ANNUAL PROGRESS REPORT (2012-13)
(01.04.2012 to 31.03.2013)

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	drbbkabaria@gmail.com

1.4 Year of Sanction: September – 2004

1.5 Staff Position

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	60140/-	15-9-06	Permanent	General
2	SMS	Dr. J. B. Kathiriya	SMS (Animal. Sci)	Ani Sci.	15600-39100	21600/-	19-8-06	Permanent	General
3	SMS	Vacant	SMS (Agron.)						
4	SMS	Shri D. A. Saradava	SMS (Pl.Protection)	Agril. Ento.	15600-39100	309300/-	27-5-09	Permanent	General
5	SMS	Vacant	SMS (Horti.)						
6	SMS	Shri. D. P. Sanepara	SMS (Agril. Engg.)	Agri. Eng.	15600-39100	28980/-	1-6-09	Permanent	General
7	SMS	Mrs. H. H. Padsumbiya	SMS (Home Sci.)	Home Sci.	15600-39100	21600/-	17-8-06	Permanent	General
8	Programme Assistant (Training)	Shri. R. L. Vasoya	Programme Assistant (Training)	B.Sc. Agri.	9300-34800	20830/-	1-03-13	Permanent	General
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.	Vacant	Offi. Sup. Cum A/c. Officer	-					
12	Steno-grapher	Shri B. J. Lalkiya	Junior Steno	-	9300-34800	17190/-	01-5-07	Permanent	General
13	Driver	Shri B. K. Gondaliya	Jeep Driver-Cum Mechanic	-	5200-20200	15560/-	11-9-08	Permanent	OBC
14	Driver	Shri D. K. Makwana	Jeep Driver-Cum Mechanic	-	5200-20200	15520/-	01-7-06	Permanent	OBC
15	Supporting staff	Smt.U.G.. Zala	Supporting Staff	-	4440-7440	8650/-	16-9-04	Permanent	General
16	Supporting staff	Shri Y. B. Joshi	Supporting Staff	-	4440-7440	9420/-	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	31-3-2011	550	5500000	-	-	-
2.	Farmers Hostel	KVK	31-3-2011	305	3000000	-	-	-
3.	Staff Quarters (6)	KVK	31-3-2011	400	4000000	-	-	-
4.	Poly House	RKVY	31-3-09	320	281602	-	-	-
5	Net House	RKVY	31-3-09	150	64498	-	-	-
6.	Store room	RKVY	9-2-10	70.61	454500	-	-	-
7.	Training hall	RKVY	11-2-10	190.99	1395800	-	-	-
8.	Processing plant	RKVY	11-2-10	197.31	1536400	-	-	-
9.	Implement shed	RKVY	9-2-10	77.33	297800	-	-	-
10	Farm Godown	KVK	2012	-	400000			

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualis	2004	590000	-	Working at Junagadh on pooled basis
Tata Sumo	2008	600000	180262	Working, Purchase from MP grant
Motorcycle	2010	50000	18086	Working

C) Equipments & AV aids

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

1.8. Details of SAC meeting conducted in the year-2012 (Date: 09-4-2012)

Name and Designation of Participants	Salient Recommendations	Action taken
1. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh 2. Dr. I. U. Dhruj, ADR, JAU, Junagadh 3. Dr. M. N. Popat, Asso. Director. of Extn. Education, JAU, Junagadh	FLD on Solar energy equipment like solar cooker should be given in cluster base through support from GEDA or ATMA	Suggestion accepted & FLD conducted during 2012-13
4. Dr. K.N. Akbari, Res.Sci. (DF), MDFRS, Targhadia 5. Shri. .H. Agatha, DAO, Rajkot 6. Shri J.D. Patel, Dy. Director of Horticulture, Rajkot 7. Shri Karansinh Solanki, Station Director, Doordarsan Kendra, Rajkot	Invite the officer from nationalized bank in on/off campus training for information regarding their Agricultural schemes for farmers"	Suggestion accepted & Invited in related programme and they were remained present as per his conveniences.
8. Shri V.K.Dholariya, Programme Executive, All India Radio, Rajkot 9. Dr. V.S. Ajudia, Assit. Director of A.H., Rajkot	Training programmes of fodder crops for animal should be added in action plan.	Suggestion accepted & training programmes conducted during 2012-13

10.Dr. P. B. Kundaria, Assistant Manager, Gopal Dairy, Rajkot 11.Shri P.N.Patnaliya, 12.Dr. B. B. Kabaria, PC, KVK, Targhadia 13.Shri D.B. Dadhania, District Coordinator, Bank of Baroda, Rajkot 14.Shri J.H. Raval, Project manager, District Industries Centre, Rajkot	Method of showing and other cropping components should be included instead of varietal component particularly for Cumin (GC-4) and Green gram (GM-4)	Suggestion accepted & reflected in action plan.
15.Shri Virenra Aggarwal, DRDA, Rajkot 16.Shri B.B.Rethdiya, Bioges Supervisor, Gujrat Agro Industries Corporation Ltd. Rajkot 17.Smt. Jyoshnaben A. Vekariya, Progressive Farm Women, Metoda 18.Miss Purviben M. Topia, Rural Youth, Madharvada 19.Shri Babubhai D. Ramani, Progressive Farmer, Khorana 20.Shri Jyantihai L.Lunagariya, Progressive Farmer, Sarpadad 21.Shri Bhagvanjihai R. Topiya, Progressive Farmer, Magharvada	More emphasis should be given for FLDs on soil health management and integrated plant/crop management.	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/sesame
2	Dairy product
3	Farm Waste Management specially for cotton stalk
4	Fruit and Vegetable Preservation
5	Value addition in Groundnut, Til and Bajra

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

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 while 404.8 mm during 2012-13.

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 (2011-12)

Sr. No	Crop	Area (ha)	Production (MT)	Productivity (Kg. /ha)
1.	Groundnut	268510	390495	1454
2.	Cotton	365441	924530	2530
4.	Sesamum	22217	9486	427
5.	Castor	16325	35141	2152
6.	Pearl Millet	4227	8974	2123
1.	Wheat	108355	395239	3648
3.	Cumin	26490	19097	721
6.	Gram	6798	11415	1679

2.5 Weather data (2012-13)

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April – 2012	-	42.4	20.0	76.46
May – 2012	-	42.3	24.0	80.48
June – 2012	96.7	40.8	23.5	84.13
July – 2012	45.4	39.3	23.0	85.61
August -2012	26.7	35.6	23.0	84.64
September- 12	236.0	34.6	22.2	92.00
October- 2012	-	37.1	20.0	73.74
November-2012	-	34.8	17.0	66.83
December-2012	-	34.1	10.2	72.12
January – 2013	-	41.3	9.4	59.00
February – 2013	-	35.5	8.8	49.04
March – 2013	-	39.7	17.2	44.76
	404.8			

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

Category	Population ('000 Nos.)	Production ('000 tone)	Productivity
1	**2**	**3**	**4**
Cattle			
Cows	452	3326.90	
Buffalo	362	5284.70	
Sheep	263.40	266.81(Production of wool)	
Goats	197	231.24	
Pigs	1		
Crossbred			
Indigenous			
Rabbits			
Poultry			**(Production of eggs in Lakh Nos.)**
Hens			
Desi	7.8	3.92	
Improved	13.4	32.52	
Ducks			
Others			
Horse and Camel			
Dogs	9		

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	Jasdan	Cluster I	Jasapar	*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 , leaf blight disease in sesamum and Stem rot disease in Groundnut, Saline underground water, Black sticky soil & poor drainage of soil, Long inter-calving period in Buffalo, Nutritional deficiency in animal feed and fodder, Less area under Horticultural crops.	* IPM and INM in major crops of this area * Increase drainage of soil * Use of gypsum in soil * Green manuring with dencha, sun hemp * 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)
			Jivapar			
			Jungvad			
			Panchvada			
			Gundala			
2	Morbi	Cluster II	Chachapar			
			Rajpar			
			Khanpar			
			Nani-Vavdi			
			Bagathala			
3	Maliya	Cluster III	Vejalpar			
			Sarvad			
			Manaba			
			Kumbhariya			
			Khirai			

2.8 Priority thrust areas

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

3. TECHNICAL ACHIEVEMENTS

3.A Details of target and achievements of mandatory activities by KVK during 2012-13

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
5	**5**	**54**	**54**	**26.0**	**28.0**	**100**	**105**

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	77	66	1925	2047	-	-	-	-
Rural youth	3	2	75	94	-	-	-	-
Extn. Functionaries	3	5	75	140	-	-	-	-
Total	**83**	**73**	**2075**	**2281**	**-**	**375**	**-**	**12936**

