ANNUAL PROGRESS REPORT
(April-2014 to March-2015)

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. A. V. Khanpara	B-15, Radhe krishna Nagar Society, Nr. Moti Baugh Junagadh – 362001	9427736721	alpesh@jau.in

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. A. V. Khanpara	Programme Coordinator	Agril. Ento.	15600-39100	23600/-	25-3-15	Permanent	General
2	SMS	Vacant	SMS (Animal. Sci)	Ani Sci.	-	-	-	-	-
3	SMS	Vacant	SMS (Agron.)	Agro.	-	-	-	-	-
4	SMS	Shri D. A. Saradava	SMS (Pl.Protection)	Agril. Ento.	15600-39100	31860/-	27-5-09	Permanent	General
5	SMS	Ms. Dixita D. Prajapati	SMS (Horti.)	Horti.	15600-39100	21600/-	30-3-15	Permanen	OBC
6	SMS	Shri. N. K. Bhut	SMS (Agril. Engg.)	Agri. Eng.	15600-39100	31980/-	1-2-15	Permanent	General
7	SMS	Mrs. H. H. Padsumbiya	SMS (Home Sci.)	Home Sci.	15600-39100	21600/-	17-8-06	Permanent	General
8	Farm manager	Shri R. L. Vasoya	Farm manager	B.Sc. Agri.	9300-34800	21460/-	21-1-12	Permanent	General
9	Programme Assistant	Shri Anup B. Dabhi	Programme Assistant	M.Sc.	9300-34800	13700/- Fix	7-8-14	Permanent	General

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
10	Computer Programmer	Miss. R. T. Padaliya	Computer Programmer	-	9300-34800	10810/-	3-1-09	Permanent	General
11	Acc. / Sup.	Vacant	A/c. Officer	-	-	-	-	-	-
12	Steno-grapher	Shri B. J. Lalkiya	Junior Steno	-	9300-34800	17710/-	01-5-07	Permanent	General
13	Driver	Shri B. K. Gondaliya	Jeep Driver-Cum Mechanic	-	5200-20200	16030/-	11-9-08	Permanent	OBC
14	Driver	Vacant	Jeep Driver-Cum Mechanic	-	-	-	-	-	-
15	Supporting staff	Smt.U.G.. Zala	Supporting Staff	-	4440-7440	8910/-	16-9-04	Permanent	General
16	Supporting staff	Shri Y. B. Joshi	Supporting Staff	-	4440-7440	9710/-	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	263954	Working
Tata Sumo	2008	600000	191359	Not Working, Purchase from MP grant
Motorcycle	2010	50000	32099	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 12th SAC meeting conducted on 26th February, 2015.

Name and Designation of Participants	Salient Recommendations	Action taken
1	**2**	**3**
Dr. A.R. Pathak, Honorable Vice Chancellor, JAU, Junagadh.	Every Agronomy FLDs / OFTs should be conducted with soil testing report.	Suggestion accepted & Implemented
Dr. A.Y. Desai, Directorate of Research, JAU, Junagadh		
Dr. A.M. Parakhia,Directorate of Extension, JAU, Junagadh		
Dr. V. R. Kathiriya, Chairmen, Guj. Gauseva	One OFT regarding	Suggestion accepted &

Aayog, Govt. of Gujarat, Gandhinagar	Fertilizers management in wheat crop according to soil testing report should be added.	Implemented
Dr. K.N. Akbari, RS (DFRS), Targhadia		
Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia		
Shri. R.H. Ladani, Depty. Director of Horti., Dist. Panchayat , Rajkot.		
Shri. B.H. Agatha, DAO, District Panchayat, Rajkot	Training regarding Identification and importance of natural enemies in crops, Skill development for preparation of botanical pesticides, Maintenance of Drip irrigation, and Quality control of Seeds, Pesticides, Fertilizers etc. should be added in action plan.	Suggestion accepted & Implemented
Dr. S. B. Sharma, Dy. Director, NHRDF, Rajkot		
Dr. S. K. Tiwari, STO, NHRDF, Rajkot		
Shri. Devesh Parmar, DDM, NABARD, Rajkot		
Dr. H. D. Kansagra, Deputy director of Animal Husbandry, Dis. Panchayat, Rajkot		
Shri A. M. Jambukiya,DIC, Rajkot		
Shri V. K. Dholariya , All India Radio, Rajkot		
Dr. P.B. Kundariya, AGM, Gopal Dairy, Rajkot		
Shri Nareshbahi M, MDT(Agri), DWDO, Rajkot		
Smt. Vegda Shital B., MDT, CME, DWDO, Rajkot		
Shri. M.B. Nasit, PD, ATMA ,Rajkot	One sponsored Training programme for A.I. Workers should be added in action plan.	Suggestion accepted & Implemented
Dr. H.K. Kandoriya, PC, KVK, Jamnagar		
Shri, Rasik Gajera,Area Manager, Netafim Irrigation, Rajkot		
Dr. B. B. Kunjadiya, PC, KVK, Amreli		
Dr. K. N. Jadav, PC, KVK, Pipalia, Dist. Rajkot		
Shri A.L. Patel,Regional Office, BOB, Rajkot	FLDs on inter cropping of pigeon pea with groundnut and FLD on different recommended varieties of vegetables should be conducted	Suggestion accepted & Implemented
Smt. Purvi Ramani, Farm women,Magharvada, Tal. Rajkot		
Smt.Chetnaben Chaturbhai Kalola ,Farm women, Gadhka, Tal. Rajkot		
Shri Jentibhai Lavjibhai Lunagariya, Farmer, Village: Sarapdad,Tal: Padadhri, Dist.: Rajkot		
Chaturbhai Laljibhai Kalola Farmer, Gadhka, Tal. Rajkot,Dist.: Rajkot		
Shri. Atulbhai B. Sorathiya, Progressive Farmer, Bhojapara, Tal. Gondal, Dist.: Rajkot		
Shri. Dinesh Bhanabhai Moliya Progressive Farmer, Kheradi, Tal& Dist.: Rajkot		
Shri. Pareshbhai Bhalala, Progressive Farmer (A.H.), Khijadia, Tal. Rajkot		
Shri Shailendra Oza, SD, DDK, Rajkot		
Shri Karansigh Solanki,Retired SD, DDK, Rajkot		
Dr. B. B. Kabaria, PC, KVK, Targhadia		

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 648 mm while 497.5 mm during 2014-15.

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 (2013-14)

Sr. No	Crop	Area (ha)	Production (MT)	Productivity (Kg. /ha)
1.	Groundnut	326143	893377	2739
2.	Cotton	329657	1025021	3109
4.	Sesamum	13368	8661	648
5.	Castor	11919	30508	2560
6.	Wheat	145437	563260	3873
7.	Gram	15382	22683	1475
8.	Cumin	42992	33440	778

2.5 Weather data (April 2014 to March 2015)

Month	Rainfall (mm)	Temperature ^{0} C		Relative Humidity (%)
		Maximum	Minimum	
April	-	40.8	18.2	50.4
May	-	41.3	25.6	71.8
June	7.0	39.1	27.2	74.6
July	212.6	33.72	25.8	84.3
August	201.6	31.6	24.4	87.1
September	60.7	31.9	23.8	87.2
October	1.2	36.1	21.8	72.9
November	-	33.6	19.1	74.7
December	-	33.2	16.8	77.1
January		32.0	8.3	50.1
February		38.5	11.0	52.0
March	14.4	43.0	13.4	43.3
Total	**497.5**			

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

Category	Population ('000 Nos.)	Production ('000 tone)	Productivity
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			
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 Jivapar Jungvad Panchvada Gundala	*Groundnut, Cotton, Sesamum, Green gram, Black Gram. Wheat, Cumin,	Heavy infestation of sucking pest in cotton , leaf blight disease in sesamum and Stem rot disease in Groundnut,	* IPM and INM in major crops of this area * Increase drainage of soil * Use of gypsum in soil * Green manuring with dencha, sun hemp

2	Morbi	Cluster II	Chachapar Rajpar Khanpar Nani-Vavdi Bagathala	Chickpea, Garlic, Onion. *Enterprises are dairy business, Vermi composting, preparation of roasted groundnut and chikki from groundnut seed	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	* Reducing the inter-calving period in Buffalo * Motivate the farmers for arid Horticultural crops. * Efficient use of irrigation water in salt affected soil * To create the awareness for grading, processing and marketing (value addition)
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

OFT				FLD			
1				*2*			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	8	34	39	125	153	125	153

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	78	86	1950	2368	-	-	-	-
Rural youth	2	1	50	10	-	-	-	-
Extn. Functionaries	4	5	100	143	-	-	-	-
Total	**84**	**92**	**2100**	**2521**	**-**	**491**	**-**	**20773**

Seed Production (Qtl.)		Planting material (Nos.)	
5		*6*	
Target	Achievement	Target	Achievement
-	48.30	-	50

3.B Abstract of interventions undertaken

S. N.	Thrust area	Crop/ Enter-prise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for ext. personnel if any	Extension activi-ties	Supply of seeds, planting materials etc.
1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***
1	Dairy Management	Buffalo	Long inter calving period	Assessment of Fertility improvement in Buffalo	-	Optimizing reproductive efficiency & to reduce age of 1st calving (AFC)	-	Group meeting	Mineral Mixture + deworming tablets + Bio- Heat tablets.
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	Management of sucking pests in cotton	-	IPM in cotton	-	Group Meet./ Field day	Pesticides Specially botanicals and biopesticides.

