ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2017-18
(1st April 2017 to 31st March 2018)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
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	9428191963	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 March 31, 2018)

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining
				Current Pay Band	Current Grade Pay	
1.	Senior Scientist and Head	Dr. N. S. Joshi	Horticulture	15600-39100	9000	24/03/2015
2.	Scientist	Dr. H. C. Chhodavadia	Extension Education	15600-39100	8000	24/08/2006
3.	Scientist	Er. P. S. Jayswal	Agriculture Engineering	15600-39100	6000	10/09/2012
4.	Scientist	Dr. M. L. Patel	Plant Protection	15600-39100	6000	31/03/2015
5.	Scientist	Mr. P. J. Prajapati	Crop Production	15600-39100	6000	31/03/2015
6.	Scientist	Vacant	Animal Science	-----	-----	-----
7.	Scientist	Vacant	Home Science	-----	-----	-----
8.	Programme Assistant	Vacant	-----	-----	-----	-----

9.	Computer Programmer	Shri S .N. Joshi	-----	39900-126600	-----	01/07/10
10.	Farm Manager	Vaccant	-----	-----	-----	-----
11.	Accountant/ Superintendent	Shri H. J. Ravaliya	-----	39900-126600	-----	01/12/11
12.	Stenographer	Shri A. H. Parmar	-----	19,950 fix	-----	18/11/2013
13.	Driver 1	Vaccant	-----	-----	-----	-----
14.	Driver 2	Vacant	-----	-----	-----	-----
15.	Supporting staff 1	Shri N. K. Dangar	-----	15700-50000	-----	01/06/05
16.	Supporting staff 2	Vacant	-----	-----	-----	-----

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1	Under Buildings	3.00
2.	Under Demonstration Units	1.00
3.	Under Crops	13.47
4.	Horticulture	0.50
5.	Pond	1.0
6.	Others if any (Polytechnic Home Sci. building)	0.53
	Total	**20**

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage			
			Complete			Incomplete
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	
1.	Administrative Building	ICAR	2008	500	3190000	NIL
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	

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
M&M, Bolero XL	2006	4,86,500	261149	Working condition
Tractor	2005	3,80,000	---	Working condition
Motor Cycle	2010	42,831	15300	Working condition
Power Tiller with implements	2011	1,42,000	---	Working condition
Mini Tractor with implements	2014	3,74,820	---	Working condition

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	1,57,500	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

1.8. Details SAC meeting conducted in the year

Date	Name and Designation of Participants	Salient Recommendations	Action taken
12.03.2018	Dr. A. R. Pathak, Hon. Vice Chancellor, Junagadh Agricultural University, Junagadh	To replace GC-4 varital evaluation in cumin of KVK FLD by IDM in Action Plan.	Suggestion accepted
		To replace GCH-10/12 variety of cotton of KVK FLD with GTHH-49.	Suggestion accepted
		To arrange trainings and FLD on Malnutrition with help of Home Science experts.	Suggestion accepted
		To replace Okra variety GJO-3 of Horticulture FLD with GAO-5 or GJO-6.	Suggestion accepted
		Give FLDs on Wheat variety GW-366, instead of it use GW-451.	Suggestion accepted
		To conduct all activities in Golden Village 'Rafala'.	Suggestion accepted
		To conduct a survey on benefit and constraints faced by farmers in using protected cultivation.	Suggestion accepted
		To remove solar cooker FLD.	Suggestion accepted
		To conduct FLD using farm implements of CHC under NICRA project, if possible.	Suggestion accepted
		To add water saving parameter in New OFT of Agricultural Engineering subject.	Suggestion accepted
		To make arrangements for RAWE students to get maximum exposure of agricultural field.	Suggestion accepted
		To arrange trainings on Market Price Intelligence with help of Agricultural Economics experts of CoA, JAU, Motabhandariya.	Suggestion accepted
		To arrange trainings on Crop Insurance for farmers.	Suggestion accepted
	Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh	Change amount of concentration in Treatment T3 instead of 2% as 1.5% or as per discussion with experts of Chemistry dept., CoA, JAU, Junagadh.	Suggestion accepted
		Contact JAU experts for more information about Mushroom cultivation.	Suggestion accepted
		Mushroom cultivation vocational training should be arranged during cold weather situation.	Suggestion accepted
		To take number of days of maturity as a parameter in High Density Cotton Planting OFT.	Suggestion accepted
		To provide information to farmers about all recommendations on Organic Farming by JAU, if available.	Suggestion accepted
	Dr. V. P. Chovatia, Director of Research, JAU, Junagadh	Rearrange trainings of Crop Protection and Agricultural Engineering and Extension as per season.	Suggestion accepted
		To replace Vaishali variety of pegion pea with GJP-1 in NFSM FLDs.	Suggestion accepted
		To take new variety of onion GJRO-11 in place	Suggestion

		of GWO-1 in NICRA FLDs.	accepted
		The chemical analysis of organic turmeric produced by innovative farmer should be done and the same should be reported.	Suggestion accepted
		To conduct FLDs and trainings on SAWAJ MDP technology for pink bollworm used in cotton crop.	Suggestion accepted
	Shri Vitthalbhai Punabhai Chandgadhiya, Progressive Farmer, Village-Karjala	To arrange trainings on lemon storage	Suggestion accepted
	Smt. Jyotikaben, Farmwomen, Village-Sanosara,	To arranging training on organic farming	Suggestion accepted

2. DETAILS OF DISTRICT

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° Celsius in January to 43.7° Celsius 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 district (2017-18)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
1	Pearl millet	7700	112000	14.55
2	Jowar	400	4000	10.00
3	Maize	900	16000	17.78
4	Green gram	4000	20000	5.00
5	Black gram	1900	11000	5.79
6	Tur	800	8000	10.00
7	Wheat	30900	1132000	36.63
8	Gram	2400	31000	12.92
9	Kharif Groundnut	135800	1359000	10.01
10	Summer Groundnut	4900	94000	19.18
11	Kharif Sesamum	10400	34000	3.27
12	Summer Sesamum	3500	66000	18.86
13	Castor	2100	41000	19.52
14	Irrigated Cotton (Lint)	178300	6458000	36.22
15	UnIrrigated Cotton (Lint)	137600	1526000	11.09
16	Cumin	2500	13000	5.20
17	Onion	3700	1020000	275.68
18	Garlic	1700	96000	56.47
19	Chilli	100	1000	10.00

Source: District agriculture department.

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	6965	61918.85	16	Tomato	1091	26642.22
2	Chiku	552	4692	17	Cauliflower	167	2179.35
3	Citrus	719	8016.85	18	Cluster bean	326	2624.30
4	Ber	179	1410.52	19	Cow Pea	532	5910.52
5	Banana	227	8773.55	20	Cucurbits	1193	14435.30
6	Guavava	279	2561.22	21	Cumin	900	765
7	Pomegranate	109	1509.65	22	Chilli-Dry	227	424.49

8	Papaya	46	1955.46	23	Garlic	800	6016
9	Custard Apple	35	31.010	24	Coriander	1300	1664
10	Aonla	56	560.56	25	Ginger	03	53
11	Coconut	151	1283.50	26	Turmeric	13	243.10
12	Onion	3500	87325	27	Fenugreek	108	177.12
13	Brinjal	644	12042.80	28	Ajwain	491	456.63
14	Cabbage	539	10860.85	29	Rose	23	174.80
15	Okra	486	3912.30	30	Marigold	07	58.31

Director of Horticulture, Estimate of the horticulture crops, Year 2016-17

2.5. Weather data (2017-18)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April 2017	0.0	44.5	19.0	65	16
May 2017	0.0	43.8	24.1	78	22
June 2017	71.8	41.4	24.1	83	49
July 2017	381.0	36.0	23.7	88	74
August 2017	98.4	34.8	23.4	89	66
September 2017	100.4	35.0	23.0	87	60
October 2017	11.6	38.4	17.3	76	32
November 2017	0.0	35.8	12.5	67	24
December 2017	3.2	32.1	9.2	68	34
January 2018	0.0	35.0	8.6	67	32
February 2018	0.2	38.0	12.7	61	24
March 2018	0.0	41.8	18.0	60	16
Total	**666.6**	-	-	-	-

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

Category	Population	Production '000Tones	Productivity
Cattle			
Crossbred	8700	7.05	9.351 kg/day
Indigenous	259800	133.80	4.625 kg/day
Buffalo	315500	199.51	5.158 kg/day
Sheep	135800	156.83	1.337 kg/sheep
Goats	160600	12.47	0.535 kg/day
Pigs			
Crossbred	---	---	---
Indigenous	---	---	---
Rabbits	---	---	---
Poultry			
Hens	00	00	00
Desi	8200	5.59 lakh	127.71/season/year/layer
Category		Production (Q.)	Productivity
Fish (Reservoir)	---	---	---

Source: *34th issue on estimates of major livestock products for the year 2016-17, Gujarat state*

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

Khambha	Amreli	Lakhapadar	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	Maandardi	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:

Crop/Enterprise	**Thrust area**
Cotton, Groundnut, Castor, Cumin, Wheat, vegetables, fruits, etc.	Integrated Crop Management in major crops
Farm waste	Recycling of farm waste through composting, vermicompost, green manuring, etc.
Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
Soil	Reclamation of saline & alkaline soils
Farm Women	Farm women empowerment by training in value addition, handicrafts, and small scale enterprises
Horticulture	Promotion of arid horticulture fruit crops
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		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
8	8	22	22	17	17	255	255

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
45	72	1570	5283	190	1218	11724	11954

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
121	132.5	5500	1222

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
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3.1. B. Operational areas details during 2017-18

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.				Vaandaliya	
6.				Lunidhaar	
7.				Haalariya	
8.				Ditla	
9.				Babapur	
10.				Shedubhar	
11.				Vaankiya	
12.				Lakhapadar	
13.				Nesdi	
14.				Oliya	
15.				Maandardi	

3.2. Technology Assessment and Refinement

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	1								1	**2**
Varietal Evaluation										**0**
Integrated Pest Management								1		**1**
Integrated Crop Management										**0**
Integrated Disease Management			1							**1**
Small Scale Income Generation Enterprises										**0**
Weed Management										**0**
Resource Conservation Technology								1		**1**
Farm Machineries										**0**
Integrated Farming System										**0**
Seed / Plant production										**0**
Value addition										**0**
Drudgery Reduction										**0**
Storage Technique										**0**
Mushroom cultivation										**0**
Integrated Varietal Management					1					**1**
Closure Planting method								1		**1**
Total	**1**	**0**	**1**	**0**	**1**	**0**	**0**	**3**	**1**	**7**