Seed Production (Qtl.)		Planting material (Nos.)	
5		*6*	
Target	Achievement	Target	Achievement
-	**27.10**	**-**	**-**

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	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
5	Care and importance of nutrition in adolescent girls	Home science	Low Hemo-globin	Managemen t of Anemia in adolescent girls.	-	-	-	Group Meeting	Gram and black sesamum

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**
Integrated Disease Management										
Resource conservation technology		**1**								**1**
Small Scale income generating enterprises										
Home Science										**1**
TOTAL		**1**		**2**						**4**

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**
Integrated Disease Management										
Resource conservation technology		**1**								**1**
Home Science										**1**
TOTAL		**1**		**2**						**4**

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.A. Gami	Bagthada	1440	1530	1790	1950	1700
2	P. N. Sardva	Sarvad	1300	1350	1600	1740	1500
3	KVK -Farm	Targhadia	580	620	610	630	610
Average			**1107**	**1167**	**1333**	**1440**	

* 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 $ZnSO_4$ 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.	14.40 q / ha

Net return (Profit) in Rs/Unit	BC Ratio
13	*14*
T1: 16210	1.51
T2: 23820	1.73
T3: 81502	1.76
T4: 28150	1.83

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 :
   - T1. Continuous spraying of chemical pesticides. (Farmers practice)
   - T2. IPM : alternate spraying of chemical and bio pesticide and intercropping of maize/ cow pea with cotton 1:10 Row (Recommended practice)
   - T3. Spraying of chemical pesticide @ half does of recommendation with bio pesticide i.e. Azadirachtin 1500 ppm or verticillium lecanii and growing of maize / cowpea as mix crop with cotton. (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/ 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 4	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 1	Indicator 2	Indicator 3	Indicator 4
1	KVK Farm Targhadia	708	0.8	1.0	1.2	770	0.5	1.0	0.8	823	0.4	0.8	0.5

Indicator 1 : yield of cotton in Kg/ha , Indicator 2 : --No. of jassid 3 leaves/plant,
Indicator 3 : - No. of Thrips / 3 leaves / plant , Indicator 4 : 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.
   - ✓ Continuous use of chemical pesticide
   - ✓ Farmer spray insecticide as per instructions given by local pesticides retailer.
   - ✓ Farmer are not aware with bio pesticide.
10) Process of farmers participation and their reaction: Satisfactory
11) Results of on farm trials

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No of trials	Technology assessed	Parameters of assessment
1	*2*	*3*	*4*	*5*	*6*	*7*
Cash crop	Rainfed farming	incidence of sucking pest in cotton	Management of sucking pests in cotton	1	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	16 percent higher yield obtain in intervention due to lower population of sucking pest.	High yield obtain in Intervention High benefit also received in spraying of chemical insecticide @ half dose of recommendation with bio pesticide	Spraying of chemical pesticide @ half does of rec**o**mmendation with bio pesticide i.e. Azadirachtin 1500 ppm or verticillium lecanii and growing of maize / cowpea as mix crop with cotton.	7.67 q/ha.

Net return (Profit) in Rs/ha.	BC Ratio
13	*14*
T1: 7989	1.35
T2: 9496	1.40
T3: 11098	1.45

OFT –3

1) Title of on-farm trials: **Low yield in groundnut due to due to improper tillage practice**.

2) Problem definition:

- ✓ Shallow ploughing
- ✓ Lack of knowledge about soil moisture conservation and its importance.
- ✓ Lack of knowledge regarding proper tillage practice.

3) Details of technologies selected for assessment/refinement :

T1. Shallow ploughing with 5-6 interculturing (Farmer method)
T2. Deep ploughing with 2-3 interculturing (Recommendation)
T3. Medium deep ploughing with 3-4 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	M.R. Amrutiya	Khanpar	1020	20.90	1200	23.60	1135	22.00
2	H.M. Rangani	Jangvad	150	18.70	175	21.50	165	20.40
3	KVK Farm	Targhadia	225	19.80	275	22.40	260	21.50
	Average		**465**	**19.80**	**550**	**22.50**	**520**	**21.30**

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

8) Final recommendation for micro level situation - Deep ploughing with 2-3 times interculturing

9) Constraints identified and feedback for research ; --

10) Process of farmer's participation and their reaction : Farmers aware about benefit of 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	18 % higher pod yield of groundnut was obtained in deep ploughing as compare to shallow ploughing in groundnut crop.	In deep and medium deep ploughing higher yield can be obtained due to higher soil moisture conservation as compare to shallow ploughing in groundnut cultivation.	Deep ploughing with 2-3 interculturing.	5.50 q/ha

Net return (Profit) in Rs/Unit	BC Ratio
13	*14*
T1 : 3487	1.15
T2 : 8965	1.39
T3 : 7260	1.32

OFT –4

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 :

Trat.	Technology Assessed / Refined	Increase in (3 months)	
		Hemoglobin, %	Body weight (kg)
T1	Existing Dietary pattern (Control)	0.60	1.0
T2	Iron & Folic acid tables from PHC	0.78	1.24
T3	Dietary iron concentrate (Gram & black sesamum)	1.02	1.65

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 - 5

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:

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 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	Jivapar	50-60	3.8-4.4						
2	Lava Ranchhod	Jasapar			46-50	2.8-3.8				
3	Vallabh Nanji	Jasapar								
4	Dinesh Vithhal	Jasapar								
5	Shiva Manji	Jivapar								
6	Velji Manji	Jivapar								
7	Amarshi Natha	Gundala					41-45	2.0-2.8		
8	Lalji hari	Jivapar								
9	Lalji Devraj	Gundala								
10	Ramesh Nagji	Chachapar								
11	Babu Gandu	Bagathada								
12	Harkhji Odhavji	Bagathada								
13	Ramesh Harkhji	Bagathada							36-40	1.3-2.2
14	Mahadev Gandu	Bagathada								
15	Laxman Devji	Chachapar								
16	Karshan Bhagvanji	Chachapa								
17	Ambaram Jivraj	Chachapa								
18	Nitesh Devji	Vavdi-nani								
19	Ansuya shantilal	Vavdi-nani								

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 2012-13 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	Crop Production	Variety (GG-5)	To test yield potentiality of groundnut	8	10	4.0
2	Sesamum	Crop Production	Variety (GT-2)	To test yield potentiality of Sesamum	5	5	2.0
3	Green gram	Crop Production	Inter cropping (GM-4)	Green gram as a inter crop for minimizing risk factor	4	5	2.0
4	Black gram	Crop Production	Inter cropping (GU-1)	Black gram as a inter crop for minimizing risk factor	3	5	2.0
5	Castor	Crop Production	Variety (GCH-7)	To test yield potentiality of castor	5	5	2.0
6	Groundnut	IPM	IPM	Combine approach for management of insect pests and diseases of groundnut (As per DFRS, Targhadia recommendation Schedule –II year 2010)	5	5	2.0
7	Gram	Crop Production	Variety(GG-3)	To test yield potentiality of Gram	4	10	4.0

8	Wheat	Crop Production	Variety (GW-366)	To test yield potentiality of Wheat	4	10	4.0
9	Cumin	Crop Production	Variety (GC-4)	To test yield potentiality of Cumin	5	10	4.0
10	Pearl millet (Summer)	Crop Production	Variety (GHB-538)	To test yield potentiality of Pearl millet	2	10	4.0
11	Groundnut (Summer)	Crop Production	Variety (GG-31)	To test yield potentiality of Groundnut	5	5	2.0
12	Animal Hus.	Fodder Manage-ment	Oat (Kent)	To introduce new fodder crop variety	7	20	2.0
13	Mineral Mixture	Nutrient Manage-ment	Mineral Mixture Powder	To balance the deficiency of minerals in Animal feed	6	10	-
14	Solar energy	Solar energy	solar cooker	To Introduce solar cooker in rural area	10	10	-

b. Details of FLDs implemented

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 - 12	4.0	4.0	-	10	10	-
2	Sesamum (GT-2)	Varietal evaluation	New variety	Kharif – 12	2.0	2.0	-	5	5	-
3	Groundnut	Pest management	*IPM*	Kharif - 12	2.0	2.0	-	5	5	-
4	Groundnut (GG-31)	Varietal evaluation	New variety	Summer -12	-	2.0	-	5	5	-
5	Castor (GCH-7)	Varietal evaluation	New variety	Kharif - 12	2.0	2.0	-	5	5	-

