care	Children University, Gandhinagar		19-05-2020
		National Webinar on Tejasvi Balak, Tejasvi Bharat (Garbh Sanskaar)			26-05-2020
		Beginning happiness to life	J.Z. Shah Arts & H.P. Desai Commerce College, Amroli Surat		28-05-2020
		National webinar on This is my Aim			30-05-2020
		National webinar on Post Covid Scenario and Atmanirbhar Bharat"			03/06/2020
		Biodiversity & Human Welfare	School of Engineering & Technology Shobhit Institute of Engineering & Technology		05-06/06/220
		Post covid-19 Agribusiness: Challenges and opportunities	NAHEP,JAU, Junagadh.		13-14/06/2020
		Communication skill for effective extension service	EEI, AAU, ANAND		11-12/06/2020
		Online Training Programme on Communication and Management Skills for Extension Professionals	ICAR-National Academy of Agricultural Research Management Rajendranagar, Hyderabad -		1-21/10/2020

Dr. N. S Joshi	Senior Scientist & Head	Kapasana pakma pak sharakshan	State level webinar organized by plant protection Association of Gujarat (PPAG) and AAU, Anand	**Online**	16/09/2020
		National webinar on organic farming	Balaghat, JKKVV		16/06/2020
		eNAM- challenge and prospects	National agriculture higher education project centre for agriculture market intelligence, AAU, Anand		10/06/2020
		Underutilized fruits : converting water lands into goldmine	Deptt. of horticulture, COA, NAU, Bharuch		30/09/2020

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/unit)	
				Before	After
Karjala	20	Organic farming, custom hiring center, improved varities, value addition	20	1,00,000/-	1,50,000/-
Nesdi	20		20	98,000/-	1,35,000/-

18. Details of activities planned under PKVY

Sr. No.	Crop	Season	Inputs	No of FLD	Area (ha)	Yield (q/ha)	Cost of cultivation	Gross return (Rs./ha)	Net Return (Rs./ha)	BC Ratio
1	Groundnut	Kharif-2020	NPK consortia, Castor cake, Metarhizium, Beauveria, Tricoderma, NPV, Neem oil, Sea weed extract, Banana pseudo liquid	20	20	23.5	23600	124358	100758	5.27
	Total			**20**	**20**					

19. Details of Progress of ARYA Project: NIL

20. Details of SAP

S. N.	Types of major Activity conducted- SwachhtaPakhwada, Cleaning, Awareness Workshop, **Miccobial based Agricultural Waste Management by Vermicomposting etc.**	No. of Participants
1	Plantation of trees.	14
2	Cleanliness drive including cleaning of offices	14
3	Cleanliness and sanitation drive in the villages adopted under the Mera Gaon Mera Gaurav Programme	43

4	Cleanliness and sanitation drive within campuses and surroundings including residential colonies	25
5	Promoting clean & green technologies and organic farming practices in kitchen gardens of residential colonies	35
6	Campaign on cleaning of sewerage & water lines, awareness on recycling of waste water	35
7	Workshops, exhibitions, technology demonstrations on agricultural technologies for conversion of waste to wealth, safe disposal of all kinds of wastes	38
8	Celebration of Special Day- KisanDiwas (Farmer's Day)-23 December inviting farmers. Experience sharing on Swachhata initiatives by farmers	45
9	Swachhta Awareness at local level	33
10	Cleaning of public places, community market places	14
11	Composting of kitchen and home waste materials,promoting clean & green technologies and organic farming practices in new area.	35
12	Campaign on cleaning of sewerage & water lines, awareness on recycling of waste water	32
13	Cleaning and creating awareness on treatment & safe disposal of bio-degradable/ non-bio-degradable wastes by involving civil/ farming community.	33

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

- **Parthenium Awareness week**- As it is known to everyone that 'Parthenium Awareness week' was organized every year since 2004 to make farmers and general public aware about the menace of parthenium, so like every year this year KVK, Amreli also organized this week by uprooting parthenium to make campus free from it. This activity is done by all the staff of KVK, dated **18/08/2020** uprooting of Parthenium was done within the campus and outside of campus so that general public might aware from the activities.
- **Celebration of Poshan Maah for month of September -** As per guideline issued by ICAR to celebrate September month as a Poshan Maah so by Keeping in mind this guideline KVK, Amreli organized several programme during the same period for farm women and Anganwadi workers. The schedule of the whole month programme that is completed in September month was as follows:-

S. No.	Date	Topics	No. of Participants		
			Farmers	Farm	Anganwadi
1.	3/9/2020	Training on nutrition thali for balance diet	0	20	0
2.	3/9/2020	Filed Visit for Kitchen Gardening model	0	5	0
3.	4/9/2020	Training programme and interactive lecturatte on bio-fortified varieties in nutrition	0	18	0
4.	4/9/2020	Training programme and interactive lecturatte on importance of nutrition during covid-19	0	18	0
5.	4/9/2020	Filed Visit for Kitchen Gardening model (Kitchen Gardening Kit was Given previously)	0	06	0
6.	17/9/2020	Celebration of Poshan Maah , By different activities at kvk, Amreli	0	52	33
7.	21/9/2020	Distribution of Poshan Kit	0	14	0
8.	21/9/2020	Training programme on balance diet and layout preparation of nutri garden for income generation	0	34	0

- **Mahila Kisan Divas -** On 15/10/2020 Mahila Kisan Divas was organized for 51 farm women by including no activities like women contribution in agriculture development, drawing competition on balanced diet and poshan thali, essay writing on importance on nutrition for women and also different lecture related to different field like disease management in vegetable crop, disease management in gram and irrigation technologies.
- **World Soil Day-** On 05/12/2020 world soil day was celebrated in KVK, Amreli with 35 farmers during the event various information was given by the scientist on topics like soil health card, importance of different kind of soil etc.
- **PM Kisan money to farmers**- On 25/12/2020 The hon'ble Prime Minster of India had addressed the farmers and releasing PM Kisan money to framers for the same event KVK, Amreli organized one programme in coordination with line department for 380 farmers and farm women and online message for the same event was send and accesses by 1150 farmers by different social media platform.

22. Other Schemes Activities

22.1 Agriculture Technology Information Centre Activities (ATIC) (January 2020-December 2020):

I. Trainings:

Sr. No.	Types of training	No. of Training	No. of participants
1	On Campus	04	115
2	Off Campus	07	160
3	Field day	04	70
4	Field visit	10	40
	Total	**25**	**385**

Sr. No.	Crop	Season	Component /Variety	No of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo	Local check	
1	Groundnut	Kharif 20	IPM (Metarhizium, Beauveria , Azadirechtin chloropyriphos	20	5	17.64	16.08	9.74
2	Cotton	Kharif 20	GTTH-49	5	1.25	20.8	20.0	3.58
3	Cotton	Kharif 20	IPM (Cotton Inputs Beauveria , Azadirechtin, Pheromone trap)	20	5	21.4	20.4	5.13
4	Groundnut	Kharif 20	GJG-22	20	5	16.5	14.9	10.94
5	Sesame		GT-5	10	4	2.50	2.15	16.28
6	Cotton		MDT tube	10	2.5	18.80	17.68	6.35
7	Gram	Rabi 19-20	IDPM	25	6.25	27.6	25.3	9.5
8	Gram		GG-5	25	6.25	28.6	25.6	12.0
9	Wheat		GJW-463	25	6.25	49.2	40.3	23.3
			Toatal	**160**	**41.5**			

III. Economic Impact of FLDs (ATIC)

Crop	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Cost Ratio (Gross Return / Gross Cost)	
	Demo	Local Check	Demo	Local Check	Demo	Local Check	Demo	Local Check
Groundnut	31494	33782	87340	78930	55846	45148	2.78	2.33

Cotton	39362	41402	107350	103645	67988	62243	2.72	2.50
Cotton	38671	41089	112440	105795	73769	64706	2.90	2.57
Groundnut	30178	32856	81387	73652	51209	40795	2.65	2.21
Sesame	10217	11192	19394	16698	9177	5507	1.89	1.49
Cotton	40004	41273	98255	92404	58251	51131	2.45	2.24
Gram	23842	24742	107150	98191	83308	98191	4.50	3.98
Gram	23942	24842	124729	110886	100787	110886	5.24	4.49
Wheat	25942	26842	110714	90619	84772	90619	4.30	3.40

22.2 Activities under National Innovations on Climate Resilient Agriculture (NICRA) (January 2020- December 2020):

I. Trainings:

Sr. No.	Title of training	No. of Courses	No. of beneficiaries		
			Male	Female	Total
1	Integrated pest and disease management in kharif crops	1	31	0	31
2	Soil health awareness and pest management in chickpea and wheat	1	32	0	32
3	Organic farming	1	29	0	29
Total		**3**	**92**	**0**	**92**

II. Front Line Demonstrations:

Intervention	Description		No. of demos	Area (ha)	Average Yield (q /ha)		
	Crop	Variety (s)			Demo	Local chek	% increase over local cheek
Critical inputs for Nutrient Management (Groundnut variety GJG-22 with *Rhizobium* and Phosphate culture)	Groundnut	GJG-22	10	4.0	17.0	16.1	5.84
Intercropping systems (Cotton+ Sesame)	Cotton	-	20	8.0	20.55	20.80	-1.20 %
	Sesame	Sesame GT-4			3.78	Additional Return from sesame	
New improved variety	Okra	GO-6	5	2.0	131.3	120.3	9.15 %
Disease Resistant Variety	Green Gram		5	2.0	3.9	3.3	19.23
Short duration/Late	Wheat	GW-173	10	4.0	47.9	44.4	7.88

sowing varieties varieties							
Pests and disease resistance varieties	Chickpea	GG-5	10	4.0	23.8	21.6	10.19
Total			**60**	**24**			

