ANNUAL REPORT (2011-12)
(01.04.2011 TO 31.03.2012)

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 31st March. 2011)

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Disci-pline	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	Programme Coordinator	Dr. B. B. Kabaria	Programme Coordinator	Agril. Ento.	37400-67000	60450/-	15-9-06	Permanent	General
2	SMS	Dr. J. B. Kathiriya	SMS (Animal. Sci)	Ani Sci.	8000-13500	8000/-	19-8-06	Permanent	General
3	SMS	Shri. D. N. Rathod	SMS (Agron.)	Agron	15600-39100	35660/-	1-10-11	Permanent	General
4	SMS	Shri D. A. Saradava	SMS (Pl.Protection)	Agril. Ento.	15600-39100	30850/-	27-5-09	Permanent	General
5	SMS	Vacant	SMS (Horti.)						
6	SMS	Shri. D. P. Sanepara	SMS (Agril. Engg.)	Agri. Eng.	15600-39100	28220/-	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	Programme Assistant (Training)	Vacant	Programme Assistant (Training)	-	8000-13500	-	-	-	-
9	Computer Programmer	Miss. R. T. Padaliya	Computer Programmer	-	9300-34800	10000/- Fix	3-1-09	Permanent	General

10	Farm Manager	Shri.D.M. Damasia	Programme Assistant / Farm manager	Agril. Ento.	9300-34800	10000/- Fix	21-1-12	Permanent	General
11	Acc. / Sup.	Shri.B. H. Joshi	Offi. Sup. Cum A/c. Officer	-	9300-34800	10000/- Fix	1-02-11	Permanent	General
12	Steno-grapher	Shri B. J. Lalkiya	Junior Steno	-	9300-34800	16680/-	01-5-07	Permanent	General
13	Driver	Shri. B. K. Gondaliya	Jeep Driver-Cum Mechanic	-	5200-20200	15100/-	11-9-08	Permanent	OBC
14	Driver	Shri.D. K. Makwana	Jeep Driver-Cum Mechanic	-	5200-20200	11180/-	01-7-06	Permanent	OBC
15	Supporting staff	Smt.U.G.. Zala	Supporting Staff	-	4440-7440	8040/-	16-9-04	Permanent	General
16	Supporting staff	Shri Y. B. Joshi	Supporting Staff	-	4440-7440	9140/-	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	14.00
4.	Orchard/Agro-forestry	1.00
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	31-3-2009	320.00	281602			
5	Net House	RKVY	31-3-2009	150.00	64498			
6.	Farm godown	RKVY	09-2-2010	70.61	454500			
7.	Training hall	RKVY	11-2-2010	190.99	1395800			
8.	Process plant	RKVY	11-2-2010	197.31	1536400			
9.	Implement shed	RKVY	09-2-2010	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	140077	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. Details SAC meeting conducted in the year-2011 (Date : 17-3-2011)

Name and Designation of Participants	Salient Recommendations	Action taken
1. Dr. N. C. Patel, Hon. Vice Chancellor, JAU, Junagadh 2. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh	Dr. N. C. Patel, Hon'able Vice chancellor suggested that number of popular articles should be increased at least up to 4 per SMS, also increase numbers of folder up to 15. So that farmers' and farm women get written material after getting training.	Total 13 popular articles published in current year and one folder developed
3. Dr. I. U. Dhruj, ADR, JAU, Junagadh 4. Dr. M. N. Popat, Asso. Dir. of Extn Edn, JAU, Junagadh 5. Dr. K.N. Akbari, Res.Sci. (DF), Targhadia 6. Shri K.V. Parmar, Dy.Director of Horticulture, Rajkot	Shri Karansinh Solanki, I/C Director of Doordarshan, Rajkot has suggested that for the benefit of farmer's and farm women, the number of off campus trainings should be increased. He also suggested to use protective wears like gloves, mask, spectacles, etc., at the time of spraying the insecticide or Pesticide. Further, he suggested that participation of farm women should be increased in trainings as well as in TV programmes.	Suggestion accepted & Implemented
7. Shri J. K. Kanani, Assistant Director of Agriculture, Rajkot	Do not calculate training, seminar, workshop of other organizations under KVKs activities. It should be reported under lecture delivered only.	Suggestion accepted & Implemented

8. Shri P.T. Korvadia, Dy. Director, GLDC, Rajkot 9. Shri Karansinh Solanki, Station Director, Doordarsan Kendra, Rajkot 10. Dr. P. B. Kundaria, Assistant Manager, Gopal Dairy, Rajkot 11. Shri Baldev Dalsaniya, Programme executive, All India Radio, Rajkot 12. Shri Hareshbhai M. Saipariya, Progressive Farmer, Rataiya 13. Shri Babubhai D. Ramani, Progressive Farmer, Khorana 14. Miss Daksha N. Topia, Magharvada 15. Miss Purvi M. Topia, Rural Youth, Magharvada 16. Shri. P. J. Desai, Asst. Nutritionist, Gopal Dairy, Rajkot 17. Dr. Pashwin Dudhagara, VO, Gopal Dairy, Rajkot 18. Dr. H. B. Thesia, VO, Gopal Dairy, Rajkot 19. Shri Chandubhai D. Sangani, Progressive Farmer, Khorana 20. Shri Pravin Nathabhai Saipariya, Progressive Farmer, Rataiya 21. Shri Ramesh L. Vekariya, Progressive Farmer, Khorana 22. Shri Manshukh R. Vekariya, Progressive Farmer, Khorana 23. Shri. Kanparia R. S. Progressive farmer, Shrinathgadh, Gondal	Dr. M. N. Popat, ADEE suggested that farmer's meeting should be organized on the each FLD site	Suggestion accepted & Implemented
	Data on average productivity of state and district should be verified properly.	Suggestion accepted and data verified
	Data on potential yield should be maintained as per our region.	Suggestion accepted & Implemented
	Create awareness among farmers about seed treatment and training programme on seed treatment should be scheduled during 1st quarter in Action Plan.	Suggestion accepted & Implemented
	Try to add farmers name and his phone number in presentation who had benefited by FLD.	Suggestion accepted & Implemented
	Do not take FLDs on other crop which was not approved during SAC meeting.	Suggestion accepted & Implemented
	In case of FLD on Trichoderma (Bio-agent), the observations on disease intensity should be recorded and included in the presentation..	Suggestion accepted & Implemented
	Arrange separate SAC meeting for Rabi and Kharif season.	Suggestion accepted
	Arrange three days On campus training programmes, after completion of the new building and arrange field visit with collaboration of ATMA, DRDA, NHRDF, Department of Agriculture, Horticulture, Animal Science etc.	New building work under progress
	The OFT beneficiaries should be at least 10 per group in case of Home Science OFTs.	Suggestion accepted
	Add training programme on "Management of fertilizer in cotton and groundnut". It should be included in the 1st quarter in the Action plan.	Suggestion accepted & Implemented
	Give emphasis on training programme for "Use of plastic as a mulching in summer crops especially in watermelon" and make one success story on plastic used in water melon cultivation.	Suggestion accepted & Implemented
	Add fourth treatment "Balance diet for animals" as intervention in OFT of Animal Science.	Suggestion accepted & Implemented
	Do not take project directly without taking permission from proper channel and don't take new project now onwards.	Suggestion accepted
	Every SMS should maintain a register comprising of FLDs, on/off campus training programme of respective subjects, work diary.	Every SMS maintain FLD register and work dairy
	Demonstration of small farm equipment should increased, as it is very useful for farmers.	Suggestion accepted & Implemented
	Disseminate the awareness of new varieties which was recommended by university and arrange FLDs on such new varieties	Suggestion accepted & Implemented