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
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	Women health care	Home science	Waste time and fuel	Comparison of solar cooker with traditional cooking system	-	Preparation of bakery products with the help of Solar Cooker	-	Group Meeting	-

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 Manag				**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
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**
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	1	-	-	-	-	1
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	1	-	-	-	-	1
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-
TOTAL	**2**	-	-	-	-	**2**

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 240 – 50 – 150 + 25 $ZnSO_4$ and three spray of KNO_3 (Recommended)

(i) 240 Kg N in four equal split first as a basal second, third and fourth at 30, 60 and 90 days after sowing.
(ii) 50 Kg P_2O_5 as basal dose.
(iii) 150 Kg K_2O as basal or in two equal split.
(iv) Three spraying of KNO_3 at 15 days interval starting from flowering

T3. T_2 + 25 Kg/ ha $MgSO_4$ + 500 kg /ha Castor cake. (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
1	V. J. Dholariya	Jungvad	1800	1980	2100
2	KVK –Farm (Un irrigated)	Targhadia	1085	1235	1286
Average			**1443**	**1608**	**1693**

8) Final Recommendation for micro level situation: Recommended dose of fertilizer 240 – 50 – 150 + 25 $ZnSO_4$ and three spray of KNO_3 + 25 Kg/ ha $MgSO_4$ + 500 kg /ha Castor cake.
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	2	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	17.3% and 5.2% cotton seed increased in farmer and recommended practice respectively.	High yield obtain in Intervention and low reddening No additional space require for maize sowing	Refined dose of fertilizer 240 – 50 – 150 + 50 $ZnSO_4$ and three spray of KNO_3 + 25 Kg/ ha $MgSO_4$ + 500 kg /ha Castor cake.	16.93 q/ha

Net return (Profit) in Rs/Unit	BC Ratio
13	14
T1 : 22586	1.57
T2 : 28321	1.72
T3 : 31008	1.77

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 Beauveria bassiana 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) 7) Performance of the technology with performance indicators :

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 5	Indicator 6	Indicator 7	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6	Indicator 7	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5	Indicator 6	Indicator 7		
KVK Farm Targhadia	1099	2.05	9.8	1.9	0.05	0.65	0.2	1204	1.4	7.4	1.4	0.15	1.5	0.5	1325	1.1	4.3	1.15	0.26	2.2	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
Indicator 5 : - - No. of Crysoperlla / plant , Indicator 6 : No. of Spider /plant
Indicator 7 : No. of Coccinellids / 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	10.4 percent higher yield obtain in intervention due to lower population of sucking pest.	High yield obtain in Intervention Higher population of natural enemies was observed in innovative practice.	Spraying of chemical pesticide @ half dose of rec**o**mmendation with bio pesticide i.e. Azadirachtin 1500 ppm or Beauveria bassiana and growing of maize mix crop with cotton.	19.60 q/ha.

Net return (Profit) in Rs/ha.	**BC Ratio**
13	*14*
T1 : 13028	1.39
T2: 17528	1.48
T3: 20500	1.58

OFT –3

1) Title of on-farm trials: **Low yield in groundnut 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	A.J.Baraiya	Chachapar	645	20.50	765	22.80	710	21.70
2	D.M.Sidhapara	Jangvad	840	21.90	975	23.60	930	22.60
3	KVK Farm	Targhadia	450	21.50	540	23.20	520	22.30
	Average		**645**	**21.30**	**760**	**23.20**	**720**	**22.20**

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	16.2 % 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.	11.50 q/ha

Net return (Profit) in Rs/Unit	BC Ratio
13	*14*
T1 : 6640	1.25
T2 : 12600	1.51
T3 : 10460	1.42

OFT –4

1) Title of on-farm trials: **Effect of different type of mulching materials for water management in cotton crop**

2) Problem definition:

- ✓ No adoption of recommended practices
- ✓ Decreasing productivity of cotton due to water scarcity during crop period.

3) Details of technologies selected for assessment/refinement :
   - T1. No use of mulching materials (Farmer practice)
   - T2. Black plastic mulch (50 micron) under drip irrigation system (Recommended technology)
   - T3. Wheat straw or groundnut shell mulch (0.5 meter around the plan) under drip irrigation system (Technology assessed / refined)

4) Source of technology : NAU, Navsari
5) Production system and thematic area : Resource conservation technology
6) Thematic area : Use of plastic in agriculture
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	KVK Farm	Targhadia	1065	20.30	1340	24.20	1195	22.60

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

8) Final recommendation for micro level situation - Black plastic mulch (50 micron) under drip irrigation system
9) Constraints identified and feedback for research ; --
10) Process of farmer's participation and their reaction : Farmers aware about benefit of plastic mulch (50 micron) under drip irrigation system
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	Decreasing productivity of cotton due to water scarcity during crop period	Effect of different type of mulching materials for water management in cotton crop	1	Effect of different type of mulching materials for soil moisture conservation and higher yield	✓ Yield of cotton ✓ 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	25.8 % higher cotton yield was obtained in plastic mulch as compare to no mulch in cotton	In plastic and wheat straw/groundnut shell mulch higher yield can be obtained due to higher soil moisture conservation as compare to no mulching in cotton cultivation.	Black plastic mulch (50 micron) under drip irrigation system.	13.40 q/ha

Net return (Profit) in Rs/Unit	BC Ratio
13	*14*
T1 : 10865	1.33
T2 : 15440	1.39
T3 : 14295	1.41

OFT –5

1) Title of technology assessed/Refined **: Comparison of solar Cooker with traditional cooking system**

MANGO MURBBA

Sr. No.	Observation	Traditional Method	Sunlight Heat	Solar Cooker
1	Time Consumption	1.45 hrs.	35.15 hrs.	4.15 hrs.
2	Fuel Consumption	160 g. gas	-	-
3	Cost Saving	-	7.56 %	8.03 %
4	Organo laptic test			
a	Taste/ sweetness	5	6	6.1
b	Texture	5.6	6.1	6.4
c	Overall Acceptance	-	-	√

OFT - 6

1) Title of technology assessed/Refined: **Assessment of Fertility improvement in Buffalo**
2) Problem definition : Long inter calving period
3) Details of technologies selected for assessment/refinement:
   - ✓ Farmer's practices
   - ✓ Treated by "OVSYNCH" protocol as per NDRI Karnal (Recommended Practice)
   - ✓ Treated with Mineral Mixture + Deworming tablets + Heat inducing tablets. (Intervention)
4) Source of technology: GAU
5) Production system and thematic area : Fodder Management
6) Thematic area : Fodder Management
7) Performance of the technology with performance indicators:

Farmer No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed/refined					
			Technology option 1		Technology option 2		Technology option 3	
			Indicator 1 in month	Indicator 2 in No.	Indicator 1 in month	Indicator 2 in No.	Indicator 1 in month	Indicator 2 in No.
1	Farmers method	Jungvad	33%	33%				
2	Giriraj Farm	Khijadia			67%	50%		
3	Gayatri farm	Kuwadva						
4	B.J. Kakdiya	Kuwadva						
5	MN Ramani	Kheradi						
6	BV Ajani	Gauridad						
7	RV Kalola	Gadhka						

8	B V Rangani	Jungvad					83%	80%
9	PG Dudhat	Jungvad						
10	RV Dudhat	Jungvad						
11	AS Dudhat	Jungvad						
12	Naklang Gaushala	Bagathada						
13	CK Dholariya	Ranpur						

Indicator 1 : Occurrence of heat, Indicator 2 : conception rate

8) Final recommendation for micro level situation : Treated with "OVSYNCH" protocol with Mineral Mixture + deworming tablets + Heat inducing tablets.
9) Constrains identified and feedback for research :
   - ✓ Imbalance feeding
   - ✓ Weak estrous
   - ✓ Poor management of heifers
   - ✓
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	Long inter calving period	Assessment of Fertility improvement in Buffalo	3	Assessment of Fertility improvement in Buffalo	• Occurrence of heat • Conception rate

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	Animal should be treated with "OVSYNCH" protocol with Mineral Mixture + deworming tablets + Heat inducing tablets.	-	Animal should be treated with "OVSYNCH" protocol with Mineral Mixture + deworming tablets + Heat inducing tablets.	-

OFT - 7

1) Title of technology assessed/Refined: **To assess the effect of probiotic and prebiotic on milk production.**
2) Problem definition : Improper mixing and proportion of cereals, legumes and concentrate in animal feed leads to imbalance microbial activity and result in to low digestibility which leads to decrease milk production.
3) Details of technologies selected for assessment/refinement:
   T1 -*Farmers practice* (Dry and & green fodder, concentration and cotton seed cake)
   T2 - *Assessment* : T1 + Use of Probiotic & prebiotic in animal feed
   (Sacchromyses cerevisiae + Lactobacillus sporogenes+ Aspergillus oryzae+ Fructo oligosaccharide+ Biotin+ DL Methionine + Zinc Sulphate + Cobalt Sulphate Copper Sulphate) two bolus per day for 6o days
4) Source of technology: GAU
5) Production system and thematic area : Feed Management
6) Thematic area : Dairy 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**
			Indicator 1 in Kg.	Indicator 1 in Kg.
1	Farmers method	Kumbharia	1560Kg./lactation	
2	KB Viradiya	Lodhika		1680 Kg./lactation
3	VB Rank	Lodhika		
4	AL Zalavadiya	Lodhika		
5	RM Raiyani	Lodhika		
6	AS Dhadiya	K Pipliya		
7	VN Ramani	N Pipliya		
8	VK Karoliya	Kumbharia		
9	SM Karoliya	Kumbharia		
10	HB Panchasara	Kumbharia		
11	GA Karoliya	Kumbharia		

Indicator 1 : Milk production (Kg.)

8) Final recommendation for micro level situation : Animal should be fed with Probiotic & prebiotic in animal feed

9) Constrains identified and feedback for research :
   - ✓ Imbalance feeding
   - ✓ Improper mixing and proportion of cereals, legumes and concentrate in animal feed
   - ✓ Poor management

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	Improper mixing and proportion of cereals, legumes and conc. in animal feed	To assess the effect of probiotic and prebiotic on milk production.	10	Animal should be fed with Probiotic & prebiotic in feed	• Milk Production

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	Animal should be fed with Probiotic & prebiotic in feed	-	Assessed	-

OFT - 8

1) Title of technology assessed/Refined : **Use of *Trichoderma* for wilt disease management in cumin**

Problem definition : Application of biological control agent Trichoderma for managing the disease problem in cumin.

