ANNUAL PROGRESS REPORT FOR THE YEAR OF 2008-09

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, Main Dry Farming Research Station, 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)	0285-267080	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	dr.kabaria@gmail.com

1.4. Year of sanction: September - 2004

1.5. Staff Position (as on 31th August 2009)

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Highest Qualification (for PC, SMS & Prog. Asstt.)	Pay Scale with present basic	Date of joining	Permanent /Temporary	Category (SC/ST/ OBC/ Others)
1	2	3	4	5	6	7	8	9	10
1	Programme Coordinator	Dr. B. B. Kabaria	Programme Coordinator	Agril. Entomology	Ph.D	16400 -- 18300	15-09-06	Permanent	General
2	Subject Matter Specialist	Dr. J.B. Kathiriya	SMS (Animal Science)	Animal Science	M.V.Sc.	8000-275-13500	19-08-06	Permanent	General
3	Subject Matter Specialist	Dr. M.G. Khokhani	SMS (Agronomy)	Agronomy	M.Sc.	12000-420-18300	20-6-09	Permanent	General
4	Subject Matter Specialist	D.A.Sardava	SMS (Plant Protection)	Working at DFRS on pool basis	M.Sc.	8000-275-13500	27-6-09	Permanent	General
5	Subject Matter Specialist	Dr. N.D. Polara	SMS (Horticulture)	Horticulture	Ph.D	8000-275-13500	18-08-06	Permanent	General
6	Subject Matter Specialist	Shri. D.P. Sanepara	SMS (Agril. Engg.)	Agricultural Engineering	M.Tech.	8000-275-13500	1-6-09	Permanent	General
7	Subject Matter Specialist	Mrs.H.H.Padsumbiya	SMS (Home Science)	Home Science	M.Sc.	8000-275-13500	17-08-06	Permanent	General
8	Programme Assistant	Shri.J.K. Rachhadiya	Programme Assistant (Training)	-	Diploma in Krushi	5500-275-9000	01-06-09	Permanent	General
9	Computer Programmer	Miss. R.T. Padliya	Programme Assistant/ Computer Operator	-	PGDCA	4500 (Fix)	03-1-09	Permanent	General
10	Farm Manager	Vacant	Programme Assistant(Farm)	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10
11	Accountant / Superintendent	Shri. J. B. Bhatt	Offi. Sup. Cum A/c. Officer	-	-	5000-150-8000	14-09-06	Permanent	General
12	Stenographer	Shri B.J. Lalkiya	Junior Steno	-	-	5000-150-8000	01-05-07	Permanent	OBC
13	Driver	Shri. B.K. Gondaliya	Jeep Driver-Cum Mechanic	-	-	4000-100-6000	11-09-08	Permanent	OBC
14	Driver	Shri.D.K.Makwana	Jeep Driver-Cum Mechanic	-	-	3050-100-4590	01-07-06	Permanent	OBC
16	Supporting staff	Smt.U.G.. Zala	Supporting Staff	-	-	2550-70-3200	16-09-04	Permanent	General

1.6. Total land with KVK (in ha) (2008-09)

:

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

1.7. Infrastructural Development: (2008-09)

A) Buildings :

Sr. No.	Name of building	Source of funding	Year of Completion
1	Training hall	RKVY (ICAR)	2009
2	Pilot scale processing unit	RKVY (ICAR)	2009
3	Implements shed	RKVY (ICAR)	2009
4	Green house	RKVY (ICAR)	2009
5	Net house	RKVY (ICAR)	2009

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
TATA Qualis	2004	590000	-	Working at junagadh on pooled basis

C) Equipments & AV aids (2008-09)

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
EPBAX system	27-3-2002	29000	Working
Jelly Cable	27-3-2002	3600	Working
B-tel Telephone Skipper	27-3-2002	5625	Working
BPL Telephone	27-3-2002	1300	Working
MDFL Box	27-3-2002	300	Working
Panasonic PT LC 50 LCD Project	28-3-2002	164368	Working
PA Audio Vision System	28-3-2002	20000	Working

1.8 Details 5th SAC meeting conducted in the year

Sr. No.	Date	Number of Participants	Salient Recommendations	Action taken	Remarks
1.	15/10/08	16	Horizontal spread up of success story of farmers should be in highlighted in training programmes.	Suggestion accepted & Implemented	Six Success stories was developed
			The results of FLD & OFT should be horizontal spread up through training programmers up to last farmers of adopted villages.	Suggestion accepted & Implemented	Field day organized on OFTs & FLDs
			To impart training on cultivation of flower crops and its value addition, micro irrigation system for efficient use of water , and " Beti Bachavo" activities.	Suggestion accepted & Implemented	Training for the same was organized

2. DETAILS OF DISTRICT (2008-09)

2.1 Major farming systems/enterprises (based on the 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 & topography)

Sr. No	Agro-climatic Zone	Characteristics
1.	North Saurashtra Agro Climatic Zone (VI)	The total geographical area of the 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 Taluka. Monsoon commences usually by the middle of June and withdraws by middle of September. Average annual rainfall of districts is **1006.0** mm.

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

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

2.3 Soil types

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 Rajkot district (2008-09)

Sr. No	Crop	Area (ha)	Production (MT)	Productivity (Kg. /ha)
***Kharif* Season**				
1.	Groundnut	350560	513189.9	1463.91
2.	Cotton (*Bt.*)	267375	581455.4	2174.68
3.	Cotton (Desi)	31811	35644.5-	112-.51
4.	Pearl Millet	9831	10626.75	1080.94
5.	Sorghum	50	50.00	1000.00
6.	Sesamum	26318	10080.00	383.01
7.	Castor	12825	36997.90	2884.83
8.	Pegion pea	630	579.73	920.20
9.	Black gram	3523	1066.18	302.63
10.	Green gram	3295	1188.95	360.83
Rabi Season				
1.	Wheat	111021	373429.5	3363.59
2.	Mustard	237	254.14	2072.32
3.	Cumin	34604	20431.90	590.45
4.	Vegetable	6428	30831	4796.36
5.	Onion	9171	267641	29183.4
6.	Garlic	11617	85504.5	7360.29

