

## PROFORMA FOR PREPARATION OF ANNUAL REPORT (April-2016-March-2017)

## APR SUMMARY

## 1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	75	1688	605	2293
Rural youths	6	225	30	255
Extension functionaries	2	48	4	52
Sponsored Training	-	-	-	-
Vocational Training	5	67	74	141
<b>Total</b>	<b>88</b>	<b>2028</b>	<b>713</b>	<b>2741</b>

## 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	55	22	-
Pulses	40	16	-
Cereals	45	18	-
Vegetables	100	10	-
Other crops	45	18	-
Hybrid crops	-	-	-
<b>Total</b>	<b>285</b>	<b>84</b>	<b>-</b>
Livestock & Fisheries	70	-	70
Other enterprises	-	-	-
<b>Total</b>	<b>70</b>	<b>-</b>	<b>70</b>
<b>Grand Total</b>	<b>355</b>	<b>84</b>	<b>70</b>

## 3. Technology Assessment &amp; Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	6	18	18
Livestock	1	10	10
Various enterprises	3	5	5
<b>Total</b>	<b>10</b>	<b>33</b>	<b>33</b>
<b>Technology Refined</b>			
Crops	-	-	-
Livestock	-	-	-
Various enterprises	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>10</b>	<b>33</b>	<b>33</b>

## 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	5910	13145
Other extension activities	10	-
<b>Total</b>	<b>5920</b>	<b>13145</b>

## 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	-	-	-	-	-	-	-
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	-	-	-	-	-	-	-
	<b>Total farmers Benefitted</b>	-	-	-	-	-	-	-

#### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	196.81	-
Planting material (No.)	-	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

#### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	2918	33100
Water	88	4400
Plant	-	-
<b>Total</b>	<b>3006</b>	<b>37500</b>

#### 8. HRD and Publications

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

**DETAIL REPORT OF APR-2016-17****1. GENERAL INFORMATION ABOUT THE KVK****1.1. Name and address of KVK with phone, fax and e-mail**

Address	Telephone		E mail
Krishi Vigyan Kendra, Junagadh Agricultural University, Khapat-360579, Porbandar (Gujarat)	Office 0286-2912562	FAX 0286-2242416	<a href="mailto:kvk_khapat@yahoo.co.in">kvk_khapat@yahoo.co.in</a> <a href="mailto:kvkkhapat@jau.in">kvkkhapat@jau.in</a>

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

Address	Telephone		E mail
	Office	FAX	
Junagadh Agricultural University Junagadh- 362001 (Gujarat)	(1)0285- 2671784 (2)0285-2672080-90	(1) 0285-2672004 (2) 0285-2672653	-

**1.3. Name of the Programme Coordinator with phone & mobile No**

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. R. K. Odedra	-	09825280843	<a href="mailto:rkodedra@jau.in">rkodedra@jau.in</a>

**1.4. Year of sanction: 2005**

1.5 Staff Position (as on 30<sup>th</sup> March, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)	Mobile no.	Age	Email id
1	Senior Scientist & Head	Dr. R. K. Odedra	Senior Scientist & Head	Plant Breeding & Genetics	15600-39100	21390	1-06-09	Permanent	OBC	9825280843	58	rkodedra@jau.in
2	Scientist	R. B. Vadher	Scientist	Entomology	15600-39100	23950	19-8-06	Permanent	OBC	9824237767	38	rbvadher@jau.in
3	Scientist	D. S. Thakar	Scientist	Home Science	15600-39100	24140	22-8-06	Permanent	Gen.	9909927399	37	diptithakar@jau.in
4	Scientist	S. R. Thaker	Scientist	Fisheries	15600-39100	23950	31-8-06	Permanent	Gen.	9824274050	57	srthaker@jau.in
5	Scientist	H. A. Patel	Scientist	Animal Husbandry	15600-39100	16250	6-4-15	Permanent	Gen.	9998687479	32	hasmukh.vet@gmail.com
6	Scientist	V.M.Savaliya	Scientist	Horticulture	15600-39100	15600	1-08-17	Permanent	Gen.	9824886188	27	vmsavaliya@jau.in
7	Scientist	Vacant	-	-	15600-39100	-	-	-	-	-	-	-
8	Programme Assistant	Vacant	-	-	9300-34800	-	-	-	Gen.	-	-	-
9	Computer Programmer	J J. Naliyapara	Comp. Prog.	-	9300-34800	11750	12-6-08	Permanent	OBC	9998698063	38	jjnaliyapara@jau.in
10	Farm Manager	Vacant	Farm Manager	-	9300-34800 15500 (fix)	15500		-				
11	Accountant / Superintendent	B. S. Bokhariya	OS	--	9300-34800	11750	18-6-08	Permanent	OBC	9978055059	40	bsbokhiriya@jau.in
12	Stenographer	P.H.Parekh	Stenographer	-	5200-20200	19950(Fix)	20-11-2013	Permanent (Fix pay)	Gen.	9913393900	30	-
13	Driver	Vacant	-	-	5200-20200	-	-		-	-	-	-
14	Driver	Vacant	-	-	5200-20200	-	-		-	-	-	-
15	Supporting staff	Vacant		-	4440-7440							-
16	Supporting staff	Vacant	-	-	4440-7440	-	-		-	-	-	-

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

S. No.	Item	Area (ha)
1	Under Buildings	2.451
2.	Under Demonstration Units	0.337
3.	Under Crops	14.660
4.	Orchard/Agro-forestry	2.798
5.	Others (specify)	0.344

**1.7. Infrastructural Development:**

**A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR	13/10/07	588	-	-	-	completed
2.	Farmers Hostel	ICAR	31/7/08	288	-	-	-	completed
3.	Staff Quarters (6)	ICAR	24/11/07	446	-	-	-	completed
4.	Demonstration Units (2)	ICAR	31/03/2017	-	-	-	-	completed
5	Fencing	ICAR	2009	500 RM	-	-	-	completed
6	Threshing floor	ICAR	2009	900	-	-	-	completed
7	Farm godown	ICAR	2009	129	-	-	-	completed
8	Open well	ICAR	-	6 m dia.	-	-	-	completed
9	Implement shed	ICAR	2011	76.4	-	-	-	completed

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor (Farmtrac)	2005	380000	56812 Hours	Good
Bolero Jeep	2005	496000	258009 Km	Good after repairing
Motor cycle	2010	47000	15598 Km	Good

**C) A. Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Fax machine	2008-09	17200	Running
LCD projector	2008-09	100000	Running

**B. Equipments & AV aids procured under RKVY**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Zerox machine	2008-09	124000	Running
R.O. plant	2008-09	24450	Running
Hcl laptop computer	2008-09	47,500	Running
Food processor	2008-09	5,495	Running
Multipurpose bullock drawn pipe frame implement head piece	2008-09	27,500	Running
Rotavator tractor operated	2008-09	96,000	Running
Planter tractor operated	2008-09	44,000	Running
Tractor drawn harrow cum cultivator cum intercultivator frame 86"	2008-09	37,500	Running
Samsung double door refrigerator	2008-09	17,650	Running
Electrolux grill microwave / oven	2008-09	9,580	Running
Panasonic LCD projector	2008-09	103,912	Running
Multi purpose groundnut cum wheat thresher	2008-09	114,000	Running
Cotton shredder	2008-09	242,000	Running
Solar street light	2008-09	28,000	Running
Solar lanterns	2008-09	4,800	Running
Solar cooker	2008-09	3,300	Running
Mobile seed grading unit	2008-09	1,685,000	Running
Decorticators	2008-09	95,850	Running
Winnowing fan	2008-09	8,500	Running
Chaff cutter	2008-09	30,188	Running
High tech sprayer pump	2008-09	1,850	Running
Battery operated sprayer pump	2008-09	4,940	Running