Treatments :

1. No use of trichoderma or fungicide at the time of sowing. But they use fungicides viz., carbendazim, hexaconazole, difenconazole, tebuconazole, proticonazole, , etc after of initiation of diseases. (Farmers practices.)
2. Application of Trichoderma @ 5 kg /ha with Compost @ 1000 kg / ha at the time of sowing with the help of multipurpose seed drill. (Recommended practices.)
3. Application of Trichoderma @ 5 kg /ha along with compost or castor 500 kg / ha at the time of sowing and second application of Trichoderma @ 5 kg /ha along with500 kg / ha compost at 15 days after germination. (Refinement).

No. of trial : - 2 (Farmers)

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	Santilal Laljibhai Detroja	Kumbhariya	Result Awaited					
2	Rukshmaniben Bhavanbhai Patel	Vejalpar/ Maliya						
	Average							

Indicator 1 : Yield /kg per ha, Indicator 2 : Per cent plant infestation within 1x1 m2 quadrate from each plot at 45 days after germination.

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 *Kharif* 2014-15 & *Rabi* 2013-14 and recommended for large scale adoption in the district.

Sr. No	Crop/ Enterprise	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	Disease management	IDM	Management of major disease of groundnut	12	20	8.0
2	Sesamum	Varietal evaluation	Variety (GT-4)	To test yield potentiality of newly released sesamum varieties	5	10	4.0
3	Cotton	Crop Production	INM (Bt. Cotton)	To reduce the reddening in cotton	6	10	4.0
4	Green gram	Varietal evaluation	Variety (GM-4)	To test yield potentiality of Green gram	4	5	2.0
5	Gram	Varietal evaluation	Variety (GJG-3)	To test yield potentiality of Gram	5	10	4.0
6	Wheat	Quality Production	Variety (GW-496)	Quality production of Wheat through management of disease	5	10	4.0
7	Cumin	Varietal evaluation	Variety (GC-4)	To test yield potentiality of Cumin	5	10	4.0

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	Disease management	IDM	Kharif 2014-15	8.0	8.0	2	18	20	-
2	Sesamum (GT-3)	Varietal evaluation	New variety	Kharif 2014-15	4.0	4.0	2	8	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	Green gram (GM-4)	Varietal evaluation	New variety	Kharif 2014-15	-	8.0	1	19	20	-
2	Gram (GJG-3)	Varietal evaluation	New variety	Rabi 2013-14	2.0	2.0	1	4	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	Crop Production	INM	Kharif 2014-15	4.0	4.0	-	10	10	-
2	Livestock	Nutrient Manage-ment	Mineral Mixture Powder	-	-	-	1	9	10	-
3	Livestock	Disease Manage-ment	E- Booster	-	-	-	2	18	20	-
4	Oat	Fodder Manage-ment	Variety (Kent)	Rabi 2013-14	2.0	2.0	2	18	20	-
5	Hy. Napier Bajra	Fodder Manage-ment	Variety (APBN-1)	Kharif 2014-15	1.0	1.0	1	9	10	-
6	Fodder	*Cenchrus setigerus*	CAZRI-392	Kharif 2014-15						
7	Solar energy	Solar energy	solar cooker	-	-	-	-	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-496)	Quality Production	New variety	Rabi 2013-14	4.0	4.0	1	9	10	-
2	Cumin (GC-4)	Varietal evaluation	New variety	Rabi 2013-14	4.0	4.0	1	9	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	Wheat/ Cumin	23/06/14	20/10/14	483	23
Sesamum	*Kharif*	RF	M. B.	L	M	H	-"-	12/07/14	9/10/14	483	23
Cotton	*Kharif*	RF	M. B.	L	M	H	-"-	13/6/14	-	483	23
Green gram	*Kharif*	RF	M. B.	L	M	H	-"-	13/07/14	11/10/14	483	23
Hy. Napier Bajra	*Kharif*	RF	M. B.	L	M	H	-"-	18/07/15	-	483	23
Fodder	*Kharif*	RF	M. B.	L	M	H	-"-	24/07/15	-	483	23
Gram	*Rabi*	Irrigated	M. B.	L	M	H	Cotton/ G'nut	15/11/13	28/02/14	-	-
Wheat	*Rabi*	Irrigated	M. B.	L	M	H	-"-	22/11/13	12/03/14	-	-
Cumin	*Rabi*	Irrigated	M. B.	L	M	H	-"-	08/11/14	02/03/14	-	-
Oat	*Rabi*	Irrigated	M. B.	L	M	H	Cotton	12/11/14	-	-	-

M. B. – Medium Black

Performance of FLD

Sr. No.	Crop/ Enterprise	Technology Demonstreated	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	IDM	GG-20	20	8.0	24.70	8.20	15.25	14.23	7.20
2	Sesamum	Variety	GT-4	10	4.0	9.10	3.30	6.30	6.30	0.0
3	Cotton	INM	*Bt.* Cotton	10	4.0	43.75	5.40	20.75	18.62	11.40
4	Green gram	Variety	GM-4	5	2.0	12.5	5.5	9.26	7.72	16.6
5	Gram	Variety	GG-3	10	4.0	18.25	15.50	17.05	15.65	8.95
6	Wheat	Quality prod.	GW-496	10	4.0	64.00	43.75	56.98	55.40	2.85
7	Cumin	IDM	GC-4	10	4.0	12.75	6.25	10.19	9.47	7.60

Economic Impact (continuation of previous table)

S.N.	Crop/Enterprise	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	21
1	Groundnut (IDM)	47625	47300	62530	58445	14905	11145	1.30	1.20
2	Sesame	23840	23780	66203	66150	42363	42370	1.77	1.78
3	Cotton (INM)	44240	43900	85179	76435	40939	32535	1.93	1.74

12	13	14	15	16	17	18	19	20	21
4	Green gram	19781	19743	65746	54812	45965	35069	3.32	1.56
5	Gram	19400	18400	55142	50862	35472	32462	2.84	2.76
6	Wheat	29600	28400	104843	98335	75243	69935	3.54	3.46
7	Cumin	30765	30590	89163	82863	58398	52273	2.90	2.70

Analytical review of component demonstrations

Crop	Season	Component	Farming situation	Average yield (Demo.) (Qtl./ha)	Average yield (Local check) (Qtl./ha)	Percentage increase in productivity over local check
Groundnut	*Kharif*	IDM	Rainfed	15.25	14.23	7.20
Sesamum	*Kharif*	Variety/Seed	Rainfed	6.30	6.30	0.0
Cotton	*Kharif*	INM	Rainfed	20.75	18.62	11.40
Green gram	*Kharif*	Variety/Seed	Rainfed	9.26	7.72	16.6
Hybrid Napier Bajra	*Kharif*	Variety/Seed	Rainfed	725	600	17.25
Gram	Rabi	Variety/Seed	Irrigated	17.05	15.65	8.95
Wheat	Rabi	Variety/Seed	Irrigated	56.98	55.40	2.85
Cumin	Rabi	Variety/Seed	Irrigated	10.19	9.47	7.60

c. **Details of FLD on Enterprises**

(i) Farm Implements : Nil

(ii) Livestock, Fisheries, etc. :

Livestock

Category	Thematic area	Name of the technology demonstrated	No. of KVKs	No. of Farmer	No.of units	Major parameters		% change in major parameter	Other parameter		*Economics of demonstration (Rs.)				*Economics of check (Rs.)			
						Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	** BCR	Gross Cost	Gross Return	Net Return	** BCR
Dairy	Disease Manage-ment	E-Booster	1	20	1	1650	1545	6.80	-	-	58625	74250	15625	1.27	57825	69525	11700	1.20
Cow	Nutrient Manage-ment	To fulfill the mineral req. of Animals	1	10	1	1550	1475	5.06	-	-	58125	76635	18510	1.32	57825	70560	12735	1.22
Cattle/ Buffalo	Fodder Manage-ment	Variety (Kent)	1	20	1	490	-	-	-	-	10250	12500	2250	1.22	9870	11480	1610	1.16
Cattle/ Buffalo	Fodder Manage-ment	New fodder variety	1	10	1	725	600	17.25	-	-	121000	130250	9250	1.08	115000	121800	6800	1.06
Cattle/ Buffalo	*Cenchrus setigerus*	Cenchrus setigerus	1	8	1	90	-	-	-	-	10250	125500	115250	3.60	-	-	-	-
Total			**5**	**58**	**5**													

Fisheries : Nil

Women empowerment

Category	Name of technology	No. of KVKs	No. of demonstrations	Name of observations	Demonstration	Check
Women						
Pregnant women						
Adolescent Girl						
Other women	solar cooker	1	10	Fire Wood, Kerosene, LPG Cylinder	*Details of FLD	
Children						

***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	44	5.5 kg	22	5.5 kg	22
Kerosene	2 lit.	65	1 lit.	32	1 lit.	33
LPG Cylinder	2.96 kg	84	1.76 kg	50	1.18 kg	34

Farm implements and machinery : Nil

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.
3	Late maturity Cluster bean (Gum guvar) variety G-1

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 (Black spot on grain)
5	Reddening in 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	5	-	203	-
2	Media coverage	3	-	-	-
3	Kisan Ghosthi	4	-	56	-
4	Field day	7	-	87	-
	TOTAL	**19**		**346**	