Pulses

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ Demonstration			Reasons for short-fall
					Propo-sed	Actual	SC/ ST	Others	Total	
1	Black gram (GU-1)	Varietal evaluation	Inter cropping	Kharif - 12	2.0	2.0	-	5	5	FLD vitiated due to in sufficient rainfall
2	Green gram (GM-4)	Varietal evaluation	Inter cropping	Kharif - 12	2.0	2.0	-	5	5	
3	Gram (GG-3)	Varietal evaluation	New variety	Rabi-11	2.0	4.0	-	10	10	-

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	Pearl millet (GHB-538)	Varietal Evaluation	New variety	Kharif - 12	-	4.0	-	10	10	-

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 - 11	4.0	4.0	-	10	10	-
2	Cumin (GC-4)	Varietal evaluation	New variety	Rabi - 11	4.0	4.0	-	10	10	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
Groundnut	*Kharif*	RF	M. B.	L	M	H	Cotton/ G'nut	15/ 6 /12	7/10/12	404.8	21
Sesamum	*Kharif*	RF	M. B.	L	M	H	-"-	15/ 6/ 12	27/ 9/12	404.8	21
Green gram	*Kharif*	RF	M. B.	L	M	H	-"-	15/ 6/12	-	404.8	21
Black gram	*Kharif*	RF	M. B.	L	M	H	-"-	15/ 6/ 12	-	404.8	21
Castor	*Kharif*	RF	M. B.	L	M	H	-"-	15/9/12	10/ 1/ 13	404.8	21
Groundnut	*Kharif*	RF	M. B.	L	M	H	-"-	16/6/12	9/ 10/12	404.8	21
Gram	*Rabi*	Irrigated	M. B.	L	M	H	-"-	13/11/11	15/ 2/ 12	-	-
Wheat	*Rabi*	Irrigated	M. B.	L	M	H	-"-	12/11/11	5/ 3/ 12	-	-
Cumin	*Rabi*	Irrigated	M. B.	L	M	H	-"-	20/11/11	10/ 3/ 12	-	-
Pearl millet (Summer)	*Summer*	Irrigated	M. B.	L	M	H	-"-	22/1/12	3/ 5/ 12	-	-
Groundnut (Summer)	*Summer*	Irrigated	M. B.	L	M	H	-"-	2/2/12	6/ 6/ 12	-	-

M. B. – Medium Black

Performance of FLD

Sr. No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)/ No.	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	3.25	2.37	2.80	2.50	11.5
2	Sesamum	Variety	GT-2	5	2.0	2.50	1.75	2.05	1.87	9.62
3	Green gram	Inter cropping	GM-4	5	2.0	FLD vitiated due to insufficient rainfall				
4	Black gram	Inter cropping	GU-1	5	2.0	FLD vitiated due to insufficient rainfall				
5	Castor	Variety	GCH-7	5	2.0	26.30	2.80	17.14	15.50	10.58
6	Groundnut	IPM	GG-20	5	2.0	24.38	1.20	8.77	8.19	7.08
7	Gram	Variety	GG-3	10	4.0	17.50	14.50	15.88	14.58	8.92
8	Wheat	Variety	GW-366	10	4.0	50.25	42.75	47.18	43.22	9.16
9	Cumin	Variety	GC-4	10	4.0	9.00	6.75	7.93	7.25	9.38
10	Pearl millet (Summer)	Variety	GHB-538	10	4.0	45.00	40.75	42.90	38.42	11.66

11	Groundnut (Summer)	Variety	GG-31	5	2.0	28.25	23.25	26.50	23.95	10.65
12	Oat	New fodder grass variety	Kent	20	2	600	380	490	-	-
13	Mineral Mixture Powder	To fulfill the mineral req. of Animals	Mineral Mixture	10	10	Average milk production 1550 kg./lact. (310 days)			Average milk production 1550 kg./lact. (310 days)	5.06
14	Solar energy	solar cooker	Box type solar cooker	10	-					

Economic Impact (continuation of previous table)

S.N.	Crop	Cost of cultivation (Rs./ha)		Gross Return (Rs./ha)		Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost	
		Demo.	Local Check	Demo.	Local Check	Demo.	Local Check	Demo.	Local Check
12	13	14	15	16	17	18	19	20	
1	Groundnut	17522	15450	19962	18187	-2440	-2737	-0.88	-0.85
2	Sesamum	13682	13812	16850	15370	3168	1557	1.23	1.11
3	Green gram	-	-	-	-	-	-	-	-
4	Black gram	-	-	-	-	-	-	-	-
5	Castor	25975	24750	58533	52932	32558	28182	2.25	2.14
6	Groundnut	26487	25517	49252	47510	22765	21993	1.8	1.7
7	Gram	19550	18875	54627	50155	35077	31280	2.79	2.65
8	Wheat	24075	23625	58975	54025	34900	30400	2.50	2.29
9	Cumin	26125	25375	101782	93054	75657	67679	3.90	3.67
10	Pear millet (Summer)	24532	22760	67550	59942	43018	37182	2.75	2.63
11	Groundnut (Summer)	34115	32700	160755	145072	126640	112372	4.71	4.44
12	Oat	10250	-	125500	-	115250	-	3.6	-
13	Mineral Mixture Powder	35400	35300	52160	49600	16760	14300	1.47	1.41

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	1.12	1.00	11.5
Sesamum	*Kharif*	Seed/Variety	Rainfed	2.05	1.87	9.62
Green gram	*Kharif*	Inter cropping	Rainfed	FLD vitiated due to insufficient rainfall		
Black gram	*Kharif*	Inter cropping	Rainfed	FLD vitiated due to insufficient rainfall		
Castor	*Kharif*	Seed/Variety	Rainfed	17.14	15.50	10.58
Groundnut	*Kharif*	IPM	Rainfed	8.77	8.19	7.08
Gram	Rabi	Seed/Variety	Irrigated	15.88	14.58	8.92
Wheat	Rabi	Seed/Variety	Irrigated	47.18	43.22	9.16

Cumin	Rabi	Seed/Variety	Irrigated	7.93	7.25	9.38
Pear millet (Summer)	Summer	Seed/Variety	Irrigated	42.90	38.42	11.66
Groundnut (Summer)	Summer	Seed/Variety	Irrigated	26.50	23.95	10.65

FLDs on Solar cooker Results

Detail	With Conventional cooking / Member/month		With Solar cooking / member/ month		Saving/ member/ month	
	Energy	Cost (Rs)	Energy	Cost (Rs)	Energy	Cost (Rs)
Fire Wood	11 kg	110	5.5 kg	55	5.5 kg	55
Kerosene	1.5 lit.	24	0.7 lit.	11	0.8 lit.	13
LPG Cylinder	3.55 kg	117	2.1 kg	69	1.45 kg	48

Technical Feedback on the demonstrated technologies

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

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 disease in groundnut. (Application at the time of sowing with 500 kg castor cake/ha.)
4	Wheat variety GW-366 is high yielding but poor grain quality
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 chilly.
12	White grub problem in groundnut
13	Wilting in chilly, cotton and water melon
14	Problem of repeat breeding in cattle & buffaloes.

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Farmers Training	7	-	256	-
2	Media coverage	1	-	-	-
3	Kisan Ghosthi	2	-	32	-
4	Field day	3	-	76	-
	TOTAL	**13**		**364**	

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
(A) Farmers & Farm Women										
I Crop Production										
Integrated Farming	1	36		36			0	36	0	36
Integrated Crop Management	1	65	6	71			0	65	6	71
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	1	12		12			0	12	0	12
Nursery raising	1	45		45			0	45	0	45
Protective cultivation (Green Houses, Shade Net etc.)	1	12	14	26			0	12	14	26
b) Fruits										
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
Nursery management	1	22		22			0	22	0	22
III Soil Health and Fertility Management										
Soil fertility management	1	25		25			0	25	0	25
Soil and Water Conservation	1	32	7	39			0	32	7	39
IV Livestock Production and Management										
Dairy management	1	32		32			0	32	0	32
Disease Management	1		14	14			0	0	14	14
Feed management	1	17		17			0	17	0	17
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1		52	52		2	2	0	54	54
Minimization of nutrient loss in processing	1		23	23		7	7	0	30	30