**1.8. A). Details SAC meeting\* conducted in the year**

Sr. No.	Date	Number of Participants	Salient Recommendations	Action taken
	7th Nov. 2016	<p>1 Dr. A. R. Pathak, Hon'ble Vice Chancellor, J.A.U., Junagadh</p> <p>2 Shri Virambhai Karavadra, President, Taluka Panchayat, Porbandar</p> <p>3 Dr. A. M. Parakhia Director of Extension Education, JAU, Junagadh</p> <p>4 Dr. V. P. Chovatia Director of Research, JAU, Junagadh</p> <p>5 Shri J. N. Parmar Representative District Agricultural Officer, Porbandar</p> <p>6 Shri V. P. Korat I/c. Deputy Project Director (FTC), Porbandar</p> <p>7 Dr. N. B. Jadav, Programme Coordinator, KVK, JAU, Pipaliya (Dhoraji) Dist.: Rajkot</p> <p>8 Shri M. D. Odedra Rep. Deputy Director (Horti.), Porbandar</p> <p>9 Shri J. L. Gohel Representative Asst. Director of Fisheries, Porbandar</p> <p>10 Shri Pandya, Assistant Conservator of Forest, Porbandar</p> <p>11 Shri Raval Manager Lead Bank, Porbandar</p> <p>12 Shri K. G. Balas Representative of Director, DWDU, Porbandar</p> <p>13 Shri Raj Jethwa Information Assistant, District Information Centre, Porbandar</p> <p>14 Dr. R. K. Odedra, Programme Coordinator, KVK, JAU, Khapat- Porbandar</p> <p>15 Shri Balubha Khimabhai Bhutiya At: Khambhodar, Ta. &amp; Dist. Porbandar</p> <p>16 Shri Hasmukhbhai Nathubhai Chavda At: Gokran, Ta. Kutiyana, Dist. Porbandar</p> <p>17 Shri Bhanubhai Rajsibhai Bapodra At: Ranavav, Ta. Ranavav, Dist. Porbandar</p> <p>18 Smt. Arunaben Nandlal Tank At: Aniyari, Ta. Ranavav, Dist. Porbandar</p> <p>19 Miss Kamla Nandlal Tank At: Aniyari, Ta. Ranavav, Dist. Porbandar</p> <p>20 Shri Ramjibhai Karabhai Dhokia At: Choliyana, Ta. Kutiyana, Dist., Porbandar</p> <p>21 Shri Samatbhai Hardasbhai Odedra At: Kansabad, Ta. Kutiyana, Dist. Porbandar</p> <p>22 Shri Virambhai Arjanbhai Odedra At: Choliyana, Ta. Kutiyana, Dist., Porbandar</p> <p>23 Shri Jesabhai Varsabhai Odedra At: Choliyana, Ta. Kutiyana, Dist., Porbandar</p> <p>24 Shri Merubhai Punjabhai Odera At: Ranavav, Ta. Ranavav, Dist. Porbandar</p> <p>25 Shri Maldebhai Savdasbhai Karavdra At: Ramgadh, Ta. Ranavav, Dist. Porbandar</p> <p>26 Shri Dayabhai Naranbhai Chavda At: Ramgadh, Ta. Ranavav, Dist. Porbandar</p> <p>27 Miss Minaxiben Dayalal Teraiya At: Palakhada, Ta. &amp; Dist. Porbandar</p> <p>28 Miss Pujaben Narotambhai Joshi At: Palakhada, Ta. &amp; Dist. Porbandar</p>	<p>1. Training on organic farming in horticulture crops should be taken</p> <p>2. production technology on date palm should be included</p> <p>3. OFT on potash fertilizer in groundnut should be taken as FLD not as OFT.</p> <p>4. Soil samples analysis should be increased</p> <p>5. To conduct FLDs on biofertilizers, NPV and Beauveria in Ghed area on chick pea and sorghum (Gundhri).</p> <p>6 To conduct revised OFT on integrated management of white grub in groundnut by taking Metarhizium and Beauveria as intervention.</p> <p>7. Training on preparations from sprouted chick pea should be conducted. And more emphasis on preparations from local crops like chick pea and Gundhri sorghum.</p> <p>8. To conduct FLDs on supplement of bypass fat on Gir cow and data on milk production and fat percentage should be collected. &amp; Training on crop diversification should be conducted</p>	<p>1. The suggestion has been incorporated</p> <p>2. Accepted and will be conducted</p> <p>3. Accepted and will be incorporated in the action plan</p> <p>4. Will be increased</p> <p>5. Accepted and will be conducted</p> <p>6. Will be incorporated</p> <p>7. Accepted and will be done</p> <p>8. Will be conducted</p>

## 2. DETAILS OF DISTRICT (2016-17)

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

S. No	Farming system/enterprise
1	Rainfed Farming System

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

S. No	Agro-climatic Zone	Characteristics
1	South Saurashtra	<b>Porbandar</b> district is located between 21° to 22° N latitude and 69° to 70° E longitude. <b>Khapat-</b> N 21° 40' 12" and E 69° 37' 14" <b>Soil:</b> medium black & silty loam with calcareous in nature <b>pH:</b> of the soil is ranging from 8.01 to 8.58 <b>Water:</b> Ec value up to 8.1 mm / cm <b>Average Rainfall:</b> 668.mm <b>Temperature Range:</b> 41.0° C to 12.0 °C

Sr. No	Agro ecological situation	Characteristics
1.	Shallow black soil with low rainfall	Soil: Sandy clay loam to clay Rainfall: <750 mm
2.	Hilly soil with low rainfall	Soil: Sandy clay loam to sandy clay Rainfall: <750 mm
3.	Medium black soil with low rainfall	Soil: Sandy clay to clay Rainfall: <750 mm
4.	Deep black soil with low rainfall (Ghed)	Soil: clay Rainfall: <750 mm
5.	Mix red & black soil with medium rainfall	Soil: Sandy clay loam to clay loam Rainfall: 750-1000 mm

### 2.3 Soil type/s

Sr. No	Soil type	Characteristics	Area in ha
1.	Sandy clay loam to clay	Rainfall: <750 mm	34241
2.	Sandy clay loam to sandy clay	Rainfall: <750 mm	46080
3.	Sandy clay to clay	Rainfall: <750 mm	86627
4.	Clay	Rainfall: <750 mm	56880
5.	Sandy clay loam to clay loam	Rainfall: 750-1000 mm	5707

### 2.4. Area, Production and Productivity of major crops cultivated in the district

Sr. No	Crop	Area (ha)	Production (MT)	Productivity (Kg/ha)
1	Groundnut	69900	41971	617
2	Cotton	17900	17049	2653
3	Wheat	6840	32678	3167
4	Cumin	9190	7520	615
5	Coriander	16455	18687	1133
6	Gram	14625	22475	1417
7	Green gram	355	735	915
8	Black gram	120	90	1225
9	Castor (Rabi)	1205	3675	3050
10	Forage crops	29555	1750005	113083



## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
January 2016	-	28.59	6.49	60.31
February 2016	-	30.71	8.04	55.12
March 2016	-	32.54	11.09	61.33
April 2016	-	32.32	13.78	70.06
May 2016	-	33.64	16.92	72.32
June 2016	77.0	32.64	17.85	79.13
July 2016	201	30.34	16.01	83.70
August 2016	212.6	29.4	15.44	87.27
September 2016	27.0	30.51	16.17	81.92
October 2016	50.0	34.91	22.93	60.03
November 2016	-	32.90	22.19	44.16
December 2016	-	30.09	12.26	45.58
<b>Total</b>	<b>567.6</b>	<b>-</b>	<b>-</b>	<b>-</b>

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	83108	-	-
<b>Buffalo</b>	105346	-	-
<b>Sheep</b>			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	22649	-	-
<b>Goats</b>	22325	-	-
<b>Pigs</b>	-	-	-
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
<b>Rabbits</b>	-	-	-
<b>Poultry</b>			
Hens	-	-	-
<i>Desi</i>	2069	-	-
<i>Improved</i>	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-

Category	Area	Production	Productivity
Fish	10748 (Fisherman)	91513 MT (Capture)	-
<i>Marine</i>	-	-	-
<i>Inland</i>	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