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										
Weed Management				0			0	0	0	0
Resource Conservation Techn.				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming	1	20		20			0	20	0	20
Water management				0			0	0	0	0
Seed production	1	28		28	1		1	29	0	29
Nursery management				0			0	0	0	0
Integrated Crop Management	1	27		27			0	27	0	27
Fodder production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops				0			0	0	0	0
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0
Exotic vegetables like Broccoli				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0	0	0
b) Fruits										
Training and Pruning				0			0	0	0	0
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit	2	35		35			0	35	0	35
Management of young plants/orchards				0			0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards				0			0	0	0	0
Plant propagation techniques				0			0	0	0	0
c) Ornamental Plants										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
d) Plantation crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
e) Tuber crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
f) Spices										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
III Soil Health and Fertility Management										
Soil fertility manag.	1	15		15			0	15	0	15
Soil and Water Conservation				0			0	0	0	0
Integrated Nutrient Management				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Soil and Water Testing	1	45		45			0	45	0	45

1	2	3	4	5	6	7	8	9	10	11
IV Livestock Production and Management										
Dairy Management	2	67		67	2		2	69	0	69
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Disease Management	2	15	28	43			0	15	28	43
Feed management	2	32		32			0	32	0	32
Production of quality animal products	1	23		23			0	23	0	23
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening				0			0	0	0	0
Design and development of low/minimum cost diet	1		23	23			0	0	23	23
Designing and development for high nutrient efficiency diet	1	21		21			0	21	0	21
Minimization of nutrient loss in processing				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techni.				0			0	0	0	0
Value addition	1		20	20			0	0	20	20
Income generation activities for empowerment of rural Women	1		27	27		3	3	0	30	30
Location specific drudgery reduction technologies				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Women and child care				0			0	0	0	0
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems				0			0	0	0	0
Use of Plastics in farming practices	1	22		22	1		1	23	0	23
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements	2	41		41	3		3	44	0	44
Small scale processing and value addition				0			0	0	0	0
Post Harvest Techno.	1	25		25			0	25	0	25
VII Plant Protection										
Integrated Pest Management	2	38		38			0	38	0	38

1	2	3	4	5	6	7	8	9	10	11
Integrated Disease Management	1	15		15	1		1	16	0	16
Bio-control of pests and diseases	1	72		72			0	72	0	72
Production of bio control agents and bio pesticides				0			0	0	0	0
VIII Fisheries										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production				0			0	0	0	0
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0
Production of Fish feed				0			0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development				0			0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Group dynamics				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital				0			0	0	0	0
Entrepreneurial development of farmers/youths				0			0	0	0	0
WTO and IPR issues				0			0	0	0	0
XI Agro-forestry										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
TOTAL	**26**	**541**	**98**	**639**	**8**	**3**	**11**	**549**	**101**	**650**
(B) RURAL YOUTH										
Mushroom Production				0			0	0	0	0
Bee-keeping				0			0	0	0	0
Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermi-culture				0			0	0	0	0
Sericulture				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Nursery Management of Horticulture crops				0			0	0	0	0
Training and pruning of orchards				0			0	0	0	0
Value addition				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Para vets				0			0	0	0	0
Para extension workers				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Small scale processing				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
(C) Extension Personnel										
Productivity enhancement in field crops				0			0	0	0	0
Integrated Pest Management	2	32	4	36	4		4	36	4	40
Integrated Nutrient management	1	16		16			0	16	0	16
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology	1	37	2	39	4	1	5	41	3	44
Formation and Management of SHGs				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Care and maintenance of farm machinery and implements	1	35	4	39	4		4	39	4	43
WTO and IPR issues				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
TOTAL	**5**	**120**	**10**	**130**	**12**	**1**	**13**	**132**	**11**	**143**
Grand Total	**31**	**661**	**108**	**769**	**20**	**4**	**24**	**681**	**112**	**793**

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										
Weed Management	1	20		20			0	20	0	20
Resource Conservation Technologies				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Water management	3	65		65			0	65	0	65
Seed production				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Crop Management				0			0	0	0	0
Fodder production				0			0	0	0	0
Production of organic inputs	1	30		30			0	30	0	30
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops				0			0	0	0	0
Off-season vegetables				0			0	0	0	0
Nursery raising				0			0	0	0	0
Exotic vegetables like Broccoli				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization	1		11	11			0	0	11	11
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0	0	0
b) Fruits										
Training and Pruning				0			0	0	0	0
Layout and Management of Orchards				0			0	0	0	0
Cultivation of Fruit				0			0	0	0	0
Management of young plants/orc				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Export potential fruits				0			0	0	0	0
Micro irrigation systems of orchards	1	32		32			0	32	0	32
Plant propagation techniques				0			0	0	0	0
c) Ornamental Plants										
Nursery Management				0			0	0	0	0
Management of potted plants				0			0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Export potential of ornamental plants				0			0	0	0	0
Propagation techniques of Ornamental Plants				0			0	0	0	0
d) Plantation crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
e) Tuber crops										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
f) Spices										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
III Soil Health and Fertility Management										
Soil fertility management	1	24		24			0	24	0	24
Soil and Water Conservation				0			0	0	0	0
Integrated Nutrient Management	1	36		36			0	36	0	36
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Soil and Water Testing				0			0	0	0	0
IV Livestock Production and Management										
Dairy Management	1	25		25			0	25	0	25
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Disease Management	2	63		63			0	63	0	63

1	2	3	4	5	6	7	8	9	10	11
Feed management	2	47		47			0	47	0	47
Production of quality animal products	2	20	12	32		2	2	20	14	34
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening				0			0	0	0	0
Design and development of low/minimum cost diet				0			0	0	0	0
Designing and development for high nutrient efficiency diet				0			0	0	0	0
Minimization of nutrient loss in processing				0			0	0	0	0
Gender mainstreaming through SHGs	1		20	20		2	2	0	22	22
Storage loss minimization techniques	1		17	17			0	0	17	17
Value addition	3	34	20	54			0	34	20	54
Income generation activities for empowerment of rural Women				0			0	0	0	0
Location specific drudgery reduction technologies				0			0	0	0	0
Rural Crafts	1		18	18			0	0	18	18
Women and child care				0			0	0	0	0
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	1	24		24			0	24	0	24
Use of Plastics in farming practices				0			0	0	0	0
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements	2	82	3	85	8		8	90	3	93
Small scale processing and value addition	1	36		36			0	36	0	36
Post Harvest Techn.				0			0	0	0	0
VII Plant Protection										
Integrated Pest Management	3	69		69			0	69	0	69
Integrated Disease Management	2	62		62			0	62	0	62

1	2	3	4	5	6	7	8	9	10	11
Bio-control of pests and diseases	2	29		29			0	29	0	29
Production of bio control agents and bio pesticides				0			0	0	0	0
VIII Fisheries										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production				0			0	0	0	0
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0
Production of Fish feed				0			0	0	0	0
X Capacity Building and Group Dynamics										

1	2	3	4	5	6	7	8	9	10	11
Leadership development				0			0	0	0	0
Group dynamics				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital				0			0	0	0	0
Entrepreneurial development of farmers/youths				0			0	0	0	0
WTO and IPR issues				0			0	0	0	0
XI Agro-forestry										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
TOTAL	**33**	**698**	**101**	**799**	**8**	**4**	**12**	**706**	**105**	**811**
(B) RURAL YOUTH										
Mushroom Production				0			0	0	0	0
Bee-keeping				0			0	0	0	0
Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermi-culture				0			0	0	0	0
Sericulture				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Nursery Management of Horticulture crops				0			0	0	0	0
Training and pruning of orchards				0			0	0	0	0
Value addition				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Para vets				0			0	0	0	0
Para extension workers				0			0	0	0	0
Composite fish culture				0			0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Small scale processing				0			0	0	0	0
Post Harvest Techn.				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
(C) Extension Personnel										
Productivity enhancement in field crops				0			0	0	0	0
Integrated Pest Management				0			0	0	0	0
Integrated Nutrient management				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0	0	0	0
WTO and IPR issues				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
Grand Total	**33**	**698**	**101**	**799**	**8**	**4**	**12**	**706**	**105**	**811**

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										
Weed Management	1	20	0	20	0	0	0	20	0	20
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	1	20	0	20	0	0	0	20	0	20
Water management	3	65	0	65	0	0	0	65	0	65
Seed production	1	28	0	28	1	0	1	29	0	29
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	27	0	27	0	0	0	27	0	27
Fodder production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	30	0	30	0	0	0	30	0	30
II Horticulture										
a) Vegetable Crops										
Production of low volume and high value crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	1	0	11	11	0	0	0	0	11	11
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0	0	0
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	2	35	0	35	0	0	0	35	0	35
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	1	32	0	32	0	0	0	32	0	32
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management										
Soil fertility management	2	39	0	39	0	0	0	39	0	39
Soil and Water Conservation	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	1	36	0	36	0	0	0	36	0	36
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	1	45	0	45	0	0	0	45	0	45
IV Livestock Production and Management										
Dairy Management	3	92	0	92	2	0	2	94	0	94
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Disease Management	4	78	28	106	0	0	0	78	28	106
Feed management	4	79	0	79	0	0	0	79	0	79
Production of quality animal products	3	43	12	55	0	2	2	43	14	57
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	1	0	23	23	0	0	0	0	23	23
Designing and development for high nutrient efficiency diet	1	21	0	21	0	0	0	21	0	21
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	1	0	20	20	0	2	2	0	22	22
Storage loss minimization techniques	1	0	17	17	0	0	0	0	17	17
Value addition	4	34	40	74	0	0	0	34	40	74
Income generation activities for empowerment of rural Women	1	0	27	27	0	3	3	0	30	30
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	1	0	18	18	0	0	0	0	18	18
Women & child care	0	0	0	0	0	0	0	0	0	0
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	1	24	0	24	0	0	0	24	0	24
Use of Plastics in farming practices	1	22	0	22	1	0	1	23	0	23
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	4	123	3	126	11	0	11	134	3	137
Small scale processing and value addition	1	36	0	36	0	0	0	36	0	36
Post Harvest Technology	1	25	0	25	0	0	0	25	0	25
VII Plant Protection										
Integrated Pest Management	5	107	0	107	0	0	0	107	0	107

