ANNUAL REPORT (2010-11)
(01.04.2010 TO 31.03.2011)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Web Address
Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia, Dist.: Rajkot (Gujarat) - 360 003	Office (0281) 2784170	FAX (0281) 2784170	kvkrajkot@gmail.com	www.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	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 28th February. 2011)

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	present basic+ G.P. (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	2	3	4	5	6	7	8	9	10
1	Prog. Co.	Dr. B. B. Kabaria	Programme Coordinator	Agril. Ento.	37400-67000	60450/-	15-9-06	Permanent	General
2	SMS	Dr. J.B. Kathiriya	SMS (Ani. Sci)	Ani Sci.	8000-13500	8000/-	19-8-06	Permanent	General
3	SMS	Shri M.G. Khokhani	SMS (Agron)	Agron.	37400-67000	53820/-	20-6-09	Permanent	General
4	SMS	Shri D.A.Sardava	SMS (Plant Prot.)	Agril. Ento.	15600-39100	29950/-	27-6-09	Permanent	General
5	SMS	Shri. P.B.Mavani	SMS (Horti)	Horti	37400-67000	53820/-	1-11-10	Permanent	General
6	SMS	Shri. D.P. Sanepara	SMS (Agril. Engg.)	Agri. Eng.	15600-39100	27390/-	1-6-09	Permanent	General
7	SMS	Mrs.H.H. Padsumbiya	SMS (Home Sci)	Home Sci.	8000-13500	8000/-	17-8-06	Permanent	General
8	Pro. Ass.	Shri.J.K. Rachhadiya	Programme Assistant (Training)	-	9300-34800	20920/-	01-6-09	Permanent	General

1	2	3	4	5	6	7	8	9	10
9	Computer Prog.	Miss. R.T. Padliya	Programme Assistant/ Computer Operator	-	5500-9000 Fix pay 6000/-	6000/-	03-1-09	Permanent	General
10	Farm Man.	Vacant	Programme Assistant(Farm Manager)	-	5500-9000		-	-	
11	Acc. / Sup.	Shri. L.S.Vaghela	Offi. Sup. Cum A/c. Officer	-	5500-9000	16250/-	1-02-11	Permanent	S.C.
12	Stenog	Shri B.J. Lalkiya	Junior Steno	-	9300-34800	16190/-	01-5-07	Permanent	General
13	Driver	Shri. B.K. Gondaliya	Jeep Driver-Cum Mechanic	-	5200-20200	13800/-	11-9-08	Permanent	OBC
14	Driver	Shri.D.K. Makwana	Jeep Driver-Cum Mechanic	-	5200-20200	10850/-	01-7-06	Permanent	OBC
15	Supp staff	Smt.U.G.. Zala	Supporting Staff	-	4440-7440	7800/-	16-9-04	Permanent	General
16	Supp staff	Shri Y.B.Joshi	Supporting Staff	-	4440-7440	8870/-	2-6-09	Permanent	General

1.6. Total land with KVK (in ha) :

Sr. No.	Item	Area (ha)
1	Under Buildings	1.00
2.	Under Demonstration Units	3.50
3.	Under Crops	9.00
4.	Orchard/Agro-forestry	6.00
5.	Others	0.50
	Total	**20.00**

1.7. Infrastructural Development:

A) Buildings : **-**

Sr. No	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expe-nditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	KVK				March-10	550	Construction work is under progress
2.	Farmers Hostel	KVK				March-10	305	
3.	Staff Quarters (6)	KVK				March-10	400	
4.	Poly House	RKVY	31-3-09	320	281602			
5	Net House	RKVY	31-3-09	150	64498			
6.	Farm godown	RKVY	9-2-10	70.61	454500			
7.	Training hall	RKVY	11-2-10	190.99	1395800			
8.	Process plant	RKVY	11-2-10	197.31	1536400			
9.	Implement shed	RKVY	9-2-10	77.33	297800			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualis	2004	590000	-	Working at junagadh on pooled basis
Tata Sumo	2008	600000	100661	Purchase from MP grant

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Generator set	27-3-2002	24900	Working
Color TV (Akai) with Remote	27-3-2002	13850	Working
Panasonic PT LC 50 LCD Project	28-3-2002	164368	Working
PA Audio Vision System	28-3-2002	20000	Working
Computer System Intel Pentium IV	2003	32000	Working
Computer Wipro Super Genius Desktop	6/2/2006	-	Working
Electronic Kelvinator Refrigerator	2006	10,500	Working
Balaji Bio Gas Plant	2007	32000	Working
Aspee Tractor Mounted Sprayer	2007	32000	Working
Air Assisted Blower type sprayer	2009	98750	Working
Photo copier Machine (Richo)	2008-09	115300	Working
Digital Camera (Nikon) P- 90 12.1	2009-10	24300	Working
LCD Projector with ceiling mount kit Model-PT-CB50NTE-2GA (Panasonic)	2008-09	92155	Working
DVD Home theater system with Speaker (HCL)	2008-09	28000	Working
LCD TV 22" Model- 22LG30 (L. G.)	2008-09	27287	Working
Cotton stalk Shredder	2008-09	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
Laptop Computer (HCL)	2008	47500	Working
Solar steel digital water plant	2006	45000	Working

1.8. A). Details SAC meeting conducted in the year-2010

Sr. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1	16/04/10	1. Dr. N. C. Patel, Honorable Vice Chancellor, JAU, Junagadh 2. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh 3. Shri D. B. Gajera, DAO, Rajkot 4. Dr. J.P. Khunti, RS (DFRS), Targhadia 5. Shri P.T. Korvadia, Dept. Director of GLDC,Rajkot 6. Shri J.D. Patel, Dept. Director of Horticulture, Rajkot 7. Dr. P.N. Vadher, VO, Gopal Dairy Rajkot 8. Shri Baldev Dalsaniya, All India Radio, Rajkot 9. Shri H.B. Mudhava, IPO, D.I.C., Rajkot 10. Dr. V.S. Ajudia, Dept. Director of A.H., Rajkot 11. Shri Karansinh Solanki,, Doordarsan Kendra, Rajkot 12. Dr. K.P. Baraiya, T.O., KVK, Jamanagar	No of trainings should be increased in Action plan and Feedback of the Farmer's should be transferred to concern Scientist of the University	Suggestion accepted & Implemented
			FLDs should be on the bases of feedback received from the Farmers.	Suggestion accepted & Implemented
			OFT on Leaf roller of sesamum should be dropped and add new OFT	Suggestion accepted
			No of popular articles should be increased	Suggestion accepted & Implemented

		13. Dr. R.M.Javiya, T.O., KVK, Surendranagar 14. Dr.B.B.Kabaria, T.O., KVK, Targhadia 15. Shri Hareshbhai M.Saipariya, Progressive Farmer, Rataiya 16. Shri Babubhai D. Ramani, Progressive Farmer, Khorana 17. Shri Chandubhai D. Sangani, Progressive Farmer, Khorana 18. Jamnaben B.Ramani, Farm woman, Khorana 19. Kanchanben C. Sangani, Farm woman, Khorana 20. Miss Purvi M. Topia, Rural Youth, Madharvada 21. Miss Saroj P. Topia, Rural Youth, Madharvada	Latest video technology films should be develop for farmers	Suggestion accepted & Implemented

2. DETAILS OF DISTRICT

2.1. Major farming systems/enterprises (based on the bench mark analysis made by the KVK)

Sr. No	Farming system/enterprise
1	Groundnut – Wheat/ Cumin, Cotton – Summer Groundnut/ Pulse crop
2	Dairy product
3	Vermi-composting
4	Fruit, 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)

Sr. 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 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**.

Sr. No	Agro ecological situation	Characteristics	Taluka Covered*
1.	Situation No. 2	Medium Black Soil with 500-600 mm Rainfall	Gondal, Jamkandorna
2.	Situation No. 4	Shallow black soil with 500-600 mm Rainfall	Lodhika, Padadhari, Rajkot, Kotada sangani
3.	Situation No. 7	Residual Sandy Soils with 500-600 mm Rainfall	Morbi, Vankaner, Tankara, Maliya
4.	Situation No. 14	Hilly Soils with 500-600 mm Rainfall	Jasdan

- Jetpur, Dhoraji and Upleta Taluka falls under the South Saurashtra (VII) Agro – Climatic Zone

2.3 Soil type/s

Sr. No	Soil type	Characteristics	Area in ('000) 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 (2009-10)

Sr. No	Crop	Area (ha)	Production (MT)	Productivity (Kg. /ha)
***Kharif* Season**				
1.	Groundnut	299188	299188	1000
2.	Cotton (*Bt.*)	301743	593830	1968
3.	Cotton (Desi)	29609	23687	800
4.	Pearl millet	9594	17356	1809
5.	Sorghum	24030	12015	500
6.	Sesamum	25843	40938	1584
7.	Castor	12825	36998	2885
8.	Pegion pea	630	580	920
9.	Black gram	3523	1066	303
10.	Green gram	3295	1189	361
Rabi Season				
1.	Wheat	111021	373429	3364
2.	Mustard	237	254	2072
3.	Cumin	34604	20431	591
4.	Vegetable	6428	30831	4796
5.	Onion	9171	267641	29183
6.	Garlic	11617	85504	7360

2.5 weather data (2010-11)

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April - 2010	0.0	40.1-42.8	21.0-24.5	62-76
May - 2010	0.0	40.8-43.8	25.2-27.6	62-75
June - 2010	7.3	40.8-43.8	25.2-27.6	39-53
July – 2010	33.4	37.3-39.9	26.0-27.1	56-61
August -2010	108.7	29.6- 33.5	24.7-25.6	82-90
September- 10	79.6	30.5-32.7	24.6-25.2	78-84
October- 2010	29.3	29.9-34.6	22.8-24.9	67-86
November-2010	1.7	34.2-37.3	19.2-23.8	42-62
December-2010	15.4	26.3-33.6	17.7-22.2	55-79
January – 2011	0.0	26.3-30.4	9.9-13.7	58-68

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

Category	Population	Production ('000 tone)	Productivity
1	**2**	**3**	**4**
Cattle			
Crossbred	14866	13.73	
Indigenous	424342	134018	
Buffalo	273953	206.82	
Sheep			
Crossbred			
Indigenous	274546		
Goats	218139	10.61	
Pigs			
Crossbred			
Indigenous	23044		
Rabbits			
Poultry			
Hens			
Desi	5930		
Improved	126137		
Ducks	50		
Others			
Horse and Camel	792		

2.6 Details of Operational area / Villages

Sr. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Rajkot	Cluster I	Ranpur	Groundnut, Cotton, Sesamum, Green gram, Black gram. Wheat, Cumin, Chickpea, Garlic, Onion. Enterprises are dairy business, vermi composting, preparation of roasted groundnut and chikki from groundnut seed.	Heavy infestation of sucking pest in cotton, Sesamum leaf blight, Stem rot disease in Groundnut, Long inter-calving period in Buffalo, Nutritional deficiency in animal feed and fodder, Less area under Horticultural crops. Low "N" in soil.	*IPM and INM in major crops of this area *Reducing the inter-calving period in Buffalo *Motivate the farmers for arid Horticultural crops. * To create the awareness for grading, processing and marketing (value addition)
			Magharvada			
			Deroi			
			Bedla			
			Khorana			
2	Paddhari	Cluster II	Metoda			
			Sarapdad			
			Kerala			
			Nani Amreli			
			Suvag			
3	Wankaner	Cluster III	Mesariya			
			Ratadiya			
			Samdhiyala			
			Kothi			
			Jalida			

2.7 Priority thrust areas

Crop/Enterprise	Thrust area
Groundnut, Sesamum etc	Increasing the productivity of the major crops by adopting recommended dry farming technologies and to create awareness for value addition.
Water conservation	*In situ* soil moisture conservation and rainwater harvesting.
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 2010-11

OFT				FLD			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs (Area in ha.)		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
6	6	50	50	52.3	59.6	147	159

Training (including sponsored, vocational and other trainings carried out under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of Participants	
Clientele	Targets	Achievement	T	A	T	A	T	A
Farmers	91	88	2270	2493	-	-	-	-
Rural youth	1	1	30	19	-	-	-	-
Extn. Functionaries	4	4	100	137	-	-	-	-
Total	**96**	**93**	**2400**	**2649**	**-**	**483**	**-**	**108483**

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	92.50	-	-

3.B. Abstract of interventions undertaken

S. N.	Thrust area	Crop/ Enter-prise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for ext. personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	2	3	4	5	6	7	8	9	10
1	Increase the productivity of buffalo	Live stock	Long Inter calving period in buffalo	Reduction of Inter – Calving Period in Buffalo	-	Training for reduction of Inter calving period in buffalo	-	Group meeting	Medicine
2	Increase the productivity of cotton	Cash crop	Imbalance fertilization in cotton	Low yield of cotton	-	Balance fertilization in cotton	-	Field day/ Kishan gosti	Fertilizer
3	Increase the productivity of cotton	Cash crop	incidence of sucking pest in cotton	Managemen t of sucking pests in cotton	-	IPM in cotton	-	Group meeting	Pesticide
4	Increase the productivity of groundnut	Oil seeds	Stem rot disease in groundnut	Application methods of Trichoderma against stem rot disease in groundnut	-	IDM in groundnut	-	Group meeting	*Trichoderma*
5	Increase the productivity of groundnut	Oil seeds	Low moisture content due to rain fed farming	Low yield of Groundnut due to improper tillage practice	-	Soil moisture conservation	-	Group meeting	Recommended practices

3.1 Achievements on technologies assessed and refined

A.1 Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
1	2	3	4	5	6	7	8	9	10	11
Varietal Evaluation										
Seed / Plant production										
Weed Management.										
Integrated Crop Manag.										
Integrated Nutrient Management				**1**						**1**
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										

1	2	3	4	5	6	7	8	9	10	11
Farm machineries										
Value addition										
Integrated Pest Management		1		1						2
Integrated Disease Management										
Resource conservation technology		1								1
Small Scale income generating enterprises										
Home Science										1
TOTAL		2		2						5

A.2 Abstract on the number of technologies refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
1	2	3	4	5	6	7	8	9	10	11
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management				1						1
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management		1		1						2
Integrated Disease Management										
Resource conservation technology		1								1
Home Science										1
TOTAL		2		2						5

A.3 Abstract on the number of technologies assessed in respect of livestock

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

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

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

B. DETAILS OF EACH ON FARM TRIAL (OFT)

A. Technology assessment /Refinement

OFT - 1

1) Title of technology assessed/Refined : Reduction of Inter – Calving Period in Buffalo
2) Problem definition : Long inter calving period in zafarabadi buffaloes
3) Details of technologies selected for assessment/refinement:
   - ✓ T1. One group of Dairy Animals under control (Farmers Practice)
   - ✓ T2. Second group of Dairy Animals was fed with Mineral Mixture + Bio-Heat tablets.(recommendation)
   - ✓ T3. Third group of Dairy Animals was fed with Mineral Mixture + Zycloze bolus+ Bio-Heat tablets. (intervention)
4) Source of technology: JAU, Junagadh
5) Production system and thematic area : Livestock enterprise and Production and management
6) Thematic area : Production and management

7) Performance of the technology with performance indicators:

Farmer No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined								
			Technology option 1			Technology option 2			Technology option 3		
			Indicator 1 in mth	Indicator 2 in mth	Indicator 3 in mth	Indicator 1 in mth	Indicator 2 in mth	Indicator 3 in mth	Indicator 1 in mth	Indicator 2 in mth	Indicator 3 in mth
1	C.J. Sordhiya	Deroi	17.5-28.0	2.8-3.8							
2	V.D.Bodar	Bedala									
3	J.V.Bodar	Bedala									
4	P.R.Ramani	Bedala									
5	H.A.Keraliya	Khorana									
6	N.P.Sangani	Khorana									
7	R.L.Kathiriya	Kerala				14.5-17.5	2.0-2.8				
8	R.D.Lunagariya	Nanaamreli									
9	B.D.Thumar	Khorana									
10	M.D.Vekariya	Khorana									
11	D.K.Mer	Ratadia									
12	N.B.Mer	Ratadia									
13	D.D.Rangani	Ranpur								12.5-14.5	1.3-2.2
14	M.L.Rank	Ranpur									
15	R.R.Hapliya	Madharvada									
16	K.D.Thumar	Madharvada									
17	P.K.Vekariya	Metoda									
18	B.T.Sojitra	Metoda									

Indicator 1 : Inter-calving period in month, Indicator 2 : Average No. of Heats required for conception

8) Final recommendation for micro level situation : Dairy Animals be fed with Mineral Mixture + Zyclose bolus + Bio-Heat tablets.

9) Constrains identified and feedback for research :
- ✓ Imbalance feeding
- ✓ Anestrous
- ✓ Poor management

10) Process of farmers participation and their reaction: Farmer aware about feeding of Mineral Mixture + Zyclose bolus + Bio-Heat tablets.

11) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Livestock	Rainfed farming	Long Inter calving period in buffalo	Reduction of Inter Calving Period in Buffalo	3	Reduction of Inter – Calving Period in Buffalo	• Days of inter calving period • Animal conceived in no. of heat

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	*Production per unit
8	9	10	11	12
Acc. to parameter 7	1. One group of Animals is fed with Zyclose bolus + Bio-Heat tablets. 2. Second group of Dairy Animals be fed with Mineral Mixture.	- - - - - - -	Third group of Dairy Animals be fed with Mineral Mixture + Zyclose bolus + Bio-Heat tablets.	

OFT – 2

1) Title of technology assessed/Refined: Low yield of cotton

2) Problem definition : low yield of cotton due to imbalance fertilization in cotton

3) Details of technologies selected for assessment/refinement :
   - ✓ T1. Dose of fertilizer 125 kg DAP & 125 kg Urea /ha (Farmer's practices)
   - ✓ T2. Dose of fertilizer (160-0-0 NPK kg / ha) in four split in which second split in form of Ammonium Sulphate (Recommended)
   - ✓ T3. T2 + 50 kg P2O5 ha-1 through DAP + 50 kg K2O ha-1 through MOP as a basal dose(intervention)
   - ✓ T4. T3 + and 25 kg MgSO4 ha-1 + 10 kg ZnSO4 as a basal dose. (intervention)

4) Source of technology : GAU

5) Production system : Balance fertilization in cotton

6) thematic area : Balance fertilization in cotton

7) Performance of the technology with performance indicators :

Farmer No	Name of the farmer	Name of the Village	Yield (Q/ha)				
			T-1	T-2	T-3	T-4 *	Average
1	M.V.Rathod	Meshriya	27.00	28.2	32.0	38.0	31.30
2	G.B.Topiya	Magharvada	28.0	28.7	34.5	40.8	33.00
3	J.K.Mer	Ratdiya	28.5	30.4	34.8	39.3	33.20
4	M.K.Vekariya	Metoda	26.7	27.4	33.0	37.0	31.00
5	J.L.Lunagariya	Sarapdad	27.8	29.5	34.5	42.0	33.50
Average			**27.60**	**28.80**	**33.80**	**39.40**	

*Comparatively less reddening was observed in treatment no.-4

8) Final Recommendation for micro level situation: Recommended dose of fertilizer (160-0-0) in four split in which second split in form of Ammonium Sulphate+ 50 kg P2O5 ha-1 through DAP + 50 kg K2O ha-1 through MOP as a basal dose.+ 25 kg MgSO4 ha-1 + 10 kg ZnSO4 as a basal dose.

9) Constrains identified and feedback for research :
   - ✓ Unbalance fertilization
   - ✓ Problems of sucking pest
   - ✓ Lack of knowledge of fertilization
   - ✓ Less use of organic manures in soil

10) Process of farmers participation and their reaction : Good

11) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Cash crop	Irrigated	low yield of cotton due to imbalance fertilization in cotton	Low yield of cotton	5	Balance fertilization	Yield Reddening

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	Production per unit
8	9	10	11	12
Acc. to parameter 7	T1 Farmers practices T2. Recommended dose of fertilizer (160-0-0 NPK kg / ha) in four split in which second split in form of Ammonium Sulphate T3. T2 + 50 kg P2O5 ha-1 through DAP + 50 kg K2O ha-1 through MOP as a basal dose	-	Recommended dose of fertilizer (160-0-0) in four split in which second split in form of Ammonium Sulphate+ 50 kg P2O5 ha-1 through DAP + 50 kg K2O ha-1 through MOP as a basal dose.+ 25 kg MgSO4 ha-1 + 10 kg ZnSO4 as a basal dose.	39.40 q / ha

Net return (Profit) in Rs/Unit	BC Ratio
13	**14**
T1- 1,26,545	3.77
T2- 1,72,048	3.99
T3- 1,54,973	4.31
T4- 1,80,649	4.72

OFT – 3

1) Title of technology assessed/Refined : Management of sucking pests in cotton.
2) Problem definition
   - ✓ Improper irrigation
   - ✓ No adoption of recommended practices
3) Details of technologies selected for assessment/refinement :
   a. T1. Use of newer insecticide (Farmers practice)
   b. T2. Use of new, old and bio control agent (Recommended practice)
   c. T3. Alternate treatment one and two (intervention)
4) Source of technology: JAU, Junagadh
5) Production system and thematic area : Integrated Pest Management

6) Thematic area : Integrated Pest Management

7) Performance of the technology with performance indicators :

Farmer No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined (Q/ha)								
			Technology option 1			Technology option 2			Technology option 3		
			Indicator 1	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3
1	H.A.Badi	Samdhiyada	30.00	0.55	0.55	32.50	0.5	0.6	29.50	0.6	0.2
2	C.K.Vekariya	Metoda	27.50	1.0	1.1	28.00	0.7	0.7	26.25	1.1	0.1
3	L.K.Dholariya	Jalida	20.00	0.7	1.7	21.25	0.5	1.2	20.60	0.9	0.6
4	H.K.Sarvaiya	Madharvada	18.75	2.5	2.4	18.75	2.1	1.2	18.75	2.5	0.1
	Average		**24.00**	**1.2**	**1.4**	**25.12**	**1.95**	**0.9**	**23.80**	**1.3**	**0.4**

Indicator 1 : yield of cotton in Q/ha, Indicator 2 : --No. of jassid 3 leaves/plant, indicator 3 : No. of white fly /plant

8) Final recommendation from micro level situation: Use of new, old and bio control agent (Recommended practice)

9) Constrains identified and feedback for research :

- ✓ No knowledge about the use of particular pesticide for the control of sucking pests, resulted the development of resistance in the pest.
- ✓ Use of higher dose of insecticide
- ✓ Improper irrigation.
- ✓ Not adopting recommended schedule for spraying insecticides.
- ✓ Poor weed management.
- ✓ Farmer spray insecticide as per instructions given by local pesticides retailer.
- ✓ Unbalance fertilization.
- ✓ Lack of knowledge of fertilization.

10) Process of farmers participation and their reaction: Satisfactory

11) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Cash crop	Rainfed farming	Incidence of sucking pest in cotton	Management of sucking pests in cotton	3	Management of sucking pests in cotton	• Pest population • Yield of cotton

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	*Production per unit
8	9	10	11	12
Acc. to parameter 7	1. Farmers practice-Use of newer insecticide	-	Alternate treatment one and two	23.80 Q/ha
	2. Use of new, old and bio control agent (Recommended practice)	-		
		-		
		-		

OFT – 4 Title of technology assessed/Refined : Problem identification : Application methods of *Trichoderma* against stem rot disease in groundnut

1) Problem definition
   - ✓ Low plant population
   - ✓ Disease problems.
   - ✓ Lack of knowledge for use of recommended control measures

2) Details of technologies selected for assessment/refinement :
   a. T1. Mix *Trichoderma* @ 2.5 kg /ha with 50 kg fine sand or organic manure and soil application in side the groundnut row at 30 days after sowing in moist condition (Farmers Methods)
   b. T2. Mixing *Trichoderma* @ 2.5 kg/ha with castor cake @ 500 kg/ha at the time of sowing with the help of multi purpose seed drill . (Recommendation).
   c. T3. Soil drenching of *Trichoderma* @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)

3) Source of technology: JAU, Junagadh

4) Production system and thematic area : Integrated Disease Management

5) thematic area : Integrated Disease Management

6) Performance of the technology with performance indicators :

Farmer No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined (Q/ha)								
			Technology option 1			Technology option 2			Technology option 3		
			Indicator 1	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3
1	S.N.Kathiriya	Kerala	19.50	3.25	4.5	20.10	2.5	7	18.20	4.0	5.0
2	B.H.Dholariy	Deroi	23.10	3.5	5.5	23.80	2.5	4	21.00	3.75	5.0
3	D.B.Gondaliya	Khorana	22.50	3.25	4.5	13.00	2.5	3	12.50	4.0	4.5
4	D.A.Ramani	Bedala	20.00	5.0	7.0	22.50	3.25	5	18.50	5.25	7.5
5	KVK-Farm	Targhadia	13.00	3.1	3.6	14.50	2.5	3	12.00	3.25	4.0
	Average		**17.60**	**3.62**	**5.02**	**18.80**	**2.65**	**4.4**	**16.40**	**4.05**	**5.2**

Indicator 1 : yield of groundnut in Q/ha
Indicator 2 : --Percent infected plant, Indicator 3 : percent infected plant at time of harvest

7) Final recommendation from micro level situation: Soil drenching of *Trichoderma* @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)

8) Constrains identified and feedback for research :
   - ✓ Low plant population
   - ✓ Disease problems.
   - ✓ Lack of knowledge for use of recommended control measures.

9) Process of farmers participation and their reaction:

10) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Oilseed	Rainfed farming	Stem rot disease in groundnut	Application methods of *Trichoderma* against stem rot disease in groundnut	4	Application methods of *Trichoderma* against stem rot disease in groundnut	• Yield of groundnut • Percent infected plant

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	*Production per unit
8	9	10	11	12
Acc. to parameter 7	1. Mixing of *Trichoderma* @ 2.5 kg /ha with 50 kg fine sand or organic manure and soil application in side the groundnut row at 30 days after sowing in moist soil condition (Farmers Method) 2. Mixing of *Trichoderma* @ 2.5 kg/ha with castor cake @ 500 kg/ha at the time of sowing with the help of multi purpose seed drill . (Recommended method).	- - - - - - -	Soil drenching of *Trichoderma* @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)	16.40 Q/ha

Net return (Profit) in Rs/Unit	BC Ratio
13	14
T1- 4125	1.20
T2- 4650	1.21
T3- 3400	1.17

OFT – 5

1) Title of on-farm trials : Low yield of groundnut due to improper tillage practices

2) Problem definition: 1. Shallow ploughing.
2. Lack of knowledge about soil moisture conservation and its importance.
3. Lack of knowledge regarding proper tillage practice.

3) Details of technologies selected for assessment/refinement :

- ✓ T1. Shallow ploughing with 7-8 interculturing (Farmers method)
- ✓ T2. Deep ploughing with 2-4 interculturing (Recommendation)
- ✓ T3. Medium deep ploughing with 4-5 interculturing (Intervention)

4) Source of technology : JAU, Junagadh

5) Production system and thematic area : Resource conservation technology

6) Thematic area : Resource conservation technology

7) Performance of the Technology with performance indicators :

Farmer No.	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined					
			Technology option 1		Technology option 2		Technology option 3	
			Indicator 1 Q/ha	Indicator 2 %	Indicator 1 Q/ha	Indicator 2 %	Indicator 1 Q/ha	Indicator 2 %
1	J.L. Lunagaria	Sarapdad	15.30	23	17.20	27	18.60	25
2	M.A. Vakaliya	Mesariya	13.45	21	15.10	24	16.20	23
3	B.R. Topiya	Magharwada	14.60	23	16.30	26	17.70	24
	Average		**14.45**	**22.3**	**16.20**	**25.6**	**17.50**	**24**

Indicator 1 : yield of groundnut (Q/ha), Indicator 2 : moisture content (%)

8) Final recommendation for micro level situation - Medium deep ploughing with 4-5 times inter culturing

9) Constraints identified and feedback for research ; --

10) Process of farmer's participation and their reaction : Farmers aware about benefit of medium deep ploughing

11) Results of on farm trials :

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Oilseed	Rainfed farming	Low moisture content due to rainfed farming	Low yield of groundnut	3	Low yield of groundnut due to improper tillage practice	✓ Yield of groundnut ✓ Moisture percent

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	*Production per unit
8	9	10	11	12
Acc. to parameter 7	1. Shallow ploughing with 7-8 interculturing	Low moisture content due to shallow plowing	Medium deep ploughing with 4-5 interculturing	17.50 Q/ha
	2. Deep ploughing with 2-4 interculturing	Wilt due to deep plowing		

Net return (Profit) in Rs/Unit	BC Ratio
13	14
T1- 22740	1.97
T2- 28940	2.26
T3- 33700	2.51

OFT – 6

1) Title of technology assessed/Refined : Management of Anemia in adolescent girls.
2) Problem definition :
   - ✓ Girls does not prefer iron rich diet.
   - ✓ Lack of nutritional management
3) Details of technologies selected for assessment/refinement :

Category	Source of technology	Technology details
Technology Option1	-	First group for control
Technology Option2	-	Iron & folic acid tablets from PHC for first group of adolescent girls
Technology Option3	-	Use of gram (50gm) + black sesamum (10gm) for second group of adolescent girls

4) Source of technology: -
5) Production system and thematic area :
6) thematic area : Women and child care
7) Performance of the technology with performance indicators :

Farmer No.	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined					
			Technology option 1		Technology option 2		Technology option 3	
			Indicator 1 : Body weight increase (kg)	Indicator 2 Hemoglobin increase (%)	Indicator 1 : Body weight increase (kg)	Indicator 2 Hemoglobin increase (%)	Indicator 1 : Body weight increase (kg)	Indicator 2 Hemoglobin increase (%)
1	V.P.Sorani	Bedala	0.0	0.0				
2	S.B.Sorani	Bedala	0.5	0.0				
3	D.B.Govani	Bedala	1.0	0.1				
4	M.V.Dhamvaniya	Bedala	0.5	0.2				
5	D.V.Bodar	Bedala	0.0	0.0				
6	D.R.Agravat	Metoda			1.0	0.0		
7	J.N.Sojotra	Metoda			1.0	0.0		
8	B.S.Limbola	Suvag			0.5	0.2		
9	P.M.Jakhliya	Suvag			0.3	0.1		
10	V.R.Vekariya	Kerala			0.7	0.2		
11	R.V.Khet	Suvag					2.0	0.9
12	D.S.Dudharechiya	Suvag					1.5	0.7
13	C.R.Muchhadiya	Metoda					1.7	1.0
14	N.P.Pipaliya	Metoda					2.0	2.2
15	U.M.Pambar	Kerala					1.7	0.3

Indicator 1 : Body weight increase (kg), Indicator 2 : Hemoglobin increase (%)

8) Final recommendation from micro level situation:

9) Constrains identified and feedback for research :

10) Process of farmers participation and their reaction

11) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	2	3	4	5	6	7
Home Science	-	Low Hemoglobin	Management of Anemia in adolescent girls.	3	Feeding of Iron rich diet to adolescent girl in rural for remove Anemia.	• Weight of adolescent girls. (Kg) • Hemoglobin of adolescent girls. (%)

Data on the parameter	Results of assessments	Feedback from the farmers	Technology assessed/refined	*Production per unit
8	9	10	11	12
Acc. to parameter 7	Iron & folic acid tables from PHC for first group of adolescent girls	-	Use of gram (50gm) + black sesamum (10gm) for second group of adolescent girls	

3.2 Achievements of Front Line Demonstrations

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

List of technologies demonstrated during previous year and popularized during 2010-11 and recommended for large scale adoption in the district.

Sr. No	Crop	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	Varietal Evaluation	Seeds of TG-38	Short duration, bunch type and high yielding	15	20	8
2	Groundnut	Pest management	*Trichogamma* card	To parasitized the eggs of *Helicoveapa* & *Spodoptera*	8	10	4
3	Groundnut	Disease management	*Trichoderma* Powder	Management of stem rot in groundnut	9	12	4.8
4	Sesamum	Varietal Evaluation	Seeds of Guj. Til-2	Short duration, high yielding	5	5	2
5	Black gram	Varietal Evaluation	Seeds of GU-1	High yielding variety	9	10	4
6	Green gram	Varietal Evaluation	Seed of green gram 4	Short duration, high pod length and yield	8	10	4
7	Gram	Varietal Evaluation	Seed of gram GG-1	High yielding variety	3	10	4
8	Cumin	Varietal Evaluation	Seed of GC-4	Resistance to wilt and tolerant to blight disease	10	15	6
9	Wheat	Varietal Evaluation	Seeds of GW-366	bold size grain with high yielding variety	10	10	4
10	Cotton	INM & IPM in cotton	INM & IPM	Balance fertilization	15	75	30

b. Details of FLDs implemented during 2010-11

Oilseeds

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall
					Proposed	Actual	SC/ST	Others	Total	
1	Groundnut	Varietal evaluation	Seeds of GG-5	Kharif - 10	8	8	-	20	20	-
2	Sesamum	Varietal evaluation	Seeds of GT-3	Kharif - 10	2	4	-	10	10	-
4	Groundnut	Disease management	*Trichoderma* powder	Kharif - 10	8	8	3	17	20	-

Pulses

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Black gram	Varietal evaluation	Seeds of GU-1	Kharif – 10	4.0	2	-	5	5	Farmers are not willing to grow green gram & black gram
2	Green gram	Varietal evaluation	Seeds of GM-4	Kharif – 10	4.0	3.6	-	9	9	
3	Gram	Varietal evaluation	Seeds of GG-1, 2 & 3	Rabi – 09	10.0	10.0	-	25	25	-
4	Soybean	Varietal evaluation	Seeds of JS-335	Kharif – 10	-	2	-	5	5	-

Cotton

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Cotton	INM in cotton	INM	Kharif – 10	12	20	2	48	50	-

Commercial crops (Cumin & Wheat)

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for shortfall
					Proposed	Actual	SC/ST	Others	Total	
1	Wheat	Varietal evaluation	Seeds of GW-366	Rabi - 09	4.8	4.8	-	12	12	-
2	Cumin	Varietal evaluation	Seeds of GC-4	Rabi - 09	4.8	4.8	-	12	12	-

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	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	13/6/10	25/9/10	1214.6	51
Sesamum	*Kharif*	RF	M. B.	L	M	H	Groundnut	13/6/10	15/9/10	1214.6	51

1	2	3	4	5	6	7	8	9	10	11	12
Green gram	*Kharif*	RF	M. B.	L	M	H	Cotton & G'nut	18/6/10	10/9/10	1214.6	51
Black gram	*Kharif*	RF	M. B.	L	M	H	Cotton & G'ut	27/6/10	21/9/10	1214.6	51
Groundnut	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	15/6/10	28/9/10	1214.6	51
Soybean	*Kharif*	RF	M. B.	L	M	H	Groundnut	17/6/10	27/9/10	1214.6	51
Cotton	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	22/6/10	28/12/10	1214.6	51
Gram	*Rabi*	Irrigated	M. B.	L	M	H	Groundnut	5/11/09	16/2/10	1214.6	51
Cumin	*Rabi*	Irrigated	M. B.	L	M	H	Green gram	6/11/09	27/2/10	1214.6	51
Wheat	*Rabi*	Irrigated	M. B.	L	M	H	Groundnut	17/11/09	1/3/10	1214.6	51

. B. – Medium Black

Performance of FLD (2010-11)

Sr. No.	Crop	Technology Demonstrated	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 (Rs.)	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Groundnut	Variety	GG-5	20	8.0	12.80	9.80	11.57	10.76	7.52	5100	5000
2	Sesamum	Variety	GT-3	10	4.0	4.40	3.70	4.03	3.82	5.49	505	600
3	Green gram	Variety	GM-4	9	3.6	8.50	2.40	5.45	4.20	5.60	900	800
4	Black gram	Variety	GU-1	5	2.0	8.75	7.50	8.12	7.59	6.98	1659	1500
5	Soybean	Variety	JS-335	5	2.0	9.40	8.00	8.76	8.26	6.05	1226	1800
6	Groundnut	IDM	GG-20	20	8.0	23.50	11.20	16.70	15.80	5.69	175	-
7	Cotton	INM	*Bt.*	50	20.0	36.00	28.00	32.60	31.25	4.32	1095	3200
8	Gram	Variety	GG-1	12	4.8	22.10	15.50	20.10	16.80	19.58	3350	2850
	Gram	Variety	GG-2	3	1.2	18.50	15.00	16.50	13.70	20.44	3350	2850
	Gram	Variety	GG-3	10	4.0	19.00	11.00	15.00	12.60	19.05	3350	2850
9	Wheat	Variety	GW-366	12	4.8	50.50	42.00	46.90	40.50	15.80	4745	4370
10	Cumin	Variety	GC-4	12	4.8	8.00	6.00	7.00	6.30	11.11	3871	3496
11	Animal Husbandry	Milk and fat production	Bypass fat powder	10	According to Farmer's view on an average 0.75 to 1.50 and 0.5 to 1.5% of Milk production and Fat percentage increased respectively							

Economic Impact (continuation of previous table)

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	Demonstration
14	15	16	17	18	19	20
16960	17550	35381	32904	18421	15354	2.65
12667	12125	22257	21098	9590	8973	4.23

14	15	16	17	18	19	20
10525	10375	18080	16800	7555	6425	1.7
10225	10075	25050	22770	14825	12695	2.4
8326	8900	17765	16751	9439	7851	2.13
13475	13000	48430	45820	31145	28870	3.6
33718	32875	1,48,819	1,42,656	115101	109781	4.41
11000	10500	40180	33600	29180	23100	1:3.65
11000	10500	33000	27400	22000	16900	1:3.00
11000	10500	30000	25200	19000	14700	1:2.73
15475	15100	78348	60137	62873	45037	1:5.06
13407	12800	80500	72450	67093	59650	1:6.00

Analytical review of component demonstrations

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Groundnut	*Kharif*	Seed/Variety	Rainfed	11.57	10.76	7.52
Sesamum	*Kharif*	Seed/Variety	Rainfed	4.03	3.82	5.49
Green gram	*Kharif*	Seed/Variety	Rainfed	5.45	4.20	5.60
Black gram	*Kharif*	Seed/Variety	Rainfed	8.12	7.59	6.98
Soybean	*Kharif*	Seed/Variety	Rainfed	8.76	8.26	6.05
Groundnut	*Kharif*	IDM	Rainfed	16.70	15.80	5.69
Cotton	*Kharif*	INM	Rainfed	32.60	31.25	4.32
Gram	Rabi	Seed/Variety	Irrigated	20.10	16.80	19.58
Gram	Rabi	Seed/Variety	Irrigated	16.50	13.70	20.44
Gram	Rabi	Seed/Variety	Irrigated	15.00	12.60	19.05
Wheat	Rabi	Seed/Variety	Irrigated	46.30	40.50	15.80
Cumin	Rabi	Seed/Variety	Irrigated	7.00	06.30	11.11

Technical Feedback on the demonstrated technologies

Sr. No.	Feed Back
1	To enhance the farmers to use recently developed certified varieties of related crop.
2	Proper use of fertilizers, Irrigation, insecticides and fungicide as per recommendation to reduce the production cost.

Farmers' reactions on specific technologies

Sr. No.	Feed Back
1	Cumin variety GC-4 is high yielding but gradually loosing wilt resistant character
2	Bunch type groundnut variety is suitable for rain fed area.
3	Application of *Trichoderma* is very useful for minimizing the stem rot in groundnut. (Application at the time of sowing with 500 kg castor cake/ha.)
4	Wheat variety GW-366 is high yielding but black tip on grain was developed
5	Reddening of 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	Farmers are not using drip irrigation system due to clogging of drippers (poor irrigation water quality)
11	Research needed for control of insect-pests and diseases in organic farming
12	Problem of leaf curling in chilli.
13	In case of groundnut variety GG-7, the test of seeds is affected due to bold size of kernel, which created vulnerable condition for disease infection
14	Wilting in chili and cotton
15	Problem of repeat breeding in cattle & buffaloes.

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Farmers Training	3	-	87	-
2	Media coverage	-	-	-	-
3	Kisan Ghosthi	3	-	143	-
4	Field day	4	-	148	-
	TOTAL	**10**		**378**	

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		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
(A) Farmers & Farm Women										
I Crop Production										
Integrated Farming	1	18		18				18		18
Water management	3	73		73				73		73
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	1	22		22				22		22
Grading and standardization	1	20		20				20		20
Protective cultivation (Green Houses, Shade Net etc.)	2	45	1	46				45	1	46
b) Fruits										
Cultivation of Fruit	1	17		17				17		17
c) Ornamental Plants										
d) Plantation crops										

1	2	3	4	5	6	7	8	9	10	11
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
III Soil Health and Fertility Management										
Soil and Water Testing	1	22		22				22		22
IV Livestock Production and Management										
Dairy Management	1		21	21					21	21
Disease Management	2	65		65				65		65
Feed management	2	59		59				59		59
Production of quality animal products	1	26		26	4		4	30		30
V Home Science/Women empowerment										
Design and development of low/minimum cost diet	2		71	71		2	2		73	73
Value addition	2		84	84					84	84
Income generation activities for empowerment of rural Women	2		50	50		3	3		53	53
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	1	36		36				36		36
Use of Plastics in farming practices	2	60		60				60		60
VII Plant Protection										
Integrated Disease Management	3	75		75				75		75
Bio-control of pests and diseases	3	55	14	69				55	14	69

1	2	3	4	5	6	7	8	9	10	11
Production of bio control agents and bio pesticides	1	15	2	17				15	2	17
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**32**	**608**	**243**	**851**	**4**	**5**	**9**	**612**	**248**	**860**
(B) RURAL YOUTH										
Production of organic inputs	1	15		15	1		1	16		16
Nursery Management of Horticulture crops	1	25		25				25		25
TOTAL	**2**	**40**		**40**	**1**		**1**	**41**		**41**
(C) Extension Personnel										
Integrated Pest Management	1	40		40	5		5	45		45
Rejuvenation of old orchards	1	36		36	5		5	41		41
Protected cultivation tech.	1	33		33	4		4	37		37
	3	**109**		**109**	**14**		**14**	**123**		**123**
TOTAL	**37**	**757**	**243**	**1000**	**19**	**5**	**24**	**776**	**248**	**1024**

B) OFF Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	30		30				30		30
Cropping Systems	1	28		28				28		28
Integrated Farming	1	22		22				22		22
Seed production	1	34		34				34		34
Production of organic inputs	1	28		28				28		28

1	2	3	4	5	6	7	8	9	10	11
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	32		32				32		32
Off-season vegetables	1	39		39	4		4	43		43
Grading and standardization	1	38		38				38		38
Protective cultivation (Green Houses, Shade Net etc.)	1	17		17				17		17
b) Fruits										
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
III Soil Health and Fertility Management										
Soil fertility management	1	29		29				29		29
Soil and Water Testing	1	49		49	3		3	52		52
IV Livestock Production and Management										
Dairy Management	1	17		17				17		17
Poultry Management	1	28		28	2		2	30		30
Disease Management	2	55	18	73				55	18	73
Feed management	2	70		70	4		4	74		74
Production of quality animal products	1	31		31				31		31
V Home Science/Women empowerment										
Household food security by kitchen & nutrition gardening	1		21	21					21	21

1	2	3	4	5	6	7	8	9	10	11
Design and development of low/minimum cost diet	1		31	31					31	31
Value addition	2		57	57		1	1		58	58
Income generation activities for empowerment of rural Women	1		17	17					17	17
Drudgery reduction technologies	1		20	20					20	20
Rural Crafts	1		26	26					26	26
Women and child care	2		40	40		6	6		46	46
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	3	68		68				68		68
Use of Plastics in farming practices	1	26		26				26		26
Production of small tools and implements	1	16		16	1		1	17		17
Repair and maintenance of farm machinery and implements	4	158		158	2		2	160		160
Post Harvest Technology	1	19		19				19		19
VII Plant Protection										
Integrated Pest Management	5	164		164				164		164
Integrated Disease Management	3	83		83				83		83
Bio-control of pests and diseases	1	17		17				17		17
Production of bio control agents and bio pesticides	2	40		40				40		40
VIII Fisheries										
IX Production of Inputs at site										

1	2	3	4	5	6	7	8	9	10	11
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**48**	**1138**	**230**	**1368**	**16**	**7**	**23**	**1154**	**237**	**1391**
(B) RURAL YOUTH										
TOTAL										
(C) Extension Personnel										
Management in farm animals	1	14		14				14		14
Total	**1**	**14**		**14**				**14**		**14**
TOTAL	**49**	**1152**	**230**	**1382**	**16**	**7**	**23**	**1168**	**237**	**1405**

C) Consolidated table (ON and OFF Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	30		30				30		30
Cropping Systems	1	28		28				28		28
Integrated Farming	2	40		40				40		40
Water management	3	73		73				73		73
Seed production	1	34		34				34		34
Production of organic inputs	1	28		28				28		28
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	32		32				32		32
Off-season vegetables	2	61		61	4		4	65		65
Grading and standardization	2	58		58				58		58
Protective cultivation (Green Houses, Shade Net etc.)	3	62	1	63				62	1	63

1	2	3	4	5	6	7	8	9	10	11
b) Fruits										
Cultivation of Fruit	1	17		17				17		17
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
III Soil Health and Fertility Management										
Soil fertility management	1	29		29				29		29
Soil and Water Testing	2	71		71	3		3	74		74
IV Livestock Production and Management										
Dairy Management	2	17	21	38				17	21	38
Poultry Management	1	28		28	2		2	30		30
Disease Management	4	120	18	138				120	18	138
Feed management	4	129		129	4		4	133		133
Production of quality animal products	2	57		57	4		4	61		61
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1		21	21					21	21
Design and development of low/minimum cost diet	3		102	102		2	2		104	104
Value addition	4		141	141		1	1		142	142
Income generation activities for empowerment of rural Women	3		67	67		3	3		70	70

1	2	3	4	5	6	7	8	9	10	11
Location specific drudgery reduction technologies	1		20	20					20	20
Rural Crafts	1		26	26					26	26
Women and child care	2		40	40		6	6		46	46
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	4	104		104				104		104
Use of Plastics in farming practices	3	86		86				86		86
Production of small tools and implements	1	16		16	1		1	17		17
Repair and maintenance of farm machinery and implements	4	158		158	2		2	160		160
Post Harvest Technology	1	19		19				19		19
VII Plant Protection										
Integrated Pest Management	5	164		164				164		164
Integrated Disease Management	6	158		158				158		158
Bio-control of pests and diseases	4	72	14	86				72	14	86
Production of bio control agents and bio pesticides	3	55	2	57				55	2	57
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**80**	**1746**	**473**	**2219**	**20**	**12**	**32**	**1766**	**485**	**2251**
(B) RURAL YOUTH										

1	2	3	4	5	6	7	8	9	10	11
Production of organic inputs	1	15		15	1		1	16		16
Nursery Management of Horticulture crops	1	25		25				25		25
TOTAL	**2**	**40**		**40**	**1**		**1**	**41**		**41**
(C) Extension Personnel										
Integrated Pest Management	1	40		40	5		5	45		45
Integrated Nutrient management	1	36		36	5		5	41		41
Protected cultivation technology	1	33		33	4		4	37		37
Management in farm animals	1	14		14				14		14
Total	**4**	**123**		**123**	**14**		**14**	**137**		**137**
TOTAL	**86**	**1909**	**473**	**2382**	**35**	**12**	**47**	**1944**	**485**	**2429**

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 else where
					Male	Female	Total	Type of units	Number of units	Number of persons employed	
H.Sc.	28/9/10	Preservation of vegetables and fruits	Value addition	1		19	19	House hold	-	-	-

(E) Sponsored Training Programmes :

Sr. No	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/RY/EF)	No. of courses	No. of Participants									Sponsoring Agency
								Others			SC/ST			Total			
								M	F	T	M	F	T	M	F	T	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	3/4/10	Scientific dairy farming through Adoption of breeding management	A.H.	Dairy Management	1	FW	1		47	47		1	1		48	48	NGO
2	21/4/10	Scientific dairy farming	A.H	Dairy Manag.	1	FW	1		49	49					49	49	NGO
3	6/8/10	Management of diseases in Rabi crops	P.P.	IDM	1	RY	1	18		18				18		18	FTC
4	11/8/10	Nursery management of horticultural crops	Horti.	Nursery raising	1	PF	1	18		18				18		18	NHRDF
5	8/9/10	Vaccination in mother & child	H.S.	Mother & Child care	1	FW	1		33	33		11	11		44	44	PHC

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
6	14/10/10	Importance of organic farming	Agro.	Organic farming	1	PF	1	24		24				24		24	ATMA

3.4. Extension Activities (including activities of FLD programmes)

Sr. No.	Nature of Extension Activity	Purpose/ topic and Date	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	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	Field Day	Cotton-16/11/10	1	23		23	2		2				25		25
		Cotton-5/12/10	1	41		41	3		3				44		44
		Wheat-19/1/11	1	51		51							51		51
		Cumin-19/2/11	1	28		28							28		28
	Total		**4**	**143**		**143**	**5**		**5**				**148**		**148**
2.	Kisan Mela (P)	Feb. 2011	1												100000
3	Kisan Ghosthi	2/7/2010	1	25		25							25		25
		27/8/10	1	12		12							12		12
		26/8/10	1	8		8	1		1				9		9
		29/9/10	1	22		22							22		22
		3/12/2010	1	167		167	11		11				178		178
.		22/12/10	1	97	25	122	9		9				106	25	131
		26/12/10	1	132		132	13		13				145		145
		29/12/10	1	145		145	11		11				156		156
	Total		**8**	**608**	**25**	**633**	**45**		**45**				**653**	**25**	**678**
4.	Exhibition	-	-	-		-	-	-	-	-	-	-	-	-	-
5.	Film Show	7/5/2010	1	26		26	6		6				32		32
		11/5/2010	1	22		22							22		22
		13/5/10	1	17		17							17		17
		25/5/10	1	23		23							23		23
		5/8/2010	6	19	20	39							19	20	39
		9/8/2010	3	16		16	1						17		17
		11/8/2010	4	18		18							18		18
		25/8/10	3	22		22							22		22
		26/8/10	4	40		40							40		40
		27/8/10	3	26		26							26		26
		31/8/10	2	27		27							27		27
		14/9/10	1	25		25							25		25
		13/10/10	1	16		16							16		16
		14/10/10	2	24		24							24		24
		26/10/10	1	33		33	4		4				37		37
		27/10/10	2	29		29							29		29
		28/10/10	1	36		36	5		5				41		41
		1/11/2010	1	29		29							29		29
		24/12/10	1	34		34							34		34
		28/12/10	1	36		36							36		36
		30/12/10	1	36		36							36		36
		1/1/2011	1	29		29							29		29
		5/1/2011	1	18		18							18		18
	Total		**43**	**601**	**20**	**621**	**16**		**16**				**617**	**20**	**637**
6.	Method Demonstrations		47												
7.	Farmers Seminar	16-17/12/10	1	35		35							35		35

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8.	Workshop	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.	Group meetings	May.10	1	15		15							15		15
		July.10	4	52		52	3		3				55		55
		Oct.10	1	47		47							47		47
		Nov.10	1	39		39							39		39
		Dec.10	2	53		53							53		53
	Total		**9**	**206**		**206**	**3**		**3**				**209**		**209**
10.	Lectures delivered as resource persons	June.10	3	299	4	303							299	4	303
		July.10	4	110	4	114							110	4	114
		Aug.10	2	20	279	299		11	11				20	290	310
		Sept.10	2	46	3	49	11		11				57	3	60
		Oct.10	4	190	12	202	31	2	33				221	14	235
		Nov.10	6	635	14	649	20	1	21				655	15	670
		Dec.10	6	664	27	691	46	3	49				710	30	740
		Jan.11	6	171	173	344	7		7				178	173	351
		Feb.11	2	201	6	207	14		14				215	6	221
	Total		**35**	**2336**	**522**	**2858**	**129**	**17**	**146**				**2465**	**539**	**3004**
11.	Newspaper coverage		9												
12.	Radio talks	June.10	2												
		July.10	3												
		Aug.10	1												
		Sept.10	1												
		Dec.10	1												
		Jan.11	2												
		Feb.11	2												
	Total		**12**												
13.	TV talks	May. 10	1												
		July. 10	2												
		Aug.10	1												
		Jan.11	2												
	Total		**6**												
14.	Popular articles	Aug.10	1												
		Nov.10	1												
		Jan.10	2												
	Total		**4**												
15.	Extension Literature														
16.	Advisory Services														
.17.	Scientific visit to farmers field		16	187		187	2		2	5		5	194		194
18.	Farmers visit to KVK		259	1054	458	1512	76	13	89	97	2	99	1227	473	1700
19.	Diagnostic visits		16												
20.	Exposure visits														
21.	Ex-trainees Sammelan														
22.	Soil health Camp	-													
23.	Animal Health Camp	July.10	3	215		215	7		7				222		222
		Nov.10	1	767	20	787	20		20				787	20	807
		Dec.10	4	329		329	17		17				346		346
	Total		**8**	**1311**	**20**	**1331**	**44**		**44**				**1355**	**20**	**1375**
24.	Canine treatment & vaccination camp	Feb.11	1	120	10	130	4		4	28		28	152	10	162
25.	Agri mobile clinic	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
26.	Soil test campaigns	3125													
27.	Farm Science Club Conveners meet	-													
28.	Self Help Group Conveners meetings	July.10	1		21	21								21	21
29.	Mahila Mandals Conveners meetings	30/6/10	1		9	9								9	9
30.	Participant in Krushi Mahotsav-10	May.10	1												
31.	Celebration of technology week	Aug.10	1	291	11	302	9		9				300	11	311
	Grand Total		**483**	**6892**	**1096**	**7988**	**333**	**30**	**363**	**130**	**2**	**132**	**7355**	**1128**	**108483**

3.5 Production and supply of Technological products 2010-11

SEED MATERIALS

Sr. No.	Crop	Variety	Quantity (Kg)	Value (Rs.)	Provided to No. of Farmers
OILSEEDS	Groundnut (Breeder seed)	GG-5	4350		-
	Groundnut (Mega seed)	GG-5	3010		-
	Sesamum (Breeder seed)	GT-2	110		-
	Sesamum (Mega seed)	GT-2	290		-
PULSES	Black Gram	G-1	1490		-

SUMMARY

Sr. No.	Crop	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	-		
2	OILSEEDS	7760		
3	PULSES	1490		
4	OTHERS	-		
TOTAL		**92.50**		

PLANTING MATERIALS: Nil

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS					
SPICES					
VEGETABLES					
PLANTATION CROPS					
Others (specify)					

BIO PRODUCTS

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOAGENTS						
BIOFERTILIZERS						
BIO PESTICIDES	Savaj	*Trichoderma*	**1500 Kg.**		**1,05,000**	**380**

SUMMARY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	(kg)		
1	BIOAGENTS					
2	BIO FERTILIZERS					
3	BIO PESTICIDE	*Trichoderma*	**1500 Kg.**		**1,05,000**	**380**
	TOTAL					

LIVESTOCK: Nil

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	(Kgs)		
CATTLE						
SHEEP AND GOAT						
POULTRY						
FISHERIES						
Others (Specify)						

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

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

(B) Literature developed/published

Item	Title	Authors name	Number
1	**2**	**3**	**4**
Research papers	Training needs of Dairy farming women and constraints filed by rural women : A case study of Gujarat	Dr. J. B. Khathiriya ,and Dr. M.B.Virdiya, N.D. Polara	-
Technical reports	Monthly Progress Report Quarterly Progress Report Moniterable Quarterly Progress Report Annual Progress Report	Krishi Vigyan Kendra, Targhadia	8
TOTAL	4		8
News letters	-	-	-
Technical bulletins	-	-	-
Popular articles	Apni aspasna vrucshono pasu sarvarma upyog	Dr.M.B.Viradia,,Dr.N.D.Polara, Dr.J.B.Kathiriya,Dr.B.B.Kabaria, Shri.P.P.Gajjar, Dr.A.V.Khanpara	-

1	2	3	4
	Balacoma rasikaran	Dr.J.B.Kathiriya, Dr.N.D.Polara, Dr.B.B.Kabaria	
	Apni aspasna vrucshono pasu sarvarma upyog	Dr.J.B.Kathiriya, Miss.R.T.Padaliya, Dr.B.B.Kabaria	
	Milibagma sancalit niyantran karvana pagala	Shri. D.A.Sardava, Dr. V.N.Patel	
TOTAL	4		
Extension literature	Balacoma rasikaran		1000
	Sagrabha baheno mate yogya ahar		1000
	Kedut mahilao ane posanxame ahar		1000
	Pashuoma parmparagat ushadhiy sarvar		1000
	Apni aspasna vrucshono pasu sarvarma upyog		1000
	Pashuoma viyan darmiyan bachanu maran atkvani tacnic.		1000
	Pashuoma visanuo thi thata rogo		1000
	Pashuoma jivanuo thi thata rogo		1000
	Kapasni sathi barvanu bandh karo: sendriy khatar banavi jaminni faldrupta vadharo		1000
	Kapasma milibagna updravne kabuma rakhava matena sanklit pagala		1000
	Ubadi magaflina vavetar mate danana kad ane tenu mahatva		1000
	Varilalini vaignanic kheti padhti		1000
TOTAl			**12000**

(C) Details of Electronic Media Produced : - Nil –

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

3.7 Success stories/Case studies, if any

Success Story 1

Use of cotton shedder and decomposting of cotton stalk

Farmer's Name: Govindbhai Pachabhai Undhad (Mob. 9974344119)

Village: Khorana **Ta:** Rajkot **Dist :** Rajkot

He is a progressive farmer of Rajkot district. He inspired from Krishi Vigyan Kendra, Juangadh Agricultural University, Targhadia (Rajkot) by demonstration of decomposting of cotton stalk through cutting of cotton stalk into shedder. In Saurashtra region most of the cotton growers fire the cotton stalk after completion of season. KVK Rajkot motivated the farmers to start decomposting of cotton stalk by cutting it into small pieces and than decompost it by using decomposer bacteria like *Cylitic.* for maintain soil health and sustainability. Govindbhai Pachabhai Undhad started it from this year and has produced 20 tonnes of high quality organic manure from cotton stalk decomposition. More than 35 farmers of surrounding villages of Khorana are adopted this practices by seeing and beliving during this year and at present it spread up horizontally.

Success Story 2

Use of rotavator for decomposting of wheat and cotton stalk
by mixing in soil after harvesting

Farmer's Name: **Haresh Mohanbhai Sayparia (Mob. 9724371007)**

Village: Rataiya **Ta:** Lodhika **Dist :** Rajkot

He is a progressive farmer of Rajkot district. He inspired from Krishi Vigyan Kendra, Juangadh Agricultural University, Targhadia (Rajkot) by training and demonstration of use of rotavator for decomposting of wheat straw and cotton stalk by mixing in soil after harvesting. In Saurashtra region most of the wheat and cotton growers fire the wheat straw and cotton stalk after harvesting. KVK Rajkot motivated the farmers to use of rotavator for decomposting of wheat straw and cotton stalk by mixing in soil for maintain soil health and sustainibility. Haresh Mohanbhai Sayparia started it from 2007 and upto now has used rotavator for decomposting of wheat straw / cotton stalk by mixing in soil after harvesting. During this year, more than 40 farmers of surrounding villages of Rataiya are adopted this practices through the innovation of this farmer and at present it spread up horizontally in different villages of Rajkot district by seeing and beliving manner.

Success Story 3

An effective approach for the management of groundnut stem rot

Existing Practice:

It was observed that majority of farmers are growing groundnut variety GG-20 with wide spacing of 90 cm, so that agricultural practices can be done easily.

Technology:

Farmers are recommended to sow groundnut by keeping 60 cm row spacing *Trichoderma* @ 2.5 kg with 500 kg of castor cake as soil application at 30-40 days after sowing by using seed drill in moist soil condition for controlling the stem rot.

Advantages*:*

Mr Bhuptsingh Jadeja of Devalia village has harvested 15.85 % higher groundnut pod yield

Treatments	Yield (q/ha)	Yield increase (%)
Control	20.50	--
Seed treatment and soil application of trichoderma	23.75	15.85

Impact of new technology:

By applying *Trichoderma* as soil application farmer earned Rs. 4875/ha in groundnut cultivation.

Success Story 4

Intercropping system; a sustainable approach in rainfed farming.

Existing pattern :

Farmers grow groundnut as sole crop. in 78 % area under arid and semi arid region in Gujarat.

Technology :

Use of intercropping system instead of sole crop.

Advantages :

Reduction in risk of failure of crop due to water stress or drought . Earning more of Rs. 8250 / ha from the intercropping as compared to sole Groundnut

Treatments	*Yield (q/ha)*	*Yield increase (%)*
Groundnut as sole	*18.00*	
Groundnut + Pigeon pea (3:1)	*12.00 as G,nut* *11.50 as Pigeonpea*	*30.55*

Impact of new technology :

This method of cultivation will take care of the risk involved due to uncertainty of rainfall as well as improve the economic condition of the farmer

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

- Introduction of new variety of groundnut i.e. Shedubhar, Tata Sumo, Samudri, Sandhiyo
- Use of cow urine, butter milk, ash etc for insect pest and disease management.
- Use of bold seed of groundnut for sowing purpose.
- 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, pinger crop, Pheromone trap, etc.
- Gasify Plant- Use of Non-conventional Energy source.
- Biogas Plant
- Minimizing the chemical Fertilizer and Maximizing organic manure in Cotton crop

3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	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 log condition
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 reduce the pest population	To increase the natural enemies of pest
5	Cotton	After heavy rain, farmer apply irrigation to balance the salt concentration at top of soil	To balance the salt concentration

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

- Identification of courses for farmers/farm women
- Rural Youth
- In-service personnel

3.11 Field activities

i. Number of villages adopted : 15
ii. No. of farm families selected : 90
iii. No. of survey/PRA conducted : 4

3.12. Activities of Soil and Water Testing Laboratory

1. Status of establishment of lab : Working
2. Year of establishment : 2007-08
3. List of equipments purchased with amount :

Sr. No	Name of the Equipment	Qty.	Cost
	-		
Total			

* All the necessary chemicals and equipments purchased

3. Details of samples analyzed so far (April.-10 to Feb.-11)
:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil Samples	3125	3125	-	156250
Water Samples	3125	3125	-	156250
Plant Samples	-	-	-	
Petiole Samples	-	-	-	
Total	**6250**	**6250**		**312500**

4. IMPACT

4.1. Impact of KVK activities

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs)	
			Before (Rs/unit)	After(Rs/unit)
Cumin Variety (GC-4)	232	84	30000	45000
Improved variety of Gram (GG-2)	157	72	27500	35000
Wheat variety (GW-496, 366)	268	79	32500	37500
Use of Trichoderma culture powder for the control of stem rot in groundnut	347	57	28125	31500

4.2. Cases of Large scale adoption

- ✓ Adoption of Trichoderma culture powder for the management of stem rot disease in groundnut
- ✓ Adoption of *Bt*. cotton varieties.
- ✓ Farmers prefers to sow semi spreading and high yielding variety of groundnut i.e. GG-20
- ✓ Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wilt disease
- ✓ Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies.
- ✓ 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 :-

5.0 LINKAGES

5.1 Functional linkage with different organizations

Sr. No.	Name of organization	Nature of linkage
1.	Dy. Director of Agriculture.	Most of the Organizations are members of Scientific Advisory Committee (SAC) of KVK and have linkage with different activities of KVK viz., Training
2.	Dy. Director of Agril. Extension (FTC)	
3.	Dy. Director of Horticulture	
4.	Dy. Director of Animal Husbandry	
5.	Dy. Director of Soil Conservation	
6.	Dy. Director of Social Forestry	
7.	Jilla Udhyong Kendra	
8.	Milk Co-Operative Society	

9.	Bank of Baroda	Programme, Khedut Sibir, Farmers day, Animal treatment Camp, Farmers fair, Film Show, Ex-training meeting and Soil health card etc.
10.	National Bank for Agriculture & Rural Development (NABARD)	
11.	NHRDF	
12.	Doordarshan Kendra	
13.	All India Radio	
14.	WALMI	
15	Dy. Director of District Rural Development Agency	
16.	ATMA	

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

Sr.No.	Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
1	Agricultural technology information centre (ATIC)	March-07	Govt. of Gujarat	60,000
2	Transfer of technology (TOT)	March-07	Govt. of Gujarat	40,000
3	FLD on *Bt.* Cotton under cotton mini mission -2	March-06	ICAR-New Delhi	-
4	Rashtriya Krishi Vikas Yojana	Oct.-08	Govt. of India	18,73,000
5	National Information System for Pest Management (Bt Cotton)	Dec.-08	ICAR-New Delhi	4,89,000
6	Popularization of MIS in SSNNL Maliya branch sub canal	March-10	SSNNL, Gandhinagar	8,69,960
7	National Initiative on climate Resilient Agriculture (NICRA)	March-10	CRIDA, Hyderabad	10,00,000
8	FLD on pulses	March-05	ZPD-Jodhpur	-
9	FLD on Oilseeds	March-05	ZPD-Jodhpur	-
10	FLD on Maize	March-05	ZPD-Jodhpur	38,000

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district : **Yes**

Sr.No.	Programme	Nature of linkage	Remarks
1	Farmers meeting(4)	Linkage with different activities of KVK viz., Training Programme, Khedut Sibir, Farmers meeting, Farmers fair, Film Show etc.	**-**

5.4 Give details of programmes implemented under National Horticultural Mission

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

5.4 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)

Sr. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross Income	
1	Water Harvest Structure	2001	40x 30x 15 mt	-	-	-	-	-	-
2	Arid Horticulture	-	-	Guj. Aonla -1	Fruit	80	-	800	-
3	Soil Testing Lab	2006	-	-	-	-	710000	-	-
4	Bio Gas Plant	2006	-	-	-	-	42000	-	-
5	Tractor mounted sprayer	2007	-	-	-	-	43000	-	-
6	Dibbler	2007	-	-	-	-	900	-	-
7	Cotton Stalk Shredder	2007	-	-	-	-	43000	-	-
8	Cotton Stalk Puller	2007	-	-	-	-	1200	-	-
9	Wheel Hoe	2007	-	-	-	-	1260	-	-
10	Veterinary mobile unit	2008	-	-	-	-	600000	-	-
11	Processing unit	2009					1685000		

6.2 Performance of instructional farm (Crops) including seed production

Name Of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty. (kg)	Cost of inputs	Gross income	
Cereals : nil									
Pulses									
Black Gram	10/6/10	24/9/10	2.98	G-1 Mega Seed	Seed	760	41700	47500	-
					B Grade	*730		10950	-
					Fodder	500		500	-
Oilseeds									-
Groundnut	25/6/10	4/10/10	4.23	GG-5 Breeder seed	Pod	3840	91000	240000	
					B Grade	*510		15300	
					Fodder	6810		25500	
Groundnut	27/6/10	8/10/10	3.08	GG-5 Mega Seed	Pod	2220	76000	93240	
					B Grade	*790		23700	
					Fodder	4970		16000	
Sesamum	9/6/10	22/9/10	1.11	GTill-2 Breeder	Seed	85	11500	10625	
					B Grade	*25		3750	
Sesamum	11/6/10	25/9/10	2.98	GTill-2 Mega Seed	Seed	150	29500	15000	-
					B Grade	*140		8400	
Total Income								**510465**	-

* Expected Income based on previous year Price

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

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

6.4 Performance of instructional farm (livestock and fisheries production)

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

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/STParticipants		
				Male	Female	Total	Male	Female	Total
21/6/10	Rain water harvesting & their efficient use for crop production	PF.	1	15	-	15	-	-	-

6.5 Utilization of hostel facilities: Hostel facility is not available with KVK
Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Construction work is under progress			

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
With Host Institute	SBI	Junagadh	-
With KVK	SBI	Rajkot	10353003175

7.2 Utilization of funds under FLD on Oilseed *(Rs.)* (Budget Head 2704-15) : Nil

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2010
	Kharif 2009	Rabi 2009-10	Kharif 2009	Rabi 2009-10	
Inputs	Nil	Nil	Nil	Nil	-
Extension activities	‘’	‘’	‘’	‘’	-
TA/DA/POL etc.	‘’	‘’	‘’	‘’	-
TOTAL					

7.3 Utilization of funds under FLD on Pulses *(Rs. In Lakhs)* (Budget Head 2704-24) : Nil

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2010 Rabi 2009-10
	Kharif 2009	Rabi 2009-10	Kharif 2009	Kharif 2009-10	
Inputs	Nil	Nil	Nil	Nil	-
Extension activities	''	''	''	''	-
TA/DA/POL etc.	''	''	''	''	-
TOTAL					

7.4 Utilization of funds under FLD on Cotton *(Rs. In Lakhs)* (Budget Head 2704-36) : Nil

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2010 Rabi 2009-10
	Kharif 2009	Rabi 2009-10	Kharif 2009	Kharif 2009-10	
Inputs	Nil	Nil	Nil	Nil	-
Extension activities	''	''	''	''	-
TA/DA/POL etc.	''	''	''	''	-
TOTAL					

7.5. Utilization of KVK funds during the year 2010 – 11 (Rs in Lakh)

S.N.	Particulars	Sanctioned	Released	Expenditure	+ or -
1	2	3	4	5	6
A. Recurring Contingencies					
1	**Pay & Allowances**	52.00	52.00	63,57,462	-11,57,462
2	**Traveling allowances**	1.00	1.00	51,458	+48,542
3	**Contingencies**				
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	-	-
B	POL, repair of vehicles, tractor and equipments	1.00	1.00	-	-
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.70	0.70	-	-
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.80	0.80	-	-
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	0.90	0.90	-	-
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.60	0.60	-	-
G	Training of extension functionaries	0.40	0.40	-	-
H	Maintenance of buildings	-	-	-	-
I	Establishment of Soil, Plant & Water Testing Laboratory	-	-	-	-
J	Library	-	-	-	
TOTAL Contingencies		**6.00**	**6.00**	**4,31,285**	**+1,68,715**
TOTAL (A)		**59.00**	**59.00**	**68,40,205**	**-9,40,205**

B. Non-Recurring Contingencies					
1	**Works**	88.00	88.00	-	-
2	**Equipments including SWTL & Furniture**	3.30	3.30	-	-
3	**Vehicle** (Two wheeler)	0.50	0.50	-	-
4	**Library** (Purchase of assets like books & journals)	0.10	0.10	-	-
TOTAL (B)		91.90	91.90	91.90	-
C. REVOLVING FUND		-	-	-	-
GRAND TOTAL (A+B+C)		**150.90**	**150.90**	**157,91,051**	**-9,40,205**

7.4 Status of revolving fund (Rs.) for the three years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2008 to March 2009	453150	311672	331622	433200
April 2009 to March 2010	433200	859158	340066	952292
April 2010 to March 2011 (Up to Feb.2011)	9,52,292	3,84,593	4,93,260	9,80,959

8.0 Please include information which has not been reflected above (write in detail).

8.1 Constraints

(a) Administrative

1. Transportation vehicle is prime need for farmers, farm women and rural youth.

(b) Financial

1. Budget allotment is not sufficient against expenditure estimated for pay allowance.
2. There is confusion in delegation of power for revalidation of unspent balance.
3. Provision of special grant for farm development is necessary in budget allotment.

(c) Technical

1. Supporting staff for farm management and soil and water testing lab is Necessary.

ACTION PLAN (201011)