

## ANNUAL REPORT – 2014-15

### (01.04.2014 TO 31.03.2015)

#### 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, Pipalia (Dhoraji) Dist: Rajkot, Gujarat- 360410	Office 02824-292584	FAX -	kvkpipalia@jau.in

##### 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	www.jau.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr.N.B.Jadav	0285-2653009	09924012649	nb_jadav@yahoo.com

##### 1.4. Year of sanction: 16, March-2012

##### 1.5. Staff Position (as on 31<sup>st</sup> March, 2015)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. N. B. Jadav	PC	Ext.Edn.	15600 39100	27390	18.08.06	Temp.	OBC
2	Subject Matter Specialist	Ms. M K Bariya	SMS(HS)	HS	15600 39100	27390	24.08.06	Temp.	Other
3	Subject Matter Specialist	S V Undhad	SMS (Pl. Pro.)	Pl.Prot.	15600 39100	21600	27.03.15	Temp.	Other
4	Subject Matter Specialist	Dr. V. S. Prajapati	SMS(LPM)	AH	15600 39100	21600	01.04.15	Temp.	OBC
5	Subject Matter Specialist	Vacant	SMS(Ext.)	Ext.Edn.	-	-	-	-	-
6	Subject Matter Specialist	Vacant	SMS (Agro.)	Agronomy	-	-	-	-	-
7	Subject Matter Specialist	Vacant	SMS (Agri. Engg.)	Agri. Eng.	-	-	-	-	-
8	Farm Manager	N M Pithiya	Farm Manager	B.Sc.(Agri)	9300- 34800	13700	01.04.15	Temp.	OBC
9	Prog. Asst.	F P Kargatiya	Prog. Asstt.	M.Sc.(Agri)	9300- 34800	13700	07.04.15	Temp.	OBC
10	Computer Programmer	R.G.Panseriya	Prog. Asstt.	Com. Operater	9300- 34800	15670	31.12.13	01-01-13 Pool at IT)	Other
11	Accountant / Superintendent	K G Dhaduk	Accountant / Superintendent	Accounting & Admins.	9300- 34800	15670	12.06.13	Temp.	Other
12	Stenographer	K.R. Yadav	Jr. Steno.	Steno.Grade III	5200- 20200	9910	06.02.14	Temp.	OBC
13	Driver(Jeep)	Vacant	Driver(Jeep)	-	-	-	-	-	-
14	Driver(Tractor)	Vacant	Driver(Tractor)	-	-	-	-	-	-
15	Supporting staff	Vacant	Peon	-	-	-	-	-	--
16	Supporting staff	Vacant	Peon	-	-	-	-	-	-

**1.6. Total land with KVK (in ha) : 20.00 ha**

S. No.	Item	Area (ha)
1	Under Buildings	-
2.	Under Demonstration Units	-
3.	Under Crops	10.60
4.	Orchard/Agro-forestry	-
5.	Others (specify)	09.40

**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	-	-	-	-	-	-	-
2.	Farmers Hostel	-	-	-	-	-	-	-
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demonstration Units (2)	-	-	-	-	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	-	-	-	-	-	-	-
8	Farm godown	-	-	-	-	-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2013	661107	10736	Working

**C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Mahindra Tractor	2013	565000	Working
Cultivator (9 tine)	2013	19000	Working
Blade Harrow	2013	11500	Working

**1.8. A). Details SAC (2<sup>nd</sup>) meeting conducted on 31.12.2013**

<b>Sl. No.</b>	<b>Name and Designation of Participants</b>	<b>Salient Recommendations</b>	<b>Action taken</b>
1.	<ol style="list-style-type: none"> <li>1. Dr.N.C.Patel Hon. Vice chancellor JAU, Junagadh</li> <li>2. Dr.J.B.Mishra, Director, DGR, Ivanagar</li> <li>3. Dr. I.U.Dhruj, ADR, JAU, Junagadh</li> <li>4. Dr.H.B.Gardharia ADE, DEE, JAU, Junagadh</li> <li>5. Dr.K.N.Akabari, RS (DFRS)JAU, Targhadia</li> <li>6. Shri. B.H. Agatha, DAO, District Panchayat,Rajkot</li> <li>7. Shri. L.R. Sadiya, Project Director, ATMA, Rajkot</li> <li>8. Dr.H.D. Kansagara Dy.DAH District Panchayat,Rajkot</li> <li>9. Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia</li> <li>10. Dr. S.K. Tiwari, NHRDF, Rajkot</li> <li>11. Shri Devesh Parmar, DDM, NABARD, Rajkot</li> <li>12. Dr. M.D. Pethani, Assistant Manager, Rajkot Dairy, Rajkot</li> <li>13. Shaumeen Ahmed, TE, Office of Project Director, DWDU, Rajkot</li> <li>14. Shri K.V. Chavda All India Radio, Rajkot</li> <li>15. Dr. B.B.Kabaria, PC, KVK, Targhadia, Dist. Rajkot</li> <li>16. Shri. Parsottambhai K. Senjalia, Progressive farmers Shardharpur, Ta: Jetpur Dist:Rajkot</li> <li>17. Shri Lalitbhai Kanjbhai Parmar Progressive farmers Pipalia, Ta: Dhoraji Dist:Rajkot</li> <li>18. Shri Gopalbhai C. Viradiya Progressive farmers Rayadi, Ta:Jam kandorana Dist: Rajkot</li> <li>19. Shri Ashokbhai G. Poshiya Progressive farmers Rayadi, Ta: Jam Kandorana Dist: Rajkot</li> <li>20. Dr. K. L. Raghvani, PC, KVK, Jamnagar</li> <li>21. S.B.Sharma, NHRDF, Rajkot</li> <li>22. Dr. J. N. Nariya, PC, KVK, Nana Kanthasar</li> </ol>	<ul style="list-style-type: none"> <li>➤ To increase numbers of farmers per training (i.e. 25 to 50).</li> <li>➤ KVK targhadia will carried out off campus training programme also in KVK pipalia operational area.</li> <li>➤ Changes made in OFT of white grub treatment (i.e. intervention).</li> <li>➤ Awareness regarding protective cultivation carried out among farmers of adopted villages and accordingly training should be carried out.</li> </ul>	The suggestion has been incorporated in action plan

23. Dr. V. B. Bhalu, SMS, KVK, Pipalia, Dist. Rajkot		
24. Dr. V.N. Patel Research Scientist (DF) JAU, Targhadia		
25. Dr.M.S. Gajera RS (DF)JAU Targhadia		
26. Dr. M.D. Thesiya Veterinary Officer, Rajkot		
27. Vegada Shital B. MDT, DWDU, Rajkot		
28. Naresh M Boricha MDT (Agri.) DWDU, Rajkot		
29. Dr. N.B.Jadav, PC, KVK, Pipalia		

*\* Attach a copy of SAC proceedings along with list of participants*

## **2. DETAILS OF DISTRICT (2014-15)**

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

<b>S. No</b>	<b>Farming system/enterprise</b>
1	Groundnut-Wheat / Cumin, Garlic, Cotton-Summer Groundnut /Pulse crop/Sesame
2	Live stock
3	Farm waste management specially cotton stalk
4	Fruit and vegetable preservation
5	Value addition in Groundnut and wheat

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

<b>S. No</b>	<b>Agro-climatic Zone</b>	<b>Characteristics</b>
Zone – VI	North Saurashtra	The influence area of North Saurashtra Agroclimatic Zone is spread among five districts (35.2 lakh 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 black and low in their availability of nitrogen while medium phosphorus and high in available potash. Monsoon commences usually by the end of June and withdraws by middle of September. Average annual rainfall of districts is 1141.2 mm.
Zone- VII	South Saurashtra	The influence area of South Saurashtra Agroclimatic Zone is spread among four districts. (Part of Rajkot, Bhavnagar, Amreli and whole district of Junagadh). Type of soil is shallow medium black calcareous soils. Soil are medium to high in nitrogen content, phosphorus low and potash high. Average annual rainfall of the zone is 625-750 mm.

**Agro – Ecological situation in the District**

Sr. No.	Agro Ecological Situation	Characteristics	Taluka covered	Remarks
1	Situation No. 2	Medium Black Soil with 500-600 mm Rainfall	Gondal, Jamkandorna	North Saurashtra Zone, Zone-VI
2	Situation No.4	Shallow Black Soil with 500-600 mm Rainfall	Lodhika, Kotada sangani	
3	-	Shallow medium black soil with 620-750 mm Rainfall	Jetpur, Dhoraji, Upleta,	South Saurashtra Zone, Zone-VII

**2.3 Soil type/s**

S. No	Soil type	Characteristics	Area in ha
1	Clay to clay loam	Medium black calcareous soil	-
2	Sandy clay loam to clayey	Well drained soil with rapid permeability	-
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	160995	59246	368
2	Sesamum	1470	607	413
3	Castor	5199	11178	2150
4	Cotton	155268	319387	2057
5	Wheat	70350	295470	4200
6	Pearl millet	131	224	1708
7	Green gram	870	480	552
8	Coriander	137	193	1411
9	Cumin	6835	5270	771
10	Garlic	6590	33655	5107
11	Chickpea	3670	4518	1231

**2.5. Weather data**

Sr. No.	Meteorological week	Rainfall	No of	Remarks
		(mm)*	Rainy days *	
1	24	35	1	
2	25	72	1	
3	26	-	-	
4	27	-	-	
5	28	17	2	
6	29	55	2	
7	30	143	4	
8	31	45	3	
9	32	36	3	
10	33	33	3	
11	34	-	-	
12	35	125	1	
13	36	300	5	
<b>Total</b>		<b>901</b>	<b>25</b>	

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Cow</i>	574392		
<b>Buffalo</b>	431891		
<i>Sheep</i>	196201		
<b>Goats</b>	172423		
<b>Pigs</b>	27		
<i>Crossbred</i>			
<i>Indigenous</i>			
<b>Rabbits</b>			
<b>Poultry</b>	961313		
Hens			
<i>Desi</i>			
<i>Improved</i>			
Ducks			
Turkey and others			

## 2.7 Details of Operational area / Villages (2014-15)

Sl. No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Dhoraji	Bhola, Parabadi, Fareni, Vadodar	Groundnut, Cotton, Sesamum, Wheat, Cumin, Chickpea, Garlic and onion. Enterprise are dairy business, vermi composting,	Heavy infestation of sucking pest in cotton –Stem rot disease in groundnut- Sesamum wilt- Less area under horticultural crops	<ul style="list-style-type: none"> <li>- IPM and INM in major crops</li> <li>- Motivate the farmers for horticulture crop</li> <li>- To create awareness for value addition</li> <li>- Populirization of MIS</li> </ul>
2	Jetpur	Thana galol, Arab timbadi, Sardharpur, Sankali			
3	Jamkadorana	Taravada, Hariyasan, Raidi, Boria			
4	Upleta	Mekha timbi, Ishara, Dhank, Varjag Zalia			

## 2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Groundnut, Sesamum etc	Increasing the productivity of major crops by adopting recommended technologies and to create awareness of value additon
Cotton	Motivating cotton growers to adopt IPM and INM practices for requcing the cost of production
Farm waste	Recycling of farm waste through composting, vermicompost, green manuring, etc.
Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
Farm Women	Farm women empowerment by training in value addition, handi crafts, and small scale enterprises
Horticulture	Post harvest technology in fruit and vegetable, INM in orchard

### 3. TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities by KVK during 2014-15

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
2	2	6	6	7	7	80	80

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	Target s	Achieve ment	Target s	Achieve ment	Target s	Achie vement	Targets	Achie vement
Farmers	40	35	1600	1421	150	126	2000	1523
Rural youth	2	0	40	0				
Extn. Functionaries	1	0	25	0				
Total	43	35	1665	1421	150	126	2000	1523

Seed Production (Qtl.)			Planting material (Nos.)	
5			6	
	Target	Achievement	Target	Achievement
Udad	10	13	-	-
Wheat				-
Chick pea			-	-

#### 3.B. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	--	-

### 3.1 Achievements on technologies assessed and refined

#### A.1 Abstract of the number of technologies **assessed**\* in respect of crops/enterprises

Thematic areas	Cereals	Oil seeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	1	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	1	-	-	-	-	-	-	-	-
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-	-	-

#### A.2. Abstract of the number of technologies **refined**\* in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-	-	-

*Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.*

A.3. Abstract of the number of technologies **assessed** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-

A.4. Abstract on the number of technologies **refined** in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	Fisherie s	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-

**B. Details of each On Farm Trial to be furnished in the following format**

## A. Technology Assessment

**Trial 1**

- 1) Title : Management of white grub in groundnut
  - 2) Problem diagnose/defined : Infestation of White grub
- Details of technologies selected for assessment /refinement :
- : Farmer's practice : Chloropyriphos @ 4 lit./ha at the time of attack
- Recommended practice:
1. Seed treatment with Chloropyriphos @ 25 ml/kg
  2. Application of Chloropyriphos @ 4 lit./ha
  3. Spraying the trees on bund with carbaryl@ 40g/15 lit water
- Intervention:
1. Application of carbofuran 3G@ 40kg/ha at time of sowing
  2. Spraying the trees on bund with carbaryl@ 40g/15 lit water

- 3) Source of technology : Dept. of Entomology, Junagadh Agricultural University  
 4) Production system thematic area : Rainfed production system and IPM  
 5) Thematic area : Integrated Pest Management  
 6) Performance of the Technology with performance indicators : -  
 7) Final recommendation for micro level situation : -  
 8) Constraints identified and feedback for research : Mention the specific constraints and feedback  
 9) Process of farmers participation and their reaction : -  
 11). Results of On Farm Trials

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Groundnut	Irrigated	Infestation of White grub	Management of white grub in groundnut	3	Farmer's practice	Yield	Yield	Yield Net return higher in T3	
					Recommended practice				
					Intervention				

\* No. of farmers

Technology Assessed	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Farmers practices	1875 kg/ha	40875	1.94
Recommended Practices	2290 kg/ha	58426	2.31
Interventions	2350 kg/ha	60545	2.34

## Trial 2

1. Title : Effect of Bio fertilizers on wheat  
 2. Problem diagnose/defined : Farmers are using only nitrogenous and phosphatic fertilizers  
 Reason for low yield of wheat : Improper dose of chemical fertilizers  
 Lack of awareness about INM and biofertilizers  
 Problem solution : Balanced nutrition and INM  
 3. Details of technologies selected :  
 1. Farmers practice : Application of only DAP & Urea in different dose  
 2. Recommended Practices: RDF-120-60-0 NPK  
 3. Intervention: Seed treatment with Azatobacter & PSB culture (25og/10 kg) + 75 RDF  
 4. Source of technology : Junagadh Agricultural University  
 5. Production system thematic area: Rainfed Production system & INM

6. Thematic area : Integrated Nutrient Management
7. Performance of the Technology with performance indicators : -
8. Final recommendation for micro level situation : -
9. Constraints identified and feedback for research : Mention the specific constraints and feedback
10. Process of farmers participation and their reaction : -

## 11). Results of On Farm Trials

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Wheat	Irrigated	Low yield due to improper nutrient management	Effect of biofertilizer on wheat yield	3	Farmers practices: Application of only DAP and Urea in diff doses Recommended practices : Recommended dose of ferti. RDF -120-60-0 Intervention: Seed treatment with Azatobacter & PSB culture (250g/10seed kg) + 75 RDF	Yield	Yield	Yield Net returns and B:C ratio was higher under intervention and recommended practices than farmer practices	-

Details	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14
Farmers practices	4625	62627	3.09
Recommended Practices	5090	69960	3.19
Interventions	5320	73658	3.25

\* No. of farmers

\*Field crops – kg/ha, \* for horticultural crops -= kg/t/ha, \* milk and meat – litres or kg/animal, \* for mushroom and vermi compost kg/unit area.

\*\* Give details of the technology assessed or refined and farmer's practice

### 3.2 Achievements of Frontline Demonstrations

- a. Details of FLDs implemented during 2014-15 (Information is to be furnished in the following **three tables** for **each category** i.e. **cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.**)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Pro.	Actual	SC/ST	Others	T	
<b>Oilseeds</b>										
1	Groundnut	IPM	IPM	<i>Kharif</i> 2014-15	15	15	4	16	20	-
2	Groundnut*	IDM	Trichoderma	<i>Kharif</i> 2014-15	4	4	2	8	10	
3	Sesame	IPM	IPM	<i>Summer</i> 2015	5	5	2	9	10	-
<b>Pulse</b>										
4	Chickpea	Varietal	GG-3	<i>Rabi</i> 2014-15	4	4	2	8	10	
<b>Cereals</b>										
5	Wheat	Varietal	GW-366	<i>Rabi</i> - 2014-15	5	5	3	7	10	
<b>Spice and Others</b>										
6	Cumin	Varietal	GC-4	<i>Rabi</i> 2014-15	4	4	2	8	10	
7	Cotton	IPM	IPM	<i>Kharif</i> 2014-15	4	4	2	8	10	

#### Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
<b>Oilseeds</b>											
Groundnut	<i>Kharif</i>	Rainfed	MB	M	M	H	Cotton	16 <sup>th</sup> to 25 <sup>th</sup> June	20 <sup>th</sup> to 30 <sup>th</sup> Oct	901	25
Groundnut*	<i>Kharif</i>	Rainfed	MB	M	M	H	Wheat	16 <sup>th</sup> to 25 <sup>th</sup> June	15 <sup>th</sup> to 30 <sup>th</sup> Oct	901	25
Sesame	<i>Summer</i>	Irrigated	MB	M	M	H	Cotton	25 <sup>th</sup> Jan to 15 <sup>th</sup> Feb	15 April to 30 April	-	-
<b>Pulse</b>											
Chick pea	<i>Rabi</i>	<i>Irrigated</i>	MB	M	M	H	G'nut	1 <sup>st</sup> Nov to 20 <sup>th</sup> Nov	15 Mar to 15 April	-	-
<b>Cereals</b>											
Wheat	<i>Rabi</i>	<i>Irrigated</i>	MB	M	M	H	G'nut	1 <sup>st</sup> Nov to 20 <sup>th</sup> Nov	15 Mar to 15 April	-	-
<b>Spice &amp; Other</b>											
Cumin	<i>Kharif</i>	Irrigated	MB	M	M	H	G'nut	1 <sup>st</sup> Nov to 20 <sup>th</sup> Nov	1 Mar to 15 Mar	-	-
Cotton	<i>Kharif</i>	Rainfed	MB	M	M	H	Cotton	16 <sup>th</sup> to 25 <sup>th</sup> June	5 <sup>th</sup> Jan to 10 <sup>th</sup> Feb	901	25

**Performance of Frontline Demonstrations**

Sl. No.	Crop	Technology Demo.	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
	<b>Oilseeds</b>											
1	Groundnut	IPM	GG-20	20	15	24.5	19	21.75	19	14.47	Yield	Yield
2	Groudnut* (Trichoderma)	Variety	GG-20	10	4	22.75	18.5	20.62	18.8	9.68	Yield	Yield
3	Sesame	Variety	GT-3	10	4	11.25	8.75	10	9	11.11	Yield	Yield
	<b>Pulse</b>											
4	Chick pea	Variety	GG-3	10	4	22.5	17.5	20	17.75	12.68	Yield	Yield
	<b>Cereals</b>											
5	Wheat	Variety	GW-366	10	5	51.25	37.5	44.375	40.62	9.24	Yield	Yield
	<b>Spices &amp; Other</b>											
6	Cotton	INM	Bt.	10	4	31	24	27.5	24.5	12.24	Yield	Yield
7	Cumin	Variety	GC-4	10	4	9.38	7.5	8.44	7.75	8.90	Yield	Yield

\*Component demonstration

**Economic Impact (Continuation of previous table)**

Crop	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio
	Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
	14	15	16	17	18	19	20
<b>Oilseeds</b>							
Groundnut	44000	42000	97875	85500	53875	43500	2.22
G'nut (trichoderma)	43800	41800	92790	84600	48990	42800	2.12
Sesame	23600	21800	81650	72900	58050	51100	3.46
<b>Pulse</b>							
Chick pea	26480	25800	65200	53800	38720	28000	2.46
<b>Cereals</b>							
Wheat	31600	28570	82000	73300	50400	44730	2.59
<b>Spices &amp; Other</b>							
Cotton	53482	49400	110000	98000	56518	48600	2.06
Cumin	22500	24342	87800	83600	65300	59258	3.90

NB: Attach few good action photographs with title at the back with pencil

**Analytical Review of component demonstrations (details of each component for rainfed / irrigated situations to be given separately for each season).**

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Groundnut	Kharif	IPM	Rainfed	21.75	19	14.47
Cotton	Kharif	INM	Rainfed	27.5	24.5	12.24
Groundnut*	Kharif	Trichoderma	Rainfed	20.62	18.8	9.68
Chick pea	Rabi	Seed/Variety	Irrigated	20	17.75	12.68
Wheat	Rabi	Seed/Variety	Irrigated	44.375	40.62	9.24
Cumin	Rabi	Seed/Variety	Irrigated	8.44	7.75	8.90
Sesame	Summer	Seed/Variety	Irrigated	10	9	11.11

**Technical Feedback on the demonstrated technologies**

Sl. No.	Crop	Variety/Technology	Farmers' Feed Back
1	Groundnut	IPM	-Trichoderma control seclerotium effectively -Imidacloprid effective for sucking pest -Hexaconazol control leaf spot and rust
2	Cotton	INM	-Reduced the deficiency of nutrient
3	G'nut(Component)	Trichoderma	-Application of Trichoderma at proper time act as a precaution measure for the stem rot.
4	Chick Pea	GG-3	-less incidence of wilt -Early variety
5	Wheat	GW-366	-Higher production -Excellent seed quality
6	Cumin	GC-4	-Higher production -Resistant to wilt
7	Sesame	GT-3	-Higher production

**Farmers' reactions on specific technologies**

Sl. No.	Crop	Variety/Technology	Farmers' Reaction
1	Groundnut	IPM	➤ Good management against white fungi and increase the yield
2	Cotton	INM	➤ Reduce the deficiency of micro nutrient
3	G'nut (Component)	Trichoderma	➤ Good management against white fungi
4	Chick pea	GG-3	➤ resistant to wilt
5	Wheat	GW-366	➤ high yielding
6	Cumin	GC-4	➤ resistant to wilt
7	Sesame	GT-3	➤ less infestation to gall fly

**Extension and Training activities under FLD**

Sl.No.	Activity	No. of activities organised	Number of participants	Remarks
1	Field days	3	68	
2	Farmers Training	3	72	
3	Training for extension functionaries	-	-	

### 3.3 Achievements on Training (Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit) :

#### A) ON Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management	1	25	0	25	3	0	3	28	0	28
Resource Conservation Technologies	-	-	-	-	-	-	-	-	-	-
Cropping Systems	1	22	0	22	3	0	3	25	0	25
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	1	24	0	24	0	0	0	24	0	24
Water management	1	33	0	33	2	0	2	35	0	35
Seed production	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	2	61	0	61	5	0	5	66	0	66
Fodder production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	1	33	0	33	2	0	2	35	0	35
Soil and Water Conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-
<b>VI Agril. Engineering</b>										
Installation and maintenance of micro irrigation systems	1	22	0	22	2	0	2	24	0	24
Use of Plastics in farming practices	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and	-	-	-	-	-	-	-	-	-	-

implements										
Small scale processing and value addition	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
<b>VII Plant Protection</b>	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	2	75	0	75	9	0	9	84	0	84
Integrated Disease Management	1	23	0	23	3	0	3	26	0	26
Bio-control of pests and diseases	1	24	0	24	2	0	2	26	0	26
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
<b>X Capacity Building and Group Dynamics</b>										
Leadership development	-	-	-	-	-	-	-	-	-	-
Group dynamics	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	1	28	0	28	4	0	4	32	0	32
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	13	370	0	370	35	0	35	405	0	405

**B) OFF Campus**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management	1	26	0	26	2	0	2	28	0	28
Resource Conservation Technologies	1	26	4	30	2	0	2	28	4	32
Cropping Systems	3	77	8	85	6	0	6	83	8	91
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	2	52	0	52	7	0	7	59	0	59
Water management	2	84	0	84	5	0	5	89	0	89
Seed production	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	2	88	2	90	7	0	7	95	2	97
Fodder production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										

Production of low volume and high value crops	-	-	-	-	-	-	-	-	-	-
Off-season vegetables	-	-	-	-	-	-	-	-	-	-
Nursery raising	-	-	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-	-	-
Export potential vegetables	-	-	-	-	-	-	-	-	-	-
Grading and standardization	-	-	-	-	-	-	-	-	-	-
Protective cultivation (Green Houses, Shade Net etc.)	1	28	0	28	3	0	3	31	0	31
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Soil and Water Conservation	1	30	0	30	6	0	6	36	0	36
Integrated Nutrient Management	1	190	5	195	15	0	15	205	5	210
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-
<b>VI Agril. Engineering</b>										
Installation and maintenance of micro irrigation systems	1	22	0	22	4	0	4	26	0	26
Use of Plastics in farming practices	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Small scale processing and value addition	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
<b>VII Plant Protection</b>										
Integrated Pest Management	3	162	8	170	12	0	12	174	8	182
Integrated Disease Management	1	31	2	33	4	0	4	35	2	37
Bio-control of pests and diseases	1	24	0	24	6	0	6	30	0	30
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-

<b>X Capacity Building and Group Dynamics</b>										
Leadership development	-	-	-	-	-	-	-	-	-	-
Group dynamics	1	31	0	31	4	0	4	35	0	35
Formation and Management of SHGs	1	27	0	27	6	0	6	33	0	33
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	22	898	29	927	89	0	89	987	29	1016

**C) Consolidated table (ON and OFF Campus)**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management	2	51	0	51	5	0	5	56	0	56
Resource Conservation Technologies	1	26	4	30	2	0	2	28	4	32
Cropping Systems	4	99	8	107	9	0	9	108	8	116
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	3	76	0	76	7	0	7	83	0	83
Water management	3	117	0	117	7	0	7	124	0	124
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	4	149	2	151	12	0	12	161	2	163
Fodder production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	1	28	0	28	3	0	3	31	0	31

<b>III Soil Health and Fertility Management</b>										
Soil fertility management	1	33	0	33	2	0	2	35	0	35
Soil and Water Conservation	1	30	0	30	6	0	6	36	0	36
Integrated Nutrient Management	1	190	5	195	15	0	15	205	5	210
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
<b>VI Agril. Engineering</b>										
Installation and maintenance of micro irrigation systems	2	44	0	44	6	0	6	50	0	50
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
<b>VII Plant Protection</b>										
Integrated Pest Management	5	237	8	245	21	0	21	258	8	266
Integrated Disease Management	2	54	2	56	7	0	7	61	2	63
Bio-control of pests and diseases	2	48	0	48	8	0	8	56	0	56
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
<b>X Capacity Building and Group Dynamics</b>										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	1	31	0	31	4	0	4	35	0	35
Formation and Management of SHGs	1	27	0	27	6	0	6	33	0	33
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	1	28	0	28	4	0	4	32	0	32
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>35</b>	<b>1268</b>	<b>29</b>	<b>1297</b>	<b>124</b>	<b>0</b>	<b>124</b>	<b>1392</b>	<b>29</b>	<b>1421</b>

**(D) Vocational training programmes for Rural Youth**

Crop / Enterprise	Date	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self employed after training			Number of persons employed elsewhere
					M	F	T	Type of units	Number of units	Number of persons employed	
-	-	-	-	-	-	-	-	-	-	-	-

\*training title should specify the major technology /skill transferred

**(E) Sponsored Training Programmes**

Sl. No.	Date	Title	Duration	Total No. of participants									Sponsoring Agency
				Other			SC/ ST			Total			
				M	F	T	M	F	T	M	F	T	
1	9-7-14	Plant protection	1	112	0	112	8	0	8	120	0	120	ATMA
2	17-7-14	Crop production	1	57	0	57	3	0	3	60	0	60	ATMA
3	17-7-14	Ext Edu.	1	31	0	31	4	0	4	35	0	35	ATMA
4	17-9-14	Crop production	1	34	0	34	3	0	3	37	0	37	ATMA
5	17-8-14	Plant protection	1	43	0	43	5	0	5	48	0	48	ATMA
6	6-9-14	Crop production	1	25	0	25	3	0	3	28	0	28	ATMA
7	6-9-14	Soil fertility management	1	33	0	33	2	0	2	35	0	35	ATMA
8	6-9-14	Agronomy	1	24	0	24	0	0	0	24	0	24	ATMA
9	22-9-14	Crop production	1	55	0	55	3	0	3	58	0	58	GNFC
10	23-9-14	Soil Science	1	30	0	30	6	0	6	36	0	36	ATMA
11	24-9-14	Agronomy	1	33	0	33	2	0	2	35	0	35	ATMA
12	5-7-14	Crop production	1	26	0	26	0	0	0	26	0	26	ATMA
13	5-7-14	Fertilizer magt.	1	190	5	195	15	0	15	205	5	210	L&T
<b>Total</b>			<b>13</b>	<b>693</b>	<b>5</b>	<b>698</b>	<b>54</b>	<b>0</b>	<b>54</b>	<b>747</b>	<b>5</b>	<b>752</b>	

**3.4. Extension Activities (including activities of FLD programmes)**

Sl No	Nature of Extension Activity	No. of activities	Participants											
			Farmers (Others) (I)			SC/ST (Farmers) (II)			Extension Officials (III)			Grand Total (I+II+III)		
			M	F	T	M	F	T	M	F	T	M	F	T
1	Field Day	4	78	8	86	7		7	1		1	86	8	94
2	Kisan Mela				0			0			0	0	0	0
3	Kisan Ghosthi	3	45	5	50	9		9			0	54	5	59
4	Exhibition				0			0			0	0	0	0
5	Film Show	2	49		49	4		4			0	53	0	53
6	Method Demonstrations				0			0			0	0	0	0
7	Farmers Seminar	3	65	3	68	7	2	9			0	72	5	77
8	Workshop				0			0			0	0	0	0
9	Group meetings	5	107	6	113	12	4	16			0	119	10	129
10	Lectures delivered as resource persons	14	325	17	342	20	3	23	3		3	348	20	368
11	Newspaper coverage	2			0			0			0	0	0	0
12	Radio talks	1			0			0			0	0	0	0
13	TV talks				0			0			0	0	0	0
14	Popular articles				0			0			0	0	0	0
15	Extension Literature				0			0			0	0	0	0
16	Advisory Services	16	76		76	8		8			0	84	0	84
17	Scientific visit to farmers field	27	86		86	6		6			0	92	0	92
18	Farmers visit to KVK	36	114		114	9		9			0	123	0	123
19	Diagnostic visits	7	12		12	3		3	3		3	18	0	18
20	Exposure visits	3	52		52	5		5			0	57	0	57
21	Ex-trainees Sammelan				0			0			0	0	0	0
22	Soil health Camp				0			0			0	0	0	0
23	Animal Health Camp	2	62		62	18		18			0	80	0	80
24	Agri mobile clinic				0			0			0	0	0	0
25	Soil test campaigns				0			0			0	0	0	0
26	Farm Science Club Conveners meet				0			0			0	0	0	0
27	Self Help Group Conveners meetings				0			0			0	0	0	0
28	Mahila Mandals Conveners meetings				0			0			0	0	0	0
29	(Technology Week)	1	195	81	276	8	5	13			0	203	86	289

<b>Total</b>	<b>126</b>	<b>1266</b>	<b>120</b>	<b>1386</b>	<b>116</b>	<b>14</b>	<b>130</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>1389</b>	<b>134</b>	<b>1523</b>
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**Kisan Mobile Advisory**

No. of Farmers registered : \_\_\_\_\_NIL\_\_\_\_\_

**INTERVENTIONS ON DROUGHT MITIGATION****Introduction of alternate crops/varieties**

State	Crops/cultivars	Area (ha)	Number of beneficiaries
-	-	-	-

**Major area coverage under alternate crops/varieties**

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

**Farmers-scientists interaction on livestock management**

State	Livestock components	Number of interactions	No. of participants
-	-	-	-
-	-	-	-
<b>Total</b>			

**Animal health camps organised**

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

**Seed distribution in drought hit states**

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

**Large scale adoption of resource conservation technologies**

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
-	-	-	-
-	-	-	-
<b>Total</b>			

**Awareness campaign**

KVK	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

	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-

### 3.5 Production and supply of Technological products

#### SEED MATERIALS

Major group/class	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
<b>CEREALS</b>					
<b>OILSEEDS</b>					
<b>PULSES</b>	Black gram	G.Udad -1	13	104000	150
<b>VEGETABLES</b>					
<b>FLOWER CROPS</b>					

\*An example for guidance only

#### SUMMARY

Sl. No.	Major group/class	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS			
2	OILSEEDS			
3	PULSES	13	104000	150
4	VEGETABLES			
5	FLOWER CROPS			
6	OTHERS			
<b>TOTAL</b>				

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

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

KVK is already part of JAU newsletter, which is periodically

#### (B) Workshop/Seminar/Conference/Meeting/Training Attended

Sr. No.	Date	Name of Scientist	Title	Venue	Type
1.	24-26 may, 2014	Dr.N.B.Jadav	Annual Zonal Wokshop, KVK, zone –VI	SDAU, Dantiwada	Zonal workshop
2.	24-25 Dec,2014	Dr.V.B.Bhalu	Annual Action Plan Workshop	MPAU&T, Udaipur	Workshop
3.	29oct-18Nov,2014	Dr.V.B.Bhalu	21 Days training	PAU, Ludhiayana	Training
4.	13 feb-14 feb,2015	Dr.V.B.Bhalu	Water management & climate samrat agriculture	JAU, Junagadh	Seminar
5.	13 Oct to 16 Oct, 2014	Dr.V.B.Bhalu	Agriculture Knowledge management	JAU, Junagadh	Training
6.	17 to 19 Nov,2014	Dr.N.B.Jadav	New horizons in agricultural technologies	JAU, Junagadh	Training
7.	3 to 30 march, 2014	Dr. N.B.Jadav	Orientation Programme	Saurashtra Uni. Rajkot	Training
8.	8 Sep, 2014	Dr.N.B.Jadav	Awareness cum Training Programme on PVP & FR	AAU, Anand	Training

### 3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)

1. Cultivation of new Wheat variety

2. Background: Mr. Parshotambhai Kanubhai is the progressive farmers of sardharpur village of jetpur taluka. The sardharpur is one of the operational viillage of KVK Pipalia. He is regularly in touch with KVK's scientist and one frontline demonstration allotted to him in last rabi season. The FLDs of newlyo released wheat varieoty GW-366. He harvested good yield of 84 q/ha as compare to local one (62 q/ha). With introduction of high yielding variety he got high additional net returns.

3. Interventation: Introduction of new wheat crop varity in area

4. Impact: This variety GW-366 is increase the production of 35.48 percent and will improve the economic condition of farmers of saurashtra region

5. Horizontal spread: Surrounding farmers

### 3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year

- Use of cow urine, butter milk, bajra flour etc for insect pest and disease management.
- Use of small or wrinkle seeds of groundnut for sowing purpose.
- Farmers grow maize as a mixed crop in groundnut and inter crop in cotton.
- Cotton Stalk Shredder
- Wheel Hoe
- Cotton Stalk Puller
- Tractor mounted spryer
- Chaff Cutter for Minimizing the Animal Fodder Waste
- IPM in Cotton-Use of Trap crop, Pheromone trap, etc.
- Minimizing the chemical Fertilizer and Maximizing organic manure.
- Value addition in different agriculture crops.

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Groundnut	Farmers maintain a set furrow system and apply manure and fertilizer every year in the same furrow.	To get residual effect of manure and fertilizer in succeeding crop
2	Groundnut	Some farmers near the river bed, apply sand in the set furrow for increasing infiltration rate of the soil	To reduce the water Logging condition in the field
3	Kharif crops	Farmer apply supplementary irrigation to the crops during moisture stress condition	For life saving irrigation to minimize the risk of crop failure
4	Cotton	Farmers grow Maize after 3-4 rows of cotton	To increase the natural enemies and fodder purpose
5	Cotton	After heavy rain, farmer apply irrigation to	To balance the salt

		balance the salt concentration at top of soil	concentration
6	Groundnut	Farmers grow maize as mix crop in groundnut	To increase natural enemies & fodder purpose

### 3.10 Indicate the specific training need analysis tools/methodology followed for

- Observation
- Group Discussion
- Questionnaire

### 3.11 Field activities

- I Number of villages adopted :16
- ii. No. of farm families selected :364
- iii. No. of survey/PRA conducted: nil

### 3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : ...NIL...

- 1. Year of establishment : ...NIL...
- 2. List of equipments purchased with amount : ....NIL...

Sl. No	Name of the Equipment	Qty.	Cost
1	-	-	-
2	-	-	-
3	-	-	-
Total			

### 3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	-	-	-	-
Water Samples	-	-	-	-
Plant Samples	-	-	-	-
Petiole Samples	-	-	-	-
Total	-	-	-	-

## 4.0 IMPACT

### 4.1. Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
-	-	-	-	-

NB: Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

### 4.2. Cases of large scale adoption

1. Adoption of *Trichoderma* culture powder for the management of stem rot diseases in groundnut
2. Adoption of *Bt.* cotton varieties with INM and IPM concepts.
3. Farmers prefers to sow semi spreading and high yielding variety of groundnut i.e. GG-20
4. Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wiltdisease
5. Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies.
6. Farmers are ready to use of rotavator/ cotton shredder/ mobile chopper for increasing the organic matter in soil particularly in *Bt.* Cotton cropping system.

#### 4.3 Details of impact analysis of KVK activities carried out during the reporting period

---NIL---

### 5.0 LINKAGES

#### 5.1 Functional linkage with different organizations

Sr. No.	Name of organization	Nature of linkage
<b>A</b>	<b>Junagadh Agricultural University</b>	
1	College of Agriculture, Junagadh.	Impart training on Agril. aspects.
2	College of Agril. Engg, Junagadh	Impart training on Engg. aspects
4	Pulse Research Station, Junagadh	Supply of seeds for crop museum
5	Oilseeds Research Station, Junagadh	Supply of seeds for crop museum
6	Wheat Research Station, Junagadh	Supply of seeds for crop museum
<b>B</b>	<b>State corporation and state deptt.</b>	
1	District Agricultural Officer, Deptt. of Agriculture, District Panchayat, Rajkot	<ul style="list-style-type: none"> <li>➤ Joint diagnostic team visit at farmers field</li> <li>➤ Organizing collaborative training to farmers</li> <li>➤ For collaborative off campus training</li> <li>➤ For collaborative training and demonstration Programme</li> <li>➤ Collaborative on campus training programme</li> <li>➤ For providing hostel facilities to participants and organizing collaborative Mahila Krishi Mela</li> </ul>
2	District Rural Development Agency, Rajkot	
3	Deputy Director of Horticulture, Rajkot	
4	Deputy Director of Agriculture (Training), Farmer Training Centre, Rajkot	
5	Deputy Director of Agriculture (Extension), Rajkot	
6	Estate Engineer, Department of Irrigation, Dhoraji	
7	All Taluka Development Officers, and their team at Taluka level	
8	ATMA, Rajkot	
9	GSFC	
10	GNFC	

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

## 5.2 List special programmes undertaken by the KVK, which have been financed by State Govt./Other Agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Seed Village Programme	2014-15	NIL	NIL

## 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district : Yes

S. No.	Programme	Nature of linkage	Remarks
1	District Level Training	Impart Training on Agricultural Aspects	-
2.	Block level training		

## 5.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
-	-	-	-
-	-	-	-

## 5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
-	-	-	-
-	-	-	-

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

### 6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-

### 6.2 Performance of instructional farm (Crops) including seed production

crop	Date of sowing	Date of harvest	Area (ha)	Details of production		Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	
Udad	23.07.2014	29.09.2014	4	G.Udad-1	Seed	13		



**6.3 Performance of production Units (bio-agents / bio pesticides/ bio fertilizers etc.,)**

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
-	-	-	-	-	-

**6.4 Performance of instructional farm (livestock and fisheries production)**

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)			Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income		
-	-	-	-	-	-	-	-	

**6.5 Rainwater Harvesting****Training programmes conducted by using Rainwater Harvesting Demonstration Unit**

Date	Title of the training course	Client (PF/RY/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
				Male	Female	Total	Male	Female	Total
-	-	-	-	-	-	-	-	-	-

**6.5 Utilization of hostel facilities**Accommodation available (No. of beds) : **--Nil--**

Months	Title of the training course/Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
-	-	-	-	-

**7. FINANCIAL PERFORMANCE****7.1 Details of KVK Bank accounts**

Bank account	Name of the bank	Location	Account Number
With Host Institute	-	-	-
With KVK	State Bank of India	Galaxy chowk, Dhoraji	32586636847

**7.2 Utilization of funds under FLD on Oilseed (Rs. In Lakhs)**

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2015
	Kharif 2014-15	Rabi 2014-15	Kharif 2014-15	Rabi 2014-15	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
TOTAL	-	-	-	-	-

**7.3 Utilization of KVK funds during the year 2013-14 and 2014-15 (upto March, 2015)  
(year-wise separately) (current year and previous year)**

**(A) Utilization of KVK funds during the Year 2013-14**

Sr No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	25	25	23
2	<b>Traveling allowances</b>	0.60	0.60	0.37
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.30	3.30	3.17
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	4.95	4.95	4.52
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>8.25</b>	<b>8.25</b>	<b>7.70</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Four wheeler)	8.00	8.00	7.37
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>		<b>8.00</b>	<b>8.00</b>	<b>7.37</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>41.85</b>	<b>41.85</b>	<b>38.70</b>

**(B) Utilization of KVK funds during the Year 2014-15**

Sr No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	24	24	23.79
2	<b>Traveling allowances</b>	0.50	0.50	0.28
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1.60	1.60	3.97
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	2.4	2.4	4.3
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>28.5</b>	<b>28.5</b>	<b>32.35</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Four wheeler)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>28.5</b>	<b>28.5</b>	<b>32.35</b>

**7.5 Status of revolving fund (Rs. in lakhs) for the three years**

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 2012 to March 2013	100000	10970	0	110970
April 2013 to March 2014	110970	48444	28	159406
April 2014 to March 2015	159406	424853	49225	535034

**8.0 Please include information which has not been reflected above (write in detail).****8.1 KRISHI MAHOTSAV – 2014**

Programme of Krushi Mahotsav at Taluka Panchayat seat, our two scientists delivered number of lecture in Krushi mahtosav -14 at Jamkandorana and Dhoraji Taluka

Sr. No.	Name of Block	Date	Name of Scientist	No. of meeting
1.	Jam kandorana	26-5-2014 to 9-6-2014	Dr. N.B. Jadav	6
2.	Dhoraji	26-5-2014 to 9-6-2014	Dr. V.B.Bhalu	7

**8.2 Celebration of technology week:**

Technology week was celebrated at Krishi Vigyan Kendra, J.A.U., Pipalia during 15<sup>th</sup> to 20<sup>th</sup> Sept, 2014. In which following different 289 farmers and farm women from different block were participated.

Dr. N.B.Jadav Programme Co-ordinator, KVK, J.A.U., Pipalia welcomed all the participants, officers and dignitaries of the technology week- 2014 and highlighted the achievements of the centre in brief.

Date	Taluka	Villages	Numbers of participants		
			Male	Female	Total
15.9.2014	Dhoraji	Moti marad, Pipaliya, Dhoraji	19	35	54
16.9.2014	Dhoraji	Pipaliya	18	51	68
18.9.2014	Upleta, Dhoraji	Timbadi, Bhayavadar, Dhoraji, Fareni,	38	0	38
19.9.2014	Jetpur, Upleta	Lath, Shardharpur, Thanagalol, Timbadi, Gundala, Sadvadar	67	0	67
20.9.2014	Jam kandorana, Upleta	Jasapar, Rayadi, Satodad, kolki,	62	0	62
<b>Total</b>			<b>204</b>	<b>86</b>	<b>289</b>

Agricultural Technology Week was celebrated by KVK, J.A.U., Pipalia during 15<sup>th</sup> to 20<sup>th</sup> September, 2014. Dr. A.M.Parakhia, Director of Extension Education, JAU chaired the programme, Junagadh inaugurated function by lighting the lamp. In his presidential speech, he told that Krishi Vigyan Kendra is work as an agricultural information hub for the district. He also said that training is the important for farmers and farmwomen to update their knowledge of new research and technology in agriculture. He advised farmers to participate more and more to refine their agricultural knowledge.

After inaugural function, different scientists of KVK have given talk on different subjects and information from the Krishi Vigyan Kendra. The day-to-day activities are as under. In a week, out of 6 days 3 days for specially farm women and Mr. Kapopara, instructor, school of baking,

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JAU, Junagadh and Mrs. Deeptiben Thaker, SMS (Home Science) KVK, Khapat, Porbander has delivered different lecture to rural farm women and practically teach how to prepare bakery items. i.e. cake, biscuits etc. Myself (Dr. N.B. Jadav) and Dr. V.B.Bhalu, SMS, Agronomy delivered different lecture in remaining three days with presentation.

**Themes of the Technology Week:**

1. **1st day:** Preparation of bakery items especially for rural farm women.
2. **2nd day:** Value addition in fruits and vegetables specially for rural farm women
3. **3rd day:** Integrated nutrient and water management in major Kharif crops
4. **4th day:** Integrated pest and disease management in major kharif crops.
5. **5th day:** Uses of micro irrigation system and its maintance

**Following are the topics delivered by scientist**

- Preparation of Bakery items, cake, Biscuits and Nan khatai
- Value addition in fruits and vegetables
- Farm women empowerment.
- Pest and disease management in cotton and groundnut
- Efficient use of fertilizer in kharif crops
- Water management in cotton and groundnut
- weed management in main kharif & Rabi crops
- Use and maintenance of micro irrigation system
- Recycling for farm waste material and composting
- Vermi compost and organic farming
- Emphasizes on adverse effect of climate change in agriculture

At the end of the technology week-2014, farmers appreciated by the work done by the KVK. They encourage for modern agriculture and they satisfy for the technology week.

**8.3 Constraints**

- (a) Administrative
- (b) Financial
- (c) Technical

**Annexures –I**

**Minutes of the 2<sup>nd</sup> Scientific Advisory Committee (SAC) Meeting**  
**of KVK Pipalia held on 31<sup>st</sup> December 2013 at**  
**Krishi Vigyan Kendra, JAU, Targhadia, (Rajkot)**

The first Scientific Advisory Committee meeting of Krishi Vigyan Kendra, Junagadh Agricultural University, Pipalia was held in the KVK training hall of Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia on 31st Dec, 2013. The meeting was chaired by Dr. N. C. Patel, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh.

The Following members were remaining present in the meeting.

Sr. No.	Name & Designation	Position	Sr. No.	Name & Designation	Position
1	Dr. N. C. Patel, Honorable Vice Chancellor, JAU, Junagadh.	Chairmen	16	Shri. Parsottambhai K. Senjalia, Progressive farmers Shardharpur, Ta: Jetpur Dist:Rajkot	Member
2	Dr.J.B.Mishra Director, DGR, Ivanagar	Member	17	Shri Lalitbhai Kanjbhai Parmar Progressive farmers Pipalia, Ta: Dhoraji Dist:Rajkot	Member
3	Dr. I. U. Dhruj, ADR, JAU, Junagadh	Member	18	Shri Gopalbhai C. Viradiya Progressive farmers Rayadi, Ta:Jam kandorana Dist: Rajkot	Member
4	Dr.H.B.Gardharia ADE, DEE, JAU, Junagadh	Member	19	Shri Ashokbhai G. Poshia Progressive farmers Rayadi, Ta: Jam Kandorana Dist: Rajkot	Member
5	Dr. K.N. Akbari, Research Scientist (DFRS), Targhadia	Member	20	Dr. K. L. Raghvani, PC, KVK, Jamnagar	Member
6	Shri. B.H. Agatha, DAO, District Panchayat,Rajkot	Member	21	S.B.Sharma, NHRDF, Rajkot	Invitee Member
7	Shri. L.R. Sadiya, Project Director, ATMA, Rajkot	Member	22	Dr. J. N. Nariya, PC, KVK, Nana Kanthasar	Invitee Member
8	Dr.H.D. Kansagara Dy.DAH District Panchayat,Rajkot	Member	23	Dr. V. B. Bhalu, SMS, KVK,Pilalia, Dist. Rajkot	Invitee Member
9	Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia	Member	24	Dr.V.N. Patel Research Scientist (DF) JAU, Targhadia	Invitee Member
10	Dr. S.K. Tiwari, NHRDF, Rajkot	Member	25	Dr.M.S. Gajera RS (DF)JAU Targhadia	Invitee Member
11	Shri Devesh Parmar, DDM, NABARD, Rajkot	Member	26	Dr. M.D. Thesiya Veterinary Officer, Rajkot	Invitee Member
12	Dr. M.D. Pethani, Assistant Manager, Rajkot Dairy, Rajkot	Member	27	Vegada Shital B. MDT, DWDU, Rajkot	Invitee Member
13	Shaumeen Ahmed, TE, Office of Project Director, DWDU, Rajkot	Member	28	Naresh M Boricha MDT (Agri.) DWDU, Rajkot	Invitee Member
14	Shri K.V. Chavda All India Radio, Rajkot	Member	29	Dr. N.B.Jadav, PC, KVK, Pipalia	Member Secretary
15	Dr. B.B.Kabaria, PC, KVK, Targhadia, Dist. Rajkot	Member			

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In the beginning Dr. K. N. Akabari, Research Scientist, Dry Farming Research Station, Targhadia welcomed Chairman of the Committee Dr. N. C. Patel, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh, Dr. H.B.Gardharia, ADE, DEE office, Junagadh and Dr. I. U. Dhruj, Associate Directorate of Research, JAU, Junagadh, and all the members, Progressive farmers and farm women of the cluster villages and scientists of DFRS and KVK targhadia and pipalia.

Dr. N. C. Patel, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh inaugurated the meeting by lighting the lamp. Chairman of the meeting and all the members of SAC meeting were also welcomed with flowers.

Dr. N.B.Jadav, PC, KVK, Pipalia presented the annual progress report of the year 2013-14 (April'13 to Dec'2013) and action plan for the Year 2014-15 (April-14 to March-15), including training achievements, extension activities, etc. conducted by this center during the year 2013-14.

The following suggestions were made by the SAC members during the meeting.

1. To increase numbers of farmers per training (i.e. 25 to 50).
2. KVK targhadia will carried out off campus training programme also in KVK pipalia operational area.
3. Changes made in OFT of white grub treatment (i.e. intervention).
4. Awareness regarding protective cultivation carried out among farmers of adopted villages and accordingly training should be carried out.

Finally, the meeting was concluded by performing the vote of thanks by Dr. B. B. Kabaria, PC, KVK, Targhadia.

## Annexure II

### District - I

General census :31.70 lac

Agricultural and allied census: 16.48 lac

Agro-climatic zones: north saurashtra agro climatic zone-V

Agro-ecosystems:

sr. no	Agro ecological situation	Charactrstics	Taluka covered*
1.	Medium black soil with 500-600 mm rainfall <sup>9</sup> (situation no.2)	shallow black to medium black moderately deep up to 30-80 cm.	Gondal,jamkandorna
2.	Shallow black soil with 500-600 mm rainfall <sup>9</sup> (situation no.4)	..	Lodhika,padadhri, Rajkot,kotada sangani
3.	Residual sandy soils with 500-600mm Rainfall (situation no.7)	Sandy and saline	morbi,vankaner,Tankara, mailya
4.	Hilly soils with 500-600mm Rainfall (situation no.14)	Hilly	Jasdan

\*Jetpur,dhoraji,and upleta taluka under the south saurashtra (VII) Agro-climatic zone.

### Major and micro-farming systems

- Cotton-Cumin,Groundnut-Vegetable,Groundnut-Flower,Forage-Flower major production systems : Cottion and Groundnut base

### The major crop sequeneces/rotations follwed

1. Groundnut : Groundnut-Groundnut,Groundnut-Wheat/Cumin/chick pea/vegetable/fodder crop. Groundnut-Cottin,Groundnut-sesamum,

2. Cotton : Cotton-Cotton/Wheat/summer groundnut/summer sesamum/mung

major intercropping systems followed in the area are: groundnut+castor(3:1) groundnut + pigeon pea (3:1), groundnut+sesamum (6:3),pearl millrt + pigeon pea (2:1), sorghum + pigeon pea (1:1) and cotton + green gram /black gram/ groundnut in paired row system.

### Major agriculture and allied enterprises:

- Agriculture-Animal Husbandury
- Agriculture + Horticulture

**Agro-ecosystem Analysis of the Focus/target area -II**1. **Names of villages,focus area,target area etc.**

Sr. no	Taluka	Name of the village	Focus area	Target area
1.	Jam Kandorana	Taravada	-Heavy infestations of sucking pest and reddening of cotton, Stem rot disease in Groundnut. -Create awareness of newly released variety -Infestation of stem rot in Groundnut -Create awareness of MIS	- Ipm and Inm in major crop of this area - Use of Trichoderma for management of Stem rot disease in groundnut - To create the awareness for grading, processing and marketing (value addition) - Use of drip and sprinkler in cotton and horticultural crops
		Rayadi		
		Hariyasan		
2.	Jetpur	Shardharpur		
		Thana galol		
		Arab Timbadi		
3.	Dhoraji	Fareni		
		Parabadi		
		Bhola		
		Vadodar		
4.	Upleta	Mekhatimbi Varzang zariya		

2. survey methods used (survey by questionnaire,PRA,RRA,etc.) :survey
3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect,resource map,etc :Resource map
4. Analysis and conclusions:Majority of farmers dose not aware with INM,IPM,efficient use of water,scienetific management of animals and processing of agricultural products.
- 5&6 List of locatin specific problems and brief description of frequency and extent/intensity/severity of each problem

Sr.No.	Location specific problem	Brief description of frequency	Extent/intensity/severity of each problem	Matrix ranking of problem
1.	Heavy infestation of sucking pest in cotton	Trips: at the time of dry spell	Heavy infestation	Regularly
		Jassid:month of September	Heavy infestation	Regularly
		White fly: Oct-Nov	Moderate infestation	Occasionally
2.	Reddening of cotton	in the month of September and water stagnation condition	Moderate infestation	Regularly
3.	Stem rot disease in groundnut	After one month of showing of groundnut	Moderate infestation	Sporadically
		Severity increased during dry spell	Heavy infestation	Frequently

## 7,8 &amp; 9 List of location specific thrust areas

Sr.No.	Taluka	Name of the village	Thrust area	List of location specific technology needs for OFT and FLD	Matrix ranking of technologies
1	Jamkadorana Jetpur Dhoraji Upleta Gondal	Taravada	IDM in groundnut	Use of Trichoderma for management of stem rot disease in groundnut	Occasionally
		Rayadi Boriya Hariyasan Shardharpur Thanagalol Arab timbadi Fareni Parabadi	IPM in major crop of this area G'nut and cotton	Intercropping of maize to attract bio agent for conservation and by demonstrating IPM component	Regularly
		Bhola Vadodar Mekhatimbi Varzang zariya Gomata Charakhadi Chadavadar	To create awareness of new recommended varieties of different crops like cummin, wheat, chick pea, sesame, summer groundnut	Demonstration of newly released variety	Regularly

## 11. List of location specific training need

1	Importance of drip irrigation in horticulture and other crops
2	Emerging insect pests and disease of Bt.cotton and their management
3	Value addition in agriculture crops
4	Role of micronutrient for soil sustainability
5	To aware newly released variety
6	Importance of fertilizer management in cotton and groundnut crops
7	Stem rot management in groundnut
8	Wilt management in Bt.cotton

## Technology Inventory and Activity Chart-III

**1. Name of research institutes, research stations, regional centres of NARS (SAU and ICAR) and other public and private bodies having relevance to location specific technology needs**

**2. Inventory of latest technology available**

Sl.No.	Technology	Crop/enterprise	Year of release or recommendation of technology	Source of technology	Reference/Citation
1.	Cv.GG-3	Chickpea	2007	Pulse research station, JAU, Junagadh	--

**4. Activity Chart**

Crop/Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Cotton	Sucking pest in cotton	Improper use of insecticides	Integrated pest management of sucking pest	Training and FLD	Recommendations of JAU, Junagadh
Groundnut	Stem rot	1. Mono cropping of groundnut 2. Frequent inter culturing	1. Crop rotation 2. Need base inter culturing 3. Use of Trichoderma	Training and FLD	Recommendations of JAU, Junagadh

**5. Details of each of the technology under assessment, Refinement and demonstration**

Sr.No.	Crop	Variety	Characters
1	Cumin	GC-4	High yielding and wilt resistance
	Wheat	GW-366	High yielding and quality production
	Chick pea	GJG-3	High yielding and suitable for irrigation and un irrigated condition , moderate wilt resistance
	Sesame	GT-4	High yielding variety
	Groundnut	GG-20	High yielding variety
	Groundnut* (Trichoderma)	GG-20	High yielding variety and quality production
	Cotton	Bt.	High yielding variety

## ANNUAL ACTION PLAN : 2015-16

### 1. Training Programmes: Quarter wise summary of training

Discipline	On Campus				Total	Off campus				Grand Total	
	I	II	III	IV		I	II	III	IV	Total	GT
Crop production(CP)	1	1	1	1	4	1	1	1	1	4	8
Plant Protection(PLP) *	1	1	1	1	4	1	1	1	1	4	8
Extension(CBD)	1	0	1	1	3	1	0	1	1	3	6
Horticulture(HOV)	1	0	1	0	2	1	1	1	1	4	6
Ag. Eng.(AEG)*	1	1	0	1	3	0	1	0	1	2	5
Soil Science(SEM)	1	0	1	0	2	1	0	1	0	2	4
Home Science(WOE)	1	1	1	1	4	1	2	2	1	6	10
Animal Hus.(LPM) *	1	1	1	1	4	1	2	2	1	6	10
Vocational											4
All disciplines (For Ext.Func.)											2
Sponsered training											10
<b>Total</b>	<b>8</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>26</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>7</b>	<b>31</b>	<b>73</b>

#### A. On Campus training (For practicing farmers, farm women and rural youth):

I. Quarter (1 <sup>st</sup> April to 30 <sup>th</sup> June, 2015)					
Crop production	-	Production technologies for major Kharif crops	1	25	PF
Plant Protection	-	Integrated Pest and disease management in cotton	1	25	PF
Extension	-	procedure for formation of new SHGS	1	25	RY
Ag. Eng	-	Protected cultivation	1	25	PF
Soil Science	-	Soil analysis	1	25	PF
Home Science	-	Preparation of different types of Pickles	1	25	FW
Animal Hus	-	Infertility of cow and Buffalo by diseases & its prevention	1	25	PF
Horticulture	-	Production technology of chilly	1	25	PF
II. Quarter (1 <sup>st</sup> July to 30 <sup>th</sup> Sept, 2015)					
Crop production	-	Production technologies for major Rabi crops	1	25	PF
Plant Protection	-	Integrated control of pest and diseases Rabi crops	1	25	PF
Ag. Eng	-	Water harvesting and well recharge technology	1	25	PF
Home Science	-	Preparation of Protein and Energy rich diet	1	25	FW
Animal Hus	-	Importance of colostrums feeding in new born calves	1	25	PF
III. Quarter (1 <sup>st</sup> Oct to 31 <sup>st</sup> Dec, 2015)					
Crop production	-	Seed production technology	1	25	RY
Plant Protection	-	Diseases management in spices	1	25	PF
Extension	-	Development of entrepreneurship among rural youth	1	25	RY
Animal Hus	-	Fodder crop production technology	1	25	PF
Soil Science	-	Organic farming	1	25	RY
Home Science	-	Preparation of different products from Aonla	1	25	FW
Horticulture	-	Production technology of spices crops	1	25	PF

IV. Quarter (1 <sup>st</sup> Jan to 31 <sup>st</sup> March, 2016)				
Crop production	- Advances in Summer crops production technology	1	25	PF
Plant Protection	- Storage pest Management	1	25	PF
Ag. Eng	- Post harvest technology of kharif crops	1	25	PF
Home Science	- Preparation of different types of painting on glass and clothes	1	25	FW
Animal Hus	- Importance of artificial insemination in cow and buffalo	1	25	PF
Extension	- Income generation activities for farmers through secondary agri.	1	25	PF

### B. Off Campus training (For practicing farmers, farm women and rural youth):

I. Quarter (1 <sup>st</sup> April to 30 <sup>th</sup> June, 2015)				
Crop production	- Production technologies for major Kharif crops	1	30	PF
Plant Protection	- Integrated Pest and disease management in cotton	1	30	PF
Extension	- Procedure for formation of new SHGS	1	30	RY
Horticulture	- Protected cultivation	1	30	RY
Soil Science	- Soil analysis	1	30	PF
Home Science	- Drudgery reduction technologies in household activities & agriculture	1	30	FW
Animal Hus	- Infertility of cow and Buffalo by diseases & its prevention	1	30	PF
II. Quarter (1 <sup>st</sup> July to 30 <sup>th</sup> Sept, 2015)				
Crop production	- Production technologies for major Rabi crops	1	30	PF
Plant Protection	- Integrated control of pest and diseases	1	30	PF
Ag. Eng	- Water harvesting and well recharge technology	1	30	PF
Home Science	- Awareness about vaccination in children - Proper method of cooking	1	30	FW
Animal Hus	- Importance of colostrums feeding in new born calves - Creating awareness about balance nutrition management	1 1	30 30	PF PF
Horticulture	- Vegetable production in kharif season			
III. Quarter (1 <sup>st</sup> Oct to 31 <sup>st</sup> Dec, 2015)				
Crop production	- Organic farming	1	30	PF
Plant Protection	- Diseases management in spices	1	30	PF
Extension	- Development of entrepreneurship among rural youth	1	30	RY
Animal Hus	- Fodder crop production technology - Increase nutritive value of low quality roughages for milking animals	1 1	30 30	PF PF
Home Science	- Organic Kitchen gardening & its importance on health - Preparation of milk products	1 1	30 30	FW FW
Soil Science	- Recycling of farm waste	1	30	PF
Horticulture	- Cultivation practices of onion and garlic	1	30	PF
IV. Quarter (1 <sup>st</sup> Jan to 31 <sup>st</sup> March, 2016)				
Crop production	- Advances in Summer crops production technology	1	30	PF
Plant Protection	- Storage pest Management	1	30	PF
Ag. Eng	- Micro irrigation system in different crops	1	30	PF
Home Science	- Value addition in milk	1	30	FW
Animal Hus	- Clean milk production by proper milking watering and animal washing	1	30	PF
Extension	- Income generation activities for farmers through secondary agri.	1	30	PF
Horticulture	- Importance of drip irrigation in horticultural crops	1	30	PF

**4. Vocational Training**

Sr. No.	Title of Training	Dura. Days	No. of parti	Type of Parti.
1.	Production of vermi compost	2	30	Rural Youth
2.	Repairs and maintenance of tractor and farm implements	2	30	Rural Youth
3.	Preservation of vegetables and fruits	2	30	Rural women
4.	Preparation of different bakery product	2	30	Rural women

**5. Extension Functionaries**

Sr. No.	Title of Training	Dura. Days	No. of parti
1	Pre-seasonal training on kharif crops	1	25
2.	Pre-seasonal training on Rabi crops	1	25

**6. Sponsered Training**

Sr.No.	Department	No. of Trainings	No. of Participants
1	ATMA	8	30
2	DAO, Rajkot	1	30
3	DWDU	1	30

**7. Front Line Demonstration**

Sr. No.	Crop	Variety	Title	No. of Demons.	Area (ha)
<b>Oil seed &amp; Pulses</b>					
1	Chick pea	GG-3	Yield potentiality	10	4
2	Sesamum	Guj. Til-3	Yield potentiality	10	4
3	Groundnut	GG-20	Integrated pest management	20	15
4	Summer G'nut	GJG-31	Yield potentiality	10	4
<b>Other Crops</b>					
1	Wheat	GW-366	Yield potentiality	10	5
2	Cumin	Guj. Cumin-4	Yield potentiality	10	4
3	Cotton	Bt	Integrated Nutrient management	10	4
<b>Component Demonstration</b>					
1.	Groundnut	Trichoderma	-Reduce infestation of stem rot	10	4
<b>Total</b>				<b>90</b>	<b>44.00</b>

**8. OFT****1. Title of OFT:** Response of Bio fertilizers to wheat yield (On going)**1. Details of technologies selected****Technology assessed:** Use of bio fertilizer**Treatments:****1. Farmer's practice:-** Application of only DAP & Urea in different doses**2. Recommended practice :-** 120-60-0 NPK kg/ha**3. Intervention:-** Application of Azatobacter & PSB culture (250g/10kg) + 75% of RDF**Observation:**

Yield (kg/ha)

Economics (B:C ratio)

**2. Title :** Management of white grub in groundnut (On going)**Problem definition :** Low yield and heavy damage due to white grub**Technology assessed:** Integrated pest Management

Technology Option	Treatments	No. of trails
Farmers practice	Chloropyriphos @ 4 lit./ha at the time of attack	3
Recommended practice	1.Seed treatment with Chloropyriphos @ 25 ml/kg 2. Application of Chloropyriphos @ 4 lit./ha 3. Spraying the trees on bund with carbaryl@ 40g/15 lit water	
Intervention	1.Application of carbofuran 3G@ 40kg/ha at time of sowing 2.Spraying the trees on bund with carbaryl@ 40g/15 lit water	

**Observations:** Yield, Economics**3. Title: Prevention of Anemia Among rural adolescent girls (New )**

Majority of rural girls of this area are illiterate and they have poor economic status and lack of knowledge about nutrition of fruits, vegetables & other foods. Due to poor economic condition, they are unable to purchase fruits & vegetables from Market for their daily dietary need. It has resulted in poor health and imbalanced nutritional status of farmwomen / adolescent girls. Therefore, majority of women/ adolescent girls have suffering from Anemia (Iron deficiency disease) having low Hb level. Hence, we have decided to conduct On Farm Testing on Prevalence of Anemia among rural adolescent girls using iron rich diet with iron tablet to improve Hb level.

**Reason for Prevalence of Anemia**

- 1) Low iron content in diet
- 2) Use of traditional diet
- 3) Lack of knowledge about nutritional foods
- 4) Prevalence of infectious diseases
- 5) Poor socio-economic condition

**Intervention Point**

- 1) Use of iron tablet
- 2) Use of iron rich diet to improve Hb level

**Objective:** To improve the Hb level in rural adolescent girls

**Treatment**

- T<sub>1</sub> :- Traditional practice - existing dietary pattern  
 T<sub>2</sub> :- Recommended practice - iron tablet / day with existing dietary pattern  
 T<sub>3</sub> :- Iron tablet / day + 50 gm roasted Soybean + 100 gm Rice flakes /  
 day with existing dietary pattern.

**No of Replications :-** 15 girls (13 to 18 yrs)

**Observations**

1. Body weight
2. Measure Hb level before practices & after three months practices
3. Occurrence of disease if any

**Note:** - Roasted Soybean contains 10.4 mg% iron. Rice flakes contains 20.0 mg % iron

**4. Title: Effect of salt & oil on spoilage of mango pickles (New)**

**Problem Definition:** Spoilage in mango pickle

**Technology Assessed:** Prevention of spoilage in mango pickles

**Objective:**

To prevent spoilage in mango pickle

To increase self-life of mango pickle

Cost saving

**Treatments:**

Common ingredients use for all the treatments:- Mango 1 kg, turmeric powder 5 gm, jaggary/sugar 600 gm, fenugreek 50 gm, mustard 30 gm, asafetida (hing) 5 gm, coriander 30 gm, funnel 30 gm, red chili powder 30 gm.

<b>T1</b> :( Farmers' practices)	Salt 12% (120 gm) + Oil 800ml/ kg mango
<b>T2</b> :(Recommended Practice)	Salt 15% (150 gm) + Oil 250ml/ kg mango
<b>T3</b> :(Refinement)	Salt 20% (200 gm) + Oil 200ml/ kg mango

No. of Replication: - 3 (Farm women)

Observations: - Self life (days), Colour, Texture, Cost

**5. Trial 2: OFT (Animal husbandry) (New)**

**Title: Effect of supplementation of concentrate and mineral mixture on milk production of local buffalo breed.**

Livestock production in all its ventures is a source of income and for all livestock owners livestock feeding and nutrition is a major concern. Inadequate nutrition is a major cause of low live-weight gains, infertility and low milk yields in dairy cattle. The aim of the OFT is about the awareness of dairy farmers to know the nutritional management of milch animals to increase milk yield. Therefore, the above entitle OFT has been proposed.

**Treatment:**

- Treatment 1 : Routine Farmer Practice  
 Treatment 2 : Feeding of concentrate mixture (3kg/animal/day)  
 Treatment 3 : Feeding of concentrate mixture (3kg/animal/day) +  
 Mineral mixture (50 gm/animal/day)  
 Experimental Animals : 18(6 Animals/treatment)

Observations to be recorded: Milk yield (Lit/day)

**6. Assessment of Fertility improvement in Buffalo (New)**

<b>Problem diagnose</b>	:	Long inter calving period
<b>Objective</b>	:	To manage the infertility in buffalo
<b>Treatments</b>	:	
<i>T1</i> - Farmers practice	:	FP - No any intervention
<i>T2</i> - Recommended Technology	:	Treated by “OVSYNCH” protocol as per NDRI Karnal
<i>T3</i> - Technology Assessed	:	Treated with Mineral Mixture + deworming tablets + Bio- Heat tablets.
<b>Number of replication</b>	:	06
<b>Source of technology</b>	:	NDRI Karnal
<b>Thematic area</b>	:	Dairy Management
<b>Indicator/Parameter</b>	:	Occurrence of heat, conception rate and no. of insemination/animal

**9. Extension Activities:**

<b>Sr. No.</b>	<b>Activities</b>	<b>Proposed No.</b>
1	Kisan Mela	1
2	Field Day	5
3	Kisan Ghosthi	5
4	Radio Talk	As and when required
5	TV Show	As and when required
6	Film Show	5
8	Khedut shibir	15
9	Kisan mahila meeting	5
10	New paper Coverage	As and when required
11	Popular Articles	5
12	Extension Literature	8
13	Advisory Service	As and when required
14	Ex-Trainee Sammelan	2
15	Others- Seminar	4
16	Exhibition	2