## 2.7 Details of Operational area / Villages (2016-17)

Sl.No.	Taluk	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1.	Porbandar	Cluster I	1. Khambhodar 2. Majivana 3. Fatana 4. Sodhana 5. Shingda	Groundnut Wheat Cumin Coriander Sorghum Gram Fenugreek	White grub & stem rot in groundnut Wilt & blight in cumin Powdery mildew in coriander	IPM INM Improved package of practices IDM Poor quality water
2.	Ranavav	Cluster II	1. Khijdal 2. Rana Vadvala 3. Bhod 4. Rana Khirasara 5. Aniyari	Groundnut Cotton Sorghum Wheat Cumin Pearl millet	White grub & stem rot in groundnut Pink ball worm & sucking pest in cotton Wilt & blight in cumin	IPM INM Improved package of practices IDM INM in Horticulture
3.	Kutiyana	Cluster III	1. Pasvari 2. Segras 3. Bhogsar 4. Mal 5. Baloch	Groundnut Cotton Castor Sorghum Wheat Cumin Gram	White grub & stem rot in groundnut Pink ball worm & sucking pest in cotton Wilt & blight in cumin	IPM INM Improved package of practices IDM Problematic soil Poor quality irrigation water

## 2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Groundnut	Integrated Nutrient Management, Integrated Pest & Disease Management, Soil moisture conservation, Improved variety, organic farming
Cotton	Integrated Pest Management, Integrated Nutrient Management
Wheat	Integrated Nutrient Management, Soil moisture conservation
Cumin	Integrated disease management, irrigation management, organic farming
Coriander	Improved variety, IDM
Chick pea	Improved variety, INM, organic farming
Sorghum	Soil moisture conservation
Horticulture	Improved package of practices of spices, PHT in fruits & vegetables
Fisheries	Integrated fish farming, freshwater aquaculture, seaweed cultivation
Farm women	Income generating activities, Value addition in agricultural produce, women & child care

### 3. TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities by KVK during 2016-17

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	10	33	33	84	84	355	355

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	75	75	2293	2293	26	26	-	13145
Rural youth	11	11	349	349	-	-	-	-
Extn. Functionaries	2	2	52	52	-	-	-	-
<b>Total</b>	<b>88</b>	<b>88</b>	<b>2694</b>	<b>2694</b>	<b>26</b>	<b>26</b>	<b>-</b>	<b>13145</b>

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200.00	196.06	-	-	-	-

### I.A TECHNOLOGY ASSESSMENT

#### Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management	Sesame	Effect of sulphur on yield of summer sesame	3	3
Varietal Evaluation	-	-	-	-
Integrated Pest Management	Groundnut	Management of White grub in groundnut	3	3
Integrated Crop Management	-	-	-	-
Integrated Disease Management	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
Weed Management	-	-	-	-
Resource Conservation Technology	Cumin	Effect of seed rate in maintenance of germination in cumin:	3	3
	Cumin	Performance of drip irrigation with sowing method in cumin	3	3
	Chili	Effect of planting geometry on chili	3	3
Farm Machineries	-	-	-	-
Integrated Farming System	-	-	-	-
Seed / Plant production	-	-	-	-
Post Harvest Technology / Value addition	-	-	-	-
Drudgery Reduction	-	-	-	-
Storage Technique	Mango	Effect of salt & oil on spoilage of mango pickles	3	3
Others (Pl. specify): Nutrition				
<b>Total</b>			<b>23</b>	<b>23</b>

**Summary of technologies assessed under livestock by KVKs**

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management	-	-	-	-
Evaluation of Breeds	-	-	-	-
Feed and Fodder management	-	-	-	-
Nutrition Management	-	-	-	-
Production and Management	Jafrabadi buffaloes	Effect of feeding of mineral mixture + Fertivet tablet in Jafrabadi Buffalos	10	10
Others (Pl. specify)	-	-	-	-
<b>Total</b>			-	-

**Summary of technologies assessed under various enterprises by KVKs**

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
Integrated Fish Farming	Fisheries	Effect of culture density on fish (major carp) production in using cage in pond	1	1
	Fisheries	Fattening of baby Lobster using cage for better production	1	1
<b>Total</b>			<b>2</b>	<b>2</b>

**I. B. TECHNOLOGY REFINEMENT****Summary of technologies refined under various crops by KVKs**

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers
Integrated Nutrient Management	-	-	-	-
Varietal Evaluation	-	-	-	-
Integrated Pest Management	-	-	-	-
Integrated Crop Management	-	-	-	-
Integrated Disease Management	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
Weed Management	-	-	-	-
Resource Conservation Technology	-	-	-	-
Farm Machineries	-	-	-	-
Integrated Farming System	-	-	-	-
Seed / Plant production	-	-	-	-
Value addition	-	-	-	-
Drudgery Reduction	-	-	-	-
Storage Technique	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>			-	-

**Summary of technologies refined under various livestock by KVKs**

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials	No. of farmers
Disease Management	-	-	-	-
Evaluation of Breeds	-	-	-	-
Feed and Fodder management	-	-	-	-
Nutrition Management	-	-	-	-
Production and Management	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>			-	-

## Summary of technologies refined under various enterprises by KVKs

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
NIL				

## I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

## (A). Technologies Assessed/refined during Rabi/Summer 2015-16

## INTEGRATED CROP MANAGEMENT

## On Farm Trail:1

**Problem definition:** Lower yield of cumin due to poor germination

**Technology Assessed:** Effect of seed rate in maintenance of germination in cumin

KVK, Porbandar in Gujarat conducted on-farm trial to assess the effect of seed rate in maintenance of germination in cumin. Results indicated that sowing of cumin with seed rate of 12-15 kg seed/ha +6-8 hrs warm water soaking improved germination, increased yield net returns and BCR than without warm water soaking.

**Table : Effect of seed treatments on germination, yield and economics of cumin**

Technology Option	No. of trials	Germination (%)	Yield (kg./ha)	Net Returns (Rs./ha)	BCR
12-15 kg seed/ha	3	69.83	860.3	81538	4.14
12-15 kg seed/ha (6-8 hrs warm water soaking followed by shed)		91.23	987.7	97463	4.75

## RESOURCE CONSERVATION

## On Farm Trail:2

**Problem definition:** Lower productivity and profitability in cumin cultivation

**Technology Assessed:** Performance of drip irrigation with sowing method in cumin

KVK, Porbandar conducted on-farm trial on performance of drip irrigation with sowing method in cumin. Results revealed that drip irrigation with either broadcasting or row sowing increased yield, net returns and BC ratio than without drip irrigation.

**Table : Effect of drip irrigation and sowing methods on yield and economics of cumin**

Technology Option	No. of trials	Yield (kg/ha)	Net Returns (Rs./ha)	BC Ratio
Broad casting method without drip irrigation	3	712.5	68125	3.78
Broad casting method with drip irrigation		921.5	90795	4.13
Row sowing without drip irrigation		765	74450	3.98
Row sowing with drip irrigation		982.8	98764	4.41

## NUTRIENT MANAGEMENT

## On Farm Trail :3 (Summer 2016)

**Problem definition:** Lower production & productivity of summer sesame

**Technology assessed:** Effect of sulphur on yield of summer sesame

KVK, JAU, Porbandar in Gujarat conducted on-farm trial to find out effect sulphur on yield of summer sesame. The assessed practice of RDF + 20 kg sulphur/ha (readily available in the market: Cosavet 80% G) at the time of sowing recorded 19.28 % higher yield (1410 kg/ha), net returns of Rs. 105481/ha and 5.91 BC ratio then farmer's practice, While under recommended practice the yield was 1325 kg/ha which was 12.09% higher than farmer's practice.