A2. Abstract on the number of technologies refined in respect of crops: NIL

A3. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds						**0**
Nutrition Management	1					**1**
Disease of Management						**0**
Value Addition						**0**
Production and Management						**0**
Feed and Fodder						**0**
Small Scale income generating enterprises						**0**
TOTAL	**1**	**0**	**0**	**0**	**0**	**1**

A4. Abstract on the number of technologies refined in respect of livestock enterprises: NIL

B. Achievements on technologies Assessed and Refined

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management	Wheat	Effect of liquid bio fertilizer	2	2	0.4
	Onion	Effect of Sulphur	2	2	0.4
Varietal Evaluation	Okra	Varietal Evaluation	2	2	0.4
Integrated Pest Management	Cotton	Management of sucking pests	2	2	0.4
Integrated Crop Management	Cotton	High Density Planting in Cotton	2	2	0.4
Integrated Disease Management	Chickpea	Management of Wilt in chickpea	2	2	0.4
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology	Cotton	Ridge and furrow plantation	4	4	2.4
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Mushroom cultivation					
Total	-	-	16	16	4.8

B.2. Technologies Refined under various Crops: NIL

B.3. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of animal
Evaluation of breeds				
Nutrition management	Roughage+ concentrate	Feeding of concentrate mixture (5kg/animal/day) + Mineral mixture (50 gm/animal/day)	02	12
Disease management				
Value addition				
Production and management				
Feed and fodder				
Small scale income generating enterprises				
Total			**02**	**12**

B.4. Technologies Refined 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 bio fertilizer.	Effect of liquid bio fertilizer on growth and yield of wheat	02	Use only DAP and Urea in various dose	Production	4650 kg/ha	As compare to T1 treatment production of wheat higher in treatment T2 and T3	---	---	---
					120-60-60 NPK kg/ha		4750 kg/ha				
					Soil application of Azotobacter & PSB @ 1 lit./ha with 100 kg FYM +75% RDF		4910 kg/ha				
Onion	Irrigated	Low productivity in onion	Effect of Sulphur in Onion production	02	100 kg N/ha, 50 kg P2O5/ha	Production	31250 kg/ha	As compare to farmer's practice recommended practice have higher yield and BC ratio	Increased the production on around 10 to 15 % and weight of bulb is increased	---	---
					NPK :- 75 kg N/ha, 50 P2O5/ha, 50 K2O kg/ha and 20 kg S/ha)		35375 kg/ha				

Okra	Rainfed	Low productivity of non- descriptive local okra varieties	Varietal Evaluation of Okra	02	Local variety	Production	5874 Kg/ha	As compare to T1 treatment production of okra higher in treatment T2 and T3	Quality is superior and higher yielding but color is light green during maturity	---	---
					Gujarat Junagadh Okra-3		9450 Kg/ha				
					Gujarat Junagadh Okra Hybrid- 3		7550 Kg/ha				
Cotton	Rainfed	Farmers do not adopt closer planting, there for get low cotton yield due to less soil moisture and incidence of pest and disease.	High Density Planting in Cotton	02	120 X 45-60 cm (18519-13888 plants/ha)	Production	2752 Kg/ha	As compare to T1 treatment production of cotton higher in treatment T2	Increases production due to number of plants per area is more than treatment T1	----	----
					90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (bt))		3125 Kg/ha				
Cotton	Rainfed	Injudicious use of Chemical pesticides due to lack of knowledge about the use of particular pesticides	Management of sucking pests in Cotton	02	High dose and Use of conventional Chemical pesticides	Production	2160 Kg/ha	As compare to T1 treatment production of cotton higher in treatment T2	Increase in production in treatment T2 because of judicious use of recommended dose of pesticides compare to treatment T1	---	----
					Three spray of imidacloprid 200 SL @ gai /ha (3 ml/10 lit. water) or thiamethoxam 25 WG @ 25 gai /ha (2 g / 10 lit. water) at 15 day interval starting from the pest infestation.		2700 Kg/ha				
Chickpea	Irrigated	Low yield in chickpea	Management of Wilt in chickpea	02	No use of seed treatment and Trichoderma	Production	1820 Kg/ha	As compare to T1 treatment production of chickpea higher in treatment T2		---	---
					Seed treatment of Carbendazim @ 3g/kg seed, Soil application of Trichoderma @2.5 kg /ha with Castor cake 500kg		2160 Kg/ha				

Cotton	Rainfed	Decreasing productivity of Cotton due to water logging, soil salinization in salt-affected lands. Heavy mortality, difficulties in intercultural operation due to lodging.	Effect of method of sowing on ridges on yield of Cotton	04	Traditional Sowing of Cotton on Flat bed	Production	2210	As compare to T1 treatment production of cotton higher in treatment T2	Number of ball per plant is more in T2 than T1	---	---
						Balls per plant	93				
					To prepare the field by ploughing followed by blade harrowing & planking and sow the crop on ridges (120 cm apart).	Production a	2522				
						Balls per plant	106				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) Use only DAP and Urea in various dose	JAU, Junagadh	4650	Kg/ha	--	3.23
Technology option 2: 120-60-60 NPK kg/ha		4750	Kg/ha	--	3.60
Technology option 3: Soil application of Azotobacter & PSB @ 1 lit./ha with 100 kg FYM +75% RDF		4910	Kg/ha	--	4.15
Technology option 1 (Farmer's practice): 100 kg N/ha, 50 kg P2O5/ha	JAU, Junagadh	31250	Kg/ha	57550	1:1.5
Technology option 2: NPK :- 75 kg N/ha, 50 P2O5/ha, 50 K2O kg/ha and 20 kg S/ha)		35375	Kg/ha	71020	1:2.0
Technology option 1 (Farmer's practice) Local variety	JAU, Junagadh	5874	Kg/ha	53082	1:2.00
Technology option 2: Gujarat Junagadh Okra-3		9450	Kg/ha	109560	1:3.17
Technology option 3: Gujarat Junagadh Okra Hybrid- 3		7550	Kg/ha	77500	1:2.54
Technology option 1 (Farmer's practice) 120 X 45-60 cm (18519-13888 plants/ha)	JAU, Junagadh	2752	Kg/ha	926400	3.97
Technology option 2: 90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (bt))		3125	Kg/ha	121400	4.74
Technology option 1 (Farmer's practice) High dose and Use of conventional Chemical pesticides	JAU, Junagadh	2160	Kg/ha	67666	2.94
Technology option 2: Three spray of imidacloprid 200 SL @ gai /ha (3 ml/10 lit. water) or thiamethoxam 25 WG @ 25 gai /ha (2 g / 10 lit. water) at 15 day interval starting from the pest infestation.		2700	Kg/ha	91475	3.69
Technology option 1 (Farmer's practice) No use of seed treatment and	JAU,	1820	Kg/ha	42234	2.80

Trichoderma	Junagadh				
Technology option 2: Seed treatment of Carbendazim @ 3g/kg seed, Soil application of Trichoderma @2.5 kg /ha with Castor cake 500kg		2160	Kg/ha	57031	3.60
Technology option 1 (Farmer's practice) Traditional Sowing of Cotton on Flat bed	JAU, Junagadh	2210	Kg/ha	66050	2.85
Technology option 2: To prepare the field by ploughing followed by blade harrowing & planking and sow the crop on ridges (120 cm apart).		2522	Kg/ha	79387	3.17

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 Assessed: Effect of liquid bio fertilizer on growth and yield of wheat.
2. Problem Definition: Farmers do not use bio fertilizer.
3. Details of technologies selected for assessment:
   (1) Crop : Wheat
   (2) Season/ Year : Rabi 2016-17 to Rabi 2018-19
   (3) Spacing : 22.5 cm (row to row) by automatic seed drill.

T_1	Farmer practices	Use only DAP and Urea in various dose
T_2	Recommended Practices	120-60-60 NPK kg/ha
T3	Assessment	Soil application of Azotobacter & PSB @ 1 lit./ha with 100 kg FYM +75% RDF

4. Source of technology: Department of Agronomy, JAU, Junagadh
5. Production system and thematic area: Rainfed Farming
6. Performance of the Technology with performance indicators: Yield
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: -
10. Process of farmers participation and their reaction: -

OFT -2: Agronomy (New)

1. Title of Technology Assessed: High Density Planting in Cotton
2. Problem Definition: Farmers do not adopt closer planting, there for get low cotton yield due to less soil moisture and incidence of pest and disease.
3. Details of technologies selected for assessment:
   (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. GTHH-49 (bt))

4. Source of technology: Cotton Research Station, JAU, Junagadh
5. Production system and thematic area: Rainfed Farming
6. Performance of the: Yield

	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	-
10.	Process of farmers participation and their reaction	-

OFT – 3: Plant Protection (Ongoing)

1. Title of Technology Assessed: Management of sucking pests in Cotton
2. Problem Definition: Injudicious use of Chemical pesticides due to lack of knowledge about the use of particular pesticides
3. Details of technologies selected for assessment:
   (1) Crop : Cotton
   (2) Season/ Year : Kharif -2016 to Kharif – 2018
   (3) Spacing : 120 x 45 cm

T_1	Farmer practices	High dose and Use of conventional Chemical pesticides
T_2	Assessment/ refined Practices	Three spray of imidacloprid 200 SL @ gai /ha (3 ml/10 lit. water) or thiamethoxam 25 WG @ 25 gai /ha (2 g / 10 lit. water) at 15 day interval starting from the pest infestation.