III. Work under Natural Resource Management:

Name of intervention undertaken	No of units	No of farmers benefitted
Vermicompost Unit	09	09

V. Extension activities:

Thematic area	No. of activities	No. of beneficiaries		
		Male	Female	Total
Method demonstration	6	110	65	175
Agro advisory services	15	620	70	690
Awareness	5	75	32	107
Field Day	3	78	0	78
Group discussion	5	110	24	134
Diagnostic visit	4	21	0	21
Total	**38**	**1014**	**191**	**1205**

VII. Institutional interventions revenue generated through custom hiring center

Name of the implement	No. of units	Area covered (ha)	No. of beneficiaries	Revenue generated (Rs.)	Implement used for which crop
Rotavator	2	13	15	4000	Cotton and Groundnut
Mobile Shredder	1	20	4	2600	Cotton
M B Plough	1	7	6	1400	Cotton
Seed dressing drum	1	18	10	400	Groundnut
Drip Line Collector	8	11	12	600	Cotton
Total				**9000**	

22.3 I. Activities-Cluster base Front Line Demonstrations of Rabi and Summer Pulses under NFSM (January 2020- December 2020):

Sr. No.	Types of training	No. of training	No. of participants
1	On campus	06	270
2	Off campus	07	313
3	Field Day	9	166
4	Field visit	12	42
5	Sponsored training	2	40
Total		**23**	**335**

II. Cluster Front Line Demonstrations of Rabi Pulses under NFSM:

Sr. No.	Crop	Season	Component /Variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo	Local check	
1	Pigeon pea	Kharif 20	GJP-1, Trichoderma, Rhizobium, Beuvaria, PSB	50	20	23.35	20.03	16.58
2	Gram	Rabi-2019-20	GJG-6, Trichoderma, HNPV, Beuvaria, pheromen trap	25	10	25.2	21.6	16.67
Total				**75**	**30**			

12.4. I. ACTIVITIES-CLUSTER BASE FRONT LINE DEMONSTRATIONS OF OILSEED UNDER NMOOP (January 2020- December 2020):

Sr. No.	Types of training	No. of training	No. of participants
1	On/Off campus	3	72
2	Field Day	6	178
3	Sponsored training	3	90
Total		**12**	**340**

II. CLUSTER FRONT LINE DEMONSTRATIONS OF OILSEED UNDER NMOOP:

Sr. No.	Crop	Season	Component /Variety	No of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo	Local heck	
1	Groundnut	Kharif-2020	GJG-22, Metarhizium, Rhizobium and PSB	50	20	19.4	17.3	12.46
2	Sesame	Kharif-2020	GT-4 and Beauria, Trichoderma, Azadirectine, Pendimethalin	50	20	2.1	1.8	21.36
Total				**100**	**40**			

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	75	1656	843	2499
Rural youths	2	30	36	66
Extension functionaries	1	20	4	24
Sponsored Training	16	545	47	592
Vocational Training	1	0	56	56
Total	**95**	**2251**	**986**	**3237**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	180	78	
Pulses	145	50.50	
Cereals	35	10.25	
Vegetables	20	6.5	
Other crops	55	16.75	
Hybrid crops	10	4	
Total	**445**	**166**	
Livestock & Fisheries	-	-	
Other enterprises	-	-	
Total	-	-	
Grand Total	**445**	**166**	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	5	18	18
Livestock	-	-	-
Various enterprises	-	-	-
Total	5	18	18
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total	5	18	18

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	417	11014
Other extension activities	-	-
Total	417	11014

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
KVK, JAU, Amreli	Text only	2		4		4		10
	Voice only							
	Voice & Text both							
	Total Messages	**2**		**4**		**4**		**10**
	Total farmers Benefitted	**171497**		37548		86650		**295695**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	142.56	-
Planting material (No.)	9270	4635
Bio-Products (kg)		
Livestock Production (No.)		
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	18	5400
Water	32	2560
Plant	-	-
Total	**50**	**7960**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	44
2	Conferences	-
3	Meetings	-
4	Trainings for KVK officials	1
5	Visits of KVK officials	-
6	Book published	2
7	Training Manual	-
8	Book chapters	-
9	Research papers	6
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	-
13	Proceedings	1
14	Award & recognition	1
15	On going research projects	-