**Table : Effect of sulphur on yield and economics of summer sesame**

Technology Option	No. of trials	Yield (tone/ha)	Increase in Yield (%)	Income (Rs./ha)	B:C Ratio
No use of sulphur (Farmers Practice)	3	1182	-	85425	5.07
RDF + 20 kg sulphur/ha through gypsum or elemental sulphur at the time of sowing (Recommended Practice)		1325	12.09	97304	5.42
RDF + 20 kg sulphur/ha (readily available in the market) at the time of sowing (Intervention)		1410	19.28	105481	5.91

**INTEGRATED NUTRIENT MANAGEMENT****(B). Technologies Assessed/refined during 2016-17****INTEGRATED CROP MANAGEMENT****On Farm Trail :1**

**Problem definition:** Lower yield of cumin due to poor germination

**Technology Assessed: Effect of seed rate in maintenance of germination in cumin**

KVK, Porbandar in Gujarat conducted on-farm trial to assess the effect of seed rate in maintenance of germination in cumin. Results indicated that sowing of cumin with seed rate of 12-15 kg seed/ha +6-8 hrs warm water soaking improved germination, increased yield net returns and BCR than without warm water soaking.

**Table : Effect of seed treatments on germination, yield and economics of cumin**

Technology Option	No. of trials	Germination (%)	Yield (kg./ha)	Net Returns (Rs./ha)	BCR
12-15 kg seed/ha	3	70.12	850.0	110538	3.87
12-15 kg seed/ha (6-8 hrs warm water soaking followed by shed)		92.00	925.0	122500	4.25

**Polled results (2014-15 to 2016-17)**

Technology Option	No. of trials	Germination (%)	Yield (kg./ha)	Net Returns (Rs./ha)	BCR
12-15 kg seed/ha	3	70.10	846.86	89858	3.98
12-15 kg seed/ha (6-8 hrs warm water soaking followed by shed)		91.23	942.4	102133	4.36

Pooled results also showed that the effect of seed rate in maintenance of germination in cumin. Results indicated that sowing of cumin with seed rate of 12-15 kg seed/ha +6-8 hrs warm water soaking improved germination, increased yield net returns and BCR than without warm water soaking.

**RESOURCE CONSERVATION****On Farm Trail :2**

**Problem definition:** Lower productivity and profitability in cumin cultivation

**Technology Assessed:** Performance of drip irrigation with sowing method in cumin

KVK, Porbandar conducted on-farm trial on performance of drip irrigation with sowing method in cumin. Results revealed that drip irrigation with either broadcasting or row sowing increased yield, net returns and BC ratio than without drip irrigation.

**Table : Effect of drip irrigation and sowing methods on yield and economics of cumin**

Technology Option	No. of trials	Yield (kg/ha)	Net Returns (Rs./ha)	BC Ratio
Broad casting method without drip irrigation	3	675.5	80080	3.02
Broad casting method with drip irrigation		850.7	107112	3.96
Row sowing without drip irrigation		725.6	88096	3.32
Row sowing with drip irrigation		912.4	116984	4.33

**Pooled Results (2014-15 to 2016-17)**

Technology Option	No. of trials	Yield (kg/ha)	Net Returns (Rs./ha)	BC Ratio
Broad casting method without drip irrigation	3	710.4	80373	3.38
Broad casting method with drip irrigation		884.8	93432	4.06
Row sowing without drip irrigation		772.2	79599	3.65
Row sowing with drip irrigation		945.2	101662	4.45

KVK, Porbandar conducted on-farm trial on performance of drip irrigation with sowing method in cumin. Pooled Results also revealed that drip irrigation with either broadcasting or row sowing increased yield, net returns and BC ratio than without drip irrigation.

**PEST AND DISEASE MANAGEMENT****On Farm Trail:3**

**Problem definition:** Heavy infestation of white grub in groundnut

**Technology Assessed: Management of white grub in groundnut**

Groundnut is a major crop of Porbandar district cultivated in Kharif season. However, there is high incidence of white grub since last 3-4 years resulting in yield loss. KVK, Porbandar conducted on-farm trial to assess the integrated management of white grub in groundnut. The technology of application of carbofuran 3 G @ 40 kg/ha at the time of sowing, spraying the trees on bund with carbaryl @ 40 g/10 lit water increased the yield by 28.11% and 31.88% under recommended practice and intervention respectively than farmers' practice. The white grub population was also noticeably reduced in recommended practice and intervention. Net income and BCR were also considerably higher in recommended practice and intervention.

**Table : Integrated management of white grub in groundnut**

Technology Option	No. of trials	White Grub population/m <sup>2</sup>	Yield (kg/ha)	% Increase in yield over farmer's practice	Net Profit (Rs./ha)	BCR
Chloropyriphos @ 4 lit./ha at the time of attack (Farmer's practice)	3	7	1725	--	39500	2.34
Seed treatment with chloropyriphos @ 25 ml/kg, Spraying the trees on bund with carbaryl @ 40 g/15 lit water (Recommended Practice)		1	2210	28.11	63150	3.50
Application of carbofuran 3 G @ 40 kg/ha at the time of sowing, Spraying the trees on bund with carbaryl @ 40 g/10 lit water (Intervention)		1	2275	31.88	65800	3.61

**Polled results (2014-15 to 2016-17)**

Technology Option	No. of trials	Yield (kg./ha)	Income (Rs./ha)	B:C Ratio
Farmer's practice	12	1587	38589	2.30
Recommended practice		2189	62942	3.28
Intervention		2275	66833	3.52

Pooled results showed that Seed treatment with chloropyriphos @ 25 ml/kg and spraying the trees on bund with carbaryl @ 40 g/15 lit water was recorded higher yield and net profit over farmers' practice. The yield and net profit under intervention was also higher than recommended dose of fertilizers (RP).

**RESOURCE CONSERVATION****On Farm Trail: 4(Summer 2017)**

**Problem definition:** Lower yield of chili

**Technology Assessed:** Effect of planting geometry in chili

Technology Option	Treatments	No. of trails
Farmers practice	90 x 60 cm spacing	3
Recommended practice	75 x 60 cm spacing	
Intervention	60 x 45 cm spacing	

**Observations:**

Plant population  
Yield (kg/ha)  
Economics

**Results: Awaited****OTHER ENTREPRISE****On Farm Trail: 1**

**Problem definition:** Spoilage of mango pickles

**Technology assessed: Effect of salt & oil on spoilage of mango pickles**

KVK, JAU Porbandar in Gujarat conducted on farm trails on effect of salt & oil on spoilage of mango pickles. Total three farm women were selected for the trails. The treatment 20% salt (200 g.) + 200 ml oil/kg mango maintained colour texture and aroma of the pickle since 180 days while in general practice slightly funky aroma and dark brown colour was observed. In addition 36.3% and 40.4% cost could be saved in recommended and assessed practice than general practice.

**Table : Effect of salt and oil on colour, texture & aroma of mango pickle.**

Technology Option	Self life (days)	Colour	Texture	Aroma	Cost saving (%)
General practices - Salt 12% (120 gm) + Oil 800 ml/ kg mango	180	Dark brown	Soft	Slight funky aroma after monsoon	-
Recommended practices - Salt 15% (150 gm) + Oil 250 ml/ kg mango	180	Brown	Hard to soft	Good aroma	36.3
Refinement - Salt 20% (200 gm) + Oil 200 ml/ kg mango	180	Red brown	Hard to soft	Fresh aroma	40.4

**Pooled Results (2014-15 to 2016-17)**

Technology Option	Self life (days)	Colour	Texture	Aroma	Cost saving (%)
General practices - Salt 12% (120 gm) + Oil 800 ml/ kg mango	180	Dark brown	Soft	Slight funky aroma after monsoon	-
Recommended practices - Salt 15% (150 gm) + Oil 250 ml/ kg mango	180	Brown	Hard to soft	Good aroma	34.6
Refinement - Salt 20% (200 gm) + Oil 200 ml/ kg mango	180	Red brown	Hard to soft	Fresh aroma	38.06

The pooled of three year results showed the treatment 20% salt (200 g.) + 200 ml oil/kg mango maintained colour texture and aroma of the pickle since 180 days while in general practice slightly funky aroma and dark brown colour was observed. In addition 34.6% and 38.06% cost could be saved in recommended and assessed practice than general practice.