4. Source of technology: JAU, Junagadh
5. Production system and thematic area: Rainfed Farming
6. Performance of the Technology with performance indicators: Yield
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: -
10. Process of farmers participation and their reaction: -

OFT –4: Plant Protection (Ongoing)

1. Title of Technology Assessed: Management of Wilt in chickpea

2. Problem Definition: Low yield in chickpea
3. Details of technologies selected for assessment:
   (1) Crop : Chickpea
   (2) Season/ Year : Rabi -2016 to Rabi – 2019
   (3) Spacing : 45 x 10

T_1	Farmer practices	No use of seed treatment and Trichoderma
T_2	Assessment/refined Practices	Seed treatment of Carbendazim @ 3g/kg seed, Soil application of Trichoderma @2.5 kg /ha with Castor cake 500kg

4. Source of technology: JAU, Junagadh
5. Production system and thematic area: Rainfed Farming
6. Performance of the Technology with performance indicators: Yield
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: -
10. Process of farmers participation and their reaction: -

OFT -5: Agriculture Engineering (New)

1. Title of Technology Assessed: Effect of method of sowing on ridges on yield of Cotton
2. Problem Definition: Decreasing productivity of Cotton due to water logging, soil salinization in salt-affected lands. Heavy mortality, difficulties in intercultural operation due to lodging.
3. Details of technologies selected for assessment:
   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,)
4. Source of technology: Department of Agronomy, JAU, Junagadh
5. Production system and thematic area: Soil conservation and improvement
6. Performance of the Technology with performance indicators: Yield, CB ratio, Balls per plant
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 -
10. Process of farmers participation and their reaction -

OFT -6: Horticulture (Ongoing)

1. Title of Technology Assessed: Varietal Evaluation of Okra
2. Problem Definition: Low productivity of non- descriptive local okra varieties
3. Details of technologies selected for assessment:

Farmer practices-Local variety
Gujarat Junagadh Okra-3
Gujarat Junagadh Okra Hybrid- 3

4. Source of technology: JAU, Junagadh
5. Production system and thematic area: Rainfed Farming, Integrated varietals management
6. Performance of the Technology with performance indicators: Yield
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: -
10. Process of farmers participation and their reaction: -

OFT -7: Horticulture (Ongoing)

1. Title of Technology Assessed: Effect of Sulphur in Onion production
2. Problem Definition: Low productivity in onion
3. Details of technologies selected for assessment:

Farmer practice- 100 kg N/ha, 50 kg P_2O_5/ha
Recommended Practices NPK :- 75 kg N/ha, 50 P_2O_5/ha, 50 K_2O kg/ha and 20 kg S/ha)

4. Source of technology: JAU, Junagadh
5. Production system and thematic area: Irrigateded Farming, Integrated Nutrient management
6. Performance of the Technology with performance indicators: Yield
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	Need to be more trials
10.	Process of farmers participation and their reaction	Field days at farmers field, evaluation of the trial and their reaction towards the performance

OFT: 8 Animal Science (New)

1.	Title of Technology Assessed	Effect of supplementation of concentrate and mineral mixture on milk production of local buffalo breed.
2.	Problem Definition	Inadequate nutrition is a major cause of low live-weight gains, infertility and low milk yields in milch animals. The aim of the OFT is about the awareness of dairy farmers to know the nutritional management of milch animals to increase milk yield. Therefore, the above entitle OFT has been proposed.
3.	Details of technologies selected for assessment	Treatment 1 : Routine Farmer Practice (Roughage+concentrate) Treatment 2 : Feeding of concentrate mixture (5kg/animal/day) + Mineral mixture (50 gm/animal/day) (Recommended)
4.	Source of technology	Veterinary College, N.A.U., Navsari
5.	Production system and thematic area	Integrated Nutrient management
6.	Performance of the Technology with performance indicators	Milk yield (Lit/day)
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	-
10.	Process of farmers participation and their reaction	-

D1. Results of Technologies Refined: NIL

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 2016-17 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Groundnut	Varietal Evaluation	Variety	Trainings, demonstration, field days	4	5	2
2	Sesame	Varietal Evaluation	Variety	Trainings, demonstration, field days	6	20	8
3	Green Gram	Varietal Evaluation	Variety	Trainings, demonstration, field days	4	5	2
4	Chilli (Mulching)	Resource conservation technology	Plastic Mulch	Trainings, demonstration, field days	2	2	0.4
5	Lemon (Mulching)	Resource conservation technology	Plastic Mulch	Trainings, demonstration, field days	3	1	0.4
6	Cotton	Varietal Evaluation	Variety	Trainings, demonstration, field days	10	10	4
7	Pigeon pea	Varietal Evaluation	Variety	Trainings, demonstration, field days	15	10	4
8	Groundnut	Varietal Evaluation	Variety	Trainings, demonstration, field days	5	10	4
9	Green Gram	Varietal Evaluation	Variety	Trainings, demonstration, field days	12	13	5.2
10	Castor	Varietal Evaluation	Variety	Trainings, demonstration, field days	7	10	4
11	Wheat	Varietal Evaluation	Variety	Trainings, demonstration, field days	4	10	4
12	Onion	INM	Nutrient	Trainings, demonstration, field days	4	5	2
13	Coriander	Varietal Evaluation	Variety	Trainings, demonstration, field days	4	10	4
14	Cumin	Varietal Evaluation	Variety	Trainings, demonstration, field days	4	10	4

B. Details of FLDs implemented during 2017-18 (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	Castor	Varietal Evaluation	GCH-7	Kharif-17	4	4	2	8	10	-
2	Cotton	Varietal Evaluation	GCH-10(Bt)	Kharif-17	4	4	2	8	10	-
3	Vegetable crops	-	Vegetable seeds(JAU)	Kharif 17	-	-	-	-	50	-
4	Wheat	Nutrient	INM	Rabi 17-18	4	4	0	10	10	-
5	Cumin	Pest management	IPM	Rabi 17-18	4	4	0	10	10	-
6	Onion	Varietal Evaluation	GWO-1	Rabi 17-18	2	2	0	5	5	-
7	Coriander	Varietal Evaluation	GC-2	Rabi 17-18	4	4	1	9	10	-
8	Sesame	Varietal Evaluation	GT-3	Summer-18	4	4	2	8	10	-
9	Black Gram	Varietal Evaluation	Guj. Urd.-1	Summer-18	4	4	0	10	10	-
10	Green Gram	Varietal Evaluation	GM-5	Summer-18	4	4	0	10	10	-
11	Okra	Varietal Evaluation	GJO-3	Summer-18	2	2	1	4	5	-

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					
Castor	Kharif-17	Rainfed	M.Black	L	M	H	---	4th week of July to 2nd week of August-2017	4th week of of February-2018	666.6	36
Cotton	Kharif-17	Rainfed	M.Black	L	M	H	Wheat	3rd week of June to 1st week of July-2017	4th week of January to 2nd week of February-2018		
Vegetable crops	Kharif 17	Rainfed	M.Black	L	M	H	---	2nd week of June to 3rd week of July-2017	-		
Wheat	Rabi 17-18	Irrigated	M.Black	L	M	H	Cotton	2nd week to 4th week of November-2017	3rd to 4th week of March 2018		
Cumin	Rabi 17-18	Irrigated	M.Black	L	M	H	Cotton	1st week to 2nd week of November-2017	1st to 2nd week of February-2018		
Onion	Rabi 17-18	Irrigated	M.Black	L	M	H	Sesame	3r^{d} week of November to 2nd week of December-2017	4th week of March to 1st week of April 2018		
Coriander	Rabi 17-18	Irrigated	M.Black	H	M	M	Groundnut	1st week of November - 2017	1st to 2nd week of February-2018		
Sesame	Summer-18	Irrigated	M.Black	L	M	H	Wheat	2nd to 4th week of February-2018	Standing		
Black Gram	Summer-18	Irrigated	M.Black	L	M	H	Groundnut	2nd to 3rd week of February-2018	Standing		
Green Gram	Summer-18	Irrigated	M.Black	L	M	H	Cotton	2nd to 3rd week of February-2018	Standing		
Okra	Summer-18	Irrigated	M.Black	L	M	H	---	2nd to 4th week of February-2018	Standing		

Farmers' reactions on specific technologies

S. No	Crop	Variety/Input	Feed Back
1	Gram	GJG-3	► High Yield Variety ► Bold seeded Variety ► Stunt virus resistant Variety
2	Cumin	GC-4	►Research needs on cumin wilt disease ► Less Wilt found as compare to other Variety
3	Wheat	GW-366	► Seed provided was healthy with good germination ►Grain quality is good for higher market price
4	Green Gram	GM-4	►Small size seed and uniform maturity
5	Groundnut	GJG-9	► Higher production ►Less stem rot problems ►Quality of seed is good
6	Sesame	GT-3	►Bold seeded, whiteness more and higher production then other varieties ► Better for Summer cultivation
7	Cotton	INM	► Less reddening of leaves ► Higher Yield
8	Cotton	G.Cot-6(bt)	► Greening up to last stage ► Less Infestation of sucking pest
9	Castor	GCH-7	►Resistance to wilt ► Higher Yield
10	Cotton	Beauveria bassiana	► Better control of pests ► Economic to other chemical pesticides
11	Cotton	Ridge and furrow	►Number of flowers increased ►Early maturity ►Plants don't bent during high wind ►No water logging after rainfall
12	Groundnut	GJG-22	►High yielding ► Tolerant to Collar rot
13	Sesame	GT-3	►Bold seeded, whiteness more and higher production than other varieties
14	Green gram	GAM-5	►Highly resistant to Yellow Mosaic Virus (YMV) ►Bold seed size with attractive shiny grain appearance.
15	Gram	GJG-5	►Moderately Resistant to wilt ►Resistant to stunt
16	Wheat	GW-173	►Require less water i.e. 300mm water as compared to local and late sown variety
17	Black gram	GU-1	►Latest High yielding variety.
18	Pigeon pea	Vaishali	►Medium late Variety use for Grain purpose ►Tolerant to wilt ► Sterility mosaic virus
19	Groundnut	GJG-31	►High Yielding Variety
20	Sesame	GT-4	►White seed and alternate White seed colour, ►Medium capsule in size ►Alternate multi bearing capsule

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Number of participants	Remarks
1	Field days	13	77	-
2	Farmers Training	11	220	-
3	Media coverage	-	-	-
4	Training for extension functionaries	2	58	-

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	GT-4	10	4	Standing												

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Blackgram	Varietal Evaluation	Variety	Guj. Urd.-1	10	4	Standing												
Greengram	Varietal Evaluation	Variety	GAM-5	10	4	Standing												

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

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 Timely sown	INM	INM	10	4	53.8	39.5	47.32	39.716	19.2	-	-	26,896	108,363	81,467	4.05	26,788	85,389	58,602	3.20
Vegetables																			
Okra	Varietal Evaluation	GJO-3	5	2	Standing														
Onion	Varietal Evaluation	GWO-1	5	2	460	380	416	381	9.26	-	-	116657	174888	58231	1.50	114749	152400	37651	1.33
Coriender	Varietal Evaluation	GC-2	10	4	16.5	8.1	13.225	10.4	27.5	-	-	19,378	72,738	53,359	3.74	18,548	53,976	35,428	2.92
Spices & condiments																			
Cumin	IPM	IPM	10	4	8.2	5.1	6.22	5.2	22.4	-	-	18,954	90,190	71,237	4.78	19,194	73,320	54,127	3.84

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle	Feed Management	Anabolite liquid	10	10	1340 kg	1150 kg	16	-	-	40200	53600	13400	1.33	34500	46000	11500	1.33
	Feed Management	Mineral mixture	10	10	1320 kg	1250 kg	5.6	-	-	39600	52800	13200	1.33	37500	50000	12500	1.33

* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.
** BCR= GROSS RETURN/GROSS COST

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	Bio compost	10	80	Field capacity	0.20 ha/hr	-	-	-	-	-	-	-	-	-	-

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						
Castor	Varietal Evaluation	GCH-7	10	4	30.2	22.3	26.38	22.31	18.53	29584	92333.5	62750	3.12
Cotton	Varietal Evaluation	GCH-10(Bt)	10	4	25.6	13.2	19.2	16.25	18.15	31500	98880	67380	2.29