1	2	3	4	5	6	7	8	9	10	11
Integrated Disease Management	3	77	0	77	1	0	1	78	0	78
Bio-control of pests and diseases	3	101	0	101	0	0	0	101	0	101
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery manag.	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										

1	2	3	4	5	6	7	8	9	10	11
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production techn.	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
TOTAL	**59**	**1239**	**199**	**1438**	**16**	**7**	**23**	**1255**	**206**	**1461**
(B) RURAL YOUTH										
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0

1	2	3	4	5	6	7	8	9	10	11
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0
Post Harvest Techn.	0	0	0	0	0	0	0	0	0	0
Tailoring & Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0
(C) Extension Personnel										
Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	2	32	4	36	4	0	4	36	4	40
Integrated Nutrient management	1	16	0	16	0	0	0	16	0	16
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	1	37	2	39	4	1	5	41	3	44
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	1	35	4	39	4	0	4	39	4	43
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0
Women & Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
TOTAL	**5**	**120**	**10**	**130**	**12**	**1**	**13**	**132**	**11**	**143**
Grand Total	**64**	**1359**	**209**	**1568**	**28**	**8**	**36**	**1387**	**217**	**1604**

(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	
Animal Science	17-19/4/2014	Importance of Primary animal treatment and Artificial Insemination	Para vets	3	10	-	10	-	-	-	-

(E) Sponsored Training Programmes

Sl. No.	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/RY/EF)	No. of courses	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
								Others			SC/ST			Total				
								Male	Female	Total	Male	Female	Total	Male	Female	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	8-9/5/14	Importance of primary tillage.	Agronomy	Seed production	2	EF	1	9	2	11	2		2	11	2	13	BCI Cotton	4000/-
2	14/5/14	Production technologies for major summer crops	Agronomy	Crop production	1	PF	1	42		42	4		4	46	0	46	FTC-Rajkot	
3	19-20/8/14	Integrated insect pests and diseases management in *kharif* crops	Plant protection	Integrated Farming	2	EF	1	42		42	4		4	46	0	46	BCI Cotton	4000/-
4	25-26/8/14	Cultivation of vegetable & flower in green house.	Horti.	Vegetable Crops	2	EF	1	43	4	47	4	1	5	47	5	52	BCI Cotton	4000/-
5	21-22/8/14	Fertilizer management in *Kharif* crops.	Agro.	Soil Health and Fertility Management	2	EF	1	21	16	37	4	3	7	25	19	44	REEL Cotton	4000/-
6	7/11/14	Different formulation of pesticides and their applications	P.P.	Plant Protection	1	PF	1	91		91			0	91	0	91	DOW Agro-Science	2000/-
7	2/12/14	Ecofriendly management of insect pests & disease in vegetable crops.	p.p	Plant Protection	1	PF	1	30		30			0	30	0	30	FTC	-
8	3/2/15	Irrigation management in *Rabi* crops.	Agro.	Crop production	1	PF	1	62		62	8		8	70	0	70	Dept. of Agri.Eco.,JAU	-
9	27/6/14	Improved cultivation practices for important fruit crops	Horti	Fruits	1	PF	1	28		28			0	28	0	28	ATMA	-
10	28/7/14	Fodder management in animal round the year.	A.S.	Livestock Production and Management	1	PF	1	30		30			0	30	0	30	ATMA	-
11	8/8/14	Operation and maintenance of micro irrigation system	A.E.	Agri. Engg.	1	PF	1		12	12		3	3	0	15	15	ATMA	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
12	8/8/14	Integrated insect pests and diseases management in *kharif* crops	P.P	Plant Protection	1	PF	1		16	16			0	0	16	16	ATMA	-
13	11/8/14	Importance of mineral mixture in feeding for cattle and buffaloes	A.S	Livestock Production and Management	1	PF	1	45		45	4		4	49	0	49	ATMA	-
14	26/8/14	Irrigation management in *Rabi* crops.	C.P.	Crop prodection	1	PF	1	50		50	5		5	55	0	55	ATMA	-
15	27/8/14	Cottage level food processing entrepreneurship for farmers	A.E.	Small scale processing	1	RY	1	17		17	1		1	18	0	18	ATMA	-
16	27/8/14	Fruit & vegetable production techno.	Horti	Fruits	1	PF	1	25		25			0	25	0	25	ATMA	-
17	27/8/14	Deworming and vaccination in live stock	A.S.	live stock	1	PF	1	17		17			0	17	0	17	ATMA	-
18	1-3/9/14	Post harvest technology of different field crops	A.E.	Post Harvest Technology	3	RY	1	26		26	5		5	31	0	31	ATMA	-
19	8/9/14	Different formulation of pesticides and their applications	P.P	Plant Protection	1	PF	1	22		22	2		2	24	0	24	ATMA	-
20	10/9/14	Importance of bio fertilizers in Agriculture	C.P.	Soil Health and Fertility Management	1	PF	1	21		21	2		2	23	0	23	ATMA	-
21	9/12/14	Value addition in Agri. product	C.P	Production of organic inputs	1	RY	1	17		17			0	17	0	17	ATMA	-
22	15/12/14	Value addition in Horti. crops	Horti	Value addition	1	RY	1	15		15			0	15	0	15	ATMA	-
23	18/12/14	IPM and IDM in *Rabi* crops.	P.P	live stock	1	PF	1	14		14			0	14	0	14	ATMA	-
24	23/12/14	Control of ecto and endo parasites in cattles	A.s	Livestock Production and Management	1	PF	1	23		23			0	23	0	23	ATMA	-
25	31/1/15	Value addition in anola.	H.S.	Home Science	1	PF	1		49	49			0	0	49	49	ATMA	-
26	3/2/15	Care for clean milk production.	A.S.	Animal Science	1	PF	1	21		21			0	21	0	21	ATMA	-
27	9/2/15	Control of ecto and endo parasites in cattles	A.S.	Dairying	1	PF	1	29		29	4		4	33	0	33	ATMA	-
Total		**27**						**756**	**101**	**857**	**45**	**5**	**50**	**801**	**106**	**907**		

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	12/09/14	1	34		34	3		3				37	0	37
		22/10/14	1	41		41			0			0	41	0	41
		22/01/14	1	29		29	5		5			0	34	0	34
		28/01/14	1	32		32	1		1				33	0	33
	Total		**4**	**136**	**0**	**136**	**9**	**0**	**9**	**0**	**0**	**0**	**145**	**0**	**145**
2	Kisan Mela (P)	30-31/12/14	1												
		Mar-15	1												
	Total		2												
3	Kisan Ghosthi	16/06/14	1	21		21	1		1			0	22	0	22
		20/06/14	1	17		17			0			0	17	0	17
		09/7/14	2	16		16	3		3			0	19	0	19
		10/07/14	1	24		24			0			0	24	0	24
		13/10/14	1	22		22	6		6			0	28	0	28
		24/11/14	1	19		19			0			0	19	0	19
		09/01/15	1	13		13	3		3			0	16	0	16
	Total		**8**	**132**	**0**	**132**	**13**	**0**	**13**	**0**	**0**	**0**	**145**	**0**	**145**
4	Exhibition	Sept.-14	1	757	232	989	163	11	174	9	3	12	929	246	1175
		Dec.-14	1	1210	345	1555	35	37	72	12	3	15	1257	385	1642
	Total		**2**	**1967**	**577**	**2544**	**198**	**48**	**246**	**21**	**6**	**27**	**2186**	**631**	**2817**
5	Film Show	17/04/14	1	46		46	1		1	1		1	48	0	48
		09/05/14	2	28		28			0			0	28	0	28
		12/05/14	1	13		13	2		2	1		1	16	0	16
		12/06/14	1	47		47			0			0	47	0	47
		24/06/14	4	32	9	41		1	1			0	32	10	42
		30/07/14	1	21		21			0			0	21	0	21
		12/08/14	2	61		61	1		1	2		2	64	0	64
		20/08/14	1	91		91			0			0	91	0	91
		25/08/14	1	17		17	1		1			0	18	0	18
		26/08/14	2	14	5	19		1	1			0	14	6	20
		22/08/14	2	21		21			0	2		2	23	0	23
		03/09/14	1	27		27	1		1			0	28	0	28
		07/11/14	1	11	3	14			0			0	11	3	14
		28/01/15	1	9		9	1		1	1		1	11	0	11
		03/02/15	3		11	11		2	2			0	0	13	13
		16/02/15	1	19		19			0			0	19	0	19
		03/03/15	1	10		10			0			0	10	0	10
	Total		**26**	**467**	**28**	**495**	**7**	**4**	**11**	**7**	**0**	**7**	**481**	**32**	**513**
6	Method Demonstra-tions	-	30	594	69	663	23	3	26			0	617	72	689
7	Farmers Seminar	12/07/14	1	23		23	1		1			0	24	0	24
		14/09/14	1	67		67			0			0	67	0	67
		10/10/14	1	26		26	1		1			0	27	0	27
		23/12/14	1	35		35	1		1			0	36	0	36
		10/02/15	1		57	57			0			0	0	57	57
			5	**151**	**57**	**208**	**3**	**0**	**3**	**0**	**0**	**0**	**154**	**57**	**211**
8	Workshop						0	0	0	0	0	0	0	0	
9	Group meetings	11/4/14	1	11		11			0			0	11	0	11
		3/6/14	1	14		14	1		1			0	15	0	15
		20/6/14	1	12		12			0			0	12	0	12
		17/7/14	1	19		19			0			0	19	0	19
		6/8/14	1	9		9	1		1			0	10	0	10
		18/11/14	1	17		17			0			0	17	0	17
		2/2/15	1	8		8			0			0	8	0	8
		21/2/15	1	9		9			0			0	9	0	9
	Total		**8**	**99**	**0**	**99**	**2**	**0**	**2**	**0**	**0**	**0**	**101**	**0**	**101**

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*	*16*
10	Lectures delivered as resource persons	21/1/4	1	23		23	1		1			0	24	0	24
		21/1/14	1	75		75			0			0	75	0	75
		6/2/14	3		35	35			0			0	0	35	35
		19/2/14	2	102		102			0			0	102	0	102
		12/3/14	1	57		57			0			0	57	0	57
		27/3/14	3	89		89	1		1			0	90	0	90
		4/4/14	2	112		112			0			0	112	0	112
		21/4/14	1	35		35			0			0	35	0	35
		12/6/14	1	73	20	93	1		1			0	74	20	94
		19/6/14	1	78		78			0			0	78	0	78
		17/7/14	1	13		13			0			0	13	0	13
		7/8/14	2	54		54			0			0	54	0	54
		4/9/14	2	80		80	2		2			0	82	0	82
		23/9/14	1	123		123			0			0	123	0	123
		27/9/14	1	111		111	9		9			0	120	0	120
		16/10/14	1	45		45			0			0	45	0	45
		18/11/14	1	256		256	8		8			0	264	0	264
		27/11/14	1	72		72			0			0	72	0	72
		4/12/14	2	67		67	1		1			0	68	0	68
		12/12/14	2	33		33			0			0	33	0	33
		17/12/14	1	324		324	27		27			0	351	0	351
		9/1/15	1	55		55			0			0	55	0	55
		23/1/15	4	81		81			0			0	81	0	81
		10/2/15	1	53		53			0			0	53	0	53
		20/3/15	1	134		134	9		9			0	143	0	143
	Total		**38**	**2145**	**55**	**2200**	**59**	**0**	**59**	**0**	**0**	**0**	**2204**	**55**	**2259**
11	Newspaper coverage		8	0	0	0	0	0	0	0	0	0	0	0	5
12	Radio talks	Aug.-14	2	-	-	-	-	-	-	-	-	-	-	-	-
		Sept.-14	3	-	-	-	-	-	-	-	-	-	-	-	-
		Nov.-14	1	-	-	-	-	-	-	-	-	-	-	-	-
		Jan.-15	1	-	-	-	-	-	-	-	-	-	-	-	-
	Total		**7**	-	-	-	-	-	-	-	-	-	-	-	-
13	TV talks	Aug.-14	2	-	-	-	-	-	-	-	-	-	-	-	-
		Sept.-14	1	-	-	-	-	-	-	-	-	-	-	-	-
		Dec.-14	1	-	-	-	-	-	-	-	-	-	-	-	-
		Jan.-15	2	-	-	-	-	-	-	-	-	-	-	-	-
		Feb.-15	2	-	-	-	-	-	-	-	-	-	-	-	
	Total		**8**	-	-	-	-	-	-	-	-	-	-	-	
14	Popular articles		28	-	-	-	-	-	-	-	-	-	-	-	
15	Extension Literature		15	-	-	-	-	-	-	-	-	-	-	-	
16	Advisory Services		35	203		203	7		7			0	210	0	210
17	Scientific visit to farmers field		52	166		166	10		10			0	176	0	176
18	Farmers visit to KVK	Apr-14	1	4		4			0			0	4	0	4
		May-14	17	28		28	5		5	1		1	34	0	34
		Jun-14	12		32	32	6		6		1	1	6	33	39
		Jul-14	14	78		78	2		2			0	80	0	80
		Aug.-14	24	123		123	12		12	2		2	137	0	137
		Sept.-14	18	96		96	11		11			0	107	0	107
		Oct.-14	18	205		205	10		10	2		2	217	0	217
		Nov.-14	20	289		289	12		12	1		1	302	0	302
		Dec.-14	22	677		677	78		78	1		1	756	0	756

		Jan.-15	3	5		5			0			0	5	0	5
		Feb.-15	29	745		745	89		89	2		2	836	0	836
		Mar-15	11	74		74	3		3			0	77	0	77
	Total		**189**	**2324**	**32**	**2356**	**228**	**0**	**228**	**9**	**1**	**10**	**2561**	**33**	**2594**
19	Diagnostic visits		3	22		22			0			0	22	0	22
20	Exposure visits	Mar-15	1	46	5	51	2		2			0	48	5	53
21	Ex-trainees Sammelan														
22	Soil health Camp	Sept.-14	1	45		45			0			0	45	0	45
23	Animal Health Camp	31/07/14	1	34		34	2		2	5		5	41	0	41
		15/07/14	1	47		47	10		10	4		4	61	0	61
		12/08/14	1	47	4	51	3		3	6		6	56	4	60
		21/08/14	1	31		31	1		1	7		7	39	0	39
		22/08/14	1	41		41	7		7	4		4	52	0	52
		30/12/14	1	67	5	72	7		7	6		6	80	5	85
		27/02/15	1	60	8	68			0	8		8	68	8	76
		10/03/15	1	49	1	50	4		4	5		5	58	1	59
		12/03/15	1	81		81	2		2	6		6	89	0	89
		13/03/15	1	78	2	80	6		6	7		7	91	2	93
		20/03/15	1	65	7	72	9		9	4		4	78	7	85
		20/03/15	1	37	2	39	3		3	8		8	48	2	50
	Total		**12**	**637**	**29**	**666**	**54**	**0**	**54**	**70**	**0**	**70**	**761**	**29**	**790**
24	Agri mobile clinic	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	Soil test campaigns	-	1	8537	-	8537	-	-	-	-	-	-	8537	-	8537
26	Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	Self Help Group Conveners meetings	25/3/15	1	0	19	19	0	0	0	0	0	0	0	19	19
28	Mahila Mandals Conveners meetings														
29	Celebration of Infant Protection Day, Cancer Awareness Day	07/11/14	1	79		79	12		12			0	91	0	91
30	Celebration of Technology Week	15/9/14 to 20/9/14	1	757	232	989	163	11	174	9	3	12	929	246	1175
31	Celebration of parthenium Week	17/08/14	1	22	8	30			0	1		1	23	8	31
32	Celebration of Soil and water testing week	1-6/9/14	1	45		45			0			0	45	0	45
33	Celebration of International woman's Day	08/03/15	1		17	17		2	2			0	0	19	19
34	Telephon help line		1	1168									1168		1168
	Grand Total		**491**	**19219**	**586**	**19805**	**845**	**23**	**868**	**96**	**4**	**100**	**20160**	**613**	**20773**

Details of Technoligy Week

Number of Technology weeks celebrated	Types of Activities	No. of Activities	Numaber of Participants	Related crop/livestock technology
	Gosthies	23	789	6
	Lectures organised			
	Exhibition	1	1175	1
	Film show	5	975	3
	Fair			
	Farm Visit	8	989	12
	Diagnostic Practicals	5	1175	5
	Distribution of Literature (No.)	5	2500	5
	Distribution of Seed (q)			
	Distribution of Planting materials (No.)			
	Bio Product distribution (Kg)	1		
	Bio Fertilizers (q)			
	Distribution of fingerlings			
	Distribution of Livestock specimen (No.)			
	Total number of farmers visited the technology week		1175	

KISAN MOBILE ADVISORY:

No. of Farmers registered : 8500

Details of SMSs

Content Category	No. of Messages	No. of Farmers	Feed back of farmers if any	
Crop Production				
Crop Protection	8	32261		
Livestock & Fisheries Advisory	24	126239		
Weather Advisory	104	416000		
Total	**136**	**574500**		

INTERVENTIONS ON DROUGHT MITIGATION

Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Gujarat	Groundnut(TG-38)	8	20
	Cotton (INM)	8	20
	Cotton (IPM)	4	10
	Wheat (GW-496)	4	10
	Check pea(GJG-3))	0.8	2
	Cimine (GC-4)	0.8	2

Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds	8	20
Pulses	0.8	2
Commercial	4.8	12
Others	12	30
Total	**25.6**	**64**

Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No.of participants
Gujarat	Farmer's meeting	7	212
	Farmers Seminar	3	345
	Group meetings	6	265
Total		**16**	**822**

Animal health camps organised

State	Number of camps	No.of animals	No.of farmers
Gujarat	12	1075	720
Total	**12**	**1075**	**720**

Seed distribution in drought hit states : Nil

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Gujarat				
Total				

Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Gujarat	Adoption of Trichoderma culture powder for the management of stem rot disease in groundnut	174532	43633
	Adoption of *Bt*. cotton varieties.	328897	82224
	Farmers prefers to sow semi spreading and high yielding variety of groundnut i.e. GG-20.	214808	53702
	Most of the farmers adopt new variety of cumin (GC-4) which is resistant to wilt disease	22517	5629
	Intercropping/mix cropping in groundnut and cotton was adopted for minimize the risk factor in dry land agriculture with preservation of natural enemies	26851	6713
	Farmers are ready to use of rotavator/ cotton shredder/ mobile chopper for increasing the organic matter in soil particularly in cotton system.	174532	43633

Awareness campaign

KVK	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
	9	132	7	90	5	178	2	8900	1	899	45	1300
Total	**9**	**132**	**7**	**90**	**5**	**178**	**2**	**8900**	**1**	**899**	**45**	**1300**

3.5 Production and supply of Technological products 2014-15

SEED MATERIALS

Sr. No.	Crop	Variety	Quantity (Kg)	Value (Rs.)	Provided to No. of Farmers
CEREALS	-	-	-	-	-
OILSEEDS	Groundnut (Breeder)	GG-5	2220	-	-
	Groundnut (Breeder)	GJG-31	610	-	-
	Groundnut (Breeder)	GJG-9	490	-	-
	Groundnut (Mega seed)	GJG-31	210	-	
	Groundnut (Breeder)	GG-20	950	-	-
PULSES	Green Gram (Mega seed)	GM-4	350	-	-
CASH CROP	-	-	-		-
		Total	**4830**		

SUMMARY

Sr. No.	Crop	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	-	-	-
2	OILSEEDS	44.80	-	-
3	PULSES	3.50	-	-
4	CASH CROP	-	-	-
TOTAL		**48.30**	**-**	

PLANTING MATERIALS:

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	Jamun	local	40	1200	35
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*	**3500 Kg.**		**245000/-**	**750**

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*	**3500 Kg.**		**245000/-**	**750**
	TOTAL					

ORGANIC MANURE

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

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 of copies
1	**2**	**3**	**4**
Research papers	Training Needs of Dairy farming Women and Constraints faced by Rural Women: A Case study of Gujarat	J.B. kathiriya, DA Saradava, DP Sanepara and Dr. B.B. Kabria	Not applicable
	Prevalence Of Subclinical Mastitis In Dairy Cows In Rajkot District Of Gujarat	J.B. kathiriya, DA Saradava, DP Sanepara and Dr. B.B. Kabria	Not applicable

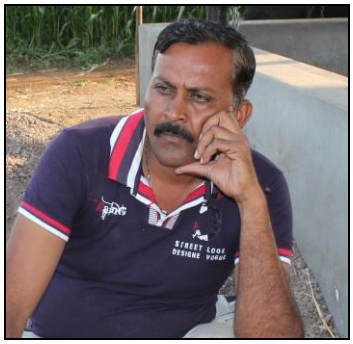
1	2	3	4
Research papers	Seasonal incidence of sucking insect pest of Bt. Cotton in relation to different weather parameters	D.V. Muchhadia, D.M. Damasia, D.A. Saradava and Dr. B.B. Kabria	Not applicable
Total	**3**		
Technical reports	Monthly Progress Report Quarterly Progress Report Moniterable Quarterly Progress Report Annual Progress Report of different projects	Krishi Vigyan Kendra, Targhadia	8
Popular articles	*Dudhala pashuoma chayapachayna rogo ane teni sarvar*	Dr.J.B.Kathiriya, Dr.B.B.Kabaria,	Not applicable
Popular articles	*Unalama pashuoni vagyanik mavjat*	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, H.A.Manvar and Dr. H.N. Sudani	Not applicable
Popular articles	*Sagrbha ane viyajan pashuoni mavjat*	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, H.A.Manvar	Not applicable
Popular articles	*Magfalima vadhu utpadan melavavani chhavio*	Shri.D.A.Sardava ,Shri D.V.Muchadiya, & Dr.B.B.Kabaria	Not applicable
Popular articles	*Kheti pedashoni mulya vrudhdhi*	Dr.B.B.Kabaria , Shri.D.A.Sardava ,Shri D.V.Muchadiya	Not applicable
Popular articles	*Jivat niyantran mateno sachot drashtikon*	Dr.B.B.Kabaria ,V.N. Patel, Shri.D.A.Sardava	Not applicable
Popular articles	*Gramya kakshae posanksham Aahar nu aayoujan*	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, H.A.Manvar	Not applicable
Popular articles	*Kapasnu vadhu utpadan melavavana muddao*	Shri.D.A.Sardava ,Shri D.V.Muchadiya, & Dr.B.B.Kabaria	Not applicable
Popular articles	*Sendriya khatar banavi jaminni faldrupata vdharo*	Shri.D.A.Sardava ,Shri N.K. Pokiya, & Dr.B.B.Kabaria	Not applicable
Popular articles	*Bijmavjatnu mahatv*	Shri.D.A.Sardava ,Shri N.K. Pokiya, & Dr.B.B.Kabaria	Not applicable
Popular articles	*Aadarsh pashupalan*	Dr.J.B.Kathiriya, Dr.B.B.Kabaria, H.A.Manvar	Not applicable
Total	***11***		
Leaflets/folders	-	-	-
Grand Total	**14**		

(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

Success Story : 1



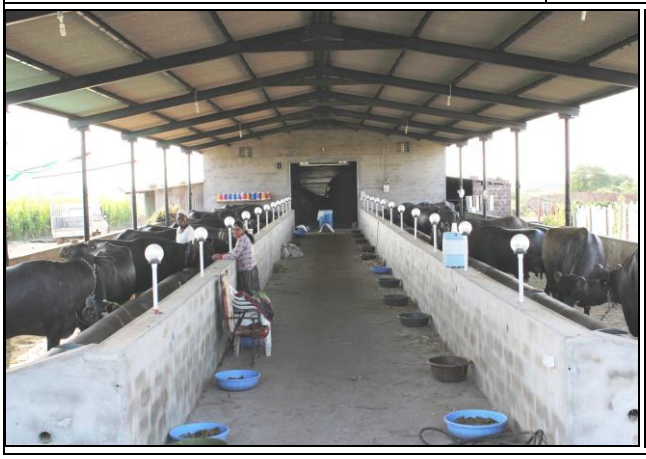
Name of Farmer	:	Ashokbhai Bhanderi
Address	:	Khijadia
Taluka	:	Rajkot
Dist.	:	Rajkot
Contact Number	:	9909993935
Age	:	38 years
Education	:	12th Pass
Land holding	:	8 acre
Crops grown	:	Groundnut, Cotton, & Fodder crops
Livestock	:	Cow : 3 Buffalo : 30 (Banni & Mahesani breeds)

1. 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.



Success Story : 2

Name of farmer : Bhagvanjibhai Amarshibhai Gami
Address : Bagathala
Taluka : Morbi
District : Morbi
Contact number : 9428790766
Age : 48 years
Education :12 science
Land holding : 8 acres
Crops grown : Cotton and castor
Training : (i) KVK Targhadia
(ii) ATMA-Rajkot
(iii) WALMI-Anand

2. Successful B.t.Cotton Production In Rainfed farming

Special Recognition :

Bhagvanjibhai is a progressive farmer of Rajkot District being a members of SAC (KVK) and ATMA group (cotton). He adopting improved technology of integrated farming for higher productivity of Bt.cotton in rainfed condition and saline black sticky soil. viz; by applying castor cake 500 kg/ha as organic manure and incorporate cotton stalk by rotavator to improve soil physical condition, timely interculturing practices and optimum use of chemical fertilizer and pesticide.

Practical utility of innovation

By doing and learning Bhagvanjibhai adopting different rainfed practice with scientific approach in Bt. Cotton crop, higher yield can be obtained. He produced cotton yield of 2100 kg/ha, 1180 kg/ha and 2600 kg/ha (expected) in the years of 2011-12, 2012-13 and 2013-14 respectively.

Success Story : 3

Name of Farmer	:	Jayantibhai Lunagaria
Address	:	Sarapdad
Taluka	:	Padadhari
Dist	:	Rajkot
Contact Number	:	9725334921
Age	:	38 years
Education	:	12th Pass
Land holding	:	6 acre
Crops grown	:	Groundnut, Cotton, Gram & Wheat
Livestock	:	Gir Cow : 1 Gir Bullock : 2 Jafrabadi buffalo : 1

3. Quality Wheat (GW-366) Production

Special recognition :

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 : 4

Name of Farmer	:	Govindbhai Pachabhai Undhad
Address	:	Khorana
Taluka	:	Rajkot
Dist.	:	Rajkot
Contact Number	:	9974344119
Age	:	52 years
Education	:	8th Pass
Land holding	:	18 acre
Crops grown	:	Groundnut, Cotton, Onion, & Chilly
Livestock	:	Gir Cow : 3

4. Use of cotton shedder and decomposting of cotton stalk

Special recognition :

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

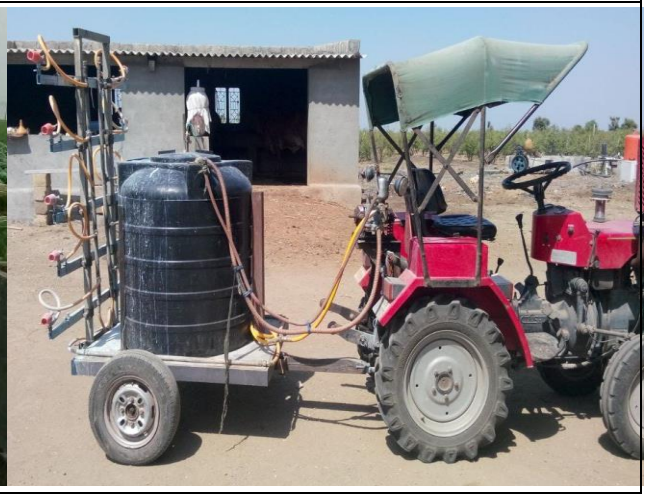
Success Story : 5

Earn more by cultivating horticultural crops

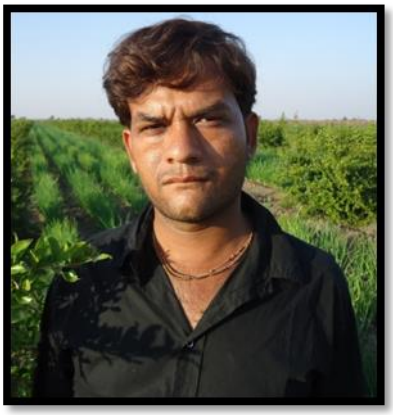
Name of Farmer	:	Mr. Atulbhai Babubhai Sorthiya
Address	:	Bhojpara
Taluka	:	Gondal
Dist.	:	Rajkot
Contact Number	:	9979924344
Age	:	37 years
Education	:	10 Pass
Land holding	:	16 acre
Crops grown	:	Pomegranate, Cotton and Ground nut
Livestock	:	Geer Cow : 6

Special recognition :

Shri. Atulbhai Babubhai Sorthiya is a progressive farmer of village Bhojpara Tal. Gondal of Rajkot district. He attended training of horticulture at KVK, Rajkot during 2010. He started cultivating scientifically Sinduri pomegranate by purchasing tissue culture plants in 13 acre of land. During 2014, He has harvested 15 kg/plant with the total production of 60, 000 kg and has earned Rs. 30 lacs. For plant protection measures, he has covered each plant with net for controlling fruit sucking moth. He has developed a tractor sprayer by his own knowledge, for spraying the pesticides in plantation. During 2015, total production of pomegranate was obtained as 80,000 kg. By observing his experience, near by farmers has started cultivating horticultural crops like Apple ber and guava.



Success Story : 6



Adopt Agro-Horti system inAgriculture

Name of Farmer	:	
Mr. Ravibhai savjibhai karordya		
Address	:	Kumbhariya
Taluka	:	Madiya
Dist.	:	Morbi
Contact Number	:	
Age	:	22 years
Education	:	10 Pass
Land holding	:	12 acre
Crops grown	:	Onion, Cotton and Sessamum
Livestock	:	Buffelo : 1

Special recognition :

Shri. Ravibhai savjibhai karordya is a progressive farmer of village Kumbhariya Tal. Madiya of Morbi district. The soil of Kumbhariya village is somewhat salty. So, can not adopt irrigation by well. The pH of that soil was around 8.2. During winter he is cultivating cotton and cumin by irrigating field through lift irrigation since 8-10 years. It is also observed thatsalt content in the soil is increasing day by day due to high water table and soil become unfertile. Also the production of the crops in the field is decreasing. Due to this reason, KVK staff has suggested togo for agro-horti system. He started cultivating Sinduri variety of pomegranate and started intercropping with onion as seed production between two lines of pomegranate crop in 4 acre of land through drip irrigation.

By adopting this agro-horti system he has earned 1200 kg onion seed with net profit of Rs. 3,00.000 lacs in 4 acre of land Dure to intercropping with onion he has earned additional income before getting pomegranate yield.

Success Story : 7

Improved Cultivation of Bitterguard

Name of Farmer :

Mr. Muhmmad Hussain Jalal

Address	:	Tithwa
Taluka	:	Wankaner
Dist.	:	Morbi
Contact Number	:	9725422783
Age	:	61 years
Education	:	7th Pass
Land holding	:	70 acre
Crops grown	:	Bitterguard , Bringal , Tomato & Chilly
Livestock	:	Buffloes : 3

Special recognition :

He is a progressive farmer of Tithwa Village Wankaner Taluka of Morbi district. He is also the Sarpanch of the village. At present most of farmer of Wankaner taluka are cultivating groundnut and cotton crops. Initially, his land was sloppy. He made it levelled and start cultivating the vegetable crops by applying water through drip irrigation. By his own experience he made the mesh. So, branches of bitterguard can be settled on the mesh and can harvest good quality as well as better yield. It was also observed that by this method of cultivation bitterguard crop will be of good quality and having long length of each bitterguard and there is less damage of crop by the insects and pests. This year,He has earned net profit of rs. 4.90 lakhs in 2.5 acre of land excluding the cost of putting the mesh structure of rs. 2.90 lakhs.

Mr. Muhmmad Hussain Jalal has obtained Sardar Patel award by the Hon. Minister of Agriculture Sh. Babubhai Bokhariya of rs. 11,00 organised by Junagadh Agriculture University, Junagadh.

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

- 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 realized (Rs.)
Soil Samples	4325	4325	-	216250/-
Water Samples	4212	4212	-	210600/-
Plant Samples	-	-	-	-
Petiole Samples	-	-	-	-
Total	**8537**	**8537**		**426850/-**

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	4,00,000
2	Popularization of MIS in SSNNL Maliya branch sub canal – BH 18005-03	Jun.-2010	SSNNL, Gandhinagar	62,840
3	National Initiative on climate Resilient Agriculture (NICRA) – BH 2704-47	March-2010	CRIDA, Hyderabad	8,00,000
4	Protection of plant varieties and farmers' rights act BH 2043-01	October-2013	ICAR-New Delhi	80,000

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(8)	Linkage with different activities viz., Training Programme, Khedut Sibir, Farmers meeting, Farmers fair, Film Show etc.	-
2	Training (17)		-
3	Farmer fair (1)		-
4	Lecture delivered (39)		-

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	-	-	-	-	-	-	-	-
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									
Green gram	11/7/14		1.0	GM-4	Seed	350			
					Fodder	270			
Oilseeds									-
Groundnut (Breeder)	12/7/14	17/10/14	1.98	GJG-31	Pod	610			
					Fodder	2180			
Groundnut (Breeder)	12/7/14	18/10/14	1.09	GJG-9	Pod	490			
					Fodder	1400			
Groundnut (Breeder)	14/7/14	18/10/14	4.54	GG-5	Pod	2220			
					Fodder	4810			
Groundnut (Breeder)	14/7/14	28/10/14	3.34	GG-20	Pod	950			
					Fodder	3850			
Groundnut (Mega seed)	11/7/14	16/10/14	1.0	GJG-31	Pod	210			
					Fodder	1240			
Cotton *G.cot.Hy*	12/7/14	-	1.05	*BG-II*	Seed cot	1180			

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.	2	53	-	53	-	-	-

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 funds under FLD on Oilseed *(Rs. In Lakhs) : Nil*

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2014
	Kharif 2013-14	Rabi 2013–14	Kharif 2013-14	Rabi 2013-14	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.3 Utilization of funds under FLD on Pulses *(Rs. In Lakhs) : Nil*

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2014
	Kharif 2013-14	Rabi 2013–14	Kharif 2013-14	Rabi 2013-14	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					

7.4 Utilization of funds under FLD on Cotton *(Rs. In Lakhs) : Nil*

Item	Released by ICAR	Expenditure	Unspent balance as on 1st April 2014
	Kharif 2013-14	Kharif 2013-14	
Inputs			
Extension activities			
TA/DA/POL etc.			
TOTAL			

7.5. Utilization of KVK funds during the year 2013 – 14 (Rs in Lakh)

S.N.	Particulars	Sanctioned	Released	Expenditure
1	2	3	4	5
A. Recurring Contingencies				
1	**Pay & Allowances**	75.00	75.00	73.02
2	**Traveling allowances**	3.00	01.25	01.15
3				**Contingencies**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	4.20	4.20	3.81
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	7.80	7.80	6.82
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)			
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			
TOTAL Contingencies		**12.00**	**12.00**	**10.63**
TOTAL (A)		**90.00**	**88.25**	**84.80**

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)		**90.00**	**88.25**	**84.80**

Utilization of KVK funds during the year 2014 – 15 (Up to 1st April) (Rs in Lakh)

S.N.	Particulars	Sanctioned	Released	Expenditure
1	**2**	**3**	**4**	**5**
A. Recurring Contingencies				
1	**Pay & Allowances**	74.00	74.00	71.69
2	**Traveling allowances**	0.50	0.50	0.83
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1.80	1.80	3.00
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	2.70	2.70	3.60
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing			
G	Training of extension functionaries			
H	Maintenance of buildings			
TOTAL Contingencies		**4.50**	**4.50**	**6.60**
TOTAL (A)		**79.00**	**79.00**	**79.13**
B. Non-Recurring Contingencies				
1	Works	-	-	-
2	Equipments including SWTL & Furniture	**-**	**-**	**-**
3	Vehicle	-	-	-
4	Library	-	-	-
TOTAL (B)		**-**	**-**	**-**
C. REVOLVING FUND		**-**	**-**	**-**
GRAND TOTAL (A+B+C)		**79.00**	**79.00**	**79.13**

7.3 Status of revolving fund (Rs.) for the four 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 2011 to March 2012	9,49,811	10,92,908	10,12,035	8,68,938
April 2012 to March 2013	8,68,938	5,02,453	7,83,835	10,28, 865
April 2013 to March 2014	10,28,865	6,63,480	6,89,107	10,03,238
April 2014 to March 2015	10,03,238	16,31,899	8,46,838	17,88,299

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 and hence mini-bus should be required.

(b) Financial

1. Budget allotment is not sufficient against expenditure estimated for pay and 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, cement road etc.

(c) Technical

1. Supporting staff for farm manager and soil and water testing lab is necessary and hence one Farm assistant and lab assistant should be required.

Annexure I

Minutes of the 12th Scientific Advisory Committee (SAC) Meeting

held on 26th February, 2015 at

Krishi Vigyan Kendra, JAU,Targhadia, (Rajkot)

The 12th Scientific Advisory Committee meeting was held in the KVK training hall of Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia on 26th February, 2015.The meeting was chaired by Dr. A.R. Pathak, Honorable Vice Chancellor, 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.R. Pathak, Honorable Vice Chancellor, JAU, Junagadh.	Chairmen	18	Shri. M.B. Nasit, PD, ATMA , Rajkot	Member
2	Dr. A.Y. Desai, Directorate of Research, JAU, Junagadh	Member	19	Dr. H.K. Kandoriya, PC, KVK, Jamnagar	Member
3	Dr. A.M. Parakhia, Directorate of Extension, JAU, Junagadh	Member	20	Shri, Rasik Gajera, Area Manager, Netafim Irrigation, Rajkot	Member
4	Dr. V. R. Kathiriya, Chairmen, Guj. Gauseva Aayog, Govt. of Gujarat, Gandhinagar	Invitee Member	21	Dr. B. B. Kunjadiya, PC, KVK, Amreli	Member
5	Dr. K.N. Akbari, RS (DFRS), Targhadia	Member	22	Dr. K. N. Jadav, PC, KVK, Pipalia, Dist. Rajkot	Member
6	Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia	Member	23	Shri A.L. Patel, Regional Office, BOB, Rajkot	Member
7	Shri. R.H. Ladani, Depty. Director of Horti., Dist. Panchayat , Rajkot.	Member	24	Smt. Purvi Ramani, Farm women, Magharvada, Tal. Rajkot	Member
8	Shri. B.H. Agatha, DAO, District Panchayat, Rajkot	Member	25	Smt.Chetnaben Chaturbhai Kaloala ,Farm women, Gadhka, Tal. Rajkot	Member
9	Dr. S. B. Sharma, Dy. Director, NHRDF, Rajkot	Member	26	Shri Jentibhai Lavjibhai Lunagariