

**ANNUAL REPORT (April-2016-March-2017)**  
**Krishi Vigyan Kendra, Targhadia, Rajkot-I**

**APR SUMMARY**

**1. Training Programmes**

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	61	1187	401	1588
Rural youths	-	-	-	-
Extension functionaries	3	80		80
Sponsored Training	12	318	192	510
Vocational Training	1	-	43	43
<b>Total</b>	<b>77</b>	<b>1585</b>	<b>636</b>	<b>2221</b>

**2. Frontline demonstrations**

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	65	26	1
Pulses	12	4.8	1
Cereals	5	2	1
Vegetables	5	.5	1
Other crops	50	16	1
Hybrid crops	-	-	-
<b>Total</b>	<b>1378</b>	<b>49.3</b>	<b>5</b>
Livestock & Fisheries	35	1.0	3
Other enterprises	10	-	-
<b>Total</b>	<b>45</b>	<b>1.0</b>	<b>3</b>
<b>Grand Total</b>	<b>182</b>	<b>50.3</b>	<b>8</b>

**3. Technology Assessment & Refinement**

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops			
Livestock	1	1	1
Various enterprises			
<b>Total</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Technology Refined</b>			
Crops	2	2	6
Livestock			
Various enterprises			
<b>Total</b>	<b>2</b>	<b>2</b>	<b>6</b>
<b>Grand Total</b>	<b>3</b>	<b>3</b>	<b>7</b>

**4. Extension Programmes**

Category	No. of Programmes	Total Participants
Extension activities	250	7438
Other extension activities	403	-
<b>Total</b>	<b>653</b>	<b>7438</b>

### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Rajkot-I	Text only	4		48				52
	Voice only							
	Voice & Text both							
	<b>Total Messages</b>	<b>4</b>		<b>48</b>				<b>52</b>
	<b>Total farmers Benefitted</b>	<b>5500</b>		<b>5000</b>				<b>10500</b>

### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	107.1	-
Planting material (No.)	-	-
Bio-Products (kg)	7950	840500
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	760	38000
Water	737	36850
Plant	3	-
<b>Total</b>	<b>1500</b>	<b>74850</b>

### 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	4
2	Conferences	-
3	Meetings	3
4	Trainings for KVK officials	3
5	Visits of KVK officials	-
6	Book published	-
7	Training Manual	-
8	Book chapters	-
9	Research papers	2
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	28
13	Proceedings	1
14	Award & recognition	1
15	On going research projects	-

## 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, Targhadia, (Dist.: Rajkot) (Gujarat) - 360 003	Office (0281) 2784170	FAX (0281) 2784170	kvkrajkot@gmail.com

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

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

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. B. B. Kabaria	“Ramdoot” B-17, Aalap Century, Kalawad Road, Rajkot – 360 005	09374202518	drkabaria@gmail.com

#### 1.4. Year of sanction: **September – 2004**

#### 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/OB C/ Others)	Mobile No.	Age	Email id
1	Programme Coordinator	Dr. B. B. Kabaria	Programme Coordinator	Agril. Ento.	15600 - 39100	23230/-	09-10-16	Permanent	General	9374202518	58	drkabaria@gmail.com
2	SMS	Dr. M. M. Tajpara	SMS (Animal. Sci)	Ani. Sci.	15600- 39100	23230/-	4-8-15	Permanent	General	9427667135	39	tajpara1978@rediffmail.com
3	SMS	Vacant	SMS (Agron.)	Agro.	-	-	-	-	-	-	-	-
4	SMS	Vacant	SMS (Pl. Protection)	Agril. Ento.	-	-	-	-	-	-	-	-
5	SMS	Vacant	SMS (Horti.)	Horti.	-	-	-	-	-	-	-	-
6	SMS	Shri D. P. Sanepara	SMS (Agril. Engg.)	Agri. Eng.	15600 - 39100	26670/-	8-11-16	Permanent	General	9426449712	50	dpsanepara@jau.in
7	SMS	Mrs. H. H. Padsumbiya	SMS (Home Sci.)	Home Sci.	15600- 39100	23027/-	17-8-06	Permanent	General	9979673732	36	hetalmanvar28@gmail.com
8	Programme	Shri Anup	Programme	M.Sc	9300- 38090/-	7-8-14	Permanent	OBC	9033343199	30	Dikimax@yahoo.in	

9	Assistant Computer Programmer	B. Dabhi Miss. R. T. Padaliya	Assistant Computer Programmer	-	34800 9300-34800	Fix 11750/-	3-1-09	Perma nent	General	9979027064	31	rtpadaliya@jau.in
10	Farm manager	Vacant	Farm manager	-	-	-	-	-	-	-	-	-
11	Acc. / Sup.	Vacant	A/c. Officer	-	-	-	-	-	-	-	-	-
12	Steno-grapher	Vacant	-	-	-	-	-	-	-	-	-	-
13	Driver	Vacant	Jeep Driver-Cum Mechanic	-	-	-	-	-	-	-	-	-
14	Driver	Vacant	Jeep Driver-Cum Mechanic	-	-	-	-	-	-	-	-	-
15	Supporting staff	Smt.U.G.. Zala	Supporting Staff	-	4440-7440	8350/-	16-9-04	Perma nent	General	9426609163	53	-
16	Supporting staff	Shri Y. B. Joshi	Supporting Staff	-	4440-7440	9230/-	2-6-09	Perma nent	General	9979467314	59	-

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	1.00
2.	Under Demonstration Units	3.50
3.	Under Crops	14.00
4.	Orchard/Agro-forestry	1.00
5.	Others (specify)	0.50

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	KVK	31-3-2011	550	5500000	-	-	-
2.	Farmers Hostel	KVK	31-3-2011	305	3000000	-	-	-
3.	Staff Quarters (6)	KVK	31-3-2011	400	4000000	-	-	-
4.	Poly House	RKVY	31-3-09	320	281602	-	-	-
5	Net House	RKVY	31-3-09	150	64498	-	-	-
6.	Store room	RKVY	9-2-10	70.61	454500	-	-	-
7.	Training hall	RKVY	11-2-10	190.99	1395800	-	-	-
8.	Processing plant	RKVY	11-2-10	197.31	1536400	-	-	-
9.	Implement shed	RKVY	9-2-10	77.33	297800	-	-	-
10	Farm Godown	KVK	2012	-	400000			

## B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualis	2004	590000	283355	Not Working
Tata Sumo	2008	600000	221389	Not Working, Purchase from MP grant
Motorcycle	2010	50000	80119	Working

## C) Equipments &amp; AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
1	2	3	4
Generator set	2002	24900	Working
Color TV (Akai) with Remote	2002	13850	Working
Panasonic PT LC 50 LCD Project	2002	164368	Working
PA Audio Vision System	2002	20000	Working
Computer System Intel Pentium IV	2003	32000	Working
Computer Wipro Super Genius Desktop	2006	-	Working
Electronic Kelvinator Refrigerator	2006	10,500	Working
Solar steel digital water plant	2006	45000	Working
Balaji Bio Gas Plant	2007	32000	Working
Aspee Tractor Mounted Sprayer	2007	32000	Working
Laptop Computer (HCL)	2008	47500	Working
Air Assisted Blower type sprayer	2009	98750	Working
Photo copier Machine (Richo)	2009	115300	Working
LCD Projector with ceiling mount kit Model-PT-CB50NTE-2GA (Panasonic)	2009	92155	Working
DVD Home theater system with Speaker (HCL)	2009	28000	Working
LCD TV 22" Model- 22LG30 (L. G.)	2009	27287	Working
Cotton stalk Shredder	2009	121000	Working
Groundnut Digger-Tractor Operated	2009	78500	Working
Cultivator cum Rotavator	2009	90000	Working
Groundnut Decorticator	2009	95850	Working
Multi crop Thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar – tractor operator	2009	44000	Working
Digital Camera (Nikon) P- 90 12.1	2010	24300	Working

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

Name and Designation of Participants	Salient Recommendations	Action taken
1	2	3
Dr. A.R. Pathak, Honorable Vice Chancellor, JAU, Junagadh.	Pre seasonal training on package of practice of Kharif crop	Suggestion accepted
Dr. A.M. Parakhia, Directorate of Extension, JAU, Junagadh		
Dr. V.N. Patel,RS (DFRS), Targhadia	Management of pest & disease of spice crops.	Suggestion accepted
Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia		
Shri. R. R. Tilava, DAO, District Panchayat, Rajkot	To take success story in NICRA farmers.	Suggestion accepted
Dr. H. D. Kansagra, Deputy director of Animal Husbandry, Dis. Panchayat, Rajkot		
Shri Pranv Desai, V.O., Gopal Dairy, Rajkot	To take FLD on Makhan Grass	Suggestion accepted
Dr. A.H. Patel, V.O., Gopal Dairy, Rajkot		
Shree D. P. Paramar, General Manager, District Industries center,	To give charge of SMS, Agri. Engg. to D. P. Sanepara, Asst	Suggestion accepted

Rajkot	Professor ,Poly Tech. Engg. Collage, Targhadia	
Shree Sanjay Ramani, District Manager (GAIC), Rajkot.		
Shree J.V.Rathod, Deputy Conservator of Forest ( Extension ), Rajkot	To take training on protected cultivation	Suggestion accepted
Shree Amit Savani, HDFC Bank, Rajkot		
Shree H. K. Sharma, Director, NHRDF, Rajkot	To take training on castor & pulses.	Suggestion accepted
Shree A. B. Varma, NHRDF, Rajkot		
Shree Hiten Maheria, GGRC, Rajkot.	To add training of organic farming .	Suggestion accepted
Dr. N. S. Joshi, PC, KVK, Amreli		
Dr. N. B. Jadav, PC, KVK, Pipalia, Dist. Rajkot	To add training of white grub management in groundnut.	Suggestion accepted & Implemented
Dr. A. V. Khanpara DFRS, Targhadia		
Shri. Dipak D. Limbasiya, Progressive Farmer, Dungraka, Tal : Paddhari & Dist.: Rajkot		
Shri Chaturbhai Laljibhai Kalola Village: Gadhka, Tal: Rajkot, Dist.: Rajkot		
Shree Jentibhai Popatbhai Babaria Village : Jasapar, Tal: Jasdan, Dist.: Rajkot		
Shree Manjibhai Jerambhai Topiya Village: Magharvada Tal: Rajkot, Dist.: Rajkot		
S. B. Liambasiya, Dungraka, Tal : Paddhari & Dist.: Rajkot		
Shree Rajnibhai Liambasiya, Dungraka, Tal : Paddhari Dist.: Rajkot		
Dr. M. M. Tajpara, PC, KVK, Targhadia		

## **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	Groundnut – Wheat/ Cumin, Cotton – Summer Groundnut/ Pulse crop/sesame
2	Dairy product
3	Farm Waste Management specially for cotton stalk
4	Fruit and Vegetable Preservation
5	Value addition in Groundnut, Til and Bajra

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

S. No	Agro-climatic Zone	Characteristics
1.	North Saurashtra Agro Climatic Zone (VI)	The total geographical area of North Saurashtra Agro Climatic Zone is 35.2 Lacs ha. Out of total area, 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district is low in their availability of nitrogen while medium in phosphorus and high in available potash except the available phosphorus and potash is in medium category in adopted villages. Monsoon commences usually by the end of June and withdraws by middle of September. Average annual rainfall of districts is 648 mm while 425.1 mm during 2016-17.

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1.	Clay to clay loam	Medium black calcareous soil	258
2.	Sandy Clay Loam to Clayey	Well drained soil with rapid permeability	301
3.	Sandy to Sandy 10 cm, Calcareous	Well drained soils	

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1.	Groundnut	225544	220892	979
2.	Cotton	273586	550495	2012
4.	Sesamum	999	700	701
5.	Castor	9406	20246	2152
6.	Wheat	13188	57637	4370
7.	Gram	863	1049	1215
8.	Cumin	5337	5852	1096

### 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April	-	42.8	26.8	69.94
May	-	46.0	27.7	78.97
June	44.0	43.6	27.5	78.81
July	92.0	35.9	26.0	85.19
August	224.7	34.6	26.6	87.87
September	27.2	35.5	24.6	82.23
October	37.2	37.9	23.7	83.22
<b>Total</b>	<b>425.1</b>			

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

Category	Population ('000 Nos.)	Production ('000 tone)	Productivity
<b>Cattle</b>			
<i>Cows</i>	452	3326.90	
<b>Buffalo</b>	362	5284.70	
<b>Sheep</b>	263.40	266.81(Production of wool)	
<b>Goats</b>	197	231.24	
<b>Pigs</b>	1		
<i>Crossbred</i>			
<i>Indigenous</i>			
<b>Poultry</b>		(Production of eggs in Lakh Nos.)	
<i>Hens</i>			
<i>Desi</i>	7.8	3.92	
<i>Improved</i>	13.4	32.52	
<i>Ducks</i>			
<i>Others</i>			
Horse and Camel			
Dogs	9		

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

Sr. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Jasdan	Cluster I	Khadvavdi	*Groundnut, Cotton, Sesamum, Wheat, Cumin, Gram Chickpea, Garlic, Onion. *Enterprises are dairy business, Vermi composting, preparation of roasted groundnut and chicki from groundnut seed	Pink ball worm in Cotton, Heavy infestation of sucking pest in cotton, phytophthora disease in sesamum and white grub infestation in groundnut. Long inter-calving period in Buffalo, Nutritional deficiency in animal feed and fodder, Less area under Horticultural crops	IPM and INM in major crops of this area Increase drainage of soil Reducing the inter-calving period in Buffalo Motivate the farmers for arid Horticultural crops. Efficient use of irrigation water To create the awareness for grading, processing and marketing (value addition)
			Adhiya			
			Bhandariya			
			Gadhadiya			
			Rajavadla			
2	Rajkot	Cluster II	Sardhar			
			Gadhaka			
			Aniyala			
			Lili sajdiyali			
			Padasan			
3	Paddhari	Cluster III	Bodighodi			
			Mora rampar			
			Movaiya			
			Dungraka			
			Adbalka			

## 2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Groundnut, Sesamum etc	Increasing the productivity of the major crops by adopting the recommendation of dry farming technologies and to create awareness for value addition.
Water conservation	In situ soil moisture conservation and rainwater harvesting. Use of cotton stalk for organic manure.
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.
Arid Fruits	Promoting the arid horticulture.
Livestock prod.	Enhancing productivity of milch animals by proper feeding and breeding management.
women empowerment	Providing self employment through skill oriented income generating activities
Agriculture	Developing interest among youth for agriculture as a profession.
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
PHT	Minimizing the post harvest losses and to create the awareness for proper storage.
Income generating activities	Self employment among rural youth and skill oriented income generating activities.
Nutrition management	Care and importance of nutrition in children & pregnant women.



### 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
3	3	3	3	42.3	42.3	152	152

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	74	73	1850	2098	-	653	-	7438
Rural youth	4	1	100	43				
Extn. Functionaries	4	3	100	80				
	82	77	2050	2221				

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
-	107.1	-	-	-	-

### 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				
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				



## 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	G'nut	Management of White grub in Groundnut.	1	3
Integrated Crop Management				
Integrated Disease Management	Cumin	Use of Trichoderma for wilt disease management in cumin	1	3
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

**I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL****PEST AND DISEASE MANAGEMENT**

**Problem definition:** Heavy infestation of white grub in groundnut effecting in a yield loss 10 to 15% according to area specific.

**Technology Assessed or Refined (as the case may be):** Management of white grub in groundnut crop.

**Table Effect of chlothianidin and chlorphyriphos in control of white grub in groundnut.**

<b>Technology Option</b>	<b>No. of trials</b>	<b>Incidence of leaf curl (%)</b>	<b>Yield (kg/ha)</b>
Sowing of groundnut without Seed treatment. (Farmers practice)	1	9	805
Seed treatment with chlorpyriphos 25 E.C. @ 25 ml/kg seed.(GAU Reco.)		1	905
Seed treatment with clothanidin 50 WDG 2 g/kg seed (AINP on White grub and Other Soil Arthropods, , RARI, Department of Entomology Durgapura, Jaipur 2008) (GAU Reco.)		1.8	877
Metarhizium anisopli @ 1.5 Kg + 250 Kg Castor cake/ha. Furrow application at the time of sowing (GAU Reco.)		7.4	810
Application of urea @ 6Kg/ha at the time of damage start. (Intervention-1)		6.5	825

2.

**Problem definition:** Heavy incidence of wilt disease in cumin effecting in a yield loss of 10 to 15% and income loss of Rs. 12000/- to 18000/- per ha.

**Technology Assessed or Refined (as the case may be):** Use of Trichoderma for wilt disease management in cumin (Year 2015-16)

Cumin is an importance commercial spice crop of northern saurashtra. There is high incidence of wilt disease resulting in yield loss. KVKs Targhadia (Rajkot-I) conducted on farm trial to refined the control measure. The refined technology of application of Trichoderma 5 Kg.ha with organic compost 1000 Kg/ha at time of sowing and second application 15 days after germination reduce the percentage of disease incidence from 7.9 to 2.5 and yield was increased by 17.17 percent.

**Table Effect of Trichoderma for management of wilt in cumin.**

<b>Technology Option</b>	<b>No.of trials</b>	<b>Incidence of leaf curl (%)</b>	<b>Yield (kg/ha)</b>	<b>B:C</b>
<i>No use of trichoderma or fungicide at the time of sowing. But they use fungicides viz., carbendazim, hexaconazole, difenconazole, tebuconazole, propiiconazole, , etc after of initiation of diseases. (Farmers practices.)</i>	1	17	695	2.8
<i>Application of Trichoderma @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)</i>		7.5	798	3.0
<i>Application of Trichoderma @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).</i>		4.5	865	3.2

## 3.

**Problem definition:** Heavy incidence of wilt disease in cumin effecting in a yield loss of 19% and income loss of Rs. 15000/- to 20000/- per ha.

**Technology Assessed or Refined (as the case may be):** Use of Trichoderma for wilt disease management in cumin (Year 2016-17)

Cumin is an importance commercial spice crop of northern saurashtra. There is high incidence of wilt disease resulting in yield loss. KVKs Targhadia (Rajkot-I) conducted on farm trial to refined the control measure. The refined technology of application of Trichoderma 5 Kg/ha with organic compost 1000 Kg/ha at time of sowing and second application 15 days after germination reduce the percentage of disease incidence from 12 to 14 and yield was increased by 21.5 percent.

**Table Effect of Trichoderma for management of wilt in cumin.**

<b>Technology Option</b>	<b>No.of trials</b>	<b>Wilt (%)</b>	<b>Yield (kg/ha)</b>	<b>B:C</b>
<i>No use of trichoderma or fungicide at the time of sowing. But they use fungicides viz., carbendazim, hexaconazole, difenconazole, tebuconazole, propiiconazole, , etc after of initiation of diseases. (Farmers practices.)</i>	1	19	627	2.6
<i>Application of Trichoderma @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)</i>		7.5	688	2.7
<i>Application of Trichoderma @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).</i>		5.3	762	2.97

### LIVE STOCK ENTERPRISES

## 1.

**Problem definition:** low milk production & Infertility problem in dairy buffaloo

**Technology Assessed or Refined (as the case may be):** Assessment of Chelated & Area specific Mineral mixture in dairy buffaloo

KVK, Rajkot conducted trial to find out effect of chelated & Area specific mineral mixture for dairy buffaloo. In which farmer practices & recommended practice (mineral mixture) could not increase milk production & reduce post partum estrus period at desired level. So the technology recommended was fine tuned by chelated & Area specific mineral mixture.

**Table :Effect of Chelated & Area specific Mineral Mixture for dairy buffalo**

<b>Technology Option</b>	<b>No.of trials</b>	<b>Milk yield Litre</b>	<b>Estrus after calving days</b>
<i>Farmers practice</i>	<i>1</i>	<i>8.2</i>	<i>130</i>
<i>Fed with Mineral mixture (Recommended practice)</i>		<i>9.0</i>	<i>110</i>
<i>Fed with Chelated &amp; Area specific mineral mixture</i>		<i>10.3</i>	<i>83</i>

**Note : Good response getting from animal owners**

## 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

Sr. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the extension system	Horizontal spread of technology		
					No. of villa.	No.of farmer	Area in ha
1	2	3	4	5	6	7	8
1	Groundnut	Pest management	IPM	Management of white grub through seed treatment	3	10	4.0
2	Groundnut	Varietal evaluation	Variety (GJG-22)	To test yield potentiality of newly released groundnut variety	11	50	20.0
3	Groundnut	Varietal evaluation	Variety (GJG-9)	To test yield potentiality of newly released groundnut variety	2	5	2.0
4	Pigeon pea	Inter cropping	Inter cropping	Inter cropping of pigeon pea with groundnut crop	2	2	0.8
5	Cotton	Crop Production	INM (Bt. Cotton)	Nutrient management in Bt. cotton	3	10	4.0
6	Seasonal vegetables	Nutritional Garden	Kitchen Garden	-	3	5	-
7	Gram ( Rabi 2015-16)	Varietal evaluation	Variety (GJG-5)	To test yield potentiality of Gram	4	10	4.0
8	Wheat ( Rabi 2015-16)	Nutriant Management	INM	Nutrient management in Wheat	5	5	2.0
9	Cumin ( Rabi 2015-16)	Pest Management	IPM	Management of wilt through bio agent	5	10	4.0
10	Onion ( Rabi 2015-16)	Guj.1	Crop diversification	Crop diversification	3	5	2.0
11	Garlic ( Rabi 2015-16)	GG-4	Crop diversification	Crop diversification	3	5	2.0
12	Solar energy	-	solar cooker	Solar energy	10	10	-
13	Cumin ( Rabi 2016-17)	Pest Management	IPM	Management of wilt through bio agent	3	10	4.0
14	Onion ( Rabi 2016-17)	Red-3	Crop diversification	Crop diversification	2	5	2.0
15	Garlic ( Rabi 2016-17)	G-282	Crop diversification	Crop diversification	2	5	2.0

- b. Details of FLDs implemented during 2016-17 (Information is to be furnished in the following **three tables** for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

### Oilseeds

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ST	Others	Total	
1	Groundnut	Pest management	IPM	Kharif 2016-17	4.0	4.0	2	8	10	-
2	Groundnut	Varietal evaluation	Variety (GJG-22)	Kharif 2016	20.0	20.0	8	42	50	-
3	Groundnut	Varietal evaluation	Variety (GJG-9)	Kharif 2016	2.0	2.0	-	5	5	-

### Pulses

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ST	Others	Total	
1	Gram	Varietal evaluation	Variety (GJG-5)	Rabi 2015-16	4.0	4.0	2	8	10	-
2	Pigeon pea	Inter cropping	Inter cropping	Kharif 2015-16	0.8	0.8	-	2	2	-

### Others

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ST	Others	Total	
1	Cotton	Crop Production	INM (Bt. Cotton)	Kharif 2016-17	4.0	4.0	1	9	10	-
2	Onion	Crop diversification	Guj.1	Rabi 2015-16	2.0	2.0	-	5	5	-
3	Garlic	Crop diversification	GG-4	Rabi 2016-17	2.0	2.0	-	5	5	-
4	Onion	Crop diversification	Red-3	Rabi 2016-17	2.0	2.0	-	5	5	-



5	Garlic	Crop diversification	G-282	Rabi 2015-16	2.0	2.0	-	5	5	-
6	Buffalo	Nutrient Management	Chelated mineral mixture power	-	-	-	3	17	20	-
7	Buffalo	Nutrient Management	By pass protein	-	-	-	1	9	10	-
8	Fodder	Fodder crop	Makhan grass	Rabi	1.0	1.0	-	5	5	-
9	Solar energy	Solar energy	solar cooker	-	-	-	-	10	10	-
10	Seasonal vegetables	Nutritional Garden	Kitchen Garden	Kharif 2016-17	-	-	-	2	2	-

### Commercial crops (Cumin & Wheat)

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Proposed	Actual	SC/ST	Others	Total	
1	Wheat	Nutrient Management	INM	Rabi 2015-16	2.0	2.0	1	4	5	-
2	Cumin	Pest Management	IPM	Rabi 2015-16	4.0	4.0	1	9	10	-
3	Cumin	Pest Management	IPM	Rabi 2016-17	4.0	4.0	1	9	10	-

### Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
1	2	3	4	5	6	7	8	9	10	11	12
Groundnut	<i>Kharif</i>	RF	M. B.	L	M	H	Wheat/ Cumin	28/6/16	24/10/16	425.1	-

Groundnut	<i>Kharif</i>	RF	M. B.	L	M	H	Wheat/ Cumin	29/6/16	28/10/16	425.1	-
Groundnut	<i>Kharif</i>	RF	M. B.	L	M	H	Wheat/ Cumin	25/6/16	22/10/16	425.1	-
Pigeon pea	<i>Kharif</i>	RF	M. B.	L	M	H	Wheat/ Cumin	23/08/16	-	425.1	-
Cotton	<i>Kharif</i>	RF	M. B.	L	M	H	-“-	22/6/16	-	425.1	-
Gram	<i>Rabi</i>	Irrigated	M. B.	L	M	H	Cotton/ G’nut	20/11/15	20/03/16	-	-
Wheat	<i>Rabi</i>	Irrigated	M. B.	L	M	H	-“-	22/11/15	12/03/16	-	-
Cumin	<i>Rabi</i> 2015-16	Irrigated	M. B.	L	M	H	-“-	20/11/15	18/2/16	-	-
Onian	<i>Rabi</i> 2015-16	Irrigated	M. B.	L	M	H	-“-	22/11/15	21/2/16	-	-
Garlic	<i>Rabi</i> 2015-16	Irrigated	M. B.	L	M	H	-“-	20/11/15	18/2/16	-	-
Cumin	<i>Rabi</i> 2016-17	Irrigated	M. B.	L	M	H	-“-	18/11/17	22/2/17	-	-
Onian	<i>Rabi</i> 2016-17	Irrigated	M. B.	L	M	H	-“-	25/11/16	21/2/17	-	-
Garlic	<i>Rabi</i> 2016-17	Irrigated	M. B.	L	M	H	-“-	22/11/16	20/2/17	-	-

M. B. – Medium Black

### Technical Feedback on the demonstrated technologies

S. No.	Feed Back
1	To enhance the farmers to use recently developed certified varieties of different crops.
2	Proper use of fertilizers, Irrigation, insecticides and fungicide as per recommendation to reduce the production cost.
3	Low yield of Garlic variety G-4 to compare local variety.
4	High yield and big size of Onion variety Red-3 to compare local variety

### Farmers’ reactions on specific technologies

S. No.	Feed Back
1	Cumin variety GC-4 is high yielding but gradually losing wilt resistant character
2	Bunch type groundnut variety is suitable for rain fed area.

3	Application of <i>Trichoderma</i> is very useful for minimizing the stem rot disease in groundnut. (Application at the time of sowing with 500 kg castor cake/ha.)
4	Wheat variety GW-366 is high yielding but poor grain quality (Black spot on grain)
5	Reddening in cotton
6	Heavy infestation of thrips in crops like garlic, onion, cotton, groundnut, castor, cumin and coriander
7	Heavy infestation of mealy bug in cotton, groundnut, custard apple, mango and ber.
8	Late and poor germination was observed in cumin variety GC-4
9	Heavy infestation of mite in garlic, chili, brinjal, okra, cotton and groundnut
10	Research needed for control of insect-pests and diseases in organic farming
11	Problem of leaf curling in chilly.
12	White grub problem in groundnut
13	Wilting in chilly, cotton and water melon
14	Problem of repeat breeding in cattle & buffaloes.

#### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	10	Aug.,Feb.,March	254	
2	Farmers Training	5	-	123	-
3	Media coverage	2	Sept.,Jan.	-	-
4	Training for extension functionaries	1	10/1/17	50	-

#### Performance of Frontline demonstrations

##### Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo		Average			Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low											
Groundnut	ICM	IPM	-	10	4.0	31.25	21.30	26.01	23.23	11.96	36350	113040	76690	3.1	34550	100920	66370	2.9
Groundnut	NRM	Varietal evaluation	GJG-22	50	20.0	41.00	4.50	22.23	20.73	6.6	34540	88920	54380	2.6	33220	82920	49700	2.5
Groundnut	NRM	Varietal evaluation	GJG-9	5	2.0	27.50	15.00	21.00	19.85	5.3	34440	86100	51660	2.5	33120	79420	46300	2.4

### 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										
Pigeonpea	ICM	Inter cropping	Inter cropping of pigeon pea with Groundnut crop	2	0.8	27.53	26.85	27.53	25	10.12	39300	137650	98350	3.50	38100	125000	86900	3.28
Chickpea	NRM			Varietal evaluation	GJG-5	10	4.0	18.75	11.25	13.88	12.40	20.69	23325	76340	53015	3.27	23125	68200

### 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 % of wilt plant		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												
Cotton	Plant protection	IPM	10	4.0	27.50	15.40	21.34	19.75	8.04	-	-	35340	117370	82030	3.32	33700	108625	74925	3.22
Wheat	Crop production	INM	5	2.0	62.50	55.00	57.25	51.50	11.17	-	-	42000	120225	78225	2.86	40800	81600	40800	2.00
Cumin Rabi 2015-16	Pest Management	IPM	10	4.0	12.40	4.90	7.86	6.75	16.44	6.7	13.6	36320	106110	69790	2.92	33400	91125	57725	2.73
Onian Rabi 2015-16	Crop diversification	Guj.1	5	2.0	252	240	246	234	5.13	-	-	54400	55350	950	1.02	52000	52650	650	1.01
Garlic Rabi 2015-16	Crop diversification	GG-4	5	2.0	37.50	56.25	50.00	66.25	-24.53	-	-	118500	225000	106500	1.90	108400	298125	189725	2.75
Cumin Rabi 2016-17	Pest Management	IPM	10	4.0	8.15	4.20	5.99	5.33	12.38	5.0	15.3	34020	82662	48642	2.43	31600	73554	41950	2.33
Onian Rabi 2016-17	Crop diversification	Red-3	5	2.0	437.5	250	336.25	315.5	6.58			64400	218562	154162	3.39	59000	205075	146075	3.48
Garlic Rabi 2016-17	Crop diversification	G-282	5	2.0	81.25	62.5	71.25	69	3.26			128500	235125	106625	1.83	115400	227700	112300	1.97



\*result

### **Farm women reaction**

-Kitchen gardening gives continues supply of fresh vegetables at lower cost which gives daily nutritious diet
-In kitchen gardening farm women are not applying any agrochemicals so they produce organic vegetables
-After demonstration we will utilized maximum backyard space and waste water
-Before demonstration, farm women were growing only three to four vegetable crops in their backyard but after demonstration they said that they will grow different vegetable crops through kitchen gardening in scientific way
-They gave extra vegetables to their neighbors
Farm women said that now we will generate income by selling of extra vegetables because now they are aware about precious organic vegetables

### III. Training Programme

#### 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
<b>I Crop Production</b>										
Weed Management				0			0	0	0	0
Resource Conservation Technologies				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming	1	11		11			0	11	0	11
Micro Irrigation/irrigation				0			0	0	0	0
Seed production	1	16		16			0	16	0	16
Nursery management				0			0	0	0	0
Integrated Crop Management				0			0	0	0	0
Soil & water conservatioin				0			0	0	0	0
Integrated nutrient management				0			0	0	0	0
Production of organic inputs	1	20		20			0	20	0	20
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>3</b>	<b>47</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>47</b>
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high valume crops				0			0	0	0	0
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0
Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation	1	12		12			0	12	0	12
Others (pl specify)				0			0	0	0	0
<b>Total (a)</b>	<b>1</b>	<b>12</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>12</b>
<b>b) Fruits</b>										
Training and Pruning				0			0	0	0	0
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit	1	16		16			0	16	0	16
Management of young plants/orchards				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards				0			0	0	0	0
Plant propagation techniques	1	15		15			0	15	0	15
Others (pl specify)				0			0	0	0	0
<b>Total (b)</b>	<b>2</b>	<b>31</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>0</b>	<b>31</b>
<b>c) Ornamental Plants</b>										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (c)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>d) Plantation crops</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (d)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>e) Tuber crops</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (e)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>f) Spices</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition	1		61	61			0	0	61	61
Others (pl specify)				0			0	0	0	0
<b>Total (f)</b>	<b>1</b>	<b>0</b>	<b>61</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>61</b>

<b>g) Medicinal and Aromatic Plants</b>										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (g)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GT (a-g)</b>	<b>4</b>	<b>43</b>	<b>61</b>	<b>104</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>61</b>	<b>104</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management				0			0	0	0	0
Integrated water management	1		33	33			0	0	33	33
Integrated Nutrient Management	1	50		50			0	50	0	50
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing	1	99		99	19		19	118	0	118
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>3</b>	<b>149</b>	<b>33</b>	<b>182</b>	<b>19</b>	<b>0</b>	<b>19</b>	<b>168</b>	<b>33</b>	<b>201</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	1	25		25			0	25	0	25
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management				0			0	0	0	0
Disease Management	1	18		18	2		2	20	0	20
Feed & fodder technology	2	39		39	2		2	41	0	41
Production of quality animal products	1	20		20	2		2	22	0	22
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>5</b>	<b>102</b>	<b>0</b>	<b>102</b>	<b>6</b>	<b>0</b>	<b>6</b>	<b>108</b>	<b>0</b>	<b>108</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening				0			0	0	0	0
Design and development of low/minimum cost diet	1		13	13		2	2	0	15	15
Designing and development for high nutrient efficiency diet	2		37	37		7	7	0	44	44
Minimization of nutrient loss in processing				0			0	0	0	0
Processing and cooking	1		26	26		2	2	0	28	28
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques	1		13	13			0	0	13	13
Value addition				0			0	0	0	0
Women empowerment	1		12	12			0	0	12	12
Location specific drudgery reduction technologies				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Women and child care	1		29	29		3	3	0	32	32
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>7</b>	<b>0</b>	<b>130</b>	<b>130</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>144</b>	<b>144</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance	1	17		17			0	17	0	17
Installation and maintenance of micro irrigation systems	1	23		23	3		3	26	0	26
Use of Plastics in farming practices	1	15		15			0	15	0	15
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements	1	41		41	7		7	48	0	48
Small scale processing and value addition	2	44		44			0	44	0	44
Post Harvest Technology	1	30		30			0	30	0	30
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>7</b>	<b>170</b>	<b>0</b>	<b>170</b>	<b>10</b>	<b>0</b>	<b>10</b>	<b>180</b>	<b>0</b>	<b>180</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	3	107		107			0	107	0	107
Integrated Disease Management	2	34		34			0	34	0	34
Bio-control of pests and diseases	1	31		31	7		7	38	0	38
Production of bio control agents and bio pesticides	1	21		21			0	21	0	21
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>7</b>	<b>193</b>	<b>0</b>	<b>193</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>200</b>	<b>0</b>	<b>200</b>



<b>VIII Fisheries</b>										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>IX Production of Inputs at site</b>										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production				0			0	0	0	0
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0
Production of Fish feed				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Apiculture				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>X Capacity Building and Group Dynamics</b>										
Leadership development				0			0	0	0	0
Group dynamics				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital				0			0	0	0	0
Entrepreneurial development of farmers/youths				0			0	0	0	0
WTO and IPR issues				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>XI Agro-forestry</b>										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GRAND TOTAL</b>	<b>36</b>	<b>704</b>	<b>224</b>	<b>928</b>	<b>42</b>	<b>14</b>	<b>56</b>	<b>746</b>	<b>238</b>	<b>984</b>

#### 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
<b>I Crop Production</b>										
Weed Management				0			0	0	0	0
Resource Conservation Technologies				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Micro Irrigation/irrigation				0			0	0	0	0
Seed production				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Crop Management				0			0	0	0	0
Soil & water conservatioin				0			0	0	0	0
Integrated nutrient management				0			0	0	0	0
Production of organic inputs				0			0	0	0	0

Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low value and high valume crops				0			0	0	0	0
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0
Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (a)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>b) Fruits</b>										
Training and Pruning				0			0	0	0	0
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit	1	18		18			0	18	0	18
Management of young plants/orchards				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards	1	22		22			0	22	0	22
Plant propagation techniques				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (b)</b>	<b>2</b>	<b>40</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>40</b>
<b>c) Ornamental Plants</b>										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (c)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>d) Plantation crops</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (d)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>e) Tuber crops</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (e)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>f) Spices</b>										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (f)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total (g)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GT (a-g)</b>	<b>2</b>	<b>40</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>40</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management				0			0	0	0	0
Integrated water management	1	16		16	1		1	17	0	17
Integrated Nutrient Management				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>1</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>17</b>	<b>0</b>	<b>17</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	2	36		36	6		6	42	0	42
Poultry Management				0			0	0	0	0

Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management	1	15		15	3		3	18	0	18
Disease Management	3	55		55	8		8	63	0	63
Feed & fodder technology	1	20		20	5		5	25	0	25
Production of quality animal products	1	21		21	4		4	25	0	25
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>8</b>	<b>147</b>	<b>0</b>	<b>147</b>	<b>26</b>	<b>0</b>	<b>26</b>	<b>173</b>	<b>0</b>	<b>173</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	24	18	42	2	1	3	26	19	45
Design and development of low/minimum cost diet	1		14	14			0	0	14	14
Designing and development for high nutrient efficiency diet				0			0	0	0	0
Minimization of nutrient loss in processing				0			0	0	0	0
Processing and cooking	1		13	13			0	0	13	13
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques	1		22	22			0	0	22	22
Value addition	1		23	23		2	2	0	25	25
Women empowerment				0			0	0	0	0
Location specific drudgery reduction technologies				0			0	0	0	0
Rural Crafts	1		20	20			0	0	20	20
Women and child care	1		43	43		7	7	0	50	50
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>7</b>	<b>24</b>	<b>153</b>	<b>177</b>	<b>2</b>	<b>10</b>	<b>12</b>	<b>26</b>	<b>163</b>	<b>189</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance				0			0	0	0	0
Installation and maintenance of micro irrigation systems				0			0	0	0	0
Use of Plastics in farming practices				0			0	0	0	0
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Small scale processing and value addition				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>VII Plant Protection</b>										
Integrated Pest Management	2	43		43			0	43	0	43
Integrated Disease Management	2	66		66			0	66	0	66
Bio-control of pests and diseases	2	43		43	2		2	45	0	45
Production of bio control agents and bio pesticides	1	31		31			0	31	0	31
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>7</b>	<b>183</b>	<b>0</b>	<b>183</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>185</b>	<b>0</b>	<b>185</b>
<b>VIII Fisheries</b>										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>IX Production of Inputs at site</b>										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0



<b>Total (b)</b>	<b>4</b>	<b>71</b>	<b>0</b>	<b>71</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>0</b>	<b>71</b>
<b>c) Ornamental Plants</b>										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total (c)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>d) Plantation crops</b>										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total (d)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>e) Tuber crops</b>										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total (e)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>f) Spices</b>										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	1	0	61	61	0	0	0	0	61	61
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total (f)</b>	<b>1</b>	<b>0</b>	<b>61</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>61</b>
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	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
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total (g)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GT (a-g)</b>	<b>6</b>	<b>83</b>	<b>61</b>	<b>144</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>83</b>	<b>61</b>	<b>144</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	0	0	0	0	0	0	0	0	0	0
Integrated water management	2	16	33	49	1	0	1	17	33	50
Integrated Nutrient Management	1	50	0	50	0	0	0	50	0	50
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	1	99	0	99	19	0	19	118	0	118
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>4</b>	<b>165</b>	<b>33</b>	<b>198</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>185</b>	<b>33</b>	<b>218</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	3	61	0	61	6	0	6	67	0	67
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	15	0	15	3	0	3	18	0	18
Disease Management	4	73	0	73	10	0	10	83	0	83
Feed & fodder technology	3	59	0	59	7	0	7	66	0	66
Production of quality animal products	2	41	0	41	6	0	6	47	0	47
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>13</b>	<b>249</b>	<b>0</b>	<b>249</b>	<b>32</b>	<b>0</b>	<b>32</b>	<b>281</b>	<b>0</b>	<b>281</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	24	18	42	2	1	3	26	19	45
Design and development of low/minimum cost diet	2	0	27	27	0	2	2	0	29	29
Designing and development for high nutrient efficiency diet	2	0	37	37	0	7	7	0	44	44
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	2	0	39	39	0	2	2	0	41	41
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	2	0	35	35	0	0	0	0	35	35
Value addition	1	0	23	23	0	2	2	0	25	25
Women empowerment	1	0	12	12	0	0	0	0	12	12
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	20	20	0	0	0	0	20	20











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)										
<b>TOTAL</b>										

**Training programmes for Extension Personnel 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
Productivity enhancement in field crops	1	9		9			0	9	0	9
Integrated Pest Management	1	45		45	5		5	50	0	50
Integrated Nutrient management	1	21		21			0	21	0	21
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
<b>TOTAL</b>	<b>3</b>	<b>75</b>	<b>0</b>	<b>75</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>80</b>	<b>0</b>	<b>80</b>

**Table. 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
<b>Crop production and management</b>										
Increasing production and productivity of crops	2	30		30			0	30	0	30
Commercial production of vegetables	1	16		16			0	16	0	16
<b>Production and value addition</b>										
Fruit Plants				0			0	0	0	0
Ornamental plants				0			0	0	0	0
Spices crops	1		61	61			0	0	61	61
Soil health and fertility management	1	99		99	19		19	118	0	118
Production of Inputs at site				0			0	0	0	0
Methods of protective cultivation				0			0	0	0	0
Others (pl. specify)	2		64	64		7	7	0	71	71
<b>Total</b>	<b>7</b>	<b>145</b>	<b>125</b>	<b>270</b>	<b>19</b>	<b>7</b>	<b>26</b>	<b>164</b>	<b>132</b>	<b>296</b>
<b>Post harvest technology and value addition</b>										
Processing and value addition				0			0	0	0	0
Others (pl. specify)	2	106		106			0	106	0	106
<b>Total</b>	<b>2</b>	<b>106</b>	<b>0</b>	<b>106</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>0</b>	<b>106</b>
<b>Farm machinery</b>										
Farm machinery, tools and implements	1	41		41	7		7	48	0	48
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>1</b>	<b>41</b>	<b>0</b>	<b>41</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>48</b>	<b>0</b>	<b>48</b>
<b>Livestock and fisheries</b>										
Livestock production and management				0			0	0	0	0
Animal Nutrition Management				0			0	0	0	0
Animal Disease Management				0			0	0	0	0
Fisheries Nutrition				0			0	0	0	0
Fisheries Management				0			0	0	0	0

Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Home Science</b>										
Household nutritional security	1		26	26		2	2	0	28	28
Economic empowerment of women				0			0	0	0	0
Drudgery reduction of women				0			0	0	0	0
Others (pl. specify)	1		29	29		3	3	0	32	32
<b>Total</b>	<b>2</b>	<b>0</b>	<b>55</b>	<b>55</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>60</b>	<b>60</b>
<b>Agricultural Extension</b>										
Capacity Building and Group Dynamics				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GRAND TOTAL</b>	<b>12</b>	<b>292</b>	<b>180</b>	<b>472</b>	<b>26</b>	<b>12</b>	<b>38</b>	<b>318</b>	<b>192</b>	<b>510</b>

Name of sponsoring agencies involved : ATMA, FTC, Agri. Dep., DWDA, Central ware housing, cotton connect

### 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				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Commercial vegetable production				0			0	0	0	0
Integrated crop management				0			0	0	0	0
Organic farming				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Post harvest technology and value addition</b>										
Value addition	1		43	43			0	0	43	43
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>43</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>43</b>
<b>Livestock and fisheries</b>										
Dairy farming				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Piggery				0			0	0	0	0
Poultry farming				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Income generation activities</b>										
Vermicomposting				0			0	0	0	0
Production of bio-agents, bio-pesticides, bio-fertilizers etc.				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Seed production				0			0	0	0	0
Sericulture				0			0	0	0	0
Mushroom cultivation				0			0	0	0	0
Nursery, grafting etc.				0			0	0	0	0
Tailoring, stitching, embroidery, dyeing etc.				0			0	0	0	0
Agril. para-workers, para-vet training				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Agricultural Extension</b>										
Capacity building and group dynamics				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Grand Total</b>	<b>1</b>	<b>0</b>	<b>43</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>43</b>	<b>43</b>

### IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	81	234	5	239
Diagnostic visits	15	199	2	201
Field Day	10	254		254
Group discussions	13	418		418
Kisan Ghosthi	11	256	1	257
Film Show	10	200	4	204
Self -help groups	2	56		56
Kisan Mela	4			0
Exhibition	3	1754	7	1761
Scientists' visit to farmers field	73	422	5	427
Plant/animal health camps	2	345	4	349
Farm Science Club				0
Ex-trainees Sammelan	1	56		56
Farmers' seminar/workshop	1	800	9	809
Method Demonstrations	17	689	1	690
Celebration of important days	1	70	5	75
Special day celebration	4	1581	11	1592
Exposure visits	1	50		50
Others (pl. specify)Krushi Mahotsav	1			0
<b>Total</b>	<b>250</b>	<b>7384</b>	<b>54</b>	<b>7438</b>

#### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	5
Extension Literature	28
News paper coverage	6
Popular articles	8
Radio Talks	5
TV Talks	6
Animal health camps (Number of animals treated)	345
Others (pl. specify)	
<b>Total</b>	<b>403</b>

Name of KVK	Message Type	Type of Messages					Total	
		Crop	Livestock	Weather	Marketing	Awareness		Other enterprise
Rajkot-I	Text only	4	-	48	-	-	-	52
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>4</b>	<b>-</b>	<b>48</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>52</b>
	<b>Total farmers Benefitted</b>	<b>5500</b>	<b>-</b>	<b>5000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10500</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
1 (27th Sept. to 1st Octo. 2016)	Gosthies	8	178	5
	Lectures organised	9	326	5
	Exhibition	1	326	6
	Film show	5	311	3
	Fair	1	333	7
	Farm Visit	4	120	3
	Diagnostic Practicals	3	134	2
	Distribution of Literature (No.)	6	800	
	Distribution of Seed (q)			
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)	2	401	2
	Bio Fertilizers (q)			
	Distribution of fingerlings			
	Distribution of Livestock specimen (No.)			
	Total number of farmers visited the technology week			326

## 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	GJG-9	-	39.6	-	-
	Groundnut	GG-20	-	30.9	-	-
	Groundnut	GJG-22	-	6	-	-
	Sesame	TG-3	-	12.4	-	-
Pulses	Black gram	GU-1	-	18.2	-	-
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						

Others						
<b>Total</b>						

**Production of planting materials by the KVKs**

<b>Crop</b>	<b>Name of the crop</b>	<b>Name of the variety</b>	<b>Name of the hybrid</b>	<b>Number</b>	<b>Value (Rs.)</b>	<b>Number of farmers</b>
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**

<b>Bio Products</b>	<b>Name of the bio-product</b>	<b>Quantity</b>	<b>Value (Rs.)</b>	<b>No. of Farmers</b>
		<b>Kg</b>		
Bio Fertilisers				
Bio-pesticide	SAVAJ Trichoderma	4400	308000/-	654
	SAVAJ Beauveria	3550	532500/-	532
Bio-fungicide				
Bio Agents				
Others				
<b>Total</b>				

**Table: Production of livestock materials**

<b>Particulars of Live stock</b>	<b>Name of the breed</b>	<b>Number</b>	<b>Value (Rs.)</b>	<b>No. of Farmers</b>
<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.)	No. of soil health cards distributed
Soil	760	402	130	38000	-
Water	737	401	110	36850	
Plant	3	3	3	-	
Manure	-				
Others (pl.specify)	-				
<b>Total</b>	<b>1500</b>	<b>808</b>	<b>243</b>	<b>74850</b>	

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Date of SAC Meeting	Participants
Rajkot-I	24/10/2016	25

## IX. NEWSLETTER/MAGAZINE

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

## X. PUBLICATIONS

Category	Number
Research Paper	2
Technical bulletins	
Technical reports	8
Others Extension literature	28
Popular article	8

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

Activities conducted				
No. of Training programmes	No. of Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
1	2	-	17	2



## 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
Groundnut	1500	Late monsoon Mid draught	Higher yield obtained in short duration bunch type of variety in groundnut in rain fed area.

### Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	1500	1000
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
<b>Total</b>	<b>1500</b>	

### Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No. of participants
Farmer's meeting	2	134
Farmer's seminar	1	98
Group meeting	1	27
<b>Total</b>	<b>4</b>	<b>259</b>

### Animal health camps organised

Number of camps	No. of animals	No. of farmers
2	346	178
<b>Total</b>	<b>346</b>	<b>178</b>

### Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Checkpea	12.50	20	50
<b>Total</b>	<b>12.50</b>	<b>20</b>	<b>50</b>

### Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Adoption of Trichoderma culture powder for the management of stem rot disease in groundnut	5322	46789
Adoption of <i>Bt.</i> cotton varieties.	328897	82224
Farmers prefer to sow semi spreading and high yielding variety of groundnut i.e. GG-20.	204808	51702
Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wilt disease	20108	5102
Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies	21789	6342
Farmers are ready to use of rotavator/ cotton shredder/ mobile chopper for increasing the organic matter in soil particularly in cotton system.	174532	43633
<b>Total</b>		

## 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
	5	160	9	147	4	104	1	-	2	-	3	134
<b>Total</b>	<b>5</b>	<b>160</b>	<b>9</b>	<b>147</b>	<b>4</b>	<b>104</b>	<b>1</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>3</b>	<b>134</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
JAU	Bimonthly workshop	2	2	7
JAU	New hor. Agri. Technology	1	2	8
JAU	Advances in Horticulture, Animal health and Value addition	1	3	8
<b>Total</b>		<b>4</b>	<b>7</b>	<b>8</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>Annual NICRA workshop</b>	<b>1</b>	<b>23</b>	<b>23</b>
<b>Annual KVK workshop</b>	<b>1</b>	<b>17</b>	<b>17</b>
<b>Production tech. of Mustard</b>	<b>1</b>	<b>15</b>	<b>15</b>
<b>Review meeting of ARYA</b>	<b>2</b>	<b>-</b>	<b>-</b>
<b>Mid review and planning state level workshop</b>	<b>1</b>	<b>-</b>	<b>-</b>
<b>Review meeting of Seed hubs</b>	<b>1</b>	<b>-</b>	<b>-</b>
<b>Mid review and planning of NICRA workshop</b>	<b>1</b>	<b>-</b>	<b>-</b>
<b>Total</b>	<b>8</b>		

## XIV. CASE STUDIES

<b>Improved Cultivation of Chilly</b>	
	<p><b>Special recognition :</b></p> <p>Chaturbhai Kalola is a progressive farmers of Gadhaka village. He is a small land holding farmer so he is more active on the knowledge about how to get maximum production from less land.He has grow chilly on 0.1 ha. Land. He has utilized drip irrigation for irrigation &amp; fertilization. He has use organic fertilizer &amp; Trichoderma instead of chemical fertilizer. As per soil analysis he utilized Azatobector, PSB etc.</p> <p>Chaturbhai get income Rs 15,000/- from green chilly and get income 77,000/- from dry chilly powder selling in 0.1 ha. land. He has get gross income Rs 67,000/- from chilly.</p>
<p>Name of Farmer :  <b>Mr. Chaturbhai Laljibhai Kalola</b></p> <p>Address : Gadhaka</p> <p>Taluka : Rajkot</p> <p>Dist. : Rajkot</p> <p>Contact Number : 9428699849</p> <p>Age : 46 years</p> <p>Education : 10<sup>th</sup> Pass</p> <p>Land holding : 4 acre</p> <p>Crops grown : Chilly  Groundnut,  Cotton</p>	
<div style="display: flex; justify-content: space-around;">   </div>	

### XIII. STATUS REVOLVING FUNDS

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2014 to March 2015	10,03,238	16,31,899	8,46,838	17,73,299
April 2015 to March 2016	17,73,299	17,82,502	12,95,346	22,60,455
April 2016 to March 2017	22,60,455	20,54,055	18,40,812	24,73,698

# 1. Progress Report og Mera Gaon Mera Gaurav (MGMG) Annual Progress Report 2016-2017

## ❖ Background information / Introduction

On the basis of agro climatic conditions, soil types, and cropping pattern; Gujarat has been divided into eight agro climatic zones. Rajkot district falls under North Saurashtra Agro climatic Zone. The total geographical area of North Saurashtra Agro Climatic Zone is 35.2 Lack ha. Out of total area, 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district is medium in their availability of nitrogen while low in phosphorus and high in available potash except the available phosphorus and potash is in medium category in adopted villages. Monsoon commences usually by the middle of June and withdraws by middle of September. Average annual rainfall of districts is 1214.6 mm. Monsoon in this area commences in the end of June and retreats by the middle of September. Most of the precipitation is received from South – West monsoon, concentrating in the month of July and August. The maximum rainfall and number of rainy days are observed in July. The winter season sets by the end of October. This district is situated near seashore hence; there are no drastic fluctuations in the temperature. The average maximum and minimum temperatures are 42.0° C and 16.9 °C respectively. Overall climate of this station is humid and convenient for coastal crops

The main crops of the region are groundnut, cotton, wheat, cumin, onion, garlic, castor, green gram, black gram, pearl millet, etc.

Seasonal vegetables are also grown in limited area. Lift irrigation through tube well & dug well are the main sources of irrigation.

## ❖ Summary

Sr. No.	Name of Institute	Total No. of Group	No. of Scientist Involved	No. of Village covered	No. of Demo.	No. of Training	No. of Farmers benefited
1	Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia	2	6	10	14	8	1217

❖ **Name of Institute:** - Krishi Vigyan Kendra, JAU, Targhadia, Rajkot-I

❖ **No. of Teams Formed:** 2

❖ **No. of Villages Selected:** 10

No. of teams of scientist	No. of scientists	No. of villages	No. of blocks	No. of districts	Bench marked Survey conducted (No. of villages)
2	6	10	3	1	-

### ❖ Activities undertaken

- More number of FLDs on farmers field should be implemented.
- No. of SMS containing agricultural information should be increase.
- Well planning of purchasing of *Trichoderma*, *Beauveria*, seed etc for supplying to interested farmers of district should be carried out.
- KVK should plan more no. of soil sample testing at KVK to encourage farmers to follow Soil Testing based fertilizer application.
- If possible, more no. of SMS on Agri advisory services to farmers should be send in collaboration with Reliance Foundation.
- In ATIC and NFSM FLDs, use more Bio-Fertilizer and Bio-pesticide in pulses & oilseed and other crops.

### ❖ Table 1: Activities organized by KVK-Targhadia, Rajkot-I under MGMG

S. No.	Name of activity	No. of activities conducted	No. of farmers participated & benefitted
1	Visit to village by teams	27	454
2	Interface meeting/ Goshthies	8	123
3	Training organized	8	166
4	Demonstrations conducted	196	196
5	Mobile based advisories (No.)	9	227
6	Literature Support Provided	12	278
7	Awareness Created	4	103
8	Input support provided	3	196
<b>Total</b>		<b>267</b>	<b>1743</b>

### ❖ Table 2: Other activities organized by: ATMA , State Agricultural departments, DRDA, FTC and Animal husbandry department

S. No.	Name of activity	No. / Area (ha)		No. of farmers benefitted
1	Linkages created with other departments/Organizations	5		340
2	Facilitation for new varieties, seeds, technology			
	i) New varieties (No.)	-	-	-
	ii) Technology (No.)	IPM and INM	78.4	196
	iii) Seeds (q)			
	iv) New crops (No.)	-	-	-

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia

**KRISHI VIGYAN KENDRA  
JUNAGADH AGRICULTURAL UNIVERSITY  
TARGHADIA, (RAJKOT-3)**

**2. Annual Report of ATIC for the April 2016 to March 2017**

1. Name of the Scheme : **Agricultural Technology Information Center – Targhadia (BH : 12572-02)**
2. Location of the Scheme : **Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia (Rajkot)**
3. Officer-in-charge of the scheme : Dr. B. B. Kabaria,  
Programme Coordinator,  
KVK, JAU, Targhadia (Rajkot)
4. **Objectives** :
  - 2) To provide a ‘single window’ delivery system for the product and the species available from JAU to the farmers and other interested groups as a process of innovativeness in technology dissemination.
  - ii) To facilitate direct access to the farmers to the institutional research available in term of technology, advice, technology products, etc. for reducing technology dissemination losses.
  - iii) To provide mechanism for feed back from the users to the institute.
5. **Justification of the scheme :**  
At the University, infrastructure facilities to carry out research and education activities are satisfactory. A large number of research based recommendations have come up in the recent past for the farming community. At present, transfer of technology is carried out through training, farm publication, field day, farmers day, telecast, radio talk, etc. However, there is a need to established ATIC at the main campus, as well as at the key regional station of JAU, so that technological transformation is possible and the farmers are benefited with the recent advances being made in different sections of agricultural research and development.

### Progress of the scheme

Sr. No.	Name of Activity	No. of Activites	No. of Beneficiaries		
			Male	Female	Total
1.	FLD (IPM and INM in Groundnut and cotton)	250	235	15	250
2.	Telephone help line	34	34	-	34
3.	Farmers visit to KVK farm	8	47	2	49
4.	Scientist visit to farmer's field	4	145	9	154
5.	Training	5	201	32	233
6.	DVD developed	1			
	<b>Total</b>	302	662	58	720
	<b>Grant information 2016-17</b>	<b>Fund allocated</b>	<b>Fund released</b>	<b>Expenditure</b>	<b>Unspent Balance</b>
		1100000/-	1100000/-	1066962/-	33038/-

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia (Rajkot)



### 3. “Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India”

Name of Seed Hub Centre : *Krishi Vigyan Kendra, Rajkot-I*

<i>Name of Nodal Officer :</i>	Dr. B. B. Kabaria
<i>Address :</i>	KVK, Rajkot-I, JAU, Targhadia (Gujarat)
<i>e-mail :</i>	kvkrajkot@gmail.com
<i>Phone No. :</i>	(0281)2784170
<i>Mobile :</i>	9374202518

#### *Physical Progress and Financial Progress – Quality Seed Production under Revolving Fund (B.H. 18018-17) (Kharif 2016 )*

Crop	Variety	Seed Production/Expected Production (q)				Financial (Rs in lakhs)				Reasons for shortfall, if any
		Target	Area sown (ha)	Production/Expected production	Category of Seed (F/S, C/S or T/L)	Fund allocated	Fund released	Expenditure	Unspent Balance	
Pigeon pea	Vaishali	150	38	301.27	Certified	30	30	82,394	29,17,606	Higher yield due to favorable condition of crop

**Status of Seed Infrastructure Creation** under the project, “Creation of seed Hubs for Increasing Indigenous Production of Pulses in India” during 2016-17

<i>Seed Infrastructure</i>	<i>Financial Progress (Rs. in lakhs)</i>			
	<i>Funds Allocated</i>	<i>Fund Released</i>	<i>Expenditure</i>	<i>Unspent Balance</i>
<i>Seed Processing Unit</i>	15	15	-	15
<i>Godowns</i>	35	35	35	0.0
<b>Total</b>	<b>50</b>	<b>50</b>	<b>35</b>	<b>15</b>

- Please narrate on status of construction of godown/storage facility.

The construction work of godown under progress

- Please describe the status of establishment of processing plant with accessories.

The certified processing plant will be installed during the current year 2017-18

- **Details of training organized**

S.No.	Date	On campus	Off campus	Participants
1	12/1/17	-	1	17
2	16/1/17	-	1	21
		-		

- **Details of Extension Activities**

S.No.	Particular	Date	Number of Participants
1	Farmers-Scientists interface	Octo. To Dec.2016	67
2	Farmers Day	8/12/16	13
3	New paper coverage	-	1
4	National Consultant (NMOOP),New delhi, Dr. J. P. Singh Visited seed hubs village at Khorana, Date 3-10-16		
5	Shri Ram Ahirwar, Senior tech. Assistant visited seed hubs village Kheradi, Date 12/1/2017		

- **Farmers Response (Specific points only)**

- Vaishali is a good variety and farmer obtain high yield.
- In initial farmers are ready to grow more seed production programme due to price but due to low prize at production farmers are not willing far next year seed production programme.

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia (Rajkot)

**4. Annual report of Cluster Frontline Demonstrations on pulses under NFSM  
(B.H.2704-50)  
April 2016 to March 2017 of KVK, Rajkot-I**

**I. General Information**

1	Name of the KVK	Rajkot-I
2	Year of establishment	September 2004
3	Host Institution	Junagadh Agricultural University
4	Address for communication including phone and fax numbers	0281-2784170
5	District	Rajkot
6	State	Gujarat

**II. Cluster FLDs on pulses under NFSM**

1	Name of the crop	Chick pea
2	Season and year	Rabi 2016-17
3	No. of FLDs (farmers) sanctioned	50
4	No. of FLDs (farmers) conducted	50
5	Area (ha) sanctioned	30
6	Area (ha) actually conducted	20
7	Sanctioned budget (Rs.)	225000/-
8	Budget received actually (Rs.)	225000/-
9	Actual expenditure (Rs.)	67845/-
10	Balance amount (Rs.)	157155/-
11	FLDs implemented in how many clusters ?	2
12	No. of villages and farmers in each cluster	4/42, 2/8
13	Land situation (irrigated, rainfed, others specify)	irrigated
14	Name of variety/varieties demonstrated	GJG-3
15	Technologies/package of practices demonstrated in each cluster	Yes
16	Sowing date/dates as per clusters	Paddhari : 28/11/2016 to 5/12/2016 Jasadan : 29/11/2016 to 4/12/2016
17	Number of field operations taken so far like manuring, weeding, irrigation etc. and name them with approximate date/week	1. Interculturing with bullock drawn Implement /Vegetative only one 35 to 40 days after germination, 2. Irrigation At time of Sowing , Vegetative, Flowering, 3. IPM for Helicoverpa at 10-15 days .
18	Stage of the crop	-
19	Expected harvesting date/dates as per clusters	5/3/2017 to 22/3/2017
20	Name of previous crop	Groundnut

### III. Details on cluster FLD farmers

Sl. No.	Name of cluster FLD farmer	Category (Gen/OBC/SC/ST)	Land Area (ha)	Cluster number	Village	Block	Taluq
1	Ramejbhai Nanjibhai	Gen	0.4	1	Mota Rampar	Paddhari	Paddhari
2	Devrajbhai Popatbhai	Gen	0.4	1	--"--		
3	Mavajibhai Bhimajibhai	Gen	0.4	1	--"--		
4	Khodabhai Jivrajbhai	Gen	0.4	1	--"--		
5	Sureshbhai Nanjibhai	Gen	0.4	1	--"--		
6	Panchabhai Khimabhai	Gen	0.4	11	--"--		
7	Nanjibhai Limbhahbai	Gen	0.4	1	--"--		
8	Dilipbhai Dhanjibhai	Gen	0.4	1	--"--		
9	Avcharbhai Popatbhai	Gen	0.4	1	--"--		
10	Dilipbhai Samjibhai	Gen	0.4	1	--"--		
11	Bharatbhai Rajabhai	Gen	0.4	1	--"--		
12	Shantaben Nanjibhai	Gen	0.4	1	--"--		
13	Parvatiben Nanjibhai	Gen	0.4	1	--"--		
14	Bhavanbhai Thobhanbhai	Gen	0.4	1	--"--		
15	Haribhai Thobhanbhai	Gen	0.4	1	--"--		
16	Saileshbhai Valjibhai Bhadani	Gen	0.4	2	Bhandariya	Jasadan	Jasadan
17	Nareshbhai Khodabhai Mangalpara	Gen	0.4	2	--"--		
18	Sanjaybhai Dhunabhai Satpariya	Gen	0.4	2	--"--		
19	Rameshbhai Mohanbhai Desai	OBC	0.4	2	--"--		
20	Dineshbhai Sukhabhai Paramar	OBC	0.4	2	--"--		
21	Chandubhai Devrajbhai Nakrani	Gen	0.4	2	Adhiya	Jasadan	Jasadan
22	Maganbhai Madhabhai Surela	Gen	0.4	2	--"--		
23	Dhanjibhai Kanjibhai Nakrani	Gen	0.4	2	--"--		
24	Kantibhai Patodiya	Gen	0.4	1	Movaiya	Paddhari	Paddhari
25	Vallabhabhai Valjibhai Talpada	Gen	0.4	1	--"--		
26	Jayantibhai Samjibhai Talpada	Gen	0.4	1	--"--		
27	Hemantbhai Damjibhai V	Gen	0.4	1	--"--		
28	Kantibhai Bhagvanjibhai Savera	Gen	0.4	1	--"--		
29	Chandubhai Virajibhai Umretiya	Gen	0.4	1	Kerala	Paddhari	Paddhari
30	Maganbhai Vasrambhai Umretiya	Gen	0.4	1	--"--		
31	Devrajbhai Damjibha Umretiya	Gen	0.4	1	--"--		
32	Jitendrabhai Virajibhai Umretiya	Gen	0.4	1	--"--		

33	Khimajibhai Jerambhai Veka35riya	Gen	0.4	1	--“--		
34	Champaben Chandubhai	Gen	0.4	1	--“--		
35	Virajibhai Narashibhai Umretiya	Gen	0.4	1	--“--		
36	Dineshbhai Narashibhai Lunagariya	Gen	0.4	1	Sarapadad	Paddhari	Paddhari
37	Kamleshbhai Babubhai Lunagariya	Gen	0.4	1	--“--		
38	Jaydeepbhai Muljibhai Lunagariya	Gen	0.4	1	--“--		
39	Rajeshbhai Bachhubhai Lunagariya	Gen	0.4	1	--“--		
40	Shantibhai Gordhanbhai Lunagariya	Gen	0.4	1	--“--		
41	Ashokbhai Bachhubhai Rupareliya	Gen	0.4	1	--“--		
42	Kachhrabhai Mohanbhai Lunagariya	Gen	0.4	1	--“--		
43	Kantibhai Tapubhai Lunagariya	Gen	0.4	1	--“--		
44	Nitinbhai Rajabhai Lunagariya	Gen	0.4	1	--“--		
45	Maheshbhai Premjibhai Lunagariya	Gen	0.4	1	--“--		
46	Sakariya Balvantbhai Ramjibhai	Gen	0.4	1	--“--		
47	Lunagariya Pragjibhai Karamshibhai	Gen	0.4	1	--“--		
48	Lunagariya Pankajbhai Pragajibhai	Gen	0.4	1	--“--		
49	Lunagariya Champaben Dineshbhai	Gen	0.4	1	--“--		
50	Lunagariya Jaliben Lavajibhai	Gen	0.4	1	--“--		

#### IV. Critical inputs provided for demonstration

Sl. No.	Critical inputs	Name of critical input	Quantity	Value (Rs.)	No. of farmers	No. of villages	No. of clusters
1	Seeds (name variety)	Chick pea, GJG-3	25 Kg.	-	50	6	2
2	Fertilizers (Organic and inorganic)	PSB	1 lit	3000/-	50	6	2
		Rhizobium	1 lit.	3000/-	50	6	2
		NPV	500 ml	7500/-	50	6	2
3	Micro-nutrients						
4	Weedicides, Pesticides, Fungicides etc.	Pheroman trap and lure	16 No.	34400/-	50	6	2
5	Bio-agents						
6	Bio-products						
7	Nutrient complex/ nutrient special						

## V. Training programmes organized

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Total participants		
				Men	Women	Total
1	17/1/2017	Off	IPM in chick pea	18	3	21
2	12/1/2017	Off	INM in chick pea	21	2	23
3	2/2/2017	On	Package of practice in chick pea	12	-	12

## VI. Extension activities including field visits organized

Sl.No.	Date	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	12/1/2017	Farmers – Scientist interaction	3	-	3	-	-	-
2	17/1/2017	Field visit	5	-	5	-	-	-
3	18/1/2017	Field visit	4	2	6	-	-	-
4	3/2/2017	Field visit	11	3	14	-	-	-
5	16/2/2017	Field visit	16	1	17	-	-	-
6	12/1/2017	Shri Ram Ahirwar, Senior tech. Assistant visited FLD	27	4	31	2	-	2
7	2/3/2017	Field day	34	-	34	-	-	-
8	3/3/2017	Field day	9	12	21	1	-	1
9	3/3/2017	Field day	32	2	34	1	-	1

## VII. Performance (results) of the demonstrations

### (A) General information

Name of the crop	Demos (No.)	Variety		National average yield (q/ha)	State average yield (q/ha)	District average yield (q/ha)	Characteristics of the demo variety	Potential yield of the demo variety (q/ha)	Yield gap – I (%)	Yield gap – II (%)
		Check	Demo							
chick pea	50	Deshi Red Local	GG-3	10.21	9.78	11.00	-High yielding -Bold seeded - Stunt virus resistant	22.5	29.55	27.44

### (B) Yield and net returns

Yield obtained (q/ha)						Yield increase (%)	Expenditure and returns (Rs./ha)			
Check			Demo				Check			
Max.	Min.	Av.	Max.	Min.	Av.	Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
1	2	3	4	5	6					7
17.75	11.0	11.85	22.5	11.25	15.85	16.03	21350	65175	43825	3.05

Demo				Net returns increase (%)
Gross Cost (Rs/ ha)	Gross return (Rs/ ha)	Net Return (Rs/ha)	B:C ratio	
12	13	14	15	16
21850	87175	65325	3.98	49.05

**(C) Results on specific technologies other than variety**

Crop	Specific technology demonstrated	Recommen dation/ha	Observations taken	Results	Remarks/ feed-back
Chick pea	IPM				
	NPV	250 LE /ha	Reduce damage of Helicoverpa <i>armigera</i>	10 % control of Helicoverpa <i>armigera</i>	-
	Pheroman trap and lure	16 No.			-
	INM				
	Rhizobium	2.5 lit.	Increase the growth and high	10 to 20 % high yield	-
	PSB	2.5 lit.			-

**(D) Socio-economic impact parameters**

Sl. No.	Parameters	Crop-1
1	Name of the crop	chick pea
2	Variety	GG-3
	No. of clusters	2
3	No. of farmers	50
4	Total area (ha)	20
5	Yield obtained (q/ha)	15.85
6	Total Produce Obtained (q)	792.5
7	Produce sold (q/cluster)	-
8	Selling price (Rs./q)	5500/-
9	Produce retained as seed purpose (q/cluster)	476.5
10	Produce distributed/sold to other farmers as seed (q/cluster)	316
11	Employment Generated (Man days/ cluster)	20
12	Purpose for which income gained was utilized by the faremrs	-Farm development -Ceremony

**(E) Farmer's perception of the intervention demonstrated**

Technology attributes	FARMERS PERCEPTION								
	Variety(GG-3)			Technology-1(IPM)			Technology -2(INM)		
	High	Moderate	Low	High	Moderate	Low	High	Moderate	Low
Problem solving		√			√			√	
Understandability		√			√				√
Practicability		√				√			√
Cost effectiveness		√			√		√		
Profitability					√		√		
Sustainability	√			√				√	
Compatibility	√				√			√	
Accessibility		√			√			√	
Acceptability	√					√		√	
Preference	√				√			√	

### **VIII. Observations and feed-back**

(a) Observations by Scientist(s) from KVK

- a. GG-3 variety recommended in rain fed area where water crisis is normal phenomena.
- b. Luxurious growth and higher pod bearing
- c. Required less water, required only one or two irrigation.
- d. Short duration variety.

(b) Farmers opinion/feed-back

- a. The variety GG-3 is giving high yield.
- b. Good pod formation
- c. Partially wilt resistant variety
- d. It perform as per water management
- e. Medium size grain with brightness.

### **IX. Visitors to cluster FLDs/study tours etc.**

- Shri Ram Narayan Ahirwar, Senior Technical Assitant was visited at Farmer's field of KVK, Rajkot-I on 12<sup>th</sup> Jan. 2017.

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia



**5. Annual report of Cluster Frontline Demonstrations on oil seeds under  
NMOOP (B.H.2704-51)  
April 2016 to March 2017 of KVK, Rajkot-I**

**I. General Information**

1	Name of the KVK	Rajkot-I
2	Year of establishment	September 2004
3	Host Institution	Junagadh Agricultural University
4	Address for communication including phone and fax numbers	0281-2784170
5	District	Rajkot
6	State	Gujarat

**Progress of the scheme**

Sr. No.	Name of Activity	No. of Activites	No. of Beneficiaries		
			Male	Female	Total
1	Telephone help line	22	22	-	22
2	Farmers visit to KVK farm	10	52	5	57
3	Scientist visit to farmer's field	6	196	9	205
4	Training	6	211	12	223
5	DVD developed	1			
6	Shyopal Ram Jat, RA, CAZRI, Jodhpur visited FLD under NMOOP at Khorana village				
7	National Consultant (NMOOP), New delhi, Dr. J. P. Singh Visited NMOOP village at Khorana, Date 3-10-16				

**Performance of FLD**

Sr. No.	Crop	Techno logy Demons trated	No. of Farm ers	Area (ha.)/ No.	Demo. Yield Qtl/ha			Farmer's Plot			
					H	L	A	Gross Cost (Rs/ha)	Gross Return (Rs./ha.)	Net Return (Rs./ha.)	B:C Ratio
1	2	3	4	5	6	7	8	9	10	11	12
1	Groun dnut	Variety GG-20 + Trichoderma, Beauveria, Rhizobium	50	20	15.0	12.0	13.67	34800	60770	25970	1.75
2	Sesa mum	Variety GT-4	50	20	5.80	3.50	4.79	21400	29700	8300	1.39
3	Sesa mum (Sum mer)	Variety: G.Til-3, N.P.K. (25-50-0), PSM culture 2.5 lt/ ha and Azatobactor Culture 2.5 lt/ha.	50	20	Result Awaited						

Demonstration Plot			
Gross Cost (Rs/ha)	Gross Return (Rs./ha.)	Net Return (Rs./ha.)	B:C Ratio
13	14	15	16
36000	72230	36230	2.01
22000	32300	10300	1.47

## Financial Progress

<i>Name of crop Sanctioned by Council</i>	<i>Financial Progress (Rs. in lakhs)</i>			
	<i>Funds Allocated</i>	<i>Fund Released</i>	<i>Expenditure</i>	<i>Unspent Balance</i>
<i>Groundnut-Kharif 2016</i>	150000	150000	17275	192725
<i>Sesame-Kharif 2016</i>	60000	60000		
<i>Sesame-Summer 2017</i>	60000	60000	33110	26890
<b><i>Total</i></b>	<b>270000</b>	<b>270000</b>	<b>50385</b>	<b>219615</b>

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia

# Annual Progress report

## 6. Achievement of ARYA Project

### KRISHI VIGYAN KENDRA, JUNAGADH AGRICULTURAL UNIVERSITY TARGHADIA- RAJKOT-1 (GUJARAT)

The ARYA project was started during the year 2015-16 at KVK Rajkot-1, Gujarat. But the fund was released in the month of end of March 2016, so it was not utilised in time.

During the year 2016-17, mid review meeting was held at New Delhi on 17<sup>th</sup> January 2017. In the meeting, KVK Rajkot-1 was identified for the objective of post-harvest technology and value addition concept for Rajkot district. Entrepreneurship work was started for value addition, Nursery management and Milk processing.

At present KVK Rajkot-1 is working for four talukas of Rajkot district namely (i) Jasdan (ii) Padadhari (iii) Vinchhiya (iv) Rajkot. From each taluka, 10 villages were selected and 200 rural youth were identified for empowering the skills. We provided training to 100 youth for value addition, 40 youth for nursery management and 60 youth for milk processing.

In objective of post-harvest technology and value addition we provided them a training for post-harvest technology including processing of groundnut and Sesamum with mini oil mill, processing of green gram, black gram & pigeon pea with mini dhal mill, Dehusking of Sesamum seed, Garlic etc... preparation of value added products like *Kharishng*, *Chikki*, *Bhajiya* etc. from groundnut and *Sani*, *Kachariya* from Sesamum. We also provided training of small nursery management including vegetable-grafting, plug nursery, fruits plants raising, etc. In the objective of milk processing, the youth were trained with manufacturing of value added products from milk like *penda* and *Mava* making, *Shrikhad*, *Barfi*, *Toprapak* etc.. making. For the groundnut processing at village level we purchased mini oil mill for processing of groundnut and Sesamum as a purpose of healthy and nutritious oil in diet. We planned two mini oil mills and each mini oil mill was provided among two talukas of Rajkot district. We also planned to purchase different machines like mini dhal mill, Farsan/ Nankeen making machine, masala mill, potato and banana chips making machines and packaging machine for value addition of agricultural commodities. As well as we planned to purchase ice cream making machine and mava making machine for milk processing. Also these machineries will be installed & utilised within a short duration of time for the empowerment of rural youth. Suitable training and skill development programs will be arranged for particular machines during next period.

At present market survey of Rajkot district has been undertaken for the status of consumption of value added products prepared from milk and Agricultural commodities of this region. In future **ARYA** brand will be finalised for labelling and packaging of end products prepared by promoted enterprises under ARYA project. For that various marketing strategies will be implemented.

At present overall activities of ARYA project is going on smoothly and there are many positive impacts seems in rural youth. Herewith various success stories of ARYA project are enclosed.

## Major interventions undertaken

- PHT and Value Addition
- Nursery Management
- Milk processing

### 1. Post harvest technology and Value addition:

- Mini oil mill for groundnut and sesamum
- Mini dal mill unit for Green gram, Black gram & Pigeon pea
- De-husking of sesamum seed, garlic, *etc*
- Preparation of Khari Shing, chhiki, Bhajia *etc from groundnut and saani – Kacharia from sesamum*
- Harbal jaggery preparation

### 2. Nursery Management:

- Vegetable grafting-plug nursery {Chilli,Bringal, Tomato *etc*}
- Fruits plants raising {Pomogranate, Datepalm, Lime, Mango *etc*}

### 3. Milk Processing:

- Penda and mava making
- Srikhand, Barfi, Khoprapak *etc* making
- Cream and ghee making
- Packing of milk- reddy to drink

### 4. Others:

- Surgical cotton making
- Soil and water testing kit
- Repairing of farm equipments and machinaries

### Training and skill development:

Sr	Training	Participate
1	Awareness training programme for ARYA	50
2	Post harvest technology and Value addition	100
3	Nursery Management	40
4	Milk processing	60

## Entrepreneurships :


### Income raised through Vegetable Plug Nursery

Name of Farmer	: Mr. Abdulkadir Alaudin Kadivar	
Address	: Pipaliya Raj	
Taluka	: Wankaner	
Dist.	: Rajkot	
Contact Number	: 9879968255	
Age	: 33 years	
Education	: 12 <sup>th</sup> Pass	
Land holding	: 3 acre	
Crops grown	: Cotton	
Raising of Vegetable Plug Nursery	: Tomato, Chilly, Brinjal, etc	

#### **Special recognition :**

Mr. Abdulkadir Kadivar is a small farmer of the village Pipaliya Raj. Initially he is engaged in taking field crops along with local transport (rickshaw) business. Due to limited resources, he faced the many constraints most of economic. He is hard worker. Meanwhile, he came in contact with KVK. He appraised about the Nursery demonstration unit and other training programmes of ARYA Project. After that he established liaison with KVK scientists for proper advice. Based on his skill and knowledge KVK scientists encouraged him to start nursery enterprise for extra income to support his family. Initially, he was acquainted with local demand of farmers & purchase good quality Hybrid seeds of vegetables of private companies. Within 6 months from establishment of vegetable plug nursery unit in 0.8 ha, he produces about 4,00,000 seedlings of different vegetable crops and marketed in nearby village of Wankaner and Morbi taluka. He is Intelligent in marketing and advertise about his enterprise as quick as possible and win the faith of farmers. Now he is growing these seedlings in plug trays and supply by own rickshaw. Today he earns about Rs.3,00,000 (Three lakh) extra income per year from this enterprise.

## Value addition in sugarcane – Harbal jaggery (Gud) :

<b>Name of Farmer</b>	: Mr. Arjunsinh P. Jadeja	
<b>Address</b>	: Bhadva	
<b>Taluka</b>	: Kotda Sangani	
<b>Dist.</b>	: Rajkot	
<b>Contact Number</b>	: 9427720201	
<b>Age</b>	: 22 years	
<b>Education</b>	: 10 <sup>th</sup> Pass	
<b>Land holding</b>	: 36 acre	
<b>Crops grown</b>	: Sugarcane, Anola, Groundnut Cotton	
<b>Livestock</b>	: Gir Cow : 25 Gir Bullock : 4	


### *Special recognition :*

Shri Raghwendrasihji Jadeja is father of Pratapsinh Jadeja. He is a progressive and enthusiast farmer of Bhadva village of Kotda Sangani taluka of Rajkot district.

Shri Raghwendrasihji Jadeja has adopted organic farming with modern technologies through motivation by Krushi Vigyan Kendra, JAU, Targhadia. He started cultivating sugarcane crop in his field and producing organic jaggery from sugarcane since 2001.

At the initial stage of sugarcane cultivation, he sold sugarcane directly in the market and earning a net profit of Rs. 40,000/- per acre. But his son Pratapsinh Jadeja has started to produce organic jaggery from sugarcane and has gained net profit of Rs. 60,000/- per acre. His grandson Arjunsinh took one step ahead and started to make Harbal jaggery (Gud) and get a good response in the market. He received net profit of Rs. 1,00,000/- per acre by making Harbal jaggery from sugarcane. Thus his net profit has increased two and half times through value addition in sugarcane instead of directly sold sugarcane in the market. This is a very good example of value addition for sugarcane cultivars of this area.

## Entrepreneurship Development through Making the Chillies Powder

<b>Name of Farmer</b>	: Mr. Chaturbhai Laljibhai Kalola	
<b>Address</b>	: Gadhaka	
<b>Taluka</b>	: Rajkot	
<b>Dist.</b>	: Rajkot	
<b>Contact Number</b>	: 9428699849	
<b>Age</b>	: 35 years	
<b>Education</b>	: 10 <sup>th</sup> Pass	
<b>Land holding</b>	: 4 acre	
<b>Crops grown</b>	: Chilly, Groundnut, Cotton	

### *Special recognition :*

Chaturbhai Kalola is a progressive farmer of Gadhaka village. He is a small land holding farmer so he is more active on the knowledge about how to get maximum production from less land. He has grown chillies on 0.3 ha. land. He has utilized drip irrigation for irrigation & fertilization. He has used organic fertilizer & Trichoderma instead of chemical fertilizer. As per soil analysis he utilized Azatobacter, PSB etc.

Chaturbhai gets income Rs 15,000/- from green chilly and gets income 77,000/- from dry chilly powder selling in 0.3 ha land. He has got gross income Rs 67,000/- from chilly

## Entrepreneurship Development through milk processing

<b>Name of Farmer</b>	: Mr. Ashokbhai Bhanderi	
<b>Address</b>	: Khijdia	
<b>Taluka</b>	: Rajkot	
<b>Dist.</b>	: Rajkot	
<b>Contact Number</b>	: 9909993935	
<b>Age</b>	: 35 years	
<b>Education</b>	: 12 <sup>th</sup> Pass	
<b>Land holding</b>	: 8 acre	
<b>Crops grown</b>	: Groundnut, Cotton and Fodder crop	
<b>Livestock</b>	: Cow : 25 Buffalo : 30 (Banni & Mahesani breeds)	

### *Special recognition :*

Farmer of Khijadia village comes in contact with KVK Rajkot for getting more return from his traditional cultivation. He inspired by KVK, Targhadia to established a modern scientific dairy farming unit in his farm ie; Giriraj Farm. He was provided all the scientific information regarding housing, breeding, feeding and scientific management of a dairy farm. The farmer was convinced through the information provided by the scientists of KVK and started a Dairy unit with 12 animals and now a days, he is bearing total 36 animals in his farm. He is supplying milk product like penda mava, srikhand etc consumer he is getting more return as compare to other dairy farmers.

He earned the gross income of Rs.6 lac with the net profit of 4.2 lac through his dairy unit. The income is quite higher as compared to the income from traditional dairy units. Hence by observing this scientific practices for management of dairy farm, a number of farmers (10) has been started to manage their farm by this way and these technology disseminated as horizontal way.



**Financial statement of ARYA-2016-17:**

Sr. No.	Name of the scheme	Funding agency	Amount (Rs.)	Expenditure	Net balance
1	(ARYA) BH: 2704-53	ICAR- New Delhi	2000000	1199007	800993

Senior Scientist-cum-Head  
Krishi Vigyan Kendra  
JAU, Targhadia