3.4. Training Programmes

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
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	1	24	00	24	00	00	00	24	00	24
Production technology	1	19	10	29	02	02	04	21	12	33
Registration process of organic farming	1	42	0	42	06	0	6	48	0	48
Total	**3**	**85**	**10**	**95**	**8**	**2**	**10**	**93**	**12**	**105**
II Horticulture										
a) Vegetable Crops										
Production of low value and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation										
Value addition in fruit										
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										
Production technology of Lime and banana	1	75	00	75	07	00	07	82	00	82
Total (b)	**1**	**75**	**00**	**75**	**07**	**00**	**07**	**82**	**00**	**82**
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	37	00	37	03	00	03	40	00	40
Processing and value addition										
Others (pl specify)										
Total (f)	**1**	**37**	**00**	**37**	**03**	**00**	**03**	**40**	**00**	**40**
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**	**112**	**00**	**112**	**10**	**00**	**10**	**122**	**00**	**122**
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	1	70	0	70	0	0	0	70	0	70
Others (pl specify)										
Total	**1**	**70**	**0**	**70**	**0**	**0**	**0**	**70**	**0**	**70**
IV Livestock Production and Management										
Dairy Management	2	38	4	42	5	0	5	43	4	47
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	1	08	18	26	00	04	04	08	22	30
Feed & fodder technology										
Production of quality animal products										
Others (pl specify)										
Total	**3**	**46**	**22**	**68**	**5**	**4**	**9**	**51**	**26**	**77**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										

Minimization of nutrient loss in processing										
Processing and cooking	1	00	32	32	00	07	07	00	39	39
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	00	25	25	00	04	04	00	29	29
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care	1	00	23	23	00	04	04	00	27	27
Use of Solar cooker										
Total	**3**	**0**	**80**	**80**	**0**	**15**	**15**	**0**	**95**	**95**
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										
Small scale processing and value addition	1	05	22	27	00	12	12	05	34	39
Post Harvest Technology										
Rain water harvesting										
Total	**2**	**44**	**22**	**66**	**7**	**12**	**19**	**51**	**34**	**85**
VII Plant Protection										
Integrated Pest Management	3	290	29	319	59	6	65	349	35	384
Integrated Disease Management										
Bio-control of pests and diseases										
Production of bio control agents and bio pesticides										
Awareness about control of Pink bollworm to Cotton Ginners										
Total	**3**	**290**	**29**	**319**	**59**	**6**	**65**	**349**	**35**	**384**
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	2	103	0	103	26	0	26	129	0	129
Formation and Management of SHGs										
Mobilization of social capital										

Entrepreneurial development of farmers/youths	1	29	2	31	12	3	15	46	05	51
WTO and IPR issues										
Update the knowledge level about summer crops	1	27	07	34	04	02	06	31	09	40
Total	**4**	**159**	**9**	**168**	**42**	**5**	**47**	**206**	**14**	**220**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**21**	**806**	**172**	**978**	**131**	**44**	**175**	**942**	**216**	**1158**

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										
Production technology of onion and garlic	1	50	25	75	5	0	5	55	25	80
To minimize cost of cultivation in Kharif crops	1	121	0	121	11	0	11	132	0	132
Total	**2**	**171**	**25**	**196**	**16**	**0**	**16**	**187**	**25**	**212**
II Horticulture										

a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1	32	00	32	06	00	06	38	00	38
Others (pl specify)										
Total (a)	**1**	**32**	**00**	**32**	**06**	**00**	**06**	**38**	**00**	**38**
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										
Value addition	2	1443	00	1443	497	00	497	1940	00	1940
Post harvest technology of mango, lime & banana	2	62	42	104	04	03	07	66	45	111
Total (b)	**4**	**1505**	**42**	**1547**	**501**	**3**	**504**	**2006**	**45**	**2051**
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)										
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	1	128	0	128	10	0	10	138	0	138
Others (pl specify)										
Total	**1**	**128**	**0**	**128**	**10**	**0**	**10**	**138**	**0**	**138**
IV Livestock Production and Management										
Dairy Management	3	79	25	104	15	04	19	94	29	123
Poultry Management										
Piggery Management										
Rabbit Management										

Animal Nutrition Management										
Disease Management										
Feed & fodder technology	1	44	00	44	08	00	08	52	00	52
Production of quality animal products										
Care and management of sheep and goat	1	37	00	37	10	00	10	47	00	47
Total	**5**	**160**	**25**	**185**	**33**	**4**	**37**	**193**	**29**	**222**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	02	41	43	00	04	04	02	45	47
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	03	73	76	00	09	09	03	82	85
Women empowerment										
Location specific drudgery reduction technologies	2	00	79	79	00	06	06	00	85	85
Rural Crafts										
Women and child care										
Others (pl specify)										
Total	**5**	**5**	**193**	**198**	**0**	**19**	**19**	**5**	**212**	**217**
VI Agril. Engineering										
Farm Machinary and its maintenance	3	71	27	98	05	05	10	76	32	108
Installation and maintenance of micro irrigation systems	2	00	47	47	00	13	13	00	60	60
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology	1	00	50	50	00	00	00	00	50	50
Rain Water Harvesting	4	66	66	132	09	14	23	75	80	155
Drudgery reduction technologies in agriculture										
Total	**10**	**137**	**190**	**327**	**14**	**32**	**46**	**151**	**222**	**373**
VII Plant Protection										
Integrated Pest Management	2	84	0	84	7	0	7	91	0	91

Integrated Disease Management										
Bio-control of pests and diseases	2	63	0	63	7	0	7	70	0	70
Production of bio control agents and bio pesticides										
Management of Stored Grain Pest	1	22	05	27	00	00	00	22	05	27
Total	**5**	**169**	**5**	**174**	**14**	**0**	**14**	**183**	**5**	**188**
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	1	60	0	60	2	0	2	62	0	62
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Income Generation through secondary agriculture	1	0	30	30	0	6	6	0	36	36
Total	**2**	**60**	**30**	**90**	**2**	**6**	**8**	**62**	**36**	**98**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**35**	**2367**	**510**	**2877**	**596**	**64**	**660**	**2963**	**574**	**3537**

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	1	24	0	24	0	0	0	24	0	24
Production technology of onion and garlic	2	69	35	104	7	2	9	76	37	113
To minimize cost of cultivation in Kharif crops	1	121	0	121	11	0	11	132	0	132
Registration process of organic farming	1	42	0	42	6	0	6	48	0	48
Total	**5**	**256**	**35**	**291**	**24**	**2**	**26**	**280**	**37**	**317**
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables										
Export potential vegetables										
Grading and standardization										
Protective cultivation	1	32	0	32	6	0	6	38	0	38
Others (pl specify)										
Total (a)	**1**	**32**	**0**	**32**	**6**	**0**	**6**	**38**	**0**	**38**
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										
Value addition	2	1443	0	1443	497	0	497	1940	0	1940
Post harvest technology of mango, lime & banana	2	62	42	104	4	3	7	66	45	111
Production technology of Lime and banana	1	75	0	75	7	0	7	82	0	82
Total (b)	**5**	**1580**	**42**	**1622**	**508**	**3**	**511**	**2088**	**45**	**2133**
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	37	0	37	3	0	3	40	0	40
Processing and value addition										
Others (pl specify)										
Total (f)	**1**	**37**	**0**	**37**	**3**	**0**	**3**	**40**	**0**	**40**
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)	**7**	**1649**	**42**	**1691**	**517**	**3**	**520**	**2166**	**45**	**2211**
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	2	198	0	198	10	0	10	208	0	208
Others (pl specify)										
Total	**2**	**198**	**0**	**198**	**10**	**0**	**10**	**208**	**0**	**208**
IV Livestock Production and Management										
Dairy Management	5	117	29	146	20	4	24	137	33	170
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management	1	8	18	26	0	4	4	8	22	30
Feed & fodder technology	1	44	0	44	8	0	8	52	0	52
Production of quality animal products										
Care and management of sheep and goat	1	37	0	37	10	0	10	47	0	47
Total	**8**	**206**	**47**	**253**	**38**	**8**	**46**	**244**	**55**	**299**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	2	41	43	0	4	4	2	45	47
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	1	0	32	32	0	7	7	0	39	39
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	3	3	98	101	0	13	13	3	111	114
Women empowerment										
Location specific drudgery reduction technologies	2	0	79	79	0	6	6	0	85	85
Rural Crafts										
Women and child care	1	0	23	23	0	4	4	0	27	27
Others (pl specify)										
Total	**8**	**5**	**273**	**278**	**0**	**34**	**34**	**5**	**307**	**312**
VI Agril. Engineering										
Farm Machinary and its maintenance	3	71	27	98	5	5	10	76	32	108
Installation and maintenance of micro irrigation systems	3	39	47	86	7	13	20	46	60	106
Use of Plastics in farming practices										

Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition	1	5	22	27	0	12	12	5	34	39
Post Harvest Technology	1	0	50	50	0	0	0	0	50	50
Rain water harvesting	4	66	66	132	9	14	23	75	80	155
Total	**12**	**181**	**212**	**393**	**21**	**44**	**65**	**202**	**256**	**458**
VII Plant Protection										
Integrated Pest Management	5	374	29	403	66	6	72	440	35	475
Integrated Disease Management										
Bio-control of pests and diseases	2	63	0	63	7	0	7	70	0	70
Production of bio control agents and bio pesticides										
Management of Stored Grain Pest	1	22	5	27	0	0	0	22	5	27
Total	**8**	**459**	**34**	**493**	**73**	**6**	**79**	**532**	**40**	**572**
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	2	103	0	103	26	0	26	129	0	129
Formation and Management of SHGs	1	60	0	60	2	0	2	62	0	62
Mobilization of social capital										
Entrepreneurial development of farmers/youths	1	29	2	31	12	3	15	46	5	51
WTO and IPR issues										
Income Generation through secondary agriculture	1	0	30	30	0	6	6	0	36	36
Update the knowledge level about summer crops	1	27	7	34	4	2	6	31	9	40
Total	**6**	**219**	**39**	**258**	**44**	**11**	**55**	**268**	**50**	**318**
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total										
GRAND TOTAL	**56**	**3173**	**682**	**3855**	**727**	**108**	**835**	**3905**	**790**	**4695**