24. Shri Govindbhai P. Undhad, Progressive Farmer, Khorana 25. Shri Jasoliya V. P. Progressive farmer, Shrinathgadh, Gondal 26. Shri Bharat P. Jodhani Progressive farmer, Shrinathgadh, Gondal 27. Shri. D. J. Parmar, Gram Sevak, Dist. Panchayat, Rajkot	Give demonstration to farmers on Capsicum and tomato during winter season.	Not implemented due to post of SMS (Horti) is vacant
	To motivate the farmers to apply for ATMA and ICAR awards in advance.	Suggestion accepted & Implemented
	Increase number of Vocational training programme.	Suggestion accepted
	Prepare nursery in KVK	Suggestion accepted & Implemented
	Arrange training on Farm Equipment under engineering section.	Suggestion accepted & Implemented
	Arrange training on food processing	Suggestion accepted & conducted one collaborative training with IICPT
	Photographs in presentation and in report should be with self explanatory title, date. Also, give report with coloured photographs to all members.	Suggestion accepted
	Give advance time schedule to sarpunch for off campus training programme and inform the farmers well in advance.	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	Farm Waste Management specially for cotton stalk
4	Fruit and Vegetable Preservation
5	Value addition in Groundnut, Til and Bajra

2.2 Description of Agro-climatic Zone & major agro ecological situations

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 Lacs ha. Out of total area, 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district is low in their availability of nitrogen while medium in phosphorus and high in available potash except the available phosphorus and potash is in medium category in adopted villages. Monsoon commences usually by the end of June and withdraws by middle of September. Average annual rainfall of districts is 624 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 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 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.	Pigeon 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 (2011-12)

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April - 2011	-	37.0	22.0	76.74
May - 2011	-	33.5	23.0	81.72
June - 2011	18.0	39.0	21.0	78.26
July – 2011	575.5	38.5	17.0	61.51
August -2011	336.6	36.0	20.0	78.24
September- 11	211.1	39.0	22.0	80.60
October- 2011	-	38.5	17.0	61.51
November-2011	-	36.0	15.8	49.44
December-2011	-	34.8	7.0	42.72
January – 2012	-	29.0	7.0	48.50
February – 2012	-	34.5	4.8	58.98
March – 2012	-	40.8	10.5	48.04
	1141.2			

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		

2.7 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 and 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 in 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			

2.8 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. Use of cotton stalk for organic manure.
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.
Arid Fruits	Promoting the arid horticulture.
Livestock prod.	Enhancing productivity of milch animals by proper feeding and breeding management.
women empowerment	Providing self employment through skill oriented income generating activities
Agriculture	Developing interest among youth for agriculture as a profession.
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
PHT	Minimizing the post harvest losses and to create the awareness for proper storage.
Income generating activities	Self employment among rural youth and skill oriented income generating activities.
Nutrition management	Care and importance of nutrition in children & pregnant women.

3. TECHNICAL ACHIEVEMENTS

3.A Details of target and achievements of mandatory activities by KVK during 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	48	48	48.0	56.4	130	158

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	89	83	2225	2369	-	-	-	-
Rural youth	3	2	75	52	-	-	-	-
Extn. Functionaries	4	6	100	153	-	-	-	-
Total	**96**	**91**	**2400**	**2574**	**-**	**401**	**-**	**15592**

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
-	**106.08**	-	**60**

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 activi-ties	Supply of seeds, planting materials etc.
1	2	3	4	5	6	7	8	9	10
1	To minimize age at first calving (AFC) in heifers	Live stock	Late age at first calving -Loss in production	Reduction in age at first calving (AFC) in heifers	-	Optimizing reproductive efficiency & to reduce age of 1st calving (AFC)	-	Group meeting	- Medicine - Horse gram - Mineral mixture
2	Increase the productivity of cotton	Cash crop	Imbalance fertilization in cotton	Low yield of cotton	-	Balance fertilization in cotton	-	Field day/ Kishan gosti	Fertilizers specially micro nutrient
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 Meet./ Field day	Pesticides Specially botanicals and bio.
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 Meet./ Field day	*Trichoder Ma culture specially "SAVAJ" Brand*
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	Recomm-ended practices for watershed manage-ment

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	Vege-tables	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										
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**	**Vege-tables**	**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: **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 (kg/ha)				
			T-1	T-2	T-3	T-4 *	**Average**
1	J.L.Lunagariya	Sarapdad	2400	2570	2900	3350	**2800**
2	B.D.Ramani	Khorana	2320	2440	2940	3240	**2730**
3	KVK -Farm	Targhadia	2090	2190	2390	2540	**2300**
Average			**2270**	**2400**	**2740**	**3040**	

* 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
Cotton	Irrigated	low yield of cotton due to Imbalance fertilization in cotton	Low yield of cotton	5	Balance fertilization	Yield

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.	30.40 q / ha

Net return (Profit) in Rs/Unit	**BC Ratio**
13	**14**
63067	2.66
69672	2.88
81502	3.02
92692	3.18

OFT – 2

1) Title of technology assessed/Refined : **Management of sucking pests in cotton**.
2) Problem definition
   - ✓ No adoption of recommended practices
   - ✓ Injudicious use of insecticide
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 new & old insecticide (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 (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	KVK-Farm	Targhadia	2521	0.63	1.9	2689	0.5	1.7	2560	0.6	1.8

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

8) Final recommendation from micro level situation: Alternate treatment one and two
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
   - ✓ Not adopting recommended schedule for spraying insecticides.
   - ✓ Farmer spray insecticide as per instructions given by local pesticides retailer.
   - ✓ Lack of knowledge of fertilization.(Nitrogeneous)
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 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 2. Use of new, old and bio control agent (Recommended practice)	In IPM practice high yield obtain High benefit obtain in alternate spraying of old & new insecticide	Alternate treatment old & new insecticide	25.60 q/ha.

Net return (Profit) in Rs/ha.	BC Ratio
13	**14**
72949	3.0
78225	3.0
75314	3.1

OFT –3 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 (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	J.D. Lunagariya	Sarapdad	1815	3.6	-	1938	1.7	-	1740	3.6	-
2	KVK-Farm	Targhadia	880	3.8	-	944	2.5	-	824	4.3	-
	Average		**1348**	**3.7**	**-**	**1446**	**2.1**	**-**	**1285**	**4.0**	**-**

Indicator 1: yield of groundnut in Kg/ha, Indicator 2: percent infected plant at time of harvest

8) Final recommendation from micro level situation: Soil drenching of Trichoderma @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)
9) Constrains identified and feedback for research:
   - ✓ Low plant population
   - ✓ Disease problems.
   - ✓ Lack of knowledge for use of recommended control measures.
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
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 grounnut	• 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. 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) 2. 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).	Trichoderma reduce the infestation of stem rot in groundnut Good growth of groundnut also observed	Soil drenching of Trichoderma @ 50 gm/10 litter of water using spray pump without nozzle. (Intervention)	12.85 q/ha.

Net return (Profit) in Rs/Unit	BC Ratio
13	14
30245	2.1
34910	2.3
29575	2.0

OFT – 4

1) Title of on-farm trials : **Low yield in groundnut due to due to improper 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 :
   - ✓ T1. Shallow ploughing with 7-8 interculturing (Farmer 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 (kg/ha)	Indicator 2 (%)	Indicator 1 (kg/ha)	Indicator 2 (%)	Indicator 1 (kg/ha)	Indicator 2 (%)
1	S.R. Limbasiya	Suvag	995	21.50	1035	24.50	1080	23.80
2	R.P. Tatamiya	Khorana	840	20.00	895	22.40	925	20.90
3	KVK Farm	Targhadia	895	20.90	935	23.30	965	22.20
	Average		**910**	**20.80**	**955**	**23.40**	**990**	**22.30**

Indicator 1 : Yield of groundnut (kg/ha), Indicator 2 : Soil moisture content (%)

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

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 yield of groundnut in rain fed agriculture	Low yield of groundnut due to improper tillage practice	3	Proper tillage practice for soil moisture conservation and higher yield	✓ 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 conservation in shallow ploughing	Medium deep ploughing with 4-5 interculturing	9.90 q/ha
	2. Deep ploughing with 2-4 interculturing	Stem rot disease is higher in deep tillage and frequent interculturing		

Net return (Profit) in Rs/Unit	BC Ratio
13	14
8350	1.36
10525	1.46
12350	1.55

OFT –5

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	S.R.Makvana	Sarapdad	1.7	0.2				
2	A.D.Dhanvaliya	Bedala	0.5	0.3				
3	S.N.Dhanvaliya	Bedala	1.0	0.0				
4	A.V.Govani	Bedala	1.3	0.4				
5	S.L.Kihla	Bedala	0.5	0.2				
6	N.V.Sojitra	Metoda			1.0	0.2		
7	S.L.Vadhela	Metoda			1.0	0.0		
8	P.G.Pojara	Bedala			1.5	0.6		
9	P.J.Paramar	Bedala			2.0	1.1		
10	P.J. Dabhi	Sarapdad			1.0	0.8		
11	C.B.Dafda	Metoda					1.5	1.0
12	L.N.Damor	Kerala					2.0	0.5
13	R.D.Bathavar	Bedala					1.0	1.2
14	H.V.Sorani	Bedala					1.5	0.9
15	S.V.Satiya	Bedala					2.0	1.0
16	R.P.Dabhi	Sarapdad					1.5	0.9
17	N.D.Sarani	Bedala					1.0	0.1

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 Hemo-globin	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	

OFT - 6

1) Title of technology assessed/Refined : **Reduction in age at first calving (AFC) in heifers**
2) Problem definition : Delayed age at maturity in heifers
3) Details of technologies selected for assessment/refinement:
   - ✓ Farmer's practices
   - ✓ Heifers be fed with Deworming bolus + Mineral Mixture (Recommended Practice)
   - ✓ Heifers be fed with Mineral bricks + Zycloze tablets + Horse gram @ 500 gm/day up to one week (Intervention-1)
   - ✓ T3+ Balanced concentrated diet (Intervention-2).

4) Source of technology: GAU

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:

armer 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 in month	Indicator 2 in No.	Indicator 1 in month	Indicator 2 in No.	Indicator 1 in month	Indicator 2 in No.	Indicator 1 in month	Indicator 2 in No.
1	Farmers method	Khorana	50-60	3.8-4.4						
2	R.V.Vekariya	Metoda			46-50	2.8-3.8				
3	A.M.Vekariya	Metoda								
4	B.V.Vadodariya	Metoda								
5	G.P.Pipaliya	Metoda								
6	R.L.Kathiriya	Kerala								
7	P.A.Vekariya	Khorana					41-45	2.0-2.8		
8	N.M.Ramani	Khorana								
9	P.B.Hadagra	Khorana								
10	V.D.Bodar	Bedala								
11	S.N.Bodar	Bedala								
12	K.M.Kali	Bedala								
13	R.L.Vekariya	Khorana							36-40	1.3-2.2
14	G.D.Vekariya	Khorana								
15	V.J.Vekariya	Khorana								
16	K.C.Vekariya	Khorana								
17	K.B.Vekariya	Khorana								
18	L.P.Vekariya	Khorana								
19	K.K.Vekariya	Khorana								

Indicator 1 : Age at first calving in month, Indicator 2 : Average No. of Heats required for conception

8) Final recommendation for micro level situation : Buffalo heifers should be fed with Mineral bricks + Zycloze tablets + Horse gram @ 500 gm/day + Balanced concentrated diet

9) Constrains identified and feedback for research :
   - ✓ Imbalance feeding
   - ✓ Weak estrous
   - ✓ Poor management of heifers

   Process of farmers participation and their reaction: Buffalo heifers should be fed with Mineral bricks + Zycloze tablets + Horse gram @ 500 gm/day + Balanced concentrated diet

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
Livestock	Rainfed farming	Delayed age at maturity in heifers	Reduction in age at first calving (AFC) in heifers	4	Reduction in age at first calving (AFC) in heifers	• Age at first calving in month • Average No. of Heats required for conception

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	• Heifers be fed with Deworming bolus + Mineral Mixture . • Heifers be fed with Mineral bricks + Zycloze tablets + Horse gram @ 500 gm/day up to one week	-	Buffalo heifers should be fed with Mineral bricks + Zycloze tablets + Horse gram @ 500 gm/day + Balanced concentrated diet	-

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 2011-12 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 (GG-5)	Crop Production	New variety	Short duration, bunch type and high yielding	6	10	4.0
2	Sesamum (G.Til-2)	Crop Production	New variety	High yielding & export quality	2	5	2.0
3	Green gram (GM-4)	Crop Production	New variety	Short duration, high pod length and yield	4	5	2.0
4	Black gram (GU-1)	Crop Production	New variety	High yielding variety	6	8	3.2
5	Pear millet (GHB-538)	Crop Production	New variety	High yielding variety	3	20	8.0
6	Groundnut	IDM	*Trichoderma* Powder & castor cake	Management of stem rot in groundnut	6	10	4.0
7	Cotton	INM	Micronutrient	Balance fertilization	6	50	20.0
8	Cotton	Weed Manage-ment	Pre & Post ememergence	To control the weeds in cotton	1	3	1.2
9	Wheat (GW-366)	Crop Production	New variety	bold size grain with high yielding variety	12	12	4.8
10	Cumin (GC-4)	Crop Production	New variety	High yielding variety and wilt resistant	8	15	6.0

11	Animals	Nutritional manage-ment	Mineral mixture powder	To minimize the nutritional deficiency in Livestock	5	10	-
12	Fodder crop (CO-3)	Fodder Manage-ment	New Grass Variety Introduction	To popularized the new fodder variety	6	10	4.0
13	Fodder crop (JHO-822)	Fodder Manage-ment	New variety of fodder grass	To popularized the new fodder variety	7	8	0.8

b. Details of FLDs implemented during 2011-12

Oilseeds

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Propo-sed	Actual	SC/ ST	Others	Total	
1	Groundnut (GG-5)	Varietal evaluation	New variety	Kharif - 11	4.0	4.0	-	10	10	-
2	Sesamum (GT-2)	Varietal evaluation	New variety	Kharif - 11	2.0	2.0	-	5	5	-
3	Groundnut	Disease management	*Trichoderma* powder	Kharif - 11	4.0	4.0	1	9	10	-

Pulses

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Propo-sed	Actual	SC/ ST	Others	Total	
1	Black gram (GU-1)	Varietal evaluation	New variety	Kharif - 11	2.0	3.2	-	8	8	-
2	Green gram (GM-4)	Varietal evaluation	New variety	Kharif - 11	2.0	2.0	-	5	5	-

Others

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Propo-sed	Actual	SC/ ST	Others	Total	
1	Cotton	INM in cotton	INM	Kharif - 11	20.0	20.0	2	48	50	-
2	Cotton	Weedicide in cotton	Weedicide	Kharif - 11	-	1.2	-	3	3	-
3	Pear millet (GHB-538)	Varietal Evaluation	New variety	Kharif - 11	-	8.0	1	19	20	-

Commercial crops (Cumin & Wheat)

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Propo-sed	Actual	SC/ ST	Others	Total	
1	Wheat (GW-366)	Varietal evaluation	New variety	Rabi - 10	4.8	4.8	-	12	12	-
2	Cumin (GC-4)	Varietal evaluation	New variety	Rabi - 10	6.0	6.0	-	15	15	-

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	9/7/11	27/10/11	1141.2	34
Sesamum	*Kharif*	RF	M. B.	L	M	H	Groundnut	9/7/11	8/10/11	1141.2	34
Green gram	*Kharif*	RF	M. B.	L	M	H	Cotton & G'nut	7/7/11	21/9/11	1141.2	34
Black gram	*Kharif*	RF	M. B.	L	M	H	Cotton & G'ut	9/7/11	23/9/11	1141.2	34
Pear millet	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	9/7/11	28/9/11	1141.2	34
Groundnut	*Kharif*	RF	M. B.	L	M	H	Groundnut	20/6/11	30/10/11	1141.2	34
Cotton	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	10/7/11	25/1/12	1141.2	34
Cotton	*Kharif*	RF	M. B.	L	M	H	Cotton & Groundnut	9/7/11	15/1/12	1141.2	34
Wheat	*Rabi*	Irrigated	M. B.	L	M	H	Green gram	8/11/10	1/3/11	1141.2	34
Cumin	*Rabi*	Irrigated	M. B.	L	M	H	Groundnut	18/11/10	10/3/11	1141.2	34

B. – Medium Black

Performance of FLD (2011-12)

Sr. No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)
						H	L	A		
1	2	3	4	5	6	7	8	9	10	11
1	Groundnut	Variety	GG-5	10	4.0	13.00	10.75	11.86	10.82	7.14
2	Sesamum	Variety	GT-2	5	2.0	13.00	9.75	11.50	10.30	11.65
3	Green gram	Variety	GM-4	5	2.0	5.7	4.8	5.2	4.8	8.73
4	Black gram	Variety	GU-1	8	3.2	4.4	4.0	4.2	3.8	10.18
5	Pear millet	Variety	GHB-538	20	8.0	28.25	23.00	25.67	24.35	5.44
6	Groundnut	IDM	GG-20	10	4.0	22.5	10.0	15.8	15.0	6.6
7	Cotton	INM	*Bt.*	50	20.0	39.30	27.50	32.35	30.83	4.93
8	Cotton	Weedicide	*Bt.*	3	1.2	31.25	30.25	30.79	28.71	7.23
9	Wheat	Variety	GW-366	12	4.8	49.25	39.75	45.31	42.10	7.58

10	Cumin	Variety	GC-4	15	6.0	8.25	5.75	7.17	6.70	7.28
11	Animals	Mineral mixture powder	V.M. All Powder	10	-	Milk production (Lit./Lactation)				5.16
						2235	1360	1630	1550	
12	Fodder crop	Hybrid Napier Grass	Coimbatore-3 (CO-3)	10	4.0	Result awaited				
13	Fodder crop	Oat	JHO- 822	8	0.8	Result awaited				

Economic Impact (continuation of previous table)

S.N.	Cost of cultivation (Rs./ha)		Gross Return (Rs./ha)		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
1	28730	28185	52834	48204	24104	20019	1.84
2	15265	16510	26220	23484	10955	6974	1.71
3	14575	14375	17651	16233	3076	1858	1.21
4	13813	13625	15403	13780	1590	155	1.12
5	17115	14988	30162	28611	13047	13626	1.76
6	25170	24500	61856	57993	36686	33493	2.5
7	44935	44288	143472	136864	98537	92576	3.19
8	46300	42100	138093	128764	91793	86664	2.98
9	18950	18250	61259	56919	42309	38669	3.23
10	16375	15500	108849	101572	92474	86072	6.65

Analytical review of component demonstrations

Crop	Season	Component	Farming situation	Average yield (Demo.) (q/ha)	Average yield (Local check) (q/ha)	Percentage increase in productivity over local check
Groundnut	*Kharif*	Seed/Variety	Rainfed	4.7	4.3	9.30
Sesamum	*Kharif*	Seed/Variety	Rainfed	4.6	4.1	12.19
Green gram	*Kharif*	Seed/Variety	Rainfed	5.2	4.8	8.33
Black gram	*Kharif*	Seed/Variety	Rainfed	4.2	3.8	10.52
Pear millet	*Kharif*	Seed/Variety	Rainfed	10.2	9.7	5.15
Groundnut	*Kharif*	IDM	Rainfed	15.8	15.1	4.63
Cotton	*Kharif*	INM	Rainfed	32.3	34.6	7.12
Cotton	*Kharif*	Weedicide	Rainfed	30.8	28.7	7.23
Wheat	Rabi	Seed/Variety	Irrigated	45.31	42.10	7.58
Cumin	Rabi	Seed/Variety	Irrigated	7.18	6.70	7.28

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	Research needed for control of insect-pests and diseases in organic farming
11	Problem of leaf curling in chilli.
12	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
13	Wilting in chili and cotton
14	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	5	-	102	-
2	Media coverage	-	-	-	-
3	Kisan Ghosthi	4	-	89	-
4	Field day	3	-	178	-
	TOTAL	**12**		**369**	

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	2	51		51			0	51	0	51
Water management	1	19		19			0	19	0	19
Integrated Crop Management	1	30		30			0	30	0	30
Cropping Systems	1	23		23	1		1	24	0	24
II. Horticulture										
a) Vegetable Crops										
Off-season vegetables	1	22		22			0	22	0	22

Grading and standardization	1	2	24	26			0	2	24	26
Protective cultivation (Green Houses, Shade Net etc.)	1	28		28			0	28	0	28
b) Fruits										
Cultivation of Fruit	1	26		26			0	26	0	26
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
III. Soil Health and Fertility Management										
Soil and Water Testing	1	33		33			0	33	0	33
IV. Livestock Production and Management										
Dairy Management	1	51		51	3		3	54	0	54
Disease Management	1	2	17	19			0	2	17	19
Feed management	1	16		16			0	16	0	16
Production of quality animal products				0			0	0	0	0
V. Home Science/Women empowerment										
Design and development of low/minimum cost diet	1		30	30		1	1	0	31	31
Value addition	3		80	80		1	1	0	81	81
Income generation activities for empowerment of rural Women	2	3	56	59			0	3	56	59
Location specific drudgery reduction technologies	1		30	30			0	0	30	30
VI. Agril. Engineering										
Installation and maintenance of micro irrigation systems				0			0	0	0	0