Storage loss minimization techniques	1		28	28		2	2	0	30	30
Value addition	2		49	49			0	0	49	49
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	2	68	1	69			0	68	1	69
Production of small tools and implement	1	21		21			0	21	0	21
Repair and maintenance of farm machinery and implements	1	20		20			0	20	0	20
Small scale processing and value addition	1	113	9	122	11		11	124	9	133
Post Harvest Technology	1	64	7	71			0	64	7	71
VII Plant Protection										
Integrated Pest Management	2	47		47			0	47	0	47
Integrated Disease Management	2	38		38			0	38	0	38
Bio-control of pests and diseases	1	19	10	29			0	19	10	29
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**27**	**688**	**220**	**908**	**11**	**11**	**22**	**699**	**231**	**930**
(B) RURAL YOUTH										
Value addition	1		69	69		3	3	0	72	72
TOTAL	**1**	**0**	**69**	**69**	**0**	**3**	**3**	**0**	**72**	**72**
(C) Extension Personnel										
Integrated Pest Management	1	10	10	20	3	4	7	13	14	27
Integrated Nutrient management	1	11	10	21	3	4	7	14	14	28
Protected cultivation technology	1	21		21			0	21	0	21
Care and maintenance of farm machinery and implements	1	19		19			0	19	0	19
Livestock feed and fodder production	1	45		45			0	45	0	45
TOTAL	**5**	**106**	**20**	**126**	**6**	**8**	**14**	**112**	**28**	**140**
G. TOTAL	**33**	**794**	**309**	**1103**	**17**	**22**	**39**	**811**	**331**	**1142**

B) Off Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	30		30			0	30	0	30
Resource Conservation Technologies	1	34		34			0	34	0	34
Integrated Farming	1	25		25			0	25	0	25
Water management	2	72		72			0	72	0	72
Integrated Crop Management	2	61		61			0	61	0	61
Production of organic inputs	1	25		25			0	25	0	25
II Horticulture										
a) Vegetable Crops										
b) Fruits										
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
III Soil Health and Fertility Management										
IV Livestock Production and Management										
Dairy Management	1	28		28			0	28	0	28
Disease Management	2	41		41			0	41	0	41
Feed management	2	32	17	49			0	32	17	49
Production of quality animal products	1	48	2	50			0	48	2	50
V Home Science/Women empowerment										
Minimization of nutrient loss in processing	1		20	20			0	0	20	20
Value addition	2		45	45			0	0	45	45

Income generation activities for empowerment of rural Women	3		84	84		3	3	0	87	87
Location specific drudgery reduction technologies	1		23	23			0	0	23	23
Rural Crafts	1		22	22			0	0	22	22
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	2	76		76			0	76	0	76
Use of Plastics in farming practices	3	79		79			0	79	0	79
Repair and maintenance of farm machinery and implements	1	29	1	30			0	29	1	30
Small scale processing and value addition	1	27		27			0	27	0	27
Post Harvest Technology	1	44		44			0	44	0	44
VII Plant Protection										
Integrated Pest Management	4	92		92	1		1	93	0	93
Integrated Disease Management	3	98		98	2		2	100	0	100
Bio-control of pests and diseases	2	56		56			0	56	0	56
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**39**	**897**	**214**	**1111**	**3**	**3**	**6**	**900**	**217**	**1117**
(B) RURAL YOUTH										
Tailoring and Stitching	1		22	22			0	0	22	22
TOTAL	**1**		**22**	**22**			**0**	**0**	**22**	**22**
(C) Extension Personnel										
TOTAL	**40**	**897**	**236**	**1133**	**3**	**3**	**6**	**900**	**239**	**1139**

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
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	30		30			0	30	0	30
Resource Conservation Technologies	1	34		34			0	34	0	34
Integrated Farming	2	61		61			0	61	0	61
Water management	2	72		72			0	72	0	72
Integrated Crop Management	3	126	6	132			0	126	6	132
Production of organic inputs	1	25		25			0	25	0	25
II Horticulture										
a) Vegetable Crops										
Off-season vegetables	1	12		12			0	12	0	12
Nursery raising	1	45		45			0	45	0	45
Protective cultivation (Green Houses, Shade Net etc.)	1	12	14	26			0	12	14	26
b) Fruits										
c) Ornamental Plants										
d) Plantation crops										
e) Tuber crops										
f) Spices										
g) Medicinal and Aromatic Plants										
Nursery management	1	22		22			0	22	0	22
III Soil Health and Fertility Management										
Soil fertility management	1	25		25			0	25	0	25
Soil and Water Conservation	1	32	7	39			0	32	7	39
IV Livestock Production and Management										
Dairy Management	2	60		60			0	60	0	60
Disease Management	3	41	14	55			0	41	14	55
Feed management	3	49	17	66			0	49	17	66
Production of quality animal products	1	48	2	50			0	48	2	50
V Home Science/ Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1		52	52		2	2	0	54	54
Minimization of nutrient loss in processing	2		43	43		7	7	0	50	50
Storage loss minimization techniques	1		28	28		2	2	0	30	30
Value addition	4		94	94			0	0	94	94

Income generation activities for empowerment of rural Women	3		84	84		3	3	0	87	87
Location specific drudgery reduction technologies	1		23	23			0	0	23	23
Rural Crafts	1		22	22			0	0	22	22
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	4	144	1	145			0	144	1	145
Use of Plastics in farming practices	3	79		79			0	79	0	79
Production of small tools and implements	1	21		21			0	21	0	21
Repair and maintenance of farm machinery and implements	2	49	1	50			0	49	1	50
Small scale processing and value addition	2	140	9	149	11		11	151	9	160
Post Harvest Technology	2	108	7	115			0	108	7	115
VII Plant Protection										
Integrated Pest Management	6	139		139	1		1	140	0	140
Integrated Disease Management	5	136		136	2		2	138	0	138
Bio-control of pests and diseases	3	75	10	85			0	75	10	85
VIII Fisheries										
IX Production of Inputs at site										
X Capacity Building and Group Dynamics										
XI Agro-forestry										
TOTAL	**66**	**1585**	**434**	**2019**	**14**	**14**	**28**	**1599**	**448**	**2047**
(B) RURAL YOUTH										
Value addition	1		69	69		3	3	0	72	72
Tailoring and Stitching	1		22	22			0	0	22	22
TOTAL	**2**	**0**	**91**	**91**	**0**	**3**	**3**	**0**	**94**	**94**
(C) Extension Personnel										
Integrated Pest Management	1	10	10	20	3	4	7	13	14	27
Integrated Nutrient management	1	11	10	21	3	4	7	14	14	28
Protected cultivation technology	1	21		21			0	21	0	21
Care and maintenance of farm machinery and implements	1	19		19			0	19	0	19
Livestock feed and fodder production	1	45		45			0	45	0	45
TOTAL	**5**	**106**	**20**	**126**	**6**	**8**	**14**	**112**	**28**	**140**
G.TOTAL	**73**	**1691**	**545**	**2236**	**20**	**25**	**45**	**1711**	**570**	**2281**

D) Vocational training programmes for Rural Youth :

Crop / Ente-rprise	Date	Training title*	Identi-fied Thrust Area	Dura-tion (days)	No. of Participants			Self employed after training			Number of persons employed else where
					Male	Female	Total	Type of units	Num-ber of units	Number of persons employed	
H.Sc.	12/3/13	Fancy patch work and hand work stitches	Rural craft	1		22	22	House hold	-	-	-
H.Sc.	15-21/ 3/13	Preservati on of vegetables and fruits	Value addition	6		72	72	House hold	-	-	-

E) Sponsored Training Programmes :

Sr. No	Date	Title	Durati on (days)	Client (PF/R Y/EF)	No. of courses	No. of Participants									Sponso-ring Agency
						Others			SC/ST			Total			
						M	F	T	M	F	T	M	F	T	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	26/7/11	Scientific Dairy management	1	PF	1	32		32				32		32	ATMA
2	8-9/5/12	Top dressing management in cotton	1	EF	1	36		36				36		36	REEL Cotton
3	10-11/ 5/12	Emerging pest & disease of Bt.cotton & their management.	1	EF	1	45		45				45		45	BCI Cotton
4	18/7/12	Role of bio pesticides for the insect pest management	1	EF	1	19	10	29				19	10	29	REEL Cotton
5	19/7/12	Rain water harvesting and their efficient use for crop production	1	EF	1	45	1	46				45	1	46	BCI Cotton
6	25/7/12	High-tech Agri.-Green house	1	EF	1	10	10	20	2	4	6	12	14	26	DWDU-Rajkot
7	22/8/12	Crop contingency planning & implementatio n of watershed programme	1	EF	1	32	7	39				32	7	39	DWDU-Rajkot
8	23/8/12	Crop contingency planning & increase yield under dry land are	1	EF	1	65	6	71				65	6	71	DWDU-Rajkot

9	24/8/12	Watershed management	1	EF	1	64	7	71				64	7	71	DWDU-Rajkot
10	7/9/12	Cottage level food processing entrepreneur-ship for farmers	1	PF	1	113	9	122	11		11	124	9	133	IICPT
11	20/9/12	Scientific dairy farming	1	PF	1	17		17				17		17	ATMA
12	29-30/ 10/12	Fruits and vegetables preservation	1	FW	1		23	23		7	7		30	30	FTC
13	18/12/12	Value addition in Agri. crops	1	FW	1		29	29					29	29	ATMA
14	31/12-1/1/13	Nursery management	1	PF	1	22		22				22		22	ATMA