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	0			0			0			0
Training and pruning of orchards	0			0			0			0
Protected cultivation of vegetable crops	0			0			0			0
Commercial fruit production	0			0			0			0
Integrated farming	0			0			0			0
Seed production	0			0			0			0
Production of organic inputs	0			0			0			0
Planting material production	0			0			0			0
Vermi-culture	0			0			0			0
Mushroom Production	0			0			0			0
Bee-keeping	0			0			0			0
Sericulture	0			0			0			0
Repair and maintenance of farm machinery and implements	0			0			0			0
Value addition	1	41	0	41	09	00	09	50	00	50
Small scale processing	0			0			0			0
Post Harvest Technology	0			0			0			0
Tailoring and Stitching	0			0			0			0
Rural Crafts	0			0			0			0
Production of quality animal products	0			0			0			0
Dairying	0			0			0			0
Sheep and goat rearing	0			0			0			0
Quail farming	0			0			0			0
Rabbit farming	0			0			0			0
Poultry production	0			0			0			0
Ornamental fisheries	0			0			0			0
Composite fish culture	0			0			0			0
Freshwater prawn culture	0			0			0			0
Shrimp farming	0			0			0			0
Pearl culture	0			0			0			0
Cold water fisheries	0			0			0			0

Fish harvest and processing technology	0			0			0			0
Fry and fingerling rearing	0			0			0			0
Bank loans for field crops, crop insurance	1	30	0	30	00	00	00	30	00	30
Crop production	2	29	05	34	04	02	06	33	07	40
TOTAL	**4**	**100**	**5**	**105**	**13**	**2**	**15**	**113**	**7**	**120**

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	0									
Training and pruning of orchards	0									
Protected cultivation of vegetable crops	0									
Commercial fruit production	0									
Integrated farming	0									
Seed production	0									
Production of organic inputs	0									
Planting material production	0									
Vermi-culture	0									
Mushroom Production	0									
Bee-keeping	0									
Sericulture	0									
Repair and maintenance of farm machinery and implements	0									
Value addition	0									
Small scale processing	0									
Post Harvest Technology	0									
Tailoring and Stitching	0									
Rural Crafts	0									
Production of quality animal products	0									
Dairying	0									
Sheep and goat rearing	0									
Quail farming	0									
Piggery	0									

Rabbit farming	0										
Poultry production	0										
Ornamental fisheries	0										
Composite fish culture	0										
Freshwater prawn culture	0										
Shrimp farming	0										
Pearl culture	0										
Cold water fisheries	0										
Fish harvest and processing technology	0										
Fry and fingerling rearing	0										
Youth Development through update knowledge on major Rabi crop	1	48	02	50	00	00	00	48	02	50	
Income Generation through secondary agriculture	1	25	05	30	00	00	00	25	05	30	
TOTAL	**2**	**73**	**7**	**80**	**0**	**0**	**0**	**73**	**7**	**80**	

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	1	41	0	41	09	00	09	50	00	50
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										
Bank loans for field crops, crop insurance	1	30	0	30	00	00	00	30	00	30
Crop production	2	29	05	34	04	02	06	33	07	40
Youth Development through update knowledge on major Rabi crop	1	48	02	50	00	00	00	48	02	50
Income Generation through secondary agriculture	1	25	05	30	00	00	00	25	05	30
TOTAL	**6**	**173**	**12**	**185**	**13**	**2**	**15**	**186**	**14**	**200**

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	2	38	11	49	08	04	12	45	15	60
Integrated Pest Management	1	23	05	28	05	00	05	28	05	33
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	-	-	-	-	-	-	-	-	-	-
Pre-seasonal training on Kharif crops	1	55	0	55	14	0	14	69	0	69
Organic farming	5	102	09	111	17	03	20	119	12	131
TOTAL	**9**	**218**	**25**	**243**	**44**	**7**	**51**	**261**	**32**	**293**

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	1	25	03	28	03	02	05	28	05	33
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	**1**	**25**	**03**	**28**	**03**	**02**	**05**	**28**	**05**	**33**

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	2	38	11	49	08	04	12	45	15	60
Integrated Pest Management	2	48	8	56	8	2	10	56	10	66
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	-	-	-	-	-	-	-	-	-	-
Pre-seasonal training on Kharif crops	1	55	0	55	14	0	14	69	0	69
Organic farming	5	102	09	111	17	03	20	119	12	131
TOTAL	**10**	**243**	**28**	**271**	**47**	**9**	**56**	**289**	**37**	**326**

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	2	48	5	53	9	2	11	57	7	64
Commercial production of vegetables										
Production and value addition										
Fruit Plants	1	611	00	611	79	0	79	690	0	690
Ornamental plants										
Spices crops										
Soil health and fertility management										
Production of Inputs at site										
Methods of protective cultivation										
INM	1	19	9	28	2	3	5	21	12	33
Total	**4**	**678**	**14**	**692**	**90**	**5**	**95**	**768**	**19**	**787**
Post harvest technology and value addition										
Processing and value addition	1	1115	0	1115	135	00	135	1250	0	1250
Others (pl. specify)										
Total	**1**	**1115**	**0**	**1115**	**135**	**00**	**135**	**1250**	**0**	**1250**
Farm machinery										
Farm machinery, tools and implements										
Micro irrigation system	2	0	53	53	0	7	7	0	60	60
Drudgery reduction	1	0	27	27	0	5	5	0	32	32
Natural resource management	1	0	28	28	0	4	4	0	32	32
Total	**4**	**0**	**108**	**108**	**0**	**16**	**16**	**0**	**124**	**124**
Livestock and fisheries										
Livestock production and management	1	32	0	32	4	0	4	36	0	36
Animal Nutrition Management										
Animal Disease Management	1	0	29	29	0	2	2	0	31	31
Fisheries Nutrition										
Fisheries Management										
Dairy management	3	74	19	93	12	10	22	86	29	115
Total	**5**	**106**	**48**	**154**	**16**	**12**	**28**	**122**	**60**	**182**

Home Science										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women	1	0	28	28	0	4	4	0	32	32
Others (pl. specify)										
Total	**1**	**0**	**28**	**28**	**0**	**4**	**4**	**0**	**32**	**32**
Agricultural Extension										
Capacity Building and Group Dynamics	1	51	0	51	9	0	9	60	0	60
IPM, IDM	1	22	5	27	6	0	6	28	5	33
Organic farming	4	76	4	80	20	0	20	96	4	100
General agriculture	1	38	11	49	7	4	11	45	15	60
Total	**7**	**187**	**20**	**207**	**42**	**4**	**46**	**229**	**24**	**253**
Plant Protection										
IPM	2	246	20	266	105	5	110	351	25	376
Bio-control of pests and diseases	1	28	0	28	2	0	2	30	0	30
Total	**3**	**274**	**20**	**294**	**107**	**5**	**112**	**381**	**25**	**406**
GRAND TOTAL	**25**	**2360**	**238**	**2598**	**390**	**46**	**436**	**2750**	**284**	**3034**

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

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	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Value addition	1	0	29	29	0	0	0	0	29	29
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	**1**	**0**	**29**	**29**	**0**	**0**	**0**	**0**	**29**	**29**
Livestock and fisheries	0	0	0	0	0	0	0	0	0	0
Income generation activities	0	0	0	0	0	0	0	0	0	0
Agricultural Extension	0	0	0	0	0	0	0	0	0	0
Grand Total	**1**	**0**	**29**	**29**	**0**	**0**	**0**	**0**	**29**	**29**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	57	57	-	57
Diagnostic visits	13	44	00	44
Field Day	17	273	-	273
Group discussions	15	189	-	189
Kisan Ghosthi	7	175	-	175
Film Show	8	604	-	604
Self -help groups	-	-	-	-
Kisan Mela	2	6500	870	7370
Exhibition	1	342	0	342
Scientists' visit to farmers field	24	268	-	268
Plant/animal health camps	3	149	-	164
Farm Science Club	-	-	-	-
Ex-trainees Sammelan	-	-	-	-
Farmers' seminar/workshop	-	-	-	-
Method Demonstrations	1065	1065	-	1065
Celebration of important days	4	1223	-	1223
Special day celebration	2	195	-	195
Exposure visits	-	-	-	-
Others (pl. specify)	-	-	-	-
Total	**1218**	**11084**	**870**	**11954**

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	7
Newspaper coverage	7
Popular articles	1
Radio Talks	-
TV Talks	-
Animal health camps (Number of animals treated)	3(164)
Others (pl. specify)	-
Total	**18**

3.6. 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						
Truthful	Wheat	GW-366	-	29.50	-	-
Truthful	Wheat	GW-463	-	10.41	-	-
Oilseeds						
Foundation	Groundnut	GJG-22	-	51.50	-	-
Truthfull		GG-20	-	31.90	-	-
Truthfull		GG-20	-	7.10	-	-
Breeder	Sesame	GT-5	-	2.115	-	-
Total				**132.525**		

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
Commercial	-	-	-	-	-	-
Vegetable seedlings	Brinjal	GJB-3	-	885	442	62
	Tomato	GT-1	-	225	112	41
	Vegetable Packet	-	-	112	1120	35
Fruits	-	-	-	-	-	-
Ornamental plants	-	-	-	-	-	-
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Tuber	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total	**-**	**-**	**-**	**1222**	**1674**	**138**

Bio-Products (Only selling)

Bio Products	Name of the bio-product	Quantity (Kg)	Value (Rs.)	No. of Farmers
Bio Fertilizers	Rhizobium	40 lit	4,800	26
	Azatobactor	80 lit	9,600	30
	PSB	115 lit	13,800	25
Bio-pesticide	-	-	-	-
Bio-fungicide	Beauveria bassiana	7235	10,82,250	1150
	Trichoderma	2718	1,90,260	356
Bio Agents	-	-	-	-
Others	Pheromone trap	2354	47,080	295
	Gossy Lure	6803	1,36,060	685
		2600	26,000	
Total	**-**	**-**	**15,09,850**	**2567**

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.): Quarterly Newsletter publication by university.