2.5. Weather data (2008-09)

Month	Rainfall (mm)	No. of rainy day	Temperature ^{0} C		Relative Humidity (%)
			Maximum	Minimum	
October- 2008	0.0	1	35.5	20.8	56
November-2008	0.0	-	33.0	16.6	57
December-2008	0.0	-	30.4	16.3	62
January - 2009	0.0	-	28.7	13.6	59
February -2 009	0.0	-	31.9	14.4	51
March - 2009	0.0	-	37.0	18.5	47
April - 2009	0.0	-	39.7	23.0	44
May - 2009	0.0	-	40.9	25.0	52
June - 2009	14.8	1	38.1	26.4	64
July – 2009	340.9	14	32.3	25.8	78
August -2009	104.1	1	30.6	23.1	79

2.6 Details of Operational area / Villages (2008-09)

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 roasted groundnut and chikki from groundnut seed.	Heavy infestation of sucking pest in cotton and 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.	*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			
			Nana Amreli			
			Suvag			
3	Wankaner	Cluster III	Mesariya			
			Ratadiya			
			Samdhiyala			
			Kothi			
			Jalida			

2.7 Priority thrust areas

Sr. No	Thrust area
1.	Increasing the productivity of the major crops by adopting recommended dry farming technologies.
2.	*In situ* soil moisture conservation and rainwater harvesting.
3.	Motivating cotton growers to adopt Integrated Pest Management (IPM) practices for reducing the cost of production.
4.	Promoting the arid horticulture.
5.	Enhancing productivity of milch animals by proper feeding and breeding management.
6.	Providing self employment through skill oriented income generating activities
7.	Developing interest among youth for agriculture as a profession.
8.	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
9.	Minimizing the post harvest losses and to create the awareness for proper storage.
10	Self employment among youth for skill oriented income generating activities.
11	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 2008-09

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
9	9	62	62	40	34.8	120	87

Training				Extension Activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
86	60	2150	1550	-	4349	-	11294

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	27.32	-	-

3.B.1 Abstract of interventions undertaken

Sr. No	Thrust area	Crop/ Enterprise	Identified Problem	Title of OFT if any	Title of Training if any	Extension activities	Supply of seeds, planting materials etc.
1	2	3	4	5	6	7	8
1	Increase the productivity of buffalo	Livestock (Animal Science)	Long Inter calving period in buffalo	Reduction of Inter – Calving Period in Buffalo	Training for reduction Inter calving period in buffalo	Group meeting	Medicine
2	Increase the productivity of cotton	Cash crop (Crop Production)	Imbalance fertilization in cotton	Low yield of cotton	Balance fertilization in cotton	Field day/ Kishan gosti	Fertilizer
3	Increase the productivity of Aonla	Horticulture	Low yield of Aonla	Soil moisture conservation through use of mulches in Aonla	Soil moisture conservation	Field day/night meeting	Plastic mulch

1	2	3	4	5	6	7	8
4	Minimize the calcium deficiency in rural area	Home Science	Deficiency of calcium	Feeding of calcium rich diet to children in rural for remove calcium deficiency (Age group - 6 to 12 Months).	Feeding of calcium rich diet to children in rural area	Mahila meeting/ group discussion	Calcium rich diet
5	Increase the productivity of sesamum	Oilseed (Plant Protection)	incidence of leaf roller in sesamum	Management of leaf roller in sesamum	IPM in major *kharif* crops	Field day	Pesticide
6	Increase the productivity of cotton	Oilseed (Plant Protection)	incidence of sucking pest in cotton	Management of sucking pests in cotton	IPM in cotton	Field day	Pesticide
7	Increase the productivity of groundnut	Oilseed (Plant Protection)	Stem rot disease in groundnut	Application methods of Trichoderma against stem rot disease in groundnut	IDM in groundnut	Field day	Trichoderma
8	Increase the productivity of groundnut	Oilseed (Agri. Engg.)	Low moisture content due to rain fed farming	Low yield of Groundnut due to proper tillage practice	Soil moisture conservation	Field day	Recommend ed practices
9	Increase the productivity of groundnut	Oilseed (Agri. Engg.)	Low moisture content due to rain fed farming	Low yield of Groundnut due to loss of moisture during summer	Soil moisture conservation	Field day	Plastic mulch

3.B.2 List of technology assessed and refined during 2008-09

Sr. No.	Thematic areas	Name of the technology assessed	Area (ha)	Number of trials	Remarks if any
1	Production and management of livestock	Reduction of Inter – Calving Period in Buffalo	-	3	-
2	Balance fertilization in cotton	Low yield of cotton	2	3	-
3	Management of Orchard	Soil moisture conservation through use of mulches in Aonla	2	3	-
4	Women and child care	Feeding of calcium rich diet to children in rural for remove calcium deficiency (Age group - 6 to 12 Months).	-	3	-
5	Integrated pest Management	Management of leaf roller in sesamum	2	4	-
6	Integrated Pest Management	Management of sucking pests in cotton	2	3	-
7	Integrated Disease Management	Application methods of Trichoderma against stem rot disease in groundnut	2	4	-
8	Resources Conservation	Low yield of Groundnut due to proper tillage practice	2	3	-
9	Resources Conservation	Low yield of Groundnut due to loss of moisture during summer	2	3	-

3.C Details of technology used during reporting period

Sr. No.	Title of technology	Crop/enterprise	Mode of use				No. of farmers covered					
			OFT	FLD	Training	Others (specify)	Other farmers			SC/ST farmers		
							Male	Female	Total	Male	Female	Total
1	Reduction of Inter – Calving Period in Buffalo	Livestock	1	-	1	-	18	-	18	2	-	2
2	Low yield of cotton	Cash crop	1	-	2	-	25	-	25	4	-	4
3	Soil moisture conservation through use of mulches in Aonla	Horticulture	1	-	1	-	18	-	18	-	-	-
4	Feeding of calcium rich diet to children in rural for remove calcium deficiency (Age group - 6 to 12 Months).	Home Science	1	-	1	-	-	11	11	-	3	3
5	Management of leaf roller in sesamum	Oilseed	1	-	1	-	16	-	16	-	-	-
6	Management of sucking pests in cotton	Cash crop	1	-	1	-	10	-	10	3	-	3
7	Application methods of Trichoderma against stem rot disease in groundnut	Oilseed	1	-	1	-	13	-	13	5	-	-
8	Low yield of Groundnut due to proper tillage practice	Oilseed	1	-	1	-	27	8	35	-	-	-
9	Low yield of Groundnut due to loss of moisture during summer	Oilseed	1	-	1	-	15	-	15	5	-	5

3.1 Achievements of technologies assessed and refined

A. Results of on farm trials
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:
   - ✓ One group of Animals is fed with Panacure + Bio-Heat tablets.
   - ✓ Second group of Dairy Animals be fed with Mineral Mixture.
   - ✓ Third group of Dairy Animals be fed with Mineral Mixture + Panacure + Bio-Heat tablets.
   - ✓ Fourth group of Dairy Animals under control (Farmers Practice)

4) Source of technology: JAU, Junagadh

5) Production system and thematic area : Livestock enterprise and Production and 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								
			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	D.V.Fachara	Ravki	12-15	1.5-2.0							
2	D.T.Vora	Devgam									
3	B.M.Bhut	Devgam									
4	K.B.Bhut	Devgam									
5	B.N.Bhut	Devgam									
6	D.U.Somaiya	Makhavad									
7	V.V.Fachara	Ravki				15-18	2.0-2.4				
8	S.T.Sangani	Devgam									
9	V.H.Sangani	Devgam									
10	K.B.Khunt	Devgam									
11	K.N.Gajipara	Devgam									
12	N.C.Gajipara	Devgam									
13	N.T.Bhut	Devgam							18-24	2.4 -3.4	
14	S.M.Raddiya	Devgam									
15	V.J.Nasit	Devgam									
16	B.M.Vasoiya	Devgam									
17	V.N.Ramani	Nagarpipliya									
18	J.D.Somaiya	Makhavad									

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

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

8) Constrains identified and feedback for research :

- ✓ Imbalance feeding
- ✓ Anestrous
- ✓ Poor management

9) Process of farmers participation and their reaction: Farmer aware about feeding of Mineral Mixture + Panacure tablets + 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. Farmer's practices
- ✓ T2. Recommended dose of fertilizer (160-0-0) 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 and 25 kg MgSO4 ha-1 + 10 kg ZnSO4 as a basal dose.

4) Source of technology : GAU

5) Production system and thematic area : Balance fertilization in cotton

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								
			Technology option 1			Technology option 2			Technology option 3		
			Indicator 1 kg/ha	Indicator 2 kg/ha	Indicator 3 kg/ha	Indicator 1 kg/ha	Indicator 2 kg/ha	Indicator 3 kg/ha	Indicator 1 kg/ha	Indicator 2 kg/ha	Indicator 3 kg/ha
1	D.R.Saypariya	Rataiya	2100	67	-	2450	78	-	2900	92	-
2	L.N.Pambhar	Mota Vada	1950	62	-	2500	80	-	2870	91	-
3	N.S.Donga	Nagarpipaliya	1800	57	-	2690	86	-	3050	97	-
4	D.U.Somaiya	Makhavad	2000	64	-	2650	84	-	3100	99	-
5	KVK Farm	Targhadia	2050	65	-	2600	83	-	3000	96	-
	Average		**1980**	**63**	**-**	**2578**	**82**	**-**	**2984**	**95**	-

Indicator 1 :seed cotton yield in kg/ha
Indicator 2 : No. of Boals/ Plant

7) 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.

8) Constrains identified and feedback for research :

- ✓ Unbalance fertilization
- ✓ Problems of sucking pest
- ✓ Lack of knowledge of fertilization
- ✓ Less use of organic manures in soil

9) Process of farmers participation and their reaction : Good

OFT – 3

1) Title of technology assessed/Refined : Soil moisture conservation through use of mulches in Aonla

2) Problem definition :
- ✓Low soil moisture
- ✓Poor soil or waste-land
- ✓Lack of proper management

3) Details of technologies selected for assessment/refinement :

Category	Source of technology	Technology details
Technology Option1	-	Preparation flat basin without mulches
Technology Option2	-	Black polythene sheet mulching
Technology Option3	-	Preparation of saucer shape basin with mulches through local farm waste

4) Source of technology: JAU, Junagadh

5) Production system and thematic area : Management of orchard

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								
			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	N.Jadeja	Khirasara	8.53	42		11.3	43		10.43	42	
2	N.Toliya	Devgam	8.64	39		10.23	42		10.33	40	
3	KVK Farm	Targhadia	8.42	34		9.52	36		9.23	37	
	Average		**8.53**	**38.33**		**10.35**	**40.33**		**10.00**	**39.67**	

Indicator 1 : Moisture percent
Indicator 2 : yield of Aonla Qnt/ha

7) Final recommendation from micro level situation: Preparation of saucer shape basin with mulches through local farm waste

8) Constrains identified and feedback for research :--

9) Process of farmers participation and their reaction:

OFT-4

1) Title of technology assessed/Refined : Feeding of calcium rich diet to children in rural for remove calcium deficiency (Age group - 6 to 12 Months).

2) Problem definition :

- ✓ Lack of knowledge.
- ✓ Poor economical condition.
- ✓ Lack of nutritional management

3) Details of technologies selected for assessment/refinement :

Category	Source of technology	Technology details
Technology Option1	-	Use of mixture of til (30 gm)+ Groundnut seed (10 gm) + Ghee (5 gm) + Jaggery (10 gm) for second group of children (Age Group - 6 to 12 Month).
Technology Option2	-	Use of biscuits for first group of children (Age Group - 6 to 12 Month).
Technology Option3	-	Use of Biscuits + mixture of til + Groundnut seed + Ghee + Jaggery for third group of children (Age Group - 6 to 12 Month)

4) Source of technology: JAU, Junagadh

5) Production system and thematic area : Women and child care

6) Performance of the technology with performance indicators :

Farmer No	Name of the Children	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	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3	Indicator 1	Indicator 2	Indicator 3
1	S.S.Vishpara	Devgam	10.9	75.1							
2	H.C.Gohel	Devgam	10.3	76.0							
3	S.B.Fangaliya	Devgam	9.9	78.6							

4	A.R.Sangadi	Devgam	10	77.1							
5	J.K.Fangaliya	Devgam	10.6	75.2							
6	A.M.Gohel	Sangdava				7.5	70.0				
7	A.D.Bhambhava	Sangdava				8.5	72.2				
8	V.P.Desani	Sangdava				8.70	73.0				
9	L.D.Bhambhava	Sangdava				9.0	70.2				
10	M.H.dakora	Sangdava				8.20	73.8				
11	P.K.Somaiya	Makhavad							11.0	76.0	
12	D.U.Gajera	Makhavad							10.9	80.0	
13	V.R.Parmar	Makhavad							10.4	78.1	
14	R.J.somaiya	Makhavad							11	78.6	
15	N.V.Lunasia	Makhavad							10.5	75.0	

Indicator 1 : wt. of children in Kg.
Indicator 2 : Height of children in cm.

7. Final recommendation from micro level situation:

8. Constrains identified and feedback for research :

9. Process of farmers participation and their reaction

OFT – 5

1) Title of technology assessed/Refined : Management of leaf roller in sesamum.

2) Problem definition
   - ✓ No knowledge about the use of particular pesticide
   - ✓ No adoption of recommended practices

3) Details of technologies selected for assessment/refinement :

Category	**Source of technology**	**Technology details**
Technology Option1	-	Farmer practices – Use of newer insecticide
Technology Option2	-	Recommended practices Insecticidal spray at ETL of 5 larvae / 20 plants
Technology Option3	-	Alternate spray of Endosulfan 0.07 % and monocrotophos 0.04 % at 30 and 45 DAS

4) Source of technology: JAU, Junagadh

5) Production system and 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 (Kg/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.Bhut	Chhapara	600	0.00		625	0.00		600	0.00	
2	J.A.Bhut	Chhapara	635	0.00		615	0.00		580	0.00	
3	J.D.Somaiya	Makhavad	400	0.15		605	0.01		575	0.00	
4	V.N.Vekariya	Makhavad	500	0.01		605	0.00		525	0.00	
5	Kvk farm	Taghadia	450	0.05		630	0.00		505	0.01	
	Average		**517**			**616**			**557**		

*Note Population of leaf roller after spray
Indicator 1 : yield of Sesamum in Kg/ha
Indicator 2 : -- No. of leaf roller/plant

7) Final recommendation from micro level situation: Recommended practices Insecticidal spray at ETL of 5 larvae / 20 plants

8) Constrains identified and feedback for research :
- ✓ No knowledge about the use of particular pesticide to control leaf roller.
- ✓ No adoption of recommended schedule for spraying of insecticides based on ETL.
- ✓ Farmer spray insecticide as per instruction given by local pesticides retailer.

9) Process of farmers participation and their reaction:

OFT – 6

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 :

Category	Source of technology	Technology details
Technology Option1	-	Farmers practice-Use of newer insecticide
Technology Option2	-	Use of new, old and bio control agent (Recommended practice)
Technology Option3	-	Alternate treatment one and two

4) Source of technology: JAU, Junagadh

5) Production system and 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 (Kg/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	V.C.Sagpariya	Devgam	1580	0.25	8	1680	0.25	6	1925	0.10	8
2	R.J.Nashit	Devgam	1550	0.30	4	1750	0.02	9	1950	0.15	4
3	R.D.Gamtha	Lodhika	1500	0.30	7	1800	0.20	3	2250	0.10	7
4	L.N.Bhuva	Makhavad	1400	0.35	10	1870	0.10	3	2450	0.00	5
5	Kvk farm	Targhadia	1525	0.30	6	1900	0.10	4	2075	0.10	1
	Average		**1511**	**0.30**	**7**	**1800**	**0.17**	**5**	**2130**	**0.09**	**5**

Indicator 1 : yield of cotton in Kg/ha
Indicator 2 : --No. of jassid/3 leaves/plant
Indicator 2 : --No. of thrips /3 leaves/ plant

7) Final recommendation from micro level situation: Alternate treatment one and two

8) 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.

9) Process of farmers participation and their reaction: Satisfactory

OFT – 7

1) Title of technology assessed/Refined : Problem definition : Application methods of *Trichoderma* against stem rot disease in groundnut

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

3) Details of technologies selected for assessment/refinement :

Category	Source of technology	Technology details
Technology Option1	-	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 (General Recommendation- Farmers Methods)
Technology Option2	-	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 . (Recommended Practice by JAU).
Technology Option3	-	Soil drenching of Trichoderma @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)

4) Source of technology: JAU, Junagadh

5) Production system and 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 (Kg/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	R.P.Saipariya	Rataiya	1000	3		1200	1		1025	3	
2	L.D.Vora	Devgam	1050	3		1085	1-1.5		1050	3	
3	C.C.Bhut	Chhapara	978	5		1190	1-1.5		1100	2	
4	J.L.Saipariya	Rataiya	972	4		1250	1		1050	3	
5	Kvk farm	Targhadia	975	5		1175	1-1.5		975	4	
	Average		**995**	**4**		**1180**	**1.7**		**1040**	**3**	

Indicator 1 : yield of groundnut in Kg/ha
Indicator 2 : --Percent infected plant

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:

OFT – 8

1) Title of on-farm trials : Low yield in Groundnut due to due to proper tillage practice

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 :

Category	Source of technology	Technology details
Technology Option1	Farmer method	Shallow plowing with 7-8 interculturing
Technology Option2	Recommendation	Deep plowing with 2-4 interculturing
Technology Option3	Intervention	Medium deep plowing with 4-5 interculturing

4) Source of technology : JAU, Junagadh

5) Production system and thematic area : Resource conservation technology

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								
			Technology option 1			Technology option 2			Technology option 3		
			Indicator 1 kg/ha	Indicator 2 %	Indicator 3	Indicator 1 kg/ha	Indicator 2 %	Indicator 3	Indicator 1 kg/ha	Indicator 2 %	Indicator 3
1	L.R. Saiparia	Rataiya	1020	22		1225	26		1150	25	
2	N.V. Patoliya	Sanganva	1100	23		1280	28		1190	26	
3	A.G. Ramani	Makhavad	1050	22		1240	27		1160	25	
	Average		**905**	**22.3**		**1175**	**27.0**		**1050**	**25.3**	

Indicator 1 : yield of groundnut,
Indicator 2 : moisture content

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

2) Constraints identified and feedback for research ; --

3) Process of farmers participation and their reaction : Farmers aware about benefit of medium deep ploughing

OFT – 9

1) Title of on-farm trials : Soil moisture conservation in summer groundnut cultivation

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 :

Category	Source of technology	Technology details
Technology Option 1	Farmer method	T1- Control (No mulch)
Technology Option 2	Recommendation	T2- Degradable Plastic mulch
Technology Option 3	Intervention	T3- Wheat straw mulch
Technology Option 4	Intervention	T4- Groundnut shell mulch

4) Source of technology : JAU, Junagadh

5) Production system and thematic area : Resource conservation technology

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											
			Technology option 1			Technology option 2			Technology option 3			Technology option 4		
			Indicator 1 kg/ha	Indicator 2	Indicator 3	Indicator 1 kg/ha	Indicator 2	Indicator 3	Indicator 1 kg/ha	Indicator 2	Indicator 3	Indicator 1 kg/ha	Indicator 2	Indicator 3
1	K. H. Pedhadiya	Rataiya	2195	21		2435	26		2405	22		2515	24	
2	L. H. Pedhadiya	Rataiya	2055	21		2340	25		2270	22		2325	23	
3	L. R. Saipariya	Rataiya	1985	20		2215	23		2170	21		2290	23	
	Average		**2078**	**20.7**		**2330**	**24.7**		**2282**	**21.7**		**2377**	**23.3**	

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

7) Final recommendation for micro level situation – Nil

8) Constraints identified and feedback for research ; problem faced during installing plastic sheet between rows

9) Process of farmers participation and their reaction : Satisfactory

4. Details of Frontline Demonstrations (2008-09)

Table – 4 A Front Line Demonstrations on Oilseed Crops

Crop	Technology Demonstrated	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha	Local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated(Rs.)		Average Net Return (Profit) (Rs./ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
							Demo	Local		
Groundnut	Seeds of GG-5	10	4	13.43	11.62	15.58	2250	2100	13575	1.60
Groundnut	Newer fungicide	10	4	13.67	11.83	15.55	820	600	14175	1.70
Sesamum	Seeds of GT-2	10	4	3.05	2.66	14.66	60	50	12875	2.28

Table – 4 B Front Line Demonstrations on Pulse Crops

Crop	Technology Demonstrated	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha	Local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated (Rs.)		Average Net Return (Profit) (Rs./ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
							Demo	Local		
Green gram	Seeds of GM-4	17	6.8	05.50	04.75	17.74	1000	700	5500	1.50
Gram	Seeds of GG-1	10	4.0	09.50	08.50	10.52	1500	1000	1800	2.85
Black gram	Seeds of GU-1	5	2.0	06.24	05.30	15.79	1200	800	11840	2.85

Table – 4 C Front Line Demonstrations on cotton

Crop	Technology Demonstrated	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha	Local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated (Rs.)		Average Net Return (Profit) (Rs./ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
							Demo	Local		
Cotton	Variety (Akka)	25	10	32.30	37.50	16.09	15247	20250	82812	4.30
Cotton	INM	25	10	38.76	32.20	20.37	14248	22356	86435	4.45

Table – 4 D Front Line Demonstrations on Other Crops

Crop	Technology Demonstrated	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha	Local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated (Rs.)		Average Net Return (Profit) (Rs./ha)	Benefit-Cost Ratio (Gross Return / Gross Cost)
							Demo	Local		
Cumin	Seeds of GC-4	15	6	06.00	05.00	16.66	2000	1800	35000	2.40
Wheat	Seeds of GW-366	10	4	50.00	45.00	10.00	1200	800	32500	2.08

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	13.43	11.62	15.58
Sesamum	Kharif	Seed/Variety	Rainfed	03.05	02.66	14.66
Green gram	Kharif	Seed/Variety	Rainfed	05.50	04.75	17.74
black gram	Kharif	Seed/Variety	Rainfed	06.24	05.30	15.79
Gram	Rabi	Seed/Variety	Irrigated	09.50	08.50	10.52
Wheat	Rabi	Seed/Variety	Irrigated	50.00	45.00	10.00
Cumin	Rabi	Seed/Variety	Irrigated	06.00	05.00	16.66
Groundnut	Kharif	Newer fungicide	Rainfed	13.67	11.83	15.55
Cotton	Kharif	Seed/Variety	Rainfed	32.30	37.50	16.09
Cotton	Kharif	Newer fungicide	Rainfed	38.76	32.20	20.37

Technical Feedback on the demonstrated technologies

Sr. No.	Feed Back
1	To enhance the farmers to use recently developed notified 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	Imidacloprid insecticides are good for the control of sucking pest.
2	Groundnut bunch type variety GG-5 is the most suitable in the area.
3	Application of *Trichoderma* is very useful for minimizing the stem rot in groundnut but at the time of application (30 to 40 DAS) unavailability of moisture is the major problem.
4	Intercropping groundnut + pigeonpea and groundnut + castor is beneficial for minimizing the risk factor in rainfed farming but the wild animal (Black bull) is the major problem.

5. Details of training programmes conducted (2008-09) :

Table – 5 A Area-wise distribution of On + Off Campus Training Courses for Farmers and Farm Women (regular + sponsored)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
1	2	3	4	5	6	7	8	9
Crop Production								
Integrated Crop Management	1	16		16			0	16
Soil and Water Conservation	1	31		31	6		6	37
Integrated Nutrient Management	1	21		21	4		4	25
Production of organic inputs	2	74	0	74	5	0	5	79
TOTAL	**5**	**142**	**0**	**142**	**15**	**0**	**15**	**157**
Horticulture								
a) Vegetable Crops								
Production of low value and high volume crop	2	53		53	9		9	62
Export potential vegetables	1	17		17	2		2	19
Grading and standardization	1	18		18	0		0	18
Cultivation of Fruit	1		14	14		4	4	18
Micro irrigation systems of orchards	1	13		13	3		3	16
Plant propagation techniques	1	15		15	2		2	17
c) Ornamental Plants				0			0	0
Management of potted plants	1	17		17	4		4	21
g) Medicinal and Aromatic Plants				0			0	0
Production and management tech.	1	16		16	0		0	16
Post harvest technology and value addition	1	51		51	2		2	53
TOTAL	**10**	**200**	**14**	**214**	**22**	**4**	**26**	**240**
Livestock Production and Management								
Dairy Management	3	36	0	36	11	0	11	47
Animal Disease Management	3	48	39	87	0	2	2	89
Poultry Management	3	40	0	40	3	0	3	43
Feed and Fodder technology	5	87	30	117	15	0	15	132
Production of quality animal products	3	29	45	74	2	9	11	85
TOTAL	**17**	**240**	**114**	**354**	**31**	**11**	**42**	**396**
Home Science/Women empowerment								
Design and development of low/minimum cost diet	2	45	31	76	10	3	13	89
Processing and cooking	4	0	80	80	0	15	15	95
Value addition	2	**0**	**77**	77	**0**	**2**	2	79
Women empowerment	1		17	17		5	5	22
Location specific drudgery production	1	12	12	24	1	1	2	26
Rural Crafts	1	0	19	19		4	4	23
Women and child care	2		44	44	0	0	0	44
TOTAl	**13**	**57**	**280**	**337**	**11**	**30**	**41**	**378**
Agril. Engineering								
Farm machinery and its maintenance	2	76	8	84	1	0	1	85
Repair and maintenance of farm machinery and implements	2	31	0	31	6	0	6	37
TOTAL	**4**	**107**	**8**	**115**	**7**	**0**	**7**	**122**
Plant Protection								
Integrated Pest Management	2	**13**	**14**	**27**	**5**	**0**	**5**	32
Integrated Disease Management	2		25	**25**	4		**4**	29
Bio-control of pests and diseases	1	25		**25**	0		**0**	25
Production of bio control agents and bio pesticides	1	30		**30**	6		**6**	36

TOTAL	**6**	**68**	**39**	**107**	**15**	**0**	**15**	**122**
GRAND TOTAL	**55**	**814**	**455**	**1269**	**101**	**45**	**146**	**1415**

Table – 5 B Area-wise distribution of On + Off Campus Training Courses for Rural Youth (vocational) (2008-09)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
Protected cultivation of vegetable crops	1	13		13	5		5	18
Value addition	1		43	43		7	7	50
TOTAL	**2**	**13**	**43**	**56**	**5**	**7**	**12**	**68**

Table –5 C Area-wise distribution of On + Off Campus Training Courses for In-service Extension Personnel (regular + sponsored) (2008-09)

Thematic Area	No. of Courses	No. of Participants						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Integrated Pest Management	1	14	-	14	3	-	3	17
Gender mainstreaming through SHGs	1	-	15	15	-	8	8	23
Integrated Disease mnagement	1	23	-	23	4	-	4	27
Total	**3**	**37**	**15**	**52**	**7**	**8**	**15**	**67**

Table –5 D Numbers of Extension Activities and Beneficiaries (2008-09)

Nature of Extension programme	No. of programme	No. of participants (General)			No. of participants (SC/ST)			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Field Day	2	120		120	5		5	125		125
Kisan Mela(participated)	3									
Kisan Ghosthi	6	94	1	95	18		18	112	1	113
Film Show	12									
Night meeting	10	197	32	229	102	21	123	299	53	352
Method Demonstrations	8									
Farmers Seminar	1	93		93	7		7	100		100
Group meetings	2	34		34	1		1	35		35
Lectures delivered as resource persons	53	2398	1356	3754	405	124	529	2803	1480	4283
Newspaper coverage	13									
Radio coverage	2									
TV coverage	2									
Publications	3									
Popular articles	6									
Extension Literature	8									
Advisory Services										
Scientific visit to farmers field	34	154	3	157	11		11	165	3	168
Farmers visit to KVK		852	268	1120	188	50	238	1040	318	1358
Diagnostic visits	29									
Field visits	31									
Ex-trainees Sammelan	1									
Animal Health Camp	3	105		105	39		39	144	0	144
Soil test campaigns	3439									3439
Self Help Group meetings	1		11	11					11	11
Mahila Mandals meetings	2		35	35		3	3		38	38
Celebration of National breast feeding Week	1		18	18		6	6		24	24
Khedut Shibir	2	57		57	9		9	66		66
Crop Shibir	6	235	56	291	12	5	17	247	61	308
Telephonic Help line	667									667
Celebration of Word food day	1	29		29	2		2	31		31

Celebration of nutritional week	1		26	26		6	6		32	32
Total	**4349**	**4368**	**1806**	**6174**	**799**	**215**	**1014**	**5167**	**2021**	**11294**

6. Success stories/Case studies:

Success story-1

1. **Title : Cultivation of New Mustard variety (GM-2)**
2. **Background :**
   Mr. Parshotambhai Bhut is the farmer of Chhapra village of Lodhika Taluka, District Rajkot. He is a progressive farmer and regularly in touch with KVK, Targhadia. Previously he was cultivating Wheat and Cumin crop. After coming in contact with the scientist of KVK, Targhadia he cultivated the improved and recently release variety of mustard (Gujarat Mustard – 2) as a Front Line Demonstration and harvested good yield (23.75 Q/ha) as compared to local one (14.69 Q/ha) during Rabi 2006-07. With introduction of new variety, he got high additional net return.
3. **intervention: Introduction of new crop in this area**
   process:
   technology:
4. **Impact:** This variety GM-2 will increase the production of Mustard from14.69 to 23.75 Q/ha which will improve the economic condition of farmers of Saurashtra area

Horizontal spread
Economic gains
Employment generation

Success story-2

1. **Title : Production of vermi compost**
2. **Background :**
   Mr. Haresh M. Saipariya, a farmer of village Rataiya, Ta-Lodhika, Dist- Rajkot cultivating cotton since last 10 years. Due to continuous mono cropping and less use of organic matter in soil, the soil health and fertility destroyed in some extent. The yield of cotton reduced year after year. Due to contact with Krishi Vigyan Kendra, he started to produce Vermi compost and use in his own farm from last three years. Due to use of vermicompost the soil health and fertility improved and he get good yield of cotton since last three years
3. **intervention:** Use of organic matter in soil
   process:
   technology:

Impact: After use of vermi compost the cotton yield increased from 2000 kg/ha to 3600 kg/ha

Horizontal spread : Most of the farmers of this village use vermicompost in his soil
Economic gains : 40000 Rs./ha
Employment generation : NIL

Success story-3

1. **Title : Minimise the problem of wilt and blight disease in cumin**
2. **Background :**
   Mr. Laljibhai Saipariya is the farmer of Rataiya village of Lodhika Taluka, District Rajkot. He is a progressive farmer and regularly in touch with KVK, Targhadia. Previously he was cultivating Wheat and Cumin crop with old variety in Rabi season. In this cumin cultivation he suffered lot of from heavy infestation of wilt and blight diseases as a result there was a considerable loss in yield of the cumin. After coming in contact with the scientist of KVK, Targhadia he cultivated the improved and recently release variety of cumin (Gujarat Cumin – 4) as a Front Line Demonstration and harvested good yield (7.50 Q/ha) as compared to local one (4.85 Q/ha) during Rabi 2006-07. With introduction of new variety, he found this variety of cumin is highly tolerant to wilt and blight disease and he got high additional net return.
3. **intervention:** Disease management in cumin
4. **process:**
   technology:

Impact: This variety GC-4 will increase the production of Cumin from 4.85 to 7.50 Q/ha which will improve the economic condition of farmers of Saurashtra area.

Horizontal spread : Most of the farmers of this village use Cumin variety-GC-4

Economic gains : Increased the yield from 500 kg/ha to 1000 kg/ha
Employment generation : NIL

Success story-4

1. **Title** : An effective approach for the management of groundnut stem rot :
2. **Background :**

Groundnut and cotton are the major Kharif crops and cumin in Rabi season in operational area of KVK. During the survey in March 2001, it was observed that majority of farmers are growing groundnut variety GG-20 with wide spreading of 90 cm, so that agricultural practices can be done easily. Farmers are recommended to sow groundnut by keeping row spacing of 60 cm and for controlling the stem rot, seed should be treated with Trichoderma culture @ 4 gm/kg seeds and soil application @ 2.5 kg with 50 kg of castor cake at 30-40 days after sowing by using drill in moist condition. By organizing the activities like group discussion, night meeting, field day etc. Mr. Bhupatsinh Jadeja a farmer of Devalia village who took the interest to conduct demonstration under complete guidance and frequent supervision of KVK scientist. After adopting this improved technology, Mr. Bhupatsinh Jadeja harvest Groundnut pod yield of 31.25 q/ha with gross return of Rs. 46875 per ha as compared to 23.75 q/ ha with gross return of Rs. 35625 per ha by traditional practice.

3. **intervention:** Disease management in groundnut
4. **process:**
   technology:
   Impact: Additional yield can be obtained in case of Groundnut by application of *Trichoderma*.

Horizontal spread : Most of the farmers of this village use *Trichoderma* to control stem rot
Economic gains : Increased the yield from 800kg/ha to 1200 kg/ha
Employment generation : NIL

Success story-5

1. **Title** : Introduction of new crop in Saurashtra region
2. **Background :**

Farmer's Name: Rameshbhai Tarpara (Mob. 9824362442)

Village: Nagarpipaliya, Ta: Lodhika Dist : Rajkot

He is a progressive farmer of Rajkot district if Nagarpipaliya village. He inspired to cultivate mosambi from Nagpur (MH), learned cultivation technology and planted the mosambi graft in his field. He received planting materials from Maharashtra. Total 12000 mosambi plants are planted within three years. After three year he take fruits of success from the mosambi cultivation and provide the motivation for introduction of new crops in non traditional areas like Lodhika taluka of Rajkot district.. He also take intercrops between the plant during initial three to four years and got extra income till main crop start to gave production.

3. **intervention:** Introduction of new horticultural crop
4. **process:**
   technology:
   Impact: Successful cultivation of mosambi and he assume high income from this crop

Horizontal spread : Most of the farmers of the area interested to visit this farm
Economic gains : He assume to earn net profit of Rs. 3 Lack /ha. from his field
Employment generation : NIL

Table – 7 A Productions of Seeds (2008-09)

Sr. No.	Crop	Variety	Quantity (qtl.)	Value (in Rs.)	Provided to No. of Farmers
I. Oil Seeds					
1	Groundnut (Breeder seed)	GG-5	6.95	34750	Gujarat seed corporation, Gandhinagar
2	Groundnut (Breeder seed)	GG-5	6	30000	Used as seed purpose for KVK farm
3	Sesamum (Breeder seed)	GT-2	2.60	28600	Used as seed purpose for farmers
Total			**15.55**	**93350**	*** 6 qtl. Used as seed purpose for KVK farm**
II. Pulses					

1	Black gram	T-9	11.77	39766	Gujarat seed corporation, Gandhinagar
Total			**27.32**	**133116**	

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

(A) Literature developed/published (2008-09)

Item	Title	Authors name	Number
Research papers	Training needs of Dairy farming women and constraints faced by rural women : A case study of Gujarat	J.B.Kathiriya and B.C.Bochalya	1
	A study of Adoption of milking and Health care practices of dairy Animals under co-operative network of Rajkot milk marketing union of saurashtra	J.B.Kathiriya and M.B.Virdiya, N.D. Polara	1
Technical reports	Monthly Progress Report Quarterly Progress Report Moniterable Quarterly Progress Report Annual Progress Report	Krishi Vigyan Kendra, Targhadia	4
News letters	-	-	-
Technical bulletins	-	-	-
Popular articles	Jaminmathi lidhelu jaminne parat apo	Dr.M.B.Viradia,,Dr.N.D.Polara,Dr.J.B.Kathiriya,Dr.B.B.Kabaria, Shri.P.P.Gajjar,Dr.A.V.Kanpara	1
	Svaschha dudha utpadna – dudha utpadko mate aek vardan	Dr.J.B.Kathiriya, Dr.N.D.Polara, Dr.B.B.Kabaria	1
	Pashuoni parmparagat Aushdhiya Sarvar	Dr.J.B.Kathiriya, Miss.R.T.Padaliya, Dr.B.B.Kabaria	1
	Pashu Rogchala niyantranlaxi pagalanu mahatva	Dr.J.B.Kathiriya, Dr.M.B.Viradia, Dr.B.B.Kabaria	1
	Soyabinni Svadist vangio	Ms. H.A. Manvar, Dr.B.B.Kabaria	1
	Fal zadna bagichha mate kalam/ ropani pasandagi ane ropani	Dr.N.D.Polara, Dr.B.B.Kabaria, Dr.A.V.Khanpara	1
	Ghaschhara ni kheti padhti	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, Shri.P.P.Gajjar, Ms.H.A.Manvar	1
Extension literature	Clean milk production- Basic need of the world.	Dr. J. B. Khathiriya ,Dr.N.D.Polara & Dr. B. B. Kabaria	1000
	Identification & control of steam rot in Groundnut	Dr. J. B. Khathiriya ,Dr.N.D.Polara & Dr. B. B. Kabaria	1000
	Krishi vigyan kendra – Targhadia- Krishi yatra dham of Rajkot district.	Dr.N.D.Polara, Dr. J. B. Khathiriya & Dr. B. B. Kabaria	1000
	Scientific cultivation of spices.	Dr.N.D.Polara, Dr. J. B. Khathiriya & Dr. B. B. Kabaria	1000
	Integrated pest management on cotton	Dr. B. B. Kabaria, Dr. M. B. Viradiya & Shri D.V.Muchhadiya	1000
	Integrated management of mealy bug on cotton	Dr. B. B. Kabaria, Dr. M. B. Viradiya & Shri D.V.Muchhadiya	1000
Booklet	Increase net profit through scientific dairy farming adoption.	Dr. J. B. Khathiriya ,Dr.N.D.Polara & Dr. B. B. Kabaria	1000

(B) Participated in Seminar / Workshop / Training/ Conference (2008-09)

Sr. No	Duration	Name of Scientist	Topic/Objective	Venue	Type
1	2	3	4	5	6
1.	18th Nov. to8th Dec.2008	Dr. M. B. Viradiya	Recent Advances in Diagnosis and Management of Poor quality water/soils	CSRI, Karnal	Winter School
2.	3rd to 23rd	Dr.J.B.Kathiriya	Recent Development in Animal	IVRI,	Winter

	Dec.2008		Production and Reproduction	Izatnagar,Bareilly	School
3.	4th to 24th Dec.2008	N.D.Polara	Hi-tech production of subtropical fruits	Institute for subtropical Horticulture, Lucknow	Winter School
1	**2**	**3**	**4**	**5**	**6**
4.	18th to 20th Dec., 2008	Dr.B.B.Kabaria	Annual Zonal Workshop	MPAUT, Udaipur	Workshop
5.	27th 29th Dec.2008	Dr.B.B.Kabaria	National Conference	Pantnagar	Conference
6.	7-27, Jan.09	Shri P.P.Gajjar	Advances in Biomass Utilization for electricity generation	CIAE, Bhopal	Winter school
7.	19-20, March, 09	Miss. H. A. Manvar	Reorientation of Home Science Scientist of KVKs	SVBPUA&T, Meerut	National Workshop
8.	3-13, May,2009	Dr.B.B.Kabaria	International Israel Agritech-2009	Tel-Aviv (Israel)	Agril. Exibition
9.	4-8 May - 09	Miss. H. A. Manvar	Preparation of different bakery items	Bakery school-Junagadh	Training

- Two scientist (Dr. B.B. Kabaria & Dr. V.N. Patel) of JAU, Targhadia (Rajkot) was attended national symposium at CAU, Pasighat (Arunachal Pradesh) during 28-30 January, 2009 on “IPM strategies to combat emerging pest in the current scenario of climate change” organized by entomological Society of India, IARI, New Delhi, and presented two research papers on different aspect of entomology.
- Krishi Vigyan Kendra, JAU, Targhadia (Rajkot) organized a field demonstration of improved variety of gram in rabi and sesamum and green gram in summer season in different adopted villages of Rajkot district under Rashtriy Krushi Vikas Yojna (RKVY). This centre also implemented the demonstration of farm implements like rotavator and cotton stalk shredder for mass awareness to improve the soil fertility by making organic manure from cotton stalk which was previously burned by farmers in field
- One day Seminar for the “ Gaushala Shanchalak” of the Rajkot district was organized to make them self sufficient in management on 12th Feb., 2009 by the Krishi Vigyan Kendra, JAU, Targhadia at Shri Bhuvaneshvari pith- Gondal. The seminar was inaugurated by Hon. MP, Dr. Vallabhbhai Kathiriya. Hon. Vice Chancellor, Dr. B.K. Kikani remain present as chief guest of the function. Other dignitaries remain present are Pu. Achharya shri, Ganshyamji Maharaj, Bhuvaneshvari pith- Gondal and Shri Chinubhai Patel, Gausheva Ayog, Gandhinagar
- Hon. Additional Secretary of Agriculture and Cooperation, Govt. of Gujarat P. N. Roy Chaudhari, Hon. Vice Chancellor of JAU and Director of Research, JAU, Junagadh visited the adopted village Rataiya under RKVY project and discussed with farmers and farm women about agriculture technology spread through KVK, Targhadia.