Use of Plastics in farming practices	1	26		26			0	26	0	26
Repair and maintenance of farm machinery and implements	1	31		31			0	31	0	31
Post Harvest Technology	1				30	2	32	30	2	32
VII. Plant Protection										
Integrated Pest Management	1	23		23			0	23	0	23
Integrated Disease Management	1	25		25			0	25	0	25
Bio-control of pests and diseases	1	18		18			0	18	0	18
Production of bio control agents and bio pesticides	1	32		32			0	32	0	32
VIII. Fisheries										
IX. Production of Inputs at site										
X. Capacity Building and Group Dynamics										
XI. Agro-forestry										
TOTAL										
(B) Rural Youth										
Production of organic inputs				0			0	0	0	0
Nursery Management of Horticulture crops				0			0	0	0	0
TOTAL	**27**	**461**	**237**	**698**	**34**	**4**	**38**	**495**	**241**	**736**
(C) Extension Personnel										
Integrated Pest Management	1	26		26			0	26	0	26
Integrated Diseases Management	1	28		28			0	28	0	28
Use of irrigation water	1	15	10	25			0	15	10	25
Protected cultivation tech.				0			0	0	0	0
TOTAL	**3**	**69**	**10**	**79**	**0**	**0**	**0**	**69**	**10**	**79**
G.TOTAL	**30**	**530**	**247**	**777**	**34**	**4**	**38**	**564**	**251**	**815**

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				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Integrated Farming	1	36		36			0	36	0	36
Seed production	1	31		31			0	31	0	31
Production of organic inputs				0			0	0	0	0
II. Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	25		25			0	25	0	25
Off-season vegetables	1	24		24			0	24	0	24
Grading and standardization	1	19		19			0	19	0	19
Protective cultivation (Green Houses, Shade Net etc.)	1	22		22			0	22	0	22
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	6	166		166	1		1	167	0	167
Soil and Water Testing				0			0	0	0	0
IV. Livestock Production and Management										
Dairy Management	1	12		12			0	12	0	12
Poultry Management	2	40	11	51	3		3	43	11	54
Disease Management	3	23	39	62	1		1	24	39	63

Feed management	3	71	28	99	4		4	75	28	103
Production of quality animal products	2	36		36			0	36	0	36
V. Home Science/Women empowerment										
Household food security by kitchen & nutrition gardening				0			0	0	0	0
Design and development of low/minimum cost diet				0			0	0	0	0
Value addition	3		97	97		2	2	0	99	99
Income generation activities for empowerment of rural Women	2		48	48			0	0	48	48
Drudgery reduction technologies	3		47	47		3	3	0	50	50
Rural Crafts	2		31	31			0	0	31	31
Women and child care	2		45	45			0	0	45	45
VI. Agril. Engineering										
Installation and maintenance of micro irrigation systems	2	55		55			0	55	0	55
Use of Plastics in farming practices	1	20		20			0	20	0	20
Production of small tools and implements	1	43		43			0	43	0	43
Repair and maintenance of farm machinery and implements	3	95		95	3		3	98	0	98
Post Harvest Technology				0			0	0	0	0
VII. Plant Protection										
Integrated Pest Management	3	70		70	1		1	71	0	71
Integrated Disease Management	3	111	4	115			0	111	4	115
Bio-control of pests and diseases	1	52		52			0	52	0	52

Production of bio control agents and bio pesticides	2	50		50	1		1	51	0	51
TOTAL	**51**	**1001**	**350**	**1351**	**14**	**5**	**19**	**1015**	**355**	**1370**
(B) Rural Youth				0			0	0	0	0
TOTAL										
(C) Extension Personnel										
Integrated Pest Management	1	14	11	25			0	14	11	25
Training need	1	15	10	25			0	15	10	25
Crop production	1	15	9	24			0	15	9	24
Total	**3**	**44**	**30**	**74**	**0**	**0**	**0**	**44**	**30**	**74**
TOTAL	**54**	**1045**	**380**	**1425**	**14**	**5**	**19**	**1059**	**385**	**1444**

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										
Integrated Crop Management	1	30		30			0	30	0	30
Cropping Systems	1	23		23	1		1	24	0	24
Integrated Farming	3	87		87			0	87	0	87
Seed production	1	31		31			0	31	0	31
Water management	1	19		19			0	19	0	19
II. Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	1	25		25			0	25	0	25
Off-season vegetables	2	46		46			0	46	0	46
Grading and standardization	2	21	24	45			0	21	24	45
Protective cultivation (Green Houses, Shade Net etc.)	2	50		50			0	50	0	50
b) Fruits										
Cultivation of Fruit	1	26		26			0	26	0	26
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	6	166		166	1		1	167	0	167
Soil and Water Testing	1	33		33			0	33	0	33
IV. Livestock Production and Management										
Dairy Management	2	63		63	3		3	66	0	66
Poultry Management	2	40	11	51	3		3	43	11	54
Disease Management	4	25	56	81	1		1	26	56	82
Feed management	4	87	28	115	4		4	91	28	119
Production of quality animal products	2	36		36			0	36	0	36
V. Home Science/Women empowerment										
Household food security by kitchen & nutrition gardening										
Design and development of low/minimum cost diet	1		30	30		1	1	0	31	31
Value addition	6		177	177		3	3	0	180	180
Income generation activities for empowerment of rural Women	4	3	104	107			0	3	104	107
Drudgery reduction technologies	4		77	77		3	3	0	80	80
Rural Crafts	2		31	31			0	0	31	31
Women and child care	2		45	45			0	0	45	45
VI. Agril. Engineering										
Installation and maintenance of micro irrigation systems	2	55		55			0	55	0	55
Use of Plastics in farming practices	2	46		46			0	46	0	46

Production of small tools and implements	1	43		43			0	43	0	43
Repair and maintenance of farm machinery and implements	4	126		126	3		3	129	0	129
Post Harvest Technology	1				30	2	32	30	2	32
VII. Plant Protection										
Integrated Pest Management	4	93		93	1		1	94	0	94
Integrated Disease Management	4	136	4	140			0	136	4	140
Bio-control of pests and diseases	1	52		52			0	52	0	52
Production of bio control agents and bio pesticides	3	82		82	1		1	83	0	83
TOTAL	**78**	**1462**	**587**	**2049**	**48**	**9**	**57**	**1510**	**596**	**2106**
(B) Rural Youth										
TOTAL										
(C) Extension Personnel										
IPM	1	26		26			0	26	0	26
IDM	1	28		28			0	28	0	28
Use of irrigation water	1	15	10	25			0	15	10	25
Integrated Pest Management	1	14	11	25			0	14	11	25
Training need	1	15	10	25			0	15	10	25
Crop production	1	15	9	24			0	15	9	24
Total	**6**	**113**	**40**	**153**	**0**	**0**	**0**	**113**	**40**	**153**
TOTAL	**84**	**1575**	**627**	**2202**	**48**	**9**	**57**	**1623**	**636**	**2259**

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.	1/3/11	Preparation of different bakery products	Value addition	1		26	26	House hold	-	-	-
A.Sc.	22/9/11	Scientific dairy farming	Dairy farming	1	26		26	-	-	-	-

E) Sponsored Training Programmes :

Sr. No	Date	Title	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														
1	26/7/11	Seed production of onion and garlic	Seed production	1	PF	1	69		69	4		4	73		73	NHRDF
2	11/10/11	Cottage level food processing entrepreneurship for farmers	Food processing	1	PF	1	59		59	2		2	61		61	IICPT
3	15/10/11	Scientific dairy farming	Dairy farming	1	PF	1	58		58				58		58	FTC
4	18/1/11	Scientific dairy farming	Dairy farming	1	PF	1	44		44				44		44	FTC
5	22/3/12	Control of common diseases in livestock & vaccination scheduling	Disease Management	1	PF	1	32		32				32		32	ATMA
6	28/3/12	Deworming and Vaccination in Live stock	Disease Management	1	PF	1	23		23				23		23	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	Nov.11	1	81		81	3		3	1		1	85	0	85
		Jan.12	1	28		28			0			0	28	0	28
		Feb.12	2	63		63	3		3			0	66	0	66
	Total		**4**	**172**	**0**	**172**	**6**	**0**	**6**	**1**	**0**	**1**	**179**	**0**	**179**
2.	Kisan Mela (P)	Sept.11	1												
3.	Kisan Ghosthi	July-11	1	22		22	1		1			0	24	0	24
		Augu.-12	2	18		18	1		1			0	19	0	19
		Sept.-11	3	29		29			0			0	30	0	30
		Octo.-11	1	23		23	2		2			0	25	0	25
		Dec.-11	1	43		43	2		2			0	45	0	45
		Jan.-12	1	17		17			0			0	17	0	17
		Feb.-12	1	20		20	1		1			0	21	0	21
	Total		**10**	**172**	**0**	**172**	**7**	**0**	**7**	**0**	**0**	**0**	**181**	**0**	**181**
4.	Exhibition	-	-	-		-	-	-	-	-	-	-	-	-	-
5.	Film Show	June-11	2	112	66	178			0			0	112	66	178
		July-11	2	79		79	3		3			0	82	0	82
		Augu.-11	1	32		32			0			0	32	0	32
		Sept.-11	8	575	123	698	17		17			0	592	123	715
		Octo.-11	1	52		52			0			0	52	0	52
		Nov.-11	1	30		30			0			0	30	0	30
		Dec.-11	1	47		47			0			0	47	0	47
		Jan.-12	2	56		56			0			0	56	0	56
		March-12	1	47		47			0			0	47	0	47
	Total		**19**	**1030**	**189**	**1219**	**20**	**0**	**20**	**0**	**0**	**0**	**1050**	**189**	**1239**

6.	Method Demonstra-tions		13												
7.	Farmers Seminar														
8.	Workshop														
9.	Group meetings	July-11	2	49		49	3		3			0	52	0	52
		Augu.-11	1	17		17			0			0	17	0	17
		Sept.-11	1	35		35	1		1			0	36	0	36
		Octo.-11	1	19		19			0			0	19	0	19
		Dec.-11	2	33		33	3		3			0	36	0	36
		Jan.-12	2	47		47			0			0	47	0	47
		Feb.-12	2	39		39			0			0	39	0	39
	Total		**11**	**239**	**0**	**239**	**7**	**0**	**7**	**0**	**0**	**0**	**246**	**0**	**246**
10.	Lectures delivered as resource persons	April-11	1	25	15	40			0	1		1	26	15	41
		May-11	2	249	10	259	31		31	1		1	281	10	291
		June-11	2	210		210			0	2		2	212	0	212
		July-11	2	102	5	107			0	1		1	103	5	108
		August-11	4	104	15	119	11		11	2		2	117	15	132
		Sept.-11	3	124	5	129	3		3	2		2	129	5	134
		Octo.-11	3	1175	82	1257	13		13	2		2	1190	82	1272
		Nov.-11	12	987		987	17		17	7		7	1011	0	1011
		Dec.-11	3	84	43	127	5	6	11	2		2	91	49	140
		Jan.-12	5	666	35	701	4		4	3		3	673	35	708
		Feb.-12	7	410	8	418	11		11	4		4	425	8	433
		March-12	3	40	66	106			0	2		2	42	66	108
	Total		**47**	**4176**	**284**	**4460**	**95**	**6**	**101**	**29**	**0**	**29**	**4300**	**290**	**4590**
11.	Newspaper coverage		10												
12.	Radio talks	April-11	2												
		July-11	1												
		Augu.-11	4												
		Sept.-11	2												
		Oct.-11	1												
		Nov.-11	1												
		Dec.-11	1												
		Jan.-12	1												
		March-12	1												
	Total		**14**												
13.	TV talks	May-11	1												
		June-11	1												
		Augu.-11	2												
		Sept.-11	4												
		Oct.-11	1												
		Dec.-11	1												
		Feb-12	1												
		March-12	1												
	Total		**12**												
14.	Popular articles	April-11	2												
		May-11	1												
		June-11	2												
		July-11	1												
		Augu.-11	1												
		Sept.-11	1												
		Oct.-11	1												
		Nov.-11	2												
		Jan.-12	1												
		March-12	1												
	Total		**13**												

15.	Extension Literature		1												
16.	Advisory Services														
17.	Scientific visit to farmers field	April-11 to March-12	33	336		336	12		12			0	348	0	348
18.	Farmers visit to KVK	April-11	12	111		111			0			0	111	0	111
		May-11	9	13	15	28	9		9			0	22	15	37
		June-11	13	35		35			0			0	35	0	35
		July-11	48	79	32	111	7	3	10			0	86	35	121
		Augu.-11	35	61		61	3		3			0	64	0	64
		Sept.-11	12	116	22	138	8		8			0	124	22	146
		Oct.-11	6	101		101			0			0	101	0	101
		Nov.-11	14	157		157	14		14			0	171	0	171
		Dec.-11	24	479	103	582	62	9	71			0	541	112	653
		Jan.-12	15	211	28	239	46		46			0	257	28	285
		Feb.-11	18	502	38	540	79		79			0	581	38	619
		March-12	14	211		211			0			0	211	0	211
	Total		**220**	**2076**	**238**	**2314**	**228**	**12**	**240**	**0**	**0**	**0**	**2304**	**250**	**2554**
19.	Diagnostic visits	Aug-11	1	10											10
		Sept-11	1	20											20
		Dec-11	2	30											30
		Jan-12	1	10											10
	Total		**5**	**70**											**70**
20.	Animal Health Camp	April-11	1	70	8	78			0			0	70	8	78
		June-11	1	123	9	132			0			0	123	9	132
		July-11	4	543		543			0			0	543	0	543
		Octo.-11	1	130		130			0			0	130	0	130
		Nov.-11	2	2105	11	2116	48	2	50			0	2153	13	2166
		Dec.-11	1	31		31			0			0	31	0	31
		Jan.-12	3	1018		1018	37		37			0	1055	0	1055
	Total		**13**	**4020**	**28**	**4048**	**85**	**2**	**87**	**0**	**0**	**0**	**4105**	**30**	**4135**
21.	Soil test campaigns		1	2926											2926
22.	Farm Science Club Conveners meet	-													
23.	Self Help Group Conveners meetings	2		47	47		3	3						50	50
24.	Mahila Mandals Conveners meetings	3		44	44		5	5						49	49
25.	Participant in Krushi Mahotsav-11	April-May-11	1	8 Scientists Participated in Krushi Mahotsav-11											
26.	Celebration of technology week	Sept.-11	1	521	142	663	77		77	10	1	11	608	143	751
27.	Telephone helpline		1550												1550
	Grand Total		**401**	**15402**	**972**	**13378**	**525**	**28**	**553**	**40**	**1**	**41**	**12971**	**1001**	**15592**

3.5 Production and supply of Technological products 2011-12

SEED MATERIALS

Sr. No.	Crop	Variety	Quantity (Kg)	Value (Rs.)	Provided to No. of Farmers
OILSEEDS	Groundnut (Breeder seed)	GG-5	3010		-
	Groundnut (Mega seed)	GG-5	2690		-
	Groundnut (Mega seed)	GG-20	565		-
	Groundnut (Breeder seed)	GG-31	1350		-
	Sesamum (Breeder seed)	GT-2	242		-
PULSES	Black Gram(Mega seed)	G-1	672		-
CASH CROP	Cotton (Bt.Cotton)	Bijdhan	2079		-

SUMMARY

Sr. No.	Crop	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	-		-
2	OILSEEDS	78.57		-
3	PULSES	6.72		-
4	CASH CROP	20.79		-
TOTAL		**106.08**		

PLANTING MATERIALS:

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	Different crops	-	60	3000/-	50
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*	**5000 Kg.**		**3,50,000**	**899**

SUMMERY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	(kg)		
1	BIOAGENTS					
2	BIO FERTILIZERS					
3	BIO PESTICIDE	*Trichoderma*	**5000 Kg.**		**3,50,000**	**899**
	TOTAL					

ORGANIC MANURE						
Major group/class	**Product Name**	**Species**	**Quantity**		**Value (Rs.)**	**Provided to No. of Farmers**
			No	**(kg)**		
VERMI COMPOST	Vermi compost	**-**	**500Kg.**		**-**	**Use in plantation and nursery at KVK farm**

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

(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	Pasu aharma minral mixture ni upyogita	Dr.J.B.Kathiriya, Dr.B.B.Kabaria	-
	Unadu talma sanklit jivat ane rog niyntran	Shri. D.V.Muchadiaya, Shri D.A.Sardava, Dr.B.B.Kabaria	**-**
	Pakma avta rogo nu jaivik niyntran	Shri D.A.Sardava , Shri. D.V.Muchadiaya, Dr.B.B.Kabaria	-
	Chomasa ma duthala pasuoni yogya mavjat karo.	Dr.J.B.Kathiriya, Dr.B.B.Kabaria	-
	Trichoderma aek jaivik fugnasak	Shri D.A.Sardava , Shri. D.V.Muchadiaya, Dr.B.B.Kabaria	-
	Gramiy mahilao mate posanxam ahar nu ayojan	Miss H.A.Manvar, Dr.B.B.Kabaria	-
	Trichoderma aek jaivik fugnasak	Shri D.A.Sardava , Shri. D.V.Muchadiaya, Dr.B.B.Kabaria	-

	Ahar ma kathoda nu mahatva ane teni vangiyo	Miss H.A.Manvar, Dr.B.B.Kabaria	-
	Pasu oma chamdi na rogo na ghargathu upyog	Dr.H.N.Sudani ,Dr.J.B.Kathiriya	-
	Pasu oma chamdi na rogo na ghargathu upyog	Dr.J.B.Kathiriya, Dr.B.B.Kabaria	-
	Rajkot jilanu krushi yatra dham-KVK, Targhaida	Dr.J.B.Kathiriya, Dr.B.B.Kabaria	-
	Pranione thata chamadina rogoma upyogi ghargathu aushadh	Dr.H.N.Sudani ,Dr.J.B.Kathiriya	-
	Pranione thata chamadina rogoma upyogi ghargthu ausadho	Dr.H.N.Sudani ,Dr.J.B.Kathiriya	-
TOTAL	4		
Extension literature	Glimpses of decade	Dr.B.B.Kabaria, Dr.J.B.Kathiriya	1000

(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

Introduction of an alternate crop (Mint) for getting higher return

Name of the farmer: Devrajbhai Sojitra
Village: Kuwadava
Tehsil: Rajkot
Dist : Rajkot
Land : 3 acre
Mobile Number: 9427431807

Farmer of kuvadava village comes in contact with KVK Rajkot for getting more return from his traditional cultivation. He inspired by KVK, Targhadia to cultivate mint crop, which is used in ayurvedic medicine (fudinhara) instead of traditional crops viz, cotton, garlic and groundnut. He was provided all the information such as cultural practices, market facility etc. The farmer was convinced through the information provided by the scientists of KVK and started cultivating of mint crop during 2009. The product was sold directly to trader at Ahmadabad.

He earned the gross income of Rs.2 lac with net profit of 1.2 lac/acre. The income is quite high compared to the income from traditional crops. Hence this new crop can be cultivated as an alternate crop with good remuneration. By observing this practice, number of farmers (10) has initiated the cultivation of mint crop in this area.

Success Story 2

Quality Wheat (GW-366) Production

Name of the farmer	:	Jayantibhai Lunagaria
Village	:	Sarapdad
Tehsil	:	Padadhari
District	:	Rajkot
Mobile No.	:	9725334921

Jayantibhai wanted to do something different from traditional production. Under the guidance of KVK Rajkot, he produced quality wheat. He got considerable boost more income through this quality wheat production.

Jayantibhai is a medium land holding farmer of Sarapdad village. The main problem in the area is poor quality wheat production i.e black tip on kernel which resulted in low price of produce. He came in contact with KVK, Rajkot. He also attended on campus as well as off campus training organized by KVK. He was inspired in trainings to produce wheat with improved techniques.

He cultivated wheat in 2 ha. of land with all recommended practices of Junagadh Agricultural University and also he sprayed mencozeb (Dithane -M-45 @26gm/10 lit) at milky stage of wheat with 2 per cent urea. He produced 5200 kg/ha wheat with best quality. He sold the wheat at Rs.1400/quintal with a net profit of Rs. 18000/. The average selling rate is about Rs.1200/quintal

Jayantibhai Says "There is no age for learning, one can learn at any age"

Success Story 3

Drip Irrigation System in Chilly brings economic prosperity

Name of the farmer	:	Ambabhai Jivabhai Sinojiya
Village	:	Hadmatia
Tehsil	:	Tankara
District	:	Rajkot
Mobile No.	:	9879662130

Ambabhai is very innovative and progressive farmer of the village Hadmatia. He attends the majority of the training programmes organized by KVK Rajkot and implements the innovative strategies in his field. With the technical guidance & support from KVK, he cultivated the chilly (Var. Bijo Shital -213) with drip irrigation system in 4 acre at his farm and got total production of 12000 Kgs. He earned total Rs.300000/-(Three Lac Rs) with a net profit of Rs.250000/-(Rupees Two lac & fifty thousand). This cultivation has raised the living standard of Ambabhai and social status. Ambabhai is now the icon of chilly cultivation in Rajkot district.

Success Story 4

An effective approach for the management of groundnut stem rot

Name of the farmer	:	Chhaganbhai Jadavjighai Sorathia
Village	:	Derio
Tehsil	:	Rajkot
District	:	Rajkot
Mobile No.	:	

Cotton and groundnut are the major crops of this region. Farmers are growing high yielding groundnut variety GG-20 but main construnt of growing groundnut GG-20 is stem rot. Chhaganbhai coming in contact with KVK since last two years. He took interest to use Trichoderma in groundnut. We advice him to use Trichoderma @ 2.5kg/acre with castor cake @300kg/ha. He adopt this practice from Kharif-2009 he got significant result. He also use Trachoderma in Kharif 2010 also, harvest pod yield of groundnut 2120kg/ha an average yield (Village) 1900kg/ha.

As result of front line demonstration by KVK scientist an active role of Mr. Chhaganbhai, other farmer of the village are also convinced to adopt scientific technology for higher groundnut production.

Impact :- With the use of Trichoderma in groundnut farmer can be manage stem rot and obtained additional yield.

Success Story 5

Bumper profit – Use of plastic mulch with drip irrigation in watermelon cultivation

Name of the farmer	:	Dhirubhai Sothabhai Kagadia
Village	:	Saipar
Tehsil	:	Rajkot
District	:	Rajkot
Mobile No.	:	9687830314

Farmer of Saipar village comes in contact with KVK Rajkot for getting more return from his traditional cultivation. He inspired by KVK, Targhadia and Deptt. of Horticulture, Rajkot to cultivate watermelon using plastic mulch and drip irrigation instead of traditional method. He was provided all the information such as cultural practices, use of plastic as a mulch with drip irrigation. The farmer was convinced through the information provided by the scientists of KVK and started cultivating of watermelon and got total production of 25000 kgs from 0.5 ha land during summer 2011. The product was sold directly to local trader at good rate.

He earned the gross income of Rs. 2.5 lac with net profit of 2.0 lac from 0.50 ha land within three months only. The income is quite high compared to the income from traditional crops. By observing this practice, number of farmers has initiated the cultivation of watermelon using plastic mulch with drip irrigation in this area. This cultivation has raised the living standard of Dhirubhai and he is now the icon of watermelon cultivation in Rajkot district.

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

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

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

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

3.10 Indicate the specific training need analysis tools/methodology followed for- 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	:	250
iii.	No. of survey/PRA conducted	:	-

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

3.13 Details of samples analyzed so far (April.-11 to March.-12)

:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil Samples	2926	2926	-	146300/-
Water Samples	2926	2926	-	146300/-
Plant Samples	-	-	-	
Petiole Samples	-	-	-	
Total	**5852**	**5852**		**292600/-**

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	52	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 with INM and IPM concepts.
- ✓ 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 Programme, Khedut Sibir, Farmers day, Animal treatment Camp, Farmers fair, Film Show, Ex-training meeting and Soil health card etc.
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 (Gopal Dairy)	
9.	Bank of Baroda	
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 (DRDA)	
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) – BH 101572-02	Sept-2004	ICAR,New Delhi	1,00,000
2	Transfer of technology (TOT) BH 10571-02	March-2007	Govt. of Gujarat	70,000
3	National Information System for Pest Management (Bt Cotton) – BH 2043	March-2007	Govt. of Gujarat	6,00,000
4	Popularization of MIS in SSNNL Maliya branch sub canal – BH 18005-03	Jun.-2010	SSNNL, Gandhinagar	5,55,645
5	National Initiative on climate Resilient Agriculture (NICRA) – BH 2704-47	March-2010	CRIDA, Hyderabad	25,28,249
6	Seed Village BH- 18018-08	March-2010	ICAR-New Delhi	8,00,000

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.	-
2	Training (15)		

5.4 Give details of programmes implemented under National Horticultural Mission

Sr.No.	Programme	Nature of linkage	Constraints if any
1	Lecture delivered in farmers training programme	Linkage with different activities of KVK viz., Training Programme, Khedut Sibir, Farmers fair, Film Show etc.	-

5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
-			

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

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	1.0	-	1500	-
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	16/7/11	8/10/11	1.0	G-1 Mega Seed	Seed	648	18000	29160	-
					B Grade	24		840	-
					Fodder	210		420	-
Oilseeds									-
Groundnut	12/7/11	30/10/11	4.45	GG-5 Breeder seed	Pod	2580	115700	162540	-
					B Grade	430		19350	-
					Fodder	5500		41250	-

Groundnut	8/7/11	25/10/11	4.25	GG-5 Mega Seed	Pod	2280	110500	118560	-
					B Grade	410		18450	-
					Fodder	5100		38250	-
Groundnut	14/7/11	3/11/11	1.11	GG-31 Breeder seed	Pod	1350	28860	85050	-
					B Grade	-		-	-
					Fodder	1150		8625	-
Groundnut	12/7/11	5/11/11	0.80	GG-20 Mega seed	Pod	418	20800	21736	-
					B Grade	147		6615	-
					Fodder	1500		11250	-
Sesamum	2/8/11	17/10/11	1.88	GTill-2 Breeder	Seed	196	41360	17640	-
					B Grade	46		2760	-
Cotton	12/7/12	27/12/11	0.80	Bijdhan-5	Cotton	2079	30500	90975	-
Total Income									-

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 <u>Rainwater Harvesting</u>

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

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
Rain water harvesting & their efficient use for crop production	PF.	1	21	-	21	-	-	-

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 KVK funds during the year 2011 – 12 (Rs in Lakh)

S.N.	Particulars	Sanctioned	Released	Expenditure
1	2	3	4	5
A. Recurring Contingencies				
1	**Pay & Allowances**	85.00	105.00	58.82
2	**Traveling allowances**	1.50	1.50	0.56
3				**Contingencies**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.20	3.20	3.31
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	2.60	2.60	2.71
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Training of extension functionaries			
F	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1.80	1.80	1.85
G	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
H	Maintenance of buildings	0.40	0.40	0.00
	TOTAL Contingencies	**8.00**	**8.00**	**7.87**
	TOTAL (A)	**94.50**	**114.50**	**67.25**
B. Non-Recurring Contingencies				
1	**Equipments & Furniture** **a)** Furniture for office building & farmers hostel	5.00	5.00	4.91
	b) EPBAX system with accessories	0.50	0.50	0.31
	c) Plant Helth Diagnostic facility	10.00	10.00	9.31
	Total	**15.50**	**15.50**	**14.53**
2	**Works**	20.00	0.00	0.00
3	**Library** (Purchase of assets like books & journals)	0.00	0.00	0.00
4	**Vehicle**	0.00	0.00	0.00
	TOTAL (B)	**35.50**	**15.50**	**14.53**
C. REVOLVING FUND		-	-	-
	GRAND TOTAL (A+B+C)	**130.00**	**130.00**	**81.78**

7.3 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 2009 to March 2010	433200	859158	340066	952292
April 2010 to March 2011	952292	517192	519673	949811
April 2011 to March 2012	949811	1012035	1092908	868938

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 specially during training programme.

(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.