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	Awareness of scientific information for management to control pink bollworm by various training programmes (Paper accepted for publication)	M.L. Patel , A.M. Parakhia, N.S. Joshi , H. C. Chhodavadia, P. J. Prajapati , P. S. Jayswal, V. K. Karangiya	-
	Knowledge level of cotton growers about management of cotton pink bollworm (Paper accepted for publication)	M. L. Patel, H. C. Chhodvadiya, N. S. Joshi, V. K. Karangiya, P. J. Prajapati, P. S. Jaiswal	-
Technical reports	ZREAC Rabi, Kharif, AGRESCO, SAC, Monthly, Quarterly, Six monthly, Nine monthly, Annual report in English and Gujarati language	-	-
News letters	-	-	-
Technical bulletins	-	-	-
Popular articles	Kitnashak davaona chhantakav samaye rakhavanee kalajio	Dr. N. S. Joshi, Dr. H. C. Chhodvadia,	-
Extension	Chanana pakma mukhyatave jova malata rog ane jivatonu sankalit		1000

literature	niyantran	Dr. M. L. Patel, Ms. P. S. Jayswal, Mr. P. J. Prajapati, Dr. V. K. Karangiya, Dr. M. S. Dulawat, Dr. P. B. Maravia	
	Tunka galano athod pak - mag		1000
	Kapasna pakma sankalit posan vyavasthapan		1000
	Pashu aharma mineral mixture		1000
	Kitnashak davaona chhantakav samaye rakhavanee kalajio		1000
	Sankalit jivat niyantran - ochho kharch ochu pradusan temaj vadhu utpadan		1000
	Tuvernee vaigyanik kheti padhti		1000
Others (Pl. specify)	-	-	-

C. Details of Electronic Media Produced

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

D. Success Stories / Case studies.

Success story 1

Title : **Organic farming of turmeric**

Background : Name: **Shri Ashwinbhai D. Korat**
Address: Village: Halariya, Taluka: Bagsara, District: Amreli (Gujrat)
Age :43 years
Education : HSC
Landholding : 1.3 ha
Farming Experience : 05 Years
Crops Grown : Turmeric
Livestock : Cows

Interventions : Ashwinbhai is a progressive farmer of Amreli district. From last year, he started organic farming in turmeric. Early he was used different chemical fertilizers and chemicals but in chemical farming he said that chemical farming is costly and harmful to human and environment. So he started organic farming in turmeric.

Rajapuri sugandhi variety of turmeric planted in his field. He uses on FYM, Biofertilizers and bio agent for turmeric plantation. He also made dry powder from turmeric and selling different customers in packaging of 500 gm and 1000 gm.

Impact

Horizontal Spread : Ashwinbhai shared his experience with other farmers of his village and many farmers have adopted his idea.

Economic gains : Total cost of cultivation was Rs.85000/- per Acre (Year-2016). He got production 1500 kg/acre (Year-2016). He earned net return Rs. 2,90,000/- (Year-2016).

Employment Generation : -

KVK, JAU, Amreli Scientist at farmer's field

Farmer with his end product

Success story 2

Title : **Value addition in Ajwain**

Background : Name: **Shri Kishorbhai Ravjibhai Kikani**

Address**:** Batarvadi, Khodiya mandir sheri, Amreli

Age :56 years

Education : M.A.

Landholding : 6.5 ha

Farming Experience : 05 Years

Crops Grown : Ajwain

Interventions : Kishorbhai has cultivated ajwain crop on his farm last year. But he didn't get correct price of harvested crop. Therefore he decided value addition of ajwain. He has an idea to prepare distillation system to collect ajwain essential oil and arka. He established small homemade distillation unit and started production and marketed finished product to local person and various ayurvedic medicine shop and clinics.

Impact

Horizontal Spread : -

Economic gains : He has sold approximately 2500 bottles of products in last 6 months. He earns Rs. 62,500/- as a net profit. Demand of his product is increasing day by day.

Employment Generation : -

KVK, JAU, Amreli Scientists at farmer's processing unit

Final product for sell

Success story 3

Title : **Income generation from chilli**

Background : Name: **Shrimati Asmitaben Nileshbhai Gajera**

Village: Shedubhar, Ta. Dist.- Amreli (Gujarat)

Age :35 years

Education : 10th pass

Landholding : 1.44 ha

Farming Experience : 07 Years

Crops Grown : Chilli

Livestock : 2

Interventions : Asmitaben Nileshbhai Gajera is a innovative farm woman. She has grown chilli crop in 1.44 ha area single and double patta variety irrigated. This year she got 54 q production of dry chilly, productivity 12 q/ha. She produces dry chilli then griend it and make dry chilli powder and her contact consumers purchase is hand by hand.

She also has one Gir cow and one Jafrabadi buffalo from them she earns by selling their milk.

Impact

Horizontal Spread : This way she earn from farming as well as animal husbandry both. She is a inspiration to other farmer who wants to double their income.

Economic gains : This year she earned net income Rs. 5,49,000/- by selling dry chilli powder. Also she earned Rs. 33,000/- per month by selling cattle milk.

Employment Generation : -

KVK, JAU, Amreli Scientists at farmer's field

Final product for sell

Success story 4:

Title : **Palmarosa cultivation**

Background : Name: **Shri Sureshbhai Keshavbhai Nasit**
Village: Sanala, Taluka: Kukavav, District: Amreli
Age :42 years
Education : 12th pass
Landholding : 1.2 ha
Farming Experience : 10 Years
Crops Grown : Palmarosa

Interventions : Palmarosa is important crop for row material (extracted oil from palmarosa) to perfumery industries. It is cultivated in north and south part of India now it is new crop for Gujarat. Its cultivation not simple crop some skill is requiring for its cultivation and distillation.

Sureshbhai cultivated Palmarosa on his filed with seedlings of Palmarosa in field with 45X45 cm row to row spacing. As a basal dose of fertilizers he used FYM (10 t/ha) and DAP (10kg/ha) at the time of flowering he spray urea on crop. He applied irrigation in 12-15 days interval. No any pesticide used in this crop because its own fragrance repelled insect pest. After three months it's ready for first cut. Important oil of Palmarosa extracted by distillation unit.

Impact

Horizontal Spread : -

Economic gains : Surehbhai got 20000 to 25000 kg production of Palmarosa per acre. He extracted 2.5 to 3.0 kg oil from one ton of Palmarosa grass by its own distillation unit. The rate of one kg oil is near about 1500-2000 rupees. He generate 75000 to 150000 income from one acre of land.

Employment Generation : -

Farmer's field

Distillation plant

Success story: 5

Title : **Benefit of farmer through latest recommended variety of Gram by university**

Background :

Name	:	**Bhikhubhai Shamjibhai Borad**
Address	:	Village: Hadala, Ta. Bagasara Dist.- Amreli (Gujarat)
Age	:	58 Years
Education	:	8^{th} pass
Landholding	:	4.8 ha (Irrigated)
Crops Grown	:	Cotton, Groundnut and Sesame in *Kharif*, and Gram and Wheat in *Rabi*

Interventions : Bhikubhai has owned 12 acres of land. He is grown old traditional (Local) varieties in his field and only using chemical inputs for longer time but they switched back to organic farming after 3 years. The main reason why changed over to grow latest recommended varieties of Gram that the Gram crop yield was going down after 2 to 3 years It was due to allotment of front line demonstration of latest recommended variety of Gram for *rabi* season by Krishi Vigyan Kendra, JAU, Amreli during 2015. He started to grow latest GJG-3 variety of Gram instead of old variety and He also makes neem oil by his self created machine and this neem oil are used to control pests on Gram crops. He also use the drip irrigation system which facilitated him to saving water and covers larger area to irrigate the crop. But He got main benefit from 25 kg of GJG-3 variety of gram in one acre of land and produced of 800 kg of gram.

Impact

Horizontal Spread : -

Economic gains : Out of 800 kg of seed, he sold 640 kg @ Rs.2250/ 20 kg of seed to farmers in local market. Bhikhubhai got income Rs. 72000/-from 640 kg of Gram seed material.

Employment Generation : -

Farmer's field

Farmer with his own manufectured neem oil extruder

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

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/technological– horizontal/vertical)	Constraints if any in the continued application of these improved technologies
Kerala (Jogani) Harsupur Devaliya Saladi Jatruda Vandaliya Lunidhaar Haalariya Ditla Babapur Shedubhar Vaankiya Lakhapadar Nesdi Oliya Maandardi	Whole village	15	07	• New varieties of various crops like groundnut, cotton, sesame, wheat etc. • INM • IPM • IDM • Natural resource conservation • New farm machineries • Animal feed management	• 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.

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

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	7,50,000
National Initiative on Climate Resilient Agriculture (NICRA)	2015-16	CRIDA, Hyderabad	15,50,000
Cluster base FLD of Rabi Pulses under NFSM	2015-16	ICAR, New Delhi	1,50,000
National Mission on Oilseeds and Oil Palm (NMOOP)	2015-16	ICAR, New Delhi	1,82,546
Sub-Mission for Seed and Planting Material (SMSP)	2016-17	ICAR, New Delhi	2,34,375

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	1	-	1	-
	Exposure visit	-	-	-	-
	Exhibition	1	-	1	-
	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

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:

S. No	Crop	Variety/Input	Feed Back
1	Gram	GJG-3	► High Yield Variety ► Bold seeded Variety ► Stunt virus resistant Variety
2	Cumin	GC-4	►Research needs on cumin wilt disease ► Less Wilt found as compare to other Variety
3	Wheat	GW-366	► Seed provided was healthy with good germination ►Grain quality is good for higher market price
4	Green Gram	GM-4	►Small size seed and uniform maturity
5	Groundnut	GJG-9	► Higher production ►Less stem rot problems ►Quality of seed is good
6	Sesame	GT-3	►Bold seeded, whiteness more and higher production then other varieties ► Better for Summer cultivation
7	Cotton	INM	► Less reddening of leaves ► Higher Yield
8	Cotton	G.Cot-6(bt)	► Greening up to last stage ► Less Infestation of sucking pest
9	Castor	GCH-7	►Resistance to wilt ► Higher Yield
10	Cotton	Beauveria bassiana	► Better control of pests ► Economic to other chemical pesticides
11	Cotton	Ridge and furrow	►Number of flowers increased ►Early maturity ►Plants don't bent during high wind ►No water logging after rainfall
12	Groundnut	GJG-22	►High yielding ► Tolerant to Collar rot
13	Sesame	GT-3	►Bold seeded, whiteness more and higher production than other varieties
14	Green gram	GAM-5	►Highly resistant to Yellow Mosaic Virus (YMV) ►Bold seed size with attractive shiny grain appearance.
15	Gram	GJG-5	►Moderately Resistant to wilt ►Resistant to stunt
16	Wheat	GW-173	►Require less water i.e. 300mm water as compared to local and late sown variety
17	Black gram	GU-1	►Latest High yielding variety.
18	Pigeon pea	Vaishali	►Medium late Variety use for Grain purpose ►Tolerant to wilt ► Sterility mosaic virus
19	Groundnut	GJG-31	►High Yielding Variety
20	Sesame	GT-4	►White seed and alternate White seed colour, ►Medium capsule in size ►Alternate multi bearing capsule

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 2017-18: Yes

Period of observing Technology Week: From 18.09.2017 to 22.09.2017
Total number of farmers visited : 340
Total number of agencies involved : 06
Number of demonstrations visited by the farmers within KVK campus: 12

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	3	93	Groundnut, Sesamum, Cotton
Lectures organized	22	340	Horticultural and agricultural crops
Exhibition	5	340	-
Film show	5	340	-
Fair	1	340	-
Farm Visit	5	340	Groundnut, Sesamum
Diagnostic Practical	0	0	-
Supply of Literature (No.)	5	1700	All crops
Supply of Seed (q)	0	0	-
Supply of Planting materials (No.)	5	35	Brinjal, tomato, beans
Bio Product supply (Kg)	0	0	-
Bio Fertilizers (q)	0	0	-
Supply of fingerlings	0	0	-
Supply of Livestock specimen (No.)	0	0	-
Total number of farmers visited the technology week	-	340	-

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

13. IMPACT

A. Impact of KVK activities (Year 2012-15).

Sr. No.	Technological indicator	Impact of Krishi Vigyan Kendra				Difference	Rank
		Before		After			
		Frequency	Percent	Frequency	Percent		
1	Introduction of new verities	26	23.21	86	76.79	53.57	**I**
2	Increase in yield / productivity	50	44.64	62	55.36	10.71	**VIII**
3	Increase in area	53	47.32	59	52.68	5.36	**X**
4	Increase in production	33	29.46	79	70.54	41.07	**II**
5	Extent of adoption	42	37.50	70	62.50	25.00	**IV**
6	Increase in income	42	37.50	70	62.50	25.00	**IV**

7	Generation of employment	52	46.43	60	53.57	7.14	**IX**
8	Expansion of an enterprise	49	43.75	63	56.25	12.50	**VII**
9	Introduction of new enterprise	49	43.75	63	56.25	12.50	**VII**
10	Increase in marketable farm produce	45	40.18	67	59.82	19.64	**V**
11	Creation of infrastructure	42	37.50	70	62.50	25.00	**IV**
12	Opening of farm school	47	41.96	65	58.04	16.07	**VI**
13	Decrease in yield gaps	41	36.61	71	63.39	26.79	**III**

B. Cases of large scale adoption

B. 1. Cotton shredder

KVK advised farmers, the stalks to be mixed with soil either directly or by mechanized chopping. KVK demonstrated the cotton shredder developed by Junagadh Agricultural University in many villages of Amreli district and advised famers; to collect the cotton stalks after harvest and mechanically chopped by cotton shredder. Farmers get organic manure after composting of shredded material. It adds organic matter to the soil and reduces the risk of soil erosion.

Where cotton stalks are mechanically chopped and integrated into the soil, 48% of the nitrogen, 41% of the phosphor and 74% of the potassium taken from the soil by the cotton plant is returned to the soil (Basoglu, 1964).

Cotton stubbles contain more than 1.11% of Nitrogen, 0.1% of Phosphorous, and 3.98% Potash. This means that the grown crop can supplement 1.5 tons of Carbon, 20-25 kg of Nitrogen and 72 kg of Potash from the cotton stubbles collected from one hectare of cotton cultivated area. After shredding, the chips used as a feeding material for composting process, or in vermicompost preparation and other compost pits. Commercial microbial cultures can be used on the chips/ powder of stubbles to fasten the decomposition process. Machine cut cotton stalk of particle size, 2 to 2.5 cm which is recommended for quick composting.

Output: KVK demonstrated this technology in more than 100 villages of Amreli and also covered 500 hectare. More and more numbers of farmer are asking for demonstration of cotton shredder, as this helps them to improve nutrient quality of their soil.

Table 1: Year wise use of cotton shredder by farmers and area covered.

Year	Crop	No. of farmers	Area (ha)
2017-18	Cotton	10	80
2016-17	Cotton	10	120
2015-16	Cotton	10	150
2014-15	Cotton	10	150

B. 2. Use of IPM to control pink boll worm in cotton crop

An awareness programme in Amreli district by Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli was launched which was supported by ATMA, State department and NGOs; for organizing training programme about IPM of pink boll worm in cotton crop.

Advance planning was made and implemented strategies to control pink boll worm by using various IPM tools like bio-pesticides, mechanical devices and also provided valuable information for management by cultural practices like deep ploughing, timely sowing varieties of cotton, early mature variety and avoided crop ratooning. Proper literatures like folders, pamphlets, leaf lets, text messages and audio-visual aids were provided to the farmers.

Farmers of Amreli district were benefited by scientific and technological information about IPM of pink boll worm of cotton and necessary guidance was also provided by scientists of Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli (Gujarat).

Output: Due to continuously providing knowledge of scientific package of practices and technologies to farmers by various training programmes, farmers got aware about various benefit of modern and scientific approach to control pink boll worm through utilization of bio-pesticides and mass trapping of pink boll worm adults by mechanical devices like pheromone trap and this reduced the application of hazardous pesticides and also farmers started useing bio materials for control of pink bollworm of cotton which was purchased from Krishi Vigyan Kendra, JAU, Amreli at very nominal prices as compared to marketed rate produced by Junagadh Agricultural University under Savaj brand.

Table: Selling of bio-products:

Bio-product	Sold Qty.		Benefitted farmers	
	2016-17	2017-18	2016-17	2017-18
Beauveria bassiana	17000	7235	1450	1150
Pheromone trap	7050	2354	540	295
Gossy Lure	8500	9403	485	685
		Total	**2475**	**2130**

C. Details of impact analysis of KVK activities carried out during the reporting period: From 2015-16 to year 2017-18 Impact study will be done in year 2018-19

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2017	3	5731	-
May	2	5731	-
June	3	5731	-
July	2	5731	-
August	3	5731	-
September	3	5731	-
October	2	5731	-
November	3	5731	-
December	3	5731	-
January 2018	1	5731	-
February	1	5731	-
March	1	5731	-

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
	Text only	22	5	-	--	-	-	**27**
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**22**	**5**	**-**	**-**	**-**	**-**	**27**
	Total farmers Benefitted	**137544**		**-**	**-**	**-**	**-**	**137544**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		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	16/11/17	02/03/2018	1.0	GW-366	Truthful	29.50	25500	72500	-
	17/11/17	03/03/2018	0.5	GW-463	Truthful	10.41	12700	24500	-
Pulses	-	-	-	-	-	-	-	-	-
Oilseeds									
Groundnut	12, 13/6/17	27-30/10/17	5	GJG-22	Foundation	51.50	137000	339000	-
	11,12/06/17	24-26/10/17	4.5	GG-20	Truthful	31.90	70000	151000	-
	11,12/06/17	23/10/17	1	GG-20	Truthful	7.10	25000	34800	-
Sesame	20/07/17	10,11/10/17	2	GT-5	Breeder	2.15	26500	43950	-
Fibers	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
Floriculture	-	-	-	-	-	-	-	-	-
Fruits	-	-	-	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-	-	-	-
Others (specify)									

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): 30

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2017	71	8	-
May 2017	140	10	-
June 2017	143	9	-
July 2017	157	6	-
August 2017	91	8	-
September 2017	136	10	-
October 2017	140	9	-
November 2017	111	8	-
December 2017	74	5	-
January 2018	110	8	-
February 2018	19	4	-
March 2018	155	9	-

F. Database management

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

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
5,00,000	5,00,000	4.0 ha	7	8	-	261	8	-	-
40,000	40,000	-	1	2	-	42	4	-	-

16. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India	Agril campus, Junagadh	-	-	-	-	-
With KVK	State Bank of India	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 2017-18 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	69.04	69.04	64.59
2	**Traveling allowances**	1.20	1.20	0.89
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	9.32	9.32	9.25
B	POL, repair of vehicles, tractor and equipments	-	-	-
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	-	-	-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	-	-	-
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	-	-	-
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	-	-	-
G	Training of extension functionaries	-	-	-
H	Maintenance of buildings	-	-	-
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-
J	Library	-	-	-
TOTAL (A)		**79.56**	**79.56**	**74.74**
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Equipments including SWTL & Furniture**	-	-	-
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	-	-	-
4	**Library** (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		-	-	-
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**79.56**	**79.56**	**74.74**

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 2015 to March 2016	21,85,401	10,42,027	4,23,335	28,04,093
April 2016 to March 2017	28,04,093	40,97,467	32,63,244	36,38,316
April 2017 to March 2018	36,38,316	26,98,583	19,04,184	44,32,715

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. N. S. Joshi	Sr. Scientist and Head	Zonal workshop of KVK	JAU, Junagadh	10-12/06/2017
Dr. N. S. Joshi	Sr. Scientist and Head	NICRA Workshop	ATARI, Pune	03/07/2017
Dr. M. L. Patel	Scientist (Plant Protection)	Quarantine Pest Detection & Identification	NIPHM, Hyderabad	04-24/04/2017
Mr. P. J. Prajapati	Scientist (Agronomy)	Modern Concepts and Practices of Organic Farming for Safe, Secure and Sustainable Food Production	ICAR-IIFSR, Meerut	14/07/2017 to 03/08/2017
Er. P. S. Jayswal	Scientist (Agricultural Engineering)	Enhancing The Productivity Of Rainfed Agro-Eco System Through Sustainable Interventions	DFRS, Bhilwara	14/12/2017 to 03/01/2018
Dr. M. L. Patel	Scientist (Plant Protection)	Workshop cum training on CFLDs on Pulses and Oilseeds	NAU, Navsari	29-31/01/2018
Dr. N. S. Joshi	Sr. Scientist and Head	National conference of KVK	ICAR, Pusa	16-17/03/2018
Dr. N. S. Joshi	Sr. Scientist and Head	HRD training	JAU, Junagadh	21-23/03/2018
Dr. H. C. Chhodvadia	Scientist (Extension)			
Dr. M. L. Patel	Scientist (Plant Protection)			
Mr. P. J. Prajapati	Scientist (Agronomy)			

18. Other Schemes Activities

18.1 Agriculture Technology Information Centre Activities (ATIC):

I. Trainings

Sr. No.	Types of training	No. of Training	No. of participants
1	On Campus	04	115
2	Off Campus	06	195
	Total	**10**	**310**

II. Front Line Demonstration: (ATIC)

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	Cotton	Kharif 17	G.Cot.10 Bt	20	08	21.68	18.44	20.05
2	Groundnut	Kharif 17	GJG-22	20	05	19.27	15.40	27.98
3	Sesame	Kharif 17	GT-3	10	04	7.84	6.50	25.09
4	Cotton	Kharif 17	IPM	50	12.5	22.05	19.50	17.84
5	Groundnut	Kharif 17	GG 20	100	25	18.84	16.83	21.74
6	Wheat	Rabi 17-18	GW-366	50	12.5	44.30	37.48	21.86
7	Gram	Rabi 17-18	GJG-3	50	12.5	21.11	17.35	22.54
8	Cumin	Rabi 17-18	IDM	10	2.5	9.56	7.88	25.43
9	Green gram	Summer 18	GAM-5	25	6.25	Standing		
10	Sesame	Summer 18	GT-3	25	6.25	Standing		
			Total	**365**	**94.5**			

18.2 Activities under National Innovations on Climate Resilient Agriculture (NICRA)

I. Trainings:

Thematic area	No. of Courses	No. of beneficiaries		
		Male	Female	Total
Importance of bio-fertilizer	1	32	0	32
Animal nutrition and clean milk production	1	37	0	37
Animal husbandry on scientific	1	03	37	40
Feed Management	1	07	29	36
Natural resource management	1	42	0	42
Pest and disease management	2	155	0	155
Live stock management	1	10	42	52
Farm implement and Management	1	28	0	28
Total	**9**	**314**	**108**	**422**

II. Front Line Demonstration: (NICRA) Kharif 2017

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	Green Gram	Kharif 17	GAM-5	5	2	11.24	9.16	22.61
2	Sesame	Kharif 17	GT-3	20	8	10.96	9.17	21.79
3	Cotton	Kharif 17	Pheromone trap for Pink boll worm, Bio-pesticides	100	40	23.3	18.8	25.45
4	Castor	Kharif 17	GCH-7	5	2	26.3	22.1	19.08
			Total	**130**	**52**			

III. Front Line Demonstration: (NICRA) Rabi 2017-18

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	Wheat	Rabi 17-18	GW-173	5	2	50.4	42.7	18.95
2	Chickpea	Rabi 17-18	GJG-5	20	2	21.9	18.3	20.51
3	Onion	Rabi 17-18	GWO-1	5	2	312	268	16.36
			Total	**30**	**6**			

III. Livestock:

Intervention undertaken	No. of units	No. of farmers covered
Mineral Mixture Supplementation	25	25
Lucern (Anand-3)	5	5
Silage	5	5
Kaccha home with roof for cow and buffalo	10	10
De worming block Bolus	50	50
Animal treatment camp	245	74
Feeding management	24	24

IV. Extension Activities

Thematic area	No. of activities	No. of beneficiaries		
		Male	Female	Total
Method demonstration	18	213	75	288
Agro advisory services	As and when required	427	130	557
Awareness	12	169	129	298
Exposure visit	2	44	22	66
Field Day	9	103	14	117
Group discussion	16	179	88	267
Diagnostic visit	22	286	156	442
Total	**79**	**1421**	**614**	**2035**

V. Equipment Procurement of Farm Machinery/Implements for Custom Hiring Centre:

Name of the implement	No. of units	Rent / hour	No. of beneficiaries	Revenue generated (Rs.)	Implement used for which crop
Battery operated sprayer	5	20	03	240	Cotton, Groundnut, Sesame
Rotavator	2	100	19	6480	Cotton and Groundnut
Mobile Shredder	1	100	11	9150	Cotton
Motor operated Chaff cutter	2	100	05	4175	Sorghum Maize Hy. Napier Bajra
Multipurpose thresher	1	100	01	250	Green Gram, Sesame
Drip Line Collector	5	50	04	250	Cotton
Automatic seed-cum-fertilizer drill	1	100	02	1100	Groundnut, Wheat
Secateur	10	20	02	260	Lemon
Seed dressing drum	5	25	01	50	Groundnut
Total	**32**	**-**	**48**	**21955**	

18.3 I. Activities-Cluster base Front Line Demonstrations of Rabi and Summer Pulses under NFSM:

Sr. No.	Types of training	No. of Training	No. of participants
1	On campus	1	43
2	Off campus	1	80
3	Field Day	2	29
4	Field visit	3	7
5	Sponsored training	1	60
	Total	**8**	**219**

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
						Demo.	Local check	
1	Green gram	Summer 17	GM-4 with component	75	30	6.34	7.70	22.14
2	Black gram	Kharif 17	Azadirechtin,Trichoderma,Rhizobium,Pendimethalin	75	30	8.13	6.61	25.95
3	Pigeon pea	Kharif 17	Vaishali and Azadirechtin, Rhizobium, PSB,HNPV, Pheromone trap,Helilure Pendimethalin	50	20	19.51	16.10	22.20
4	Gram	Rabi 17-18	GJG 3, Trichoderma, Pheromone trap, Helilure, HNPV	75	30	20.55	16.69	24.48
			Total	**275**	**110**			

18.4. I. ACTIVITIES-CLUSTER BASE FRONT LINE DEMONSTRATIONS OF OILSEED UNDER NMOOP:

Sr. No.	Types of training	No. of Training	No. of participants
1	Off campus	1	23
2	Field Day	3	14
3	Sponsored training	1	110
	Total	5	147

II. CLUSTER FRONT LINE DEMONSTRATIONS OF OILSEED UNDER NMOOP:

SN	Crop	Season	Component /Variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo.	Local check	
1	Groundnut	Summer 17	GJG-31	50	20	21.97	18.75	17.17
2	Groundnut	Kharif 17	GJG-22 and Trichoderma, Castor cake, Rhizobium, PSB,HNPV, Metarhizium, Micromix	50	20	22.98	19.52	21.52
3	Sesame	Kharif 17	GT-4 and Trichoderma, Azadirechtin, Beauveriya bassiana, Pendimethalin	50	20	9.15	7.71	20.55
			Total	**150**	**60**			

19. SPECIAL EVENTS CELEBRATED

- **Mahila Krishi Divas:**

Mahila Krishi divas was celebrated on 06th July 2017 at Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli. Total 120 woman farmers have taken participation. Various lectures were organized like Information about I Khedut portal by Mr. Dangariya, clean milk production by Mr. Narodiya, value addition to fruit crops by Me. Vala, participation of farmwomen in agriculture by Ms. Jayswal, storage of grain by Mr. Mahesh and women empowerment by Ms. Meenakshi.

- **Parthenium Awareness Week**:

Krishi Vigyan Kendra, JAU, Amreli has Celebrated Parthenium Awareness Week during 16-22 August 2017. Scientists of KVK, Amreli delivered lectures on parthenium control, its harmful effect and its causes on human health as well as reduced yield by parthenium, about 25 farmers and farm women were averred about parthenium weed.

❖ **“Sankalp Se Siddhi- New India Manthan":**

Krishi Vigyan Kendra, JAU, Amreli has organized “New India Manthan-Sankalp Se Siddhi” programme on 31/08/2017. The Inaugural session was started with welcome to guests by Dr. A. M. Parakhiya, DEE, JAU, Junagadh and lightening of lamp by the dignitaries on the Dias. Chairperson of this event was Hon'ble Shri Naranbhai Kachhadia, MP, Amreli (Loksabha). He gave information of different govt. project like, Rashtriya Gokul Mission, Organic farming, Sardar Sarovar project etc. In the programme, Shri. V. V. Vaghasiya, Hon'ble Agriculture Minister, Govt. of Gujarat graced the event by his presence and in his address to the farmers, he talked about seven point of Sankalp se sidhhi programme in enhancing farmers’ income. Hon'ble Shri Bavkubhai Undhad, MLA (Lathi-Babara), Govt. of Gujarat shared significant knowledge about the Government’s efforts on doubling farmers’ income. The co-chairman of this programme Dr. A. R. Pathak, Hon'ble V.C., JAU, Junagadh presided over the “Oath Taking” of the gathering where participants took oath for formation of "New India". In this programme more than 750 farmers and farm women and 50 others faculties' member participated.

❖ **Swachta hi Seva and Tree Plantation:**

Swachta hi Seva and Tree Plantation programme was organized on 17/09/2017 at Krishgi Vigyan Kendra, JAU, Amreli in which total 155 persons has took participation along with Hon. Central Union Minister of The state Government of India -Agriculture, Farmers welfare & Panchayati Raj, Union Minister for Road Transport & Highways, Shipping, Chemical & Fertilizers, General Secretary of Gujarat State, Hon. State Minister, Agriculture, Gujarat, MP, Amreli, Hon'ble Vice Chancellor, Junagadh AgriculturalUniversity, Junagadh. This programme was to aware local person about cleanliness and trees in life. Number of trees were planted by degniteries. One off campus programme was also organized on 23,24/09/2017 at Haripura adopted village of KVK, JAU, Amreli. Total 55 persons were participated in this programme and trees were had also been planted.

❖ **Technology week:**

Technology week have celebrated from 18/09/2017 to 22/09/2017 at Krishi Vigyan Kendra, Amreli, with a view to create mass awareness among the farmers about the location specific advanced technologies for the sustainable agricultural production. Seminars and demonstrations on advanced technologies in agriculture and allied discipline such as Horticulture, Plant protection, Crop Production, Agriculture engineering, Animal science, and Home science have been conducted during the week. Total 340 participants including 286 farmers and 54 farm-Women from about 13 villages of Amreli District were benefitted.

❖ **Mahila Kisan Divas:**

Mahila Kisan Divas was celebrated on 13/10/2017 as per ICAR guidelines. Function was inaugurated by Dr. N. S. Joshi, Senior Scientist and Head, KVK, JAU, Amreli. Various informative lectures were organized of different faculty Scientists of KVK, JAU, Amreli and Faculty members of Polytechnic in Home Science, JAU, Amreli. Two women farmers; Shrimati Jyotikaben and Shimati Shobhanaben, were honored for their contribution in agriculture and allied fields. Drawing competition was organized for students of Polytechnic in Home Science, JAU, Amreli and participant farm women. Certificates were also provided to best three participants in drawing competition. Total 85 participants were remain present in this programme.

❖ **NITI AAYOG visit to KVK, JAU, Amreli**

Dr. Sanchita, Dy. Director and two other faculty members of NILERD, NITI Aayog, Delhi have visited Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli on 15th December 2017 for physical verification of all facilities and information provided by KVK, JAU, Amreli in KVKs' Ranking Report. NILERD, NITI Aayog, Delhi has covered KVK, JAU, Amreli in '**A**' category KVKs' of all over India.

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	39	1357	570	1927
Rural youths	4	153	7	160
Extension functionaries	3	120	13	133
Sponsored Training	25	2750	284	3034
Vocational Training	1	0	29	29
Total	**72**	**4380**	**903**	**5283**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	295	99.25	-
Pulses	315	108.75	-
Cereals	65	21.5	-
Vegetables	80	12.0	-
Other crops	190	67.0	-
Hybrid crops	25	10.0	-
Total	**970**	**318.5**	-
Livestock & Fisheries	105	2.0	20
Other enterprises	15	92.8	5
Total	**120**	**94.8**	**25**
Grand Total	**1090**	**413.3**	**25**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	7	16	16
Livestock	1	18	6
Various enterprises	-	-	-
Total	**8**	**34**	**22**
Technology Refined			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
Total	-	-	-
Grand Total	**8**	**34**	**22**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1218	11954
Other extension activities	18	164
Total	**1236**	**12118**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
KVK, JAU, Amreli	Text only	22	5	-	-	-	-	27
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**22**	**5**	-	-	-	-	**27**
	Total farmers Benefitted	**137544**						

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	132.5	-
Planting material (No.)	1222	1674
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	172	51600
Water	38	3040
Plant	-	-
Total	**210**	**54640**

8. HRD and Publications

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