3.4. Extension Activities (including activities of FLD programmes)

Sr. No.	Nature of Extension Activity	Purpose/ topic and Date	No. of acti-vities	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**
	Field Day	Apr-12	2	60		60			0	2		2	62	0	62
		Feb.13	3	76		76			0	3		3	79	0	79
	Total		**5**	**136**	**0**	**136**	**0**	**0**	**0**	**5**	**0**	**5**	**141**	**0**	**141**
2	Kisan Mela (P)	Dec.12	1												
	Kisan Mela	Mar-13	1												
	Total		**2**												
3	Kisan Ghosthi	Sept.12	1	15		15	1		1	1		1	17	0	17
		Nov.12	1	21		21	1		1	1		1	23	0	23
		Dec.12	1	11		11			0	2		2	13	0	13
		Jan.13	3	36		36	2		2	5		5	43	0	43
		Feb.13	2	35		35	3		3	2		2	40	0	40
	Total		**8**	**118**	**0**	**118**	**7**	**0**	**7**	**11**	**0**	**11**	**136**	**0**	**136**
4	Exhibition														
5	Film Show	May-12	3	99	20	119			0	5		5	104	20	124
		Jun-12	1	37		37			0	2		2	39	0	39
		Jul-12	3	75		75	8		8	3		3	86	0	86
		Aug.12	2	88	40	128			0	3		3	91	40	131
		Sept.12	2	39		39			0	2		2	41	0	41
		Octo.12	2	30		30			0	2		2	32	0	32
		Dec.12	2	36	76	112			0	1		1	37	76	113
		Jan.13	2	75		75			0	2		2	77	0	77
		Feb.13	1	54		54			0	1		1	55	0	55
	Total		**18**	**533**	**136**	**669**	**8**	**0**	**8**	**21**	**0**	**21**	**562**	**136**	**698**
6	Method Demonstra-tions		17			0			0			0	0	0	0
7	Farmers Seminar		4	201		201	11		11	12		12	224	0	224
8	Workshop					0			0			0	0	0	0
9	Group meetings	May-12	1	32		32	2		2			0	34	0	34
		Jun-12	1	22		22			0			0	22	0	22
		Aug.12	2	24		24	2		2			0	26	0	26
		Nov.12	1	16		16			0			0	16	0	16
		Dec.12	1	25		25			0			0	25	0	25
		Feb.13	1	32		32			0			0	32	0	32
		Mar.-13	2	21		21	5		5			0	26	0	26
	Total		**9**	**172**	**0**	**172**	**9**	**0**	**9**	**0**	**0**	**0**	**181**	**0**	**181**

10	Lectures delivered as resource persons	May-12	2	78		78	5		5	3		3	86	0	86
		Jun-12	4	103	138	241	2	7	9	4		4	109	145	254
		Jul-12	4	128		128			0	5		5	133	0	133
		Aug.12	3	70	32	102			0	2		2	72	32	104
		Sept.12	6	163	2	165	13		13	3		3	179	2	181
		Octo.12	4	59		59	4		4	2		2	65	0	65
		Nov.12	1	52		52			0	2		2	54	0	54
		Dec.12	2	42	12	54			0	3		3	45	12	57
		Jan.13	8	358	228	586	11	7	18	5		5	374	235	609
		Feb.13	8	465	309	774	15	21	36	4		4	484	330	814
		Mar.-13	7	209	593	802	21	119	140	3		3	233	712	945
	Total		**47**	**1649**	**1314**	**2963**	**66**	**154**	**220**	**33**	**0**	**33**	**1748**	**1468**	**3216**
11	Newspaper coverage		6												
12	Radio talks		10												
13	TV talks		7												
14	Popular articles		17												
15	Extension Literature		4												
16	Advisory Services		37												
17	Scientific visit to farmers field	May-12	1	11		11			0			0	11	0	11
		Jun-12	3	19		19	2		2			0	21	0	21
		Jul-12	1	9		9			0			0	9	0	9
		Aug.12	2	12		12			0			0	12	0	12
		Sept.12	2	29		29			0			0	29	0	29
		Octo.12	5	35		35	2		2			0	37	0	37
		Nov.12	2	10		10			0			0	10	0	10
		Dec.12	3	17		17	2		2			0	19	0	19
		Jan.13	3	11		11			0			0	11	0	11
		Feb.13	2	11		11			0			0	11	0	11
	Total		**24**	**164**	**0**	**164**	**6**	**0**	**6**	**0**	**0**	**0**	**170**	**0**	**170**
18	Farmers visit to KVK	Apr-12	10	38		38			0	2		2	40	0	40
		May-12	9	120	7	127	5		5	3		3	128	7	135
		Jun-12	13	50	38	88	7		7	5		5	62	38	100
		Jul-12	20	83	131	214	3	20	23	7		7	93	151	244
		Aug.12	8	249	34	283	28	1	29	3		3	280	35	315
		Sept.12	9	66	15	81			0	4		4	70	15	85
		Octo.12	10	180	70	250	24	8	32	5		5	209	78	287
		Nov.12	5	42	41	83	5		5	3		3	50	41	91
		Dec.12	6	21	66	87		11	11	2		2	23	77	100
		Jan.13	10	93	87	180	22	3	25	4		4	119	90	209
		Feb.13	17	49	219	268	4	6	10	5		5	58	225	283
		Mar.-13	20	48	101	149	3	7	10	6		6	57	108	165
	Total		**137**	**1039**	**809**	**1848**	**101**	**56**	**157**	**49**	**0**	**49**	**1189**	**865**	**2054**
19	Diagnostic visits		-												
20	Exposure visits		4	129		129	5		5	7		7	141	0	141
21	Ex-trainees Sammelan		-												
22	Soil health Camp		-												
23	Animal Health Camp	Aug.12	3	301		301	19		19	4		4	324	0	324
		Sept.12	2	79		79	6		6	2		2	87	0	87
		Dec.12	3	217		217	13		13	4		4	234	0	234
		Jan.13	1	41		41	1		1	2		2	44	0	44
	Total		**9**	**638**	**0**	**638**	**39**	**0**	**39**	**12**	**0**	**12**	**689**	**0**	**689**

24	Agri mobile clinic		-												
25	Soil test campaigns		1	2420		2420			0			0	2420	0	2420
26	Farm Science Club Conveners meet		-												
27	Self Help Group Conveners meetings		3		54	54			0			0	0	54	54
28	Mahila Mandals Conveners meetings		1		21	21		2	2			0	0	23	23
29	Celebration of Van Mahotsav-2012	Jul-12	1	22	3	25			0			0	22	3	25
30	Celebration of Technology week	Sept.12	1	380	101	481	22	8	30			0	402	109	511
31	Celebration of parthenium Week	Aug.12	1	51	12	63			0			0	51	12	63
32	Celebration of Krushi Mahotsav-2012	May-June-12	1	8		8			0			0	8	0	8
33	Telephon help line		1	2182		2182			0			0	2182	0	2182
	Grand Total		**375**	**9842**	**2450**	**12292**	**274**	**220**	**494**	**150**	**0**	**150**	**10266**	**2670**	**12936**

3.5 Production and supply of Technological products 2012-13

SEED MATERIALS

Sr. No.	Crop	Variety	Quantity (Kg)	Value (Rs.)	Provided to No. of Farmers
CEREALS	-	-	-	-	-
OILSEEDS	Groundnut (Mega seed)	GG-20	1120	-	-
	Groundnut (Breeder)	GG-5	985	-	-
	Groundnut (Breeder)	GJG-31	480	-	-
	Sesamum (Breeder Seed)	GTill-2	49	-	-
PULSES	Black Gram (Mega seed)	G-1	76	-	-
CASH CROP	-	-	-	-	-
		Total	**2710**		

SUMMARY

Sr. No.	Crop	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	-	-	-
2	OILSEEDS	26.34	-	-
3	PULSES	0.76	-	-
4	CASH CROP	-	-	-
TOTAL		**27.10**	**-**	

PLANTING MATERIALS:

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

BIO PRODUCTS

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOAGENTS						
BIOFERTILIZERS						
BIO PESTICIDES	Savaj	*Trichoderma*	**1100 Kg.**		**77000/-**	**690**

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*	**1100 Kg.**		**77000/-**	**690**
	TOTAL					

ORGANIC MANURE

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
VERMI COMPOST	Vermi compost	**-**	600Kg.		-	Used in plantation 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	A study on population dynamics of insect pests & natural enemics on Bt. Cotton	Shri. D.V.Muchadiya, Shri D.A.Sardava and Dr.B.B.Kabaria	-
	Impact of meteorological parameters on population dynamics of sucking pest of Bt cotton in Rajkot district	Dr.B.B.Kabaria. D.M.Damasia. Shri.D.A.Sardava, Shri D.V.Muchadiya and Dr.J.B.Kathiriya	
Abstract	Constraint analysis of livestock farmers of villages selected under KVK-Rajkot	Dr.J.B.Kathiriya, D.A. Damasia, A.I.Makwana and H.A.Manvar	
Technical reports	Monthly Progress Report Quarterly Progress Report Moniterable Quarterly Progress Report Annual Progress Report of different projects	Krishi Vigyan Kendra, Targhadia	8
News letters	-	-	-
Technical bulletins	-	-	-
Popular articles	Ghauna paralni uriya prakiya Khetini vat, April-12:26-27	Dr.J.B.Kathiriya, Dr.H.N.Sudani and Dr.B.B.Kabaria	-
	Bijni mavjat dvara vadhu utpadan melaviye, Krushi Vigyan ,5:8-10	Shri D.V.Muchadiya, Shri.D.A.Sardava and Dr.B.B.Kabaria	-
	Aharma kathodnu mahtva Khetini vat, 2(12):55	Miss H.A.Manvar and Dr.B.B.Kabaria	-
	Ghauni vaigyanik kheti paddhati apanavo, Krushi Govidhya,64(9):12-15	Shri. A. I. Makwana	-
	Khedutona prasno vaignaniko na javabo, Khetini vat- Nov.123(2):58	Dr.B.B.Kabaria, Shri D.V. Muchadiya and Shri.D.A.Sardava	-
	Chanama jivat ane rognu niantran, Krushi Jivan- Dec.12:16	Shri.D.A.Sardava, Shri D.V.Muchadiya and Dr.B.B.Kabaria	-
	Parthenium nu sanklit niyntra, Krushi Govidhya,65(9):25-26	Shri.D.A.Sardava, Dr.B.B.Kabaria and Shri D.V.Muchadiya	-
	Khedutona prasno vaignaniko na javabo, Khetini vat- Jan.2013	Dr.B.B.Kabaria and Shri.D.A.Sardava	-

	Vividh pradushn dvara pasu arogya par thti mathi asar ane tena upayo, Krushi Vigyan ,Jan.13-38(12):15	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, Dr.H.N.Sudani and R.T. Padliya	-
	Kapas ni santhi balvanu bandh karo- sendriy khatar banavi jaminni faldrupta vadharo, Kanbi Darshan-1(12) :48-50	Dr.B.B.Kabaria and Shri.D.A.Sardava	
	Gramiy mahila ni tandurasti, Krushi Vigyan ,39(1):18	Miss H.A.Manvar, Dipti Thakar and Dr.B.B.Kabaria	
	Sagrba ane viyan pasu ni mavjat, Taza maza, Feb.13	Dr.J.B.Kathiriya, Dr.B.B.Kabaria and Miss H.A.Manvar	-
	Sagrba ane viyan pasu ni mavjat, Khetini Vat, Feb.13, 44-45	Dr.J.B.Kathiriya, Dr.B.B.Kabaria and Miss H.A.Manvar	-
	Light trep -upyogi ane bin upyogi jivatone alag padtu aek navuj prakas pinjar,Chempion Agro word,4(5)-32	Dr.B.B.Kabaria, Shri.D.A.Sardava and, Shri D.V.Muchadiya	
	Pasu ma chamdina rogonu niyntran, Krushi Jivan, Feb.13	Dr.J.B.Kathiriya, Dr.B.B.Kabaria and Dr.H.N.Sudani	
	Suksm piyat paddti apnavo pratikul sanjogone sanukul banavo, Khetini Vat, 3(6), 22-23	Dr.B.B.Kabaria, D.P.Sanepara and N.K.Pokiya, D.A.Sardava and M.H.dhakiya	
	Unadama pasuni vayganik mavjat Khetini Vat, 3(6), 34-38	Dr.B.B.Kabaria, Dr.J.B.Kathiriya and Miss H.A.Manvar	
TOTAL	**17**		
Extension literature	Kapasma milibugna updrav matena sambavit karno, felavo, ane tena niyntran mateni viyvastha	Dr.B.B.Kabaria, Shri.D.A.Sardava and Shri D.V.Muchadiya	1000
	Kapasna pakni mukhya jivato ane tenu sanklit niyntran	Dr.B.B.Kabaria, Shri.D.A.Sardava and Shri D.V.Muchadiya	1000
	Jivat niyantran mate vividh vnaspati janya davao ane vis pralobhiaka o no upyog kari paryavrannu jatan karie	Dr.B.B.Kabaria, Shri.D.A.Sardava and Shri D.V.Muchadiya	1000
	A decade of Bt. Cotton, Socio-economic impact in Rajkot district (Gujarat)	Dr.B.B.Kabaria, Shri.D.A.Sardava and Shri D.V.Muchadiya	1000
TOTAL	**4**		

(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

Name of Farmer	:	Chaturbhai Laljibhai Kalola
Address	:	Gadhka
Taluka	:	Rajkot
Dist.	:	Rajkot
Contact Number	:	9428699849
Age	:	41 years
Education	:	10th Pass
Land holding	:	4 acre
Crops grown	:	Groundnut & Cotton
Livestock	:	

1. De-topping (Nipping) of cotton for getting higher yield

Special recognition :

Chaturbhai is a farmer of Rajkot district adopting the technique of de-topping in cotton plant at 5 feet height for getting higher yield by increasing the canopy of plant. In de-topping practice 5 to 8 cm of top shoot is de-topped when the crop attain the height of 5 feet. Due to de-topping of cotton, Chaturbhai got higher yield as compare to without de-topping.

Practical utility of innovation

By adoption of scientific approach (De-topping) in cotton crop, higher yield can be obtained. Mr. Chaturbhai got higher yield of 70 Kg/acre yield and earned Rs. 3000/ acre monetary return without any investment. He is member of farmer's field school run by KVK Targhadia. Several farmers of this area adopted this practices for better returns.

Success Story 2

Name of Farmer	:	Ashokbhai Bhanderi
Address	:	Khijadia
Taluka	:	Rajkot
Dist.	:	Rajkot
Contact Number	:	9909993935
Age	:	38 years
Education	:	12th Pass
Land holding	:	8 acre
Crops grown	:	Groundnut, Cotton, & Fodder crops
Livestock	:	Cow : 3 Buffalo : 30 (Banni & Mahesani breeds)

2. Entrepreneurship Development through Dairy farming in Rajkot District

Special recognition :

Farmer of Khijadia village comes in contact with KVK Rajkot for getting more return from his traditional cultivation. He inspired by KVK, Targhadia to established a modern scientific dairy farming unit in his farm ie; Giriraj Farm. He was provided all the scientific information regarding housing, breeding, feeding and scientific management of a dairy farm. The farmer was convinced through the information provided by the scientists of KVK and started a Dairy unit in 2011 with 12 animals and now a days, he is bearing total 36 animals in his farm. He is supplying clean raw milk directly to consumer through a milk van and though he is getting more return as compare to other dairy farmers. The surplus stock of milk provided to penda makers, which is the major sweet in this area.

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

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, 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, Pheromone trap, etc.
- Minimizing the chemical Fertilizer and Maximizing organic manure.
- Value addition in different agriculture crops.

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

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

:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realize (Rs.)
Soil Samples	2420	2420	-	121000/-
Water Samples	2420	2420	-	121000/-
Plant Samples	-	-	-	-
Petiole Samples	-	-	-	-
Total	**4840**	**4840**		**242000/-**

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-3)	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	
17.	Dy. Director of GLDC	
18.	Project Director, District Watershed Development Unit	
19.	GGRC	

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	Govt. of Gujarat	1,75,000/-
2	Farmers Field School under RKVY-BH 18247-29	April-2012	Govt. of Gujarat	1,81,500/-
3	National Information System for Pest Management (Bt Cotton) – BH 2043	March-2007	NCIPM- New Delhi	6,13,000/-
4	Popularization of MIS in SSNNL Maliya branch sub canal – BH 18005-03	Jun.-2010	SSNNL, Gandhinagar	5,10,484/-
5	National Initiative on climate Resilient Agriculture (NICRA) – BH 2704-47	March-2010	CRIDA, Hyderabad	10,70,000/-
6	Seed Village BH- 18018-08	March-2010	ICAR-New Delhi	11,52,500/-

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(9)	Linkage with different activities of KVK viz., Training Programme, Khedut Sibir, Farmers meeting, Farmers fair, Film Show etc.	-
2	Training (4)		-
3	Farmer fair (1)		-
4	Lecture delivered (23)		-

5.4 Give details of programmes implemented under National Horticultural Mission

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

5.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
-			

6. PERFORMANCE OF INFRASTRUCTURE IN KVK

6.1 Performance of demonstration units (other than instructional farm)

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	85 kg	-	1700	-
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	18/6/12	15/10/12	1.4	GU-1 Mega seed	Seed	76			-
					Fodder	82			-
Oilseeds									-
Groundnut	14/7/12	9/11/12	4.09	GG-20 Mega seed	Pod	1120			-
					Fodder	3800			-
Groundnut	19/6/12	29/10/12	4.54	GG-5 Breeder	Pod	985			-
					Fodder	4400			-
Groundnut	18/6/12	3/11/12	1.98	GJG-31 Breeder	Pod	480			-
					Fodder	2100			-
Sesamum	19/6/12	15/10/12	1.09	GTill-3 Breeder Seed	Seed	49			-
					-	-			-

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

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

6.4 Performance of instructional farm (livestock and fisheries production)

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

6.5 Rainwater Harvesting

Training programmes conducted by using Rainwater Harvesting Demonstration Unit

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 and their efficient use for crop production	PF.	1	51	-	51	-	-	-

6.6 Utilization of hostel facilities: Accommodation available (No. of beds) : 20

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
-	-	-	-

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

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

7.2. Utilization of KVK funds during the year 2012 – 13 (Rs in Lakh)

S.N.	Particulars	Sanctioned	Released	Expenditure
1	2	3	4	5
A. Recurring Contingencies				
1	**Pay & Allowances**	75.00	68.00	67.61
2	**Traveling allowances**	1.50	1.50	0.61
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	2.90
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	2.40
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	1.40
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**	**6.70**
TOTAL (A)		**84.50**	**77.50**	**74.90**
B. Non-Recurring Contingencies				
1	**Equipments & Furniture** **a)** Furniture for office building & farmers hostel	-	-	-
	b) EPBAX system with accessories	-	-	-
	c) Plant Helth Diagnostic facility	-	-	-
	Total	-	-	-
2	**Works**	-	-	-
3	**Library** (Purchase of assets like books & journals)	-	-	-
4	**Vehicle**	-	-	-
TOTAL (B)		**-**	**-**	**-**
C. REVOLVING FUND		-	-	-
GRAND TOTAL (A+B+C)		**84.50**	**77.50**	**74.90**

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 2010 to March 2011	952292	517192	519673	949811
April 2011 to March 2012	949811	1012035	1092908	868938
April 2012 to Dec. 2013	8,68,938	5,02,453	7,83,835	10,28, 865

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 specially for compound wall.

(c) Technical

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

Annexure I

Minutes of the 9th Scientific Advisory Committee (SAC) Meeting held on 9th April 2012 at Krishi Vigyan Kendra, JAU,Targhadia, (Rajkot)

The Ninth Scientific Advisory Committee meeting was held in the KVK training hall of Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia on 9th April 2012.The meeting was chaired by Dr. A. M. Parakhia, Director of Extension Education, Junagadh Agricultural University, Junagadh.

The Following members were remained present in the meeting.

Sr. No.	Name & Designation	Position	Sr. No.	Name& Designation	Position
1	Dr. A. M. Parakhia, Director of Extension Education,JAU,Junagadh	Member	12	Dr. B. B. Kabaria, Programme Coordinator, KVK, Targhadia	Member-Secretary
2	Dr. I. U. Dhruj, ADR, JAU, Junagadh	Member	13	Shri D.B. Dadhania, Dis. Coordinator , Bank of Baroda	Member
3	Dr. M. N. Popat Asso. Dir. of Extension Education, JAU, Junagadh	Member	14	Shri J.H. Raval, Project manager, District Industries Centre	Member
4	Dr. K.N. Akbari, RS (DFRS), Targhadia	Member	15	Shri Virenra Aggarwal, DRDA, Rajkot	Member
5	Shri. .H. Agatha, DAO, Rajkot	Member	16	Shri B.B.Rethdiya, Bioges supervisor , Gujrat Agro Industries Corporation Ltd	Member
6	Shri J.D. Patel, Deputy director of Horticulture, Rajkot	Member	17	Miss Purvi M. Topia, Rural Youth, Madharvada	Member
7	Shri Karansinh Solanki, Station Director, Doordarsan Kendra, Rajkot	Member	18	Smt. Jyoshnaen Arvindhai Vekariya, Progressive Farm Women, Metoda	Member Progressive Farm women
8	Shri V.K.Dholariya, Programme executive, All India Radio, Rajkot	Member	19	Shri Babubhai D. Ramani, At. & post; Khorana, Dist.; Rajkot	Member Progressive Farmer
9	Dr. V.S. Ajudia, Assit. Director of A.H., Rajkot	Member	20	Shri Jyantihai L.Lunagariya, At. & post; Sarpadad, Ta. Padadhari, Dist.; Rajkot	Member Progressive Farmer
10	Dr. P. B. Kundaria, Assistant Manager, Gopal Dairy, Rajkot	Member	21	Shri Bhagvanjihai R. Topiya, At. & post; Magharvada, Ta. & Dist.; Rajkot	Member Progressive Farmer
11	Shri P.N.Patnaliya,	Member			

Dr. N. C. Patel, Hon'ble Vice Chancellor and Chairman of SAC could not attend the meeting. On behalf of him, Dr. A.M. Parakhia, Director of Extension Education chaired the meeting. In the beginning Dr. K. N. Akabari, Research Scientist, Dry Farming Research Station, Targhadia welcome to Dr. A. M. Parahkia, Director of Extension Education, Junagadh Agricultural University, Junagadh, Dr. I. U. Dhruj, Associate Directorate of Research, JAU, Junagadh, Dr. M. N. Popat, Associate Directorate of Extension Education and all the members, Progressive farmers and farm women of the operational villages and scientists of this centre.

Dr. A. M. Parahkia, Director of Extension Education, Junagadh Agricultural University, Junagadh inaugurated the meeting by lighting the lamp and all the members of SAC committee meeting were also welcomed with flowers.

Dr. B.B.Kabaria, Programme Coordinator, KVK, JAU, Targhadia presented the suggestions and action taken report for 8th SAC meeting which was held on the 17th March, 2011. He also presented the annual progress report of the year 2011-12 (April'11 to March 2012) and action plan for the Year 2012-13 (April-12 to March.-13), including training achievements, results of the FLDs and OFTs etc. conducted during the year 2011-12.

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

- FLD on Solar energy equipment like solar cooker should be given in cluster base through support from GEDA or ATMA
- Invite the officer from nationalized bank in on/off campus training for information regarding their Agricultural schemes for farmers.
- Training programmes of fodder crops for animal should be added in action plan.
- Method of showing/cropping components should be taken instead of varietal component particularly for Cumin (GC-4) and Green gram (GM-4)
- More emphasis should be given for FLDs on soil health management and integrated plant/crop management.

Dr. A. M. Parakhia, DEE, Junagadh, appreciated the work done by KVK-Targhadia through team work. He also suggested that the action plan should be made for whole district instead of only selected villages. More emphasis should be given in Dairy development and animal husbandry programmes. Emphasis should be also be given on water harvesting and watershed management. Farmers should be encouraged for soil testing, green manure and value addition in agricultural crops. Due to unavailability of horticulture scientist, it is difficult to carry out the different activities for horticulture, so it was suggested to take the help of SMS (Horticulture), KVK-Amreli whenever required.

Finally, the meeting was concluded by performing the vote of thanks by Dr. J. B. Kathiriya, SMS (A.H.), KVK, JAU, Targhadia (Rajkot)

Member Secretary , SAC &
Programme Coordinator
Krishi Vigyan Kendra
Junagadh Agricultural University
Targhadia (Rajkot)

Director of Extension Education
Junagadh Agricultural University
Junagadh

Note : Proceeding for approval please

Chairman, SAC
KVK, Targhadia (Rajkot)
&
Vice Chancellor
Junagadh Agricultural University
Junagadh

Annexure II

Details of Training programme

Date	Clien tele	Title of the training programme	Discipl ine	Duratio n in days	Venue	Number of other participants			Number of SC/ST			Total number of participants		
						M.	F.	T.	M.	F.	T.	M.	F.	T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
03/5/12	R.Y.	Scientific Dairy management	A.S.	1	On	32		32			0	32	0	32
8-9/5/12	PF	Top dressing management in cotton	C.P.	2	On	36		36			0	36	0	36
10-11/5/12	PF	Emerging pest & disease of Bt.cotton & their management.	Horti.	2	On	45		45			0	45	0	45
29/6/12	F.	Vaccination schedule against contagious diseases in animals and poultry.	A.S.	1	Off	24		24			0	24	0	24
29/6/12	F.	Rain water harvesting and their efficient use for crop production	Agri. Engg.	1	Off	51		51			0	51	0	51
29/6/12	F.	Importance of seed treatment for insect pest & disease management.	P.P.	1	Off	30		30			0	30	0	30
13/6/12	F.	Fertilizer management in cotton and groundnut	Agron.	1	On	25		25			0	25	0	25
26/6/12	F.	Importance of seed treatment for the pest and diseases management.	P.P.	1	On	16		16			0	16	0	16
7/7/12	EF	Production technology of Kharif crops	P.P	1	On	21		21			0	21	0	21

13/7/12	EF	Importance of Animal Husbandry during scarcity in Agriculture	A.S.	1	On	45		45			0	45	0	45
18/7/12	PF	Role of bio pesticides for the insect pest management	P.P	1	On	19	10	29			0	19	10	29
19/7/12	PF	Rain water harvesting and their efficient use for crop production	A.E.	1	On	45	1	46			0	45	1	46
23/7/12	EF	Integrated nutrient management	Agron.	1	On	11	10	21	3	4	7	14	14	28
24/7/12	EF	Integrated pest management in kharif crop	P.P	1	On	10	10	20	3	4	7	13	14	27
25/7/12	PF	High-tech Agri.-Green house	Horti.	1	On	10	14	24	2		2	12	14	26
4/8/12	F.W.	Drudgery reducing devices for farm women	H.S.	1	Off		23	23			0	0	23	23
4/8/12	F.	Emerging pest & disease of Bt.cotton & their management.	P.P.	1	Off	26		26			0	26	0	26
4/8/12	F.	Top dressing management in cotton	Agron.	1	Off	25		25			0	25	0	25
7/8/12	F.	Use of mineral mixture in feeding for cattle and buffaloes	A.S.	1	Off	32		32			0	32	0	32
8/8/12	F.	Importance of organic farming	Agron.	1	Off	25		25			0	25	0	25
21/8/12	R.Y.	Preparation of bakery products.	H.S.	1	Off		29	29			0	0	29	29
21/8/12	F.	Role of bio pesticides for the insect pest management	P.P.	1	Off	26		26			0	26	0	26

22/8/12	EF	Crop contingency planning & implementation of watershed programme	Agron.	1	On	32	7	39			0	32	7	39
23/8/12	FW	Income generation through candle & shop making	H.S.	1	Off		26	26		1	1	0	27	27
23/8/12	PF	Crop contingency planning & increase yield under dry land are	Agron.	1	On	65	6	71			0	65	6	71
24/8/12	PF	Watershed management	A.E.	1	On	64	7	71			0	64	7	71
5/9/12	FW	Preparation of milk products	H.S.	1	Off		27	27			0	0	27	27
7/9/12	PF	Cottage level food processing entrepreneur-ship for farmers	A.E.	1	On	113	9	122	11		11	124	9	133
8/9/12	F.	Contingency plan for aberrant weather condition	Agron.	1	Off	40		40			0	40	0	40
18/9/12	F.	Rodent management for safe food storage	P.P.	1	Off	22		22	1		1	23	0	23
19/9/12	F.	Importance of scientific breeding and feeding practices in animals	A.S.	1	Off	48	2	50			0	48	2	50
20/9/12	PF	Scientific dairy farming	A.S.	1	On	17		17			0	17	0	17
25/9/12	F.	In-situ moisture conservation practices under dry land agriculture	Agri. Engg.	1	Off	25		25			0	25	0	25
26/9/12	F.	Post harvest technology of different field crops	Agri. Engg.	1	Off	44		44			0	44	0	44

27/9/12	F.	Selection and maintenance of farm machinery and implements	Agri. Engg.	1	Off	29	1	30			0	29	1	30
28/9/12	F.	Importance of primary tillage for rabi crops	Agron.	1	Off	26		26			0	26	0	26
29/9/12	F.	Use of improved small farm implements in agriculture	Agri. Engg.	1	On	21		21			0	21	0	21
29/10/12	R.Y.	Fruits and vegetables preservation	H.S.	1	On		23	23		7	7	0	30	30
16/10/12	F.	Biological control: modern concept in pest management.	P.P.	1	Off	30		30			0	30	0	30
3/11/12	F.	Installation and maintenance of micro irrigation system	Agri. Engg.	1	Off	25		25			0	25	0	25
17/12/12	F.	Irrigation management in wheat and gram	Agron.	1	Off	32		32			0	32	0	32
18/12/12	FW	Fruits and vegetable preservation	H.S.	1	On		29	29			0	0	29	29
19/12/12	F.	Top dressing management in Rabi crops	Agron.	1	Off	35		35			0	35	0	35
28/12/12	F.	Ecofriendly management of insect pest & disease in vegetable crops.	P.P.	1	Off	27		27			0	27	0	27
28/12/12	F.	Use of plastic in farming practices	Agri. Engg.	1	Off	26		26			0	26	0	26
29/12/12	F.	IPM and IDM in *Rabi* crops	P.P.	1	Off	21		21			0	21	0	21
18/1/13	F.	Manag.of insect pest & disease in summer crops.	P.P.	1	Off	47		47			0	47	0	47

28/1/13	F.W.	Vaseline and bam making	H.S.	1	Off		29	29		2	2	0	31	31
29/1/13	F.	Weed management in wheat and gram	Agron.	1	Off	30		30			0	30	0	30
29/1/13	EF	Micro irrigation system	A.E.	1	On	19		19			0	19	0	19
5/2/13	F.W.	Value addition in groundnut and sesamum	H.S.	1	Off		18	18			0	0	18	18
8/2/13	F.	Green fodder management round the year	A.S.	1	Off		17	17			0	0	17	17
8/2/13	F.	Store grain pest & their management	P.P.	**1**	Off	19		19			0	19	0	19
15/2/13	F.W.	Preparation and preservation of fruits & vegetables	H.S.	1	Off		20	20			0	0	20	20
21/2/13	F.	Small scale processing and value addition	Agri. Engg.	1	Off	**27**		27			0	27	0	27
24/12/12	F.	Pest & disease management in rabi crops	P.P.	1	On	22		22			0	22	0	22
25/12/12	F.	Efficient use of micro irrigation system	Agri. Engg.	1	On	23		23			0	23	0	23
26/12/12	F.	Production technology of Rabi vegetables	Horti.	1	On	12		12			0	12	0	12
28/12/12	F.W.	Home level processing of tomato	H.S.	1	On		52	52		2	2	0	54	54
29/12/12	F.W.	Preparation of milk products	H.S.	1	On		28	28		2	2	0	30	30
03/1/13	R.Y.	Value addition in anola	H.S.	1	On		20	20			0	0	20	20
8/1/13	F.	Management of reproductive disorders in animal	A.S.	1	On		14	14			0	0	14	14
22/2/13	F.	Climate change in agriculture	Agron.	1	Off	34		34			0	34	0	34

22/2/13	F.	Importance of non-conventional source of energy	Agri. Engg.	1	Off	28		28			0	28	0	28
6/3/12	PF	Insect pest & disease management in summer crop	P.P	1	On	29		29			0	29	0	29
7/3/13	R.Y	Different methods of tie and dye work	H.S.	**1**	Off		22	22			0	0	22	22
8/3/13	F.	Veterinary first aid & control of infectious diseases	A.S.	1	Off	28		28			0	28	0	28
7/3/13	F.	Importance of Artificial Insemination in Cattle& Buffalo	A.S.	1	Off	17		17			0	17	0	17
12/3/13	R.Y.	Fancy patch work and hand work stitches	H.S.	1	Off		22	22			0	0	22	22
15-20/3/13	R.Y.	Fruits and vegetable preservation	H.S.	6	Off		69	69		3	3	0	72	72
23/3/13	PF	Use of cotton stalk shredder, rotavator & mobile chopper for recycling of farm waste	A.E.	1	On	20		20			0	20	0	20
1/1/13	PF	Nursery management	Horti.	1	On	22		22			0	22	0	22
5/1/13	EF	Integrated pest management	P.P	1	On	18		18			0	18	0	18
				Total (73)		**1691**	**545**	**2236**	**20**	**25**	**45**	**1711**	**570**	**2281**