**On Farm Trail: 2**

**Problem definition:** low production of fish (major carp)

**Technology Assessed:** Effect of culture density on fish (major carp) production in using cage in pond

**Results:** Awaited

**On Farm Trail: 3**

**Problem definition:** Lower price of baby lobster due to small size

**Technology Assessed:** Fattening of baby Lobster using cage for better production

**Results:** Awaited

**On Farm Trail: 4**

**Title: Effect of feeding of mineral mixture + Fertivet tablet in Jafrabadi Buffalos**

**Problem definition:** Long inter calving period in Jafrabadi buffaloes

**Technology:** Reducing intercalving period in Jafrabadi buffaloes

**Treatments:**



**Farmers practice - Control**

**Mineral mixture (50gm/day)**

Mineral mixture 50 gm/day + Fervivet tablet 1 tablet /day (5 Tables)

**No. of Replication:** 10 animals

**Results**

Sr. No.	Treatment	Inter calving period (Month)	Average Heat (Month)	Milk yield (Lit./day)
1	Farmers Practice	18-24	3-4	12
2	Mineral Mixture +Fervivet tablets	14-16	2-3	14

KVK, JAU Porbandar in Gujarat conducted on farm trails on Jafrabadi buffalos to reducing inter calving period and also increase the per day milk production.

## II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2015-16 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	INM	INM	Trainings, Field days FLDs & OFTs	40	2500	1300
2	Cotton	INM	INM	Trainings, Field days FLDs & OFTs	15	525	275
3	Wheat	INM	INM	Trainings, Field days FLDs & OFTs	12	450	160
4	Cumin	IDM	IDM	Trainings, Field days FLDs & OFTs	15	120	18
5	Chick pea	Varietal Evaluation	Improved variety GG-3	Trainings, Field days FLDs & OFTs	18	1400	850
6	Chick pea	Bio-agent	HNPV	Trainings, Field days FLDs & OFTs	10	400	100
7	Green Gram	Varietal Evaluation	GM-4	Trainings, Field days FLDs & OFTs	28	1200	300
8	Vegetables	Kitchen gardening	Improved variety of 5 crops	Trainings, Field days FLDs	15	450	45
9	Seaweed	Sea weed cultivation	Sea weed cultivation using net/bamboo	Trainings, Field days FLDs & OFTs	3	100	-
10	Groundnut	INM	Spraying of LSF in groundnut	Trainings, Field days FLDs & OFTs	3	100	50
11	Buffalo	Nutrition management	Chelated Mineral Mixture	Trainings, Field days FLDs & OFTs	-	-	-

\* Thematic areas as given in Table 3.1 (A1 and A2)

b. Details of FLDs implemented during 2015-16 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

i) FLDs conducted during Rabi 2015-16

**Cereals:**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Wheat	INM	INM	Rabi-2015-16	10	10	0	20	20	Nil

**Details of farming situation**

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Wheat	Rabi-2015-16	Irrigated	Medium Black	Low	medium	high	Groundnut	10-24/11/15	-	286.8	10

**Horticultural 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	Cumin	IDM	IDM	Rabi-2015	12	12	0	20	20	Nil

**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					
Cumin	Rabi-15-16	Irrigated	Medium Black	Low	medium	high	Groundnut	16 25/11/15	-	286.8	10

**Oilseed & Pulses Crops:**

Sr. 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	Gram	Varietal	GG-3	Rabi 2015-16	8	8	3	17	20	-
2.	Green gram	Varietal	GM-4	Summer 2016	4	2	-	5	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					
Gram	Rabi 2015-16	Rainfed	Medium Black	Low	medium	high	-	5-17/11/15	15-27/02/2016	286.8	10
Green gram	Summer 2016	Irrigated	Medium Black	Low	medium	high		20/2 to 26/2/16	28-30/5/2016	286.8	10

**Other Crops:****Lucerne**

Sr. 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	Lucerne	Varietal	Anand-2	Rabi 2015-16	5	5	-	10	10	Nil

**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					
Lucerne	Rabi 2015-16	Irrigated	Medium Black	Low	medium	high	G. Nut	20/11 to 6/12/15	-	286.8	10

## ii) FLDs conducted during 2016-17

Cereals:

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Wheat	INM	INM	Rabi-2016	8	8	-	20	20	Nil

## Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Wheat	Rabi-2016	Irrigated	Medium Black	Low	medium	high	Groundnut	10-24/11/16	-	567.6	23

Horticultural Crops:

Sr. 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	Cumin	IDM	IDM	Rabi-2016	12	12	-	20	20	Nil

## 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					
Cumin	Rabi-16	Irrigated	Medium Black	Low	medium	high	Groundnut	16-25/11/16	-	567.6	23

**Oilseed & Pulses Crops:**

Sr. 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	Groundnut	INM	INM	Kharif 2016	8	8	-	20	20	-
2	Groundnut	Varietal	GJG-22	Kharif 2016	6.4	6.4	-	40	40	-
3	Gram	Varietal	GJG-3	Rabi 2017-18	8	8	4	20	24	-

**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					
Groundnut	Kharif 2016	Rainfed	Medium Black	Low	medium	high	Groundnut	28/6 to 2/7/16	5/11/16 to 25/11/16	567.6	23
Groundnut	Kharif 2016	Rainfed	Medium Black	Low	medium	high	Groundnut	28/6 to 2/7/16	5/11/16 to 25/11/16	567.6	23
Gram	Rabi 2015-16	Irrigated	Medium Black	Low	medium	high	-	5-17/11/15	-	567.6	23

**Cotton**

Sr. 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	Cotton	INM with full package	INM with full Package	Kharif 2016	10	10	3	22	25	Nil

**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					
Cotton	Kharif 16	Rainfed/irrigated	Medium Black	Low	medium	high	G. Nut/ Cotton	28/6 to 5/7/16	-	567.6	23

**Technical Feedback on the demonstrated technologies**

S. No	Feed Back
1	INM in groundnut increased production as well as the quality
2	Micronutrients and IPM improves the growth and yield of cotton
3	Creating awareness among the farmers about improved/high yielding varieties of the related crops
4	Leads the farmers from traditional agriculture to scientific & sustainable agriculture by the use of recommended/improved package of practices and ultimately reduce the cost of cultivation
5	Make the farmers aware about Integrated Pest & Disease Management by the proper use of insecticide/fungicides.
6	Improved variety of Lucerne is better than the local variety
7	INM in wheat was better than farmers' practices

**Farmers' reactions on specific technologies**

S. No	Feed Back
1	An improved variety particularly of chick pea GG-3 is good and can give its potential yield with proper management practices.
2	If the seeds of the new varieties are generously available through Govt. Agencies, they are interested in sowing of demonstrated improved varieties.
3	Micro nutrients in Cotton and groundnut can enhance the growth and increase production.
4	IDM in cumin reduce the pesticides consumption and reduce the cost of cultivation
5	Use of <i>Trichoderma</i> in groundnut is the best technology to control stem rot.

**Extension and Training activities under FLD**

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	10	-	260	-
2	Farmers Training	5	-	179	-
3	Media coverage	-	-	-	-
4	Training for extension functionaries	-	-	-	-

## Performance of Frontline demonstrations (Rabi 2015-16)

## Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	-	--	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## 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										
Greengram																		
	Varietal Evaluation	Improved variety	GM-4	10	4	18.13	16.38	15.48	13.48	14.5	18175	92850	74675	5.11	21500	80850	59350	3.76
Chickpea																		
	Varietal Evaluation	Improved variety	GJG-3	24	8	29.16	14.58	19.81	17.52	13.10	13500	59430	45930	4.40	15600	52560	39960	3.56

## FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Wheat																			
	INM	INM	20	10	35.91	27.18	31.86	28.44	12.0			25850	73278	47428	2.83	28300	65412	37112	2.31
Cumin																			
	IDM	IDM	20	12	13.8	7.32	10.81	9.68	11.73			26300	135125	108825	5.14	27900	121000	93100	4.33
Commercial Crops																			
Cotton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Fodder Crops																			
Lucerne																			
	Varietal Evaluation	Improved variety Anand-2	10	5	950	572	751	656	14.5			71800	187750	115950	2.61	72900	157500	84600	2.16
Berseem	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Oat (F)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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

\*\* BCR= GROSS RETURN/GROSS COST



## Performance of Frontline demonstrations (2016-17)

### 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										
<b>Groundnut</b>																		
	INM	INM	GG-20	20	8.0	28.13	12.50	18.87	16.23	16.26	25300	75480	50180	2.98	28760	64920	36160	2.25
	Varietal Evaluation	Improved variety	GJG-22	40	6.4	31.25	13.45	20.15	16.23	24.15	25000	80600	55600	3.22	28760	64920	36160	2.25

\* 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										
<b>Greengram</b>																		
<b>Chickpea</b>	Varietal Evaluation	Improved variety	GG-3	8	20	30.35	14.75	20.45	17.75	15.20	13600	97137	83537	7.14	15600	84312	68712	5.40

\* 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)			Check	% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo		Demo			Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
					High	Low													Average
<b>Cereals</b>																			
<b>Wheat</b>																			
	INM	INM	20	8	36.75	27.10	32.50	29.15	11.49	-	-	25850	56875	31025	2.20	28300	51012	22712	1.80
<b>Cumin</b>																			
	IDM	IDM	20	12	14.5	7.32	11.75	9.80	19.89	-	-	26500	188000	161500	7.09	28000	156800	128800	5.6
<b>Commercial Crops</b>																			
<b>Cotton</b>																			
	INM	INM with full package	25	10	35.50	20.30	29.53	25.57	15.5	-	-	30350	162415	132065	5.35	32300	140635	108335	4.35
<b>Fodder Crops</b>																			
<b>Lucern</b>																			
<b>Berseem</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Oat (F)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* 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)		
<b>Cattle</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Buffalo</b>	Animal Nutrition Management	Mineral Mixture	50	50	(Milk Production) 2600 Lit	(Milk Production) 2150 Lit	20.93	-	-	90500	143000	52500	1.58	85000	117500	32500	1.38		
<b>Buffalo Calf</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Dairy</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Poultry</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sheep &amp; Goat</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Vaccination</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

\*\* BCR= GROSS RETURN/GROSS COST















Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
Others: Production of organic fruits	1	26	0	26	0	0	0	26	0	26
<b>Total (b)</b>	<b>2</b>	<b>51</b>	<b>0</b>	<b>51</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>55</b>	<b>0</b>	<b>55</b>
<b>c) Ornamental Plants</b>	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (c)</b>	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	1	27	5	32	0	0	0	27	5	32
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (d)</b>	<b>1</b>	<b>27</b>	<b>5</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>5</b>	<b>32</b>
<b>e) Tuber crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (e)</b>	-	-	-	-	-	-	-	-	-	-
<b>f) Spices</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (f)</b>	-	-	-	-	-	-	-	-	-	-
<b>g) Medicinal and Aromatic Plants</b>	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (g)</b>	-	-	-	-	-	-	-	-	-	-
<b>GT (a-g)</b>	<b>6</b>	<b>155</b>	<b>5</b>	<b>160</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>166</b>	<b>5</b>	<b>171</b>
<b>III Soil Health and Fertility Management</b>	-	-	-	-	-	-	-	-	-	-
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Balance use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>IV Livestock Production and Management</b>	-	-	-	-	-	-	-	-	-	-
Dairy Management	-	-	-	-	-	-	-	-	-	-
Poultry Management	-	-	-	-	-	-	-	-	-	-
Piggery Management	-	-	-	-	-	-	-	-	-	-
Rabbit Management	-	-	-	-	-	-	-	-	-	-
Animal Nutrition Management	1	21	0	21	8	0	8	29	0	29
Disease Management	3	59	32	91	6	8	14	65	40	105
Feed & fodder technology	-	-	-	-	-	-	-	-	-	-
Production of quality animal products	3	38	32	70	11	12	23	49	44	93
Others (pl specify)	1	32	0	32	0	0	0	32	0	32
<b>Total</b>	<b>8</b>	<b>150</b>	<b>64</b>	<b>214</b>	<b>25</b>	<b>20</b>	<b>45</b>	<b>175</b>	<b>84</b>	<b>259</b>
<b>V Home Science/Women empowerment</b>	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen	1	0	31	31	0	0	0	0	31	31





Management of young plants/orchards	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Export potential fruits	-	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
Others - Production of organic fruits	1	26	0	26	0	0	0	26	0	26
<b>Total (b)</b>	<b>2</b>	<b>51</b>	<b>0</b>	<b>51</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>55</b>	<b>0</b>	<b>55</b>
<b>c) Ornamental Plants</b>	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (c)</b>	-	-	-	-	-	-	-	-	-	-
<b>d) Plantation crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	1	27	5	32	0	0	0	27	5	32
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (d)</b>	<b>1</b>	<b>27</b>	<b>5</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>27</b>	<b>5</b>	<b>32</b>
<b>e) Tuber crops</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (e)</b>	-	-	-	-	-	-	-	-	-	-
<b>f) Spices</b>	-	-	-	-	-	-	-	-	-	-
Production and Management technology	2	53	4	57	2	0	2	55	4	59
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (f)</b>	<b>2</b>	<b>53</b>	<b>4</b>	<b>57</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>55</b>	<b>4</b>	<b>59</b>
<b>g) Medicinal and Aromatic Plants</b>	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total (g)</b>	-	-	-	-	-	-	-	-	-	-
<b>GT (a-g)</b>	<b>10</b>	<b>222</b>	<b>55</b>	<b>277</b>	<b>13</b>	<b>4</b>	<b>17</b>	<b>235</b>	<b>59</b>	<b>294</b>
<b>III Soil Health and Fertility Management</b>	-	-	-	-	-	-	-	-	-	-
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Integrated water management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Balance use of fertilizers	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>IV Livestock Production and Management</b>	-	-	-	-	-	-	-	-	-	-
Dairy Management	1	8	18	26	2	3	5	10	21	31
Poultry Management	-	-	-	-	-	-	-	-	-	-
Piggery Management	-	-	-	-	-	-	-	-	-	-
Rabbit Management	-	-	-	-	-	-	-	-	-	-
Animal Nutrition Management	1	21	0	21	8	0	8	29	0	29
Disease Management	4	75	44	119	10	10	20	85	54	139
Feed & fodder technology	-	-	-	-	-	-	-	-	-	-
Production of quality animal	4	56	44	100	11	12	23	67	56	123

products										
Others- Housing management in milch animals,Health management in herd	3	52	30	82	10	0	10	62	30	92
<b>Total</b>	<b>13</b>	<b>212</b>	<b>136</b>	<b>348</b>	<b>41</b>	<b>25</b>	<b>66</b>	<b>283</b>	<b>131</b>	<b>414</b>
<b>V Home Science/Women empowerment</b>	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen gardening and nutrition gardening	1	0	31	31	0	0	0	0	31	31
Design and development of low/minimum cost diet	-	-	-	-	-	-	-	-	-	-
Designing and development for high nutrient efficiency diet	3	0	74	74	0	12	12	0	86	86
Minimization of nutrient loss in processing	-	-	-	-	-	-	-	-	-	-
Processing and cooking	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-
Storage loss minimization techniques	-	-	-	-	-	-	-	-	-	-
Value addition	5	0	137	137	0	23	23	0	160	160
Women empowerment	1	0	30	30	0	0	0	0	30	30
Location specific drudgery reduction technologies	1	0	28	28	0	0	0	0	28	28
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Women and child care	2	0	45	45	0	8	8	0	53	53
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>13</b>	<b>0</b>	<b>345</b>	<b>345</b>	<b>0</b>	<b>43</b>	<b>43</b>	<b>0</b>	<b>388</b>	<b>388</b>
<b>VI Agril. Engineering</b>	-	-	-	-	-	-	-	-	-	-
Farm Machinery and its maintenance	-	-	-	-	-	-	-	-	-	-
Installation and maintenance of micro irrigation systems	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>VII Plant Protection</b>	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	8	210	0	210	29	0	29	239	0	239
Integrated Disease Management	4	103	0	103	16	0	16	119	0	119
Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
Others (pl specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>12</b>	<b>313</b>	<b>0</b>	<b>313</b>	<b>45</b>	<b>0</b>	<b>45</b>	<b>358</b>	<b>0</b>	<b>358</b>
<b>VIII Fisheries</b>	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	2	62	0	62	0	0	0	62	0	62
Carp breeding and hatchery management	1	32	0	32	0	0	0	32	0	32
Carp fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Hatchery management and culture of freshwater prawn	2	74	0	74	0	0	0	74	0	74
Breeding and culture of ornamental fishes	1	36	0	36	0	0	0	36	0	36
Portable plastic carp hatchery	-	-	-	-	-	-	-	-	-	-
Pen culture of fish and prawn	-	-	-	-	-	-	-	-	-	-
Shrimp farming	2	74	0	74	0	0	0	74	0	74
Edible oyster farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Fish processing and value addition	1	30	0	30	0	0	0	30	0	30
Others (pl specify)	3	91	5	96	0	0	0	91	5	96





Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
<b>Any other:</b> Sea weed cultivation, Fisheries status, conservation & orientation towards aquaculture and Natural enemies of pest, Mariculture	3	101	0	101	3	0	3	104	0	104
<b>TOTAL</b>	<b>6</b>	<b>155</b>	<b>30</b>	<b>185</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>166</b>	<b>30</b>	<b>196</b>



**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	1	22	0	22	8	0	8	30	0	30
Commercial fruit production	-	-	-	-	-	-	-	-	-	-
Integrated farming	1	32	0	32	0	0	0	32	0	32
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	0	30	30	0	0	0	0	30	30
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	-	-	-	-	-	-	-	-	-	-
<b>Any other:</b> Sea weed cultivation, Fisheries status, conservation & orientation towards aquaculture and Natural enemies of pest, Mariculture	3	101	0	101	3	0	3	163	0	163
<b>TOTAL</b>	<b>6</b>	<b>155</b>	<b>30</b>	<b>185</b>	<b>11</b>	<b>0</b>	<b>11</b>	<b>225</b>	<b>30</b>	<b>255</b>

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated crop management-major crops	1	23	2	25	0	0	0	23	2	25
Recent advances in agriculture and animal husbandry	1	25	2	27	0	0	0	25	2	27
<b>TOTAL</b>	<b>2</b>	<b>48</b>	<b>4</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>4</b>	<b>52</b>



<b>Production and value addition</b>										
Fruit Plants	-	-	-	-	-	-	-	-	-	-
Ornamental plants	-	-	-	-	-	-	-	-	-	-
Spices crops	-	-	-	-	-	-	-	-	-	-
Soil health and fertility management	-	-	-	-	-	-	-	-	-	-
Production of Inputs at site	-	-	-	-	-	-	-	-	-	-
Methods of protective cultivation	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Post harvest technology and value addition</b>										
Processing and value addition	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Farm machinery</b>										
Farm machinery, tools and implements	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Livestock and fisheries</b>										
Livestock production and management	-	-	-	-	-	-	-	-	-	-
Animal Nutrition Management	-	-	-	-	-	-	-	-	-	-
Animal Disease Management	-	-	-	-	-	-	-	-	-	-
Fisheries Nutrition	-	-	-	-	-	-	-	-	-	-
Fisheries Management	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Home Science</b>										
Household nutritional security	-	-	-	-	-	-	-	-	-	-
Economic empowerment of women	-	-	-	-	-	-	-	-	-	-
Drudgery reduction of women	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Agricultural Extension</b>										
Capacity Building and Group Dynamics	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>GRAND TOTAL</b>	-	-	-	-	-	-	-	-	-	-

### Name of sponsoring agencies involved

### 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
<b>Crop production and management</b>	-	-	-	-	-	-	-	-	-	-
Commercial floriculture	-	-	-	-	-	-	-	-	-	-
Commercial fruit production	-	-	-	-	-	-	-	-	-	-
Commercial vegetable production	-	-	-	-	-	-	-	-	-	-
Integrated crop management	-	-	-	-	-	-	-	-	-	-
Organic farming	1	20	11	31	-	-	-	20	11	31
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1</b>	<b>20</b>	<b>11</b>	<b>31</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>11</b>	<b>31</b>
<b>Post harvest technology and value addition</b>	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Livestock and fisheries</b>	-	-	-	-	-	-	-	-	-	-
Dairy farming	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-
Poultry farming	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-
<b>Income generation activities</b>	-	-	-	-	-	-	-	-	-	-
Vermicomposting	-	-	-	-	-	-	-	-	-	-
Production of bio-agents, bio-	1	20	6	26	-	-	-	20	6	26

pesticides,										
bio-fertilizers etc.	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Nursery, grafting etc.	1	-	30	30	-	-	-	-	30	30
Tailoring, stitching, embroidery, dyeing etc.	1	-	27	27	-	-	-	-	27	27
Agril. para-workers, para-vet training	-	-	-	-	-	-	-	-	-	-
Others: Preparation of different types of Masala and Seaweed cultivation	1	27	-	27	-	-	-	27	-	27
<b>Total</b>	<b>4</b>	<b>47</b>	<b>63</b>	<b>110</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>47</b>	<b>63</b>	<b>110</b>
<b>Agricultural Extension</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Capacity building and group dynamics	-	-	-	-	-	-	-	-	-	-
Others (pl. specify)	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>5</b>	<b>67</b>	<b>74</b>	<b>141</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>67</b>	<b>74</b>	<b>141</b>

#### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1617	1617		1617
Diagnostic visits	92	159		159
Field Day	8	183		183
Group discussions				
Kisan Ghosthi	16	441		441
Film Show	16	685	5	690
Self -help groups				
Kisan Mela	1	851		851
Exhibition	2	2431	10	2441
Scientists' visit to farmers field	159	159		159
Plant/animal health camps				
Farm Science Club				
Ex-trainees Sammelan	3	82		82
Farmers' seminar/workshop				
Method Demonstrations	5	130		130
Celebration of important days	2	75		75
Special day celebration (Jay Kisan Jay Vignan & World Soil Health Day)				
Exposure visits				
Others: lecture delivered as resource person (pl. specify)	20	500		500
<b>Total</b>	<b>1941</b>	<b>7313</b>	<b>15</b>	<b>7328</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	
Extension Literature	2
News paper coverage	1
Popular articles	6
Radio Talks	
TV Talks	1
Animal health amps (Number of animals treated)	

Others (pl. specify)	
<b>Total</b>	<b>10</b>

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
	Text only	-	-	-	-	-	-	-
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	-	-	-	-	-	-	-
	<b>Total farmers Benefitted</b>	-	-	-	-	-	-	-

## V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organised Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
	Gosthies	5	365	Groundnut Production Technologies
	Lectures organised	24	365	Production Technology, Pest & disease management, Value addition, Organic Farming, Micro irrigation, etc.
	Exhibition	1	320	Improved farm implements
	Film show	5	365	Value addition, pest & diseases management in groundnut
	Fair	-	-	-
	Farm Visit	3	200	-
	Diagnostic Practicals	-	-	-
	Distribution of Literature (No.)	4	365	-
	Distribution of Seed (q)	-	-	-
	Distribution of Planting materials (No.)	-	-	-
	Bio Product distribution (Kg)	-	-	-
	Bio Fertilizers (q)	-	-	-
	Distribution of fingerlings	-	-	-
	Distribution of Livestock specimen (No.)	-	-	-
	Total number of farmers visited the technology week	-	365	-

## VI. 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	-	-	-	-	-	-
Oilseeds	Groundnut	GG-20 (Breeder)	-	130.17		
	Groundnut	GJG-17(Breeder)	-	35.28		
	Groundnut	GG-20 (Mega seed)	-	15.93		
	Groundnut	GJG-22(Mega seed)	-	15.43		
Pulses	-	-	-	-	-	-
Commercial crops	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-
Flower crops	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Fodder crop seeds	-	-	-	-	-	-
Fiber crops	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
<b>Total</b>	-	-	-	<b>196.81</b>	-	-

### Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial	-	-	-	-	-	-
Vegetable seedlings	-	-	-	-	-	-
Fruits	-	-	-	-	-	-
Ornamental plants	-	-	-	-	-	-
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Tuber	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-

### Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others	-	-	-	-
<b>Total</b>	-	-	-	-

**Table: Production of livestock materials**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>	-	-	-	-
Cows	-	-	-	-
Buffaloes	-	-	-	-
Calves	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Poultry</b>	-	-	-	-
Broilers	-	-	-	-
Layers	-	-	-	-
Duals (broiler and layer)	-	-	-	-
Japanese Quail	-	-	-	-
Turkey	-	-	-	-
Emu	-	-	-	-
Ducks	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Piggery</b>	-	-	-	-
Piglet	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Fisheries</b>	-	-	-	-
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>	-	-	-	-

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	2918	2918	50	33100
Water	88	88	20	4400
Plant	-	-	-	-
Manure	-	-	-	-
Others (pl. specify)	-	-	-	-
<b>Total</b>	<b>3006</b>	<b>3006</b>	<b>70</b>	<b>37500</b>

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
Krishi Vigyan Kendra, JAU, Porbandar (Gujarat)	One SAC Meeting conducted on 07/11/2016

## IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
-	-

## X. PUBLICATIONS

Category	Number
Research Paper	5
Technical bulletins	-
Technical reports	6
Others (pl. specify)	-
Extension pamphlets	2

## XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
2	2	-	300	-

## XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC

### Introduction of alternate crops/varieties

Crops/cultivars	Area (ha)	Extent of damage	Recovery of damage through KVK initiatives if any
-	-	-	-
<b>Total</b>	-	-	-

### Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		-
Groundnut GJG-22	150	450
Pulses		
Chick pea GG-3	850	1400
Green gram	-	-
Cereals	-	-
Vegetable crops	-	-
Tuber crops	-	-
Fodder crop Marvel grass	50	2000
<b>Total</b>	<b>1050</b>	<b>3850</b>

### Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No. of participants
Disease Management in live stock	1	30
<b>Total</b>	<b>1</b>	<b>30</b>

### Animal health camps organised

Number of camps	No. of animals	No. of farmers
-	-	-
<b>Total</b>	-	-

### Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
-	-	-	-
<b>Total</b>	-	-	-



**Large scale adoption of resource conservation technologies**

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Use of Bio fertilizers	280	280
Use of Bio Agent	10364	10364
Use of Pheromone traps	5750	5750
Use of drip irrigation system	175	200

**Awareness campaign**

	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
	1	85	6	425	10	260	-	-	-	-	20	700
<b>Total</b>	<b>1</b>	<b>85</b>	<b>6</b>	<b>425</b>	<b>10</b>	<b>260</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20</b>	<b>700</b>

**XIII. DETAILS ON HRD ACTIVITIES****A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension**

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Junagadh Agricultural University, Junagadh, Gujarat	Advances in Horticulture, Animal health and Value addition	1	30	6
<b>Total</b>		<b>1</b>	<b>30</b>	<b>6</b>

**B. HRD activities organized in identified areas for KVK staff by ATARI**

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
-	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>

**XIV. CASE STUDIES****Success Story/ Case study: 1****Name of KVK: KVK, Porbandar****Title :** Additional income through vegetable cultivation**Introduction:****Name of Farmer** : Smt. Shantiben Jesabhai Odedra**Village** : Choliyana, Tal. Kutiyana, Dist.: Porbandar, Gujarat**Education** : 6th Std.**Age** : 45 years**Land** : 12.8 ha.

**KVK Intervention:**

Smt. Shantiben is a hard working enthusiastic farm woman of Choliyana village of Kutiyana Taluka. She is a regular participant in the KVK programmes since last three years. She had given a FLD on kitchen gardening during year 2015 in which improved varieties five vegetable crops produced by JAU like cluster bean (Pusa Navbahar), Ridge guard (Pusa Nasdar), Cowpea (AVC-1), Brinjal (GJB-2) and cucumber (Guj. Cucumber-1) and got bumper and quality production of these vegetables from the FLD.

**Output:**

She was motivated and inspired to grow these vegetables in summer season commercially. He had grown improved varieties of cucumber (Guj. Cucumber-1) and cluster bean (Pusa Navbahar) produced by JAU during summer 2016 in one vigha area. She got 1750 kg yield of cucumber and 127 kg cluster bean and got additional income of Rs. 38200 from vegetable cultivation along with regular crops like groundnut, cotton, cumin and coriander.

**Impact:**

Other farmers of the adjoining areas of Choliyana village has been inspired by seeing the performance of these varieties and started cultivation of these varieties specially, cucumber, brinjal and cluster bean.

**Success Story/ Case study: 2**

**Title :** Innovation of low cost tractor operated sprayer

**Introduction**

<b>Name of Farmer</b>	: Shri Bharatbhai Oghadbhai Bapodra
<b>Village</b>	: Adityana, Tal. Ranavav, Dist.: Porbandar, Gujarat
<b>Education</b>	: 10th Std.
<b>Age</b>	: 25 years
<b>Land</b>	: 3.2 ha.

**KVK Intervention:**

Shri Bharatbhai of Adityana village of Porbandar district is a young and innovative farmer. He has got an innovative engineering skill. He has developed a low cost tractor operated sprayer from locally available material and assembled himself. He has developed this sprayer in just Rs. 5000. The sprayer is fitted on dual purpose implement available in the market in which two operations can be done simultaneously.

**Output:**

As per his statement, spraying in one hectare area can be completed in one hour with this sprayer and the main benefit is interculturing, harrowing and spraying can be done simultaneously. Application of pre emergence herbicide can be effectively done as the harrowing operation can be done with spraying which incorporate herbicide in the soil.

**Impact:**

Shri Bharatbhai motivated other farmers of the area to make and use such type of low cost innovative implement and use it effectively.

**Success Story/ Case study: 3**

**Title:** Adoption of intercropping practice pigeon pea + sesame

**Introduction:**

<b>Name of Farmer</b>	: Shri Virambhai Arjanbhai Odedra
<b>Village</b>	: Choliyana, Tal. Kutiyana, Dist.: Porbandar, Gujarat
<b>Education</b>	: 9th Std.
<b>Age</b>	: 49 years
<b>Land</b>	: 4.5 ha.

**KVK Intervention:**

Shri Virambhai of Choliyana village of Porbandar district is a very enthusiastic farmer having keen interest in adopting new technologies on his farm. He is in continuous touch with KVK, Khapat and regular participant in all the activities of KVK. He has motivated by KVK scientist to adopt intercropping technology to minimize the risk in adverse condition of low and erratic rainfall. He was inspired and adopted intercropping of pigeon pea (BDN-2) + sesame (GT-2) in 1.3 ha area during kharif 2016.

**Output:**

He was harvest 2500 kg/ha Pigeon pea and 875 kg/ha sesame in 1.3 ha area. Gross return from the same land was 143750 and net profit from this was 113750.

**Impact:**

Shri Virambhai has set an example for other adjoining farmers to adopt intercropping to minimize risk and increase yield and profit.

**XV. STATUS REVOLVING FUNDS**

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 2014 to March 2015	1713592	2038131	193104	3558619
April 2015 to March 2016	3558619	921943	303894	4176668
April 2016 to March 2017	4176668	2129342	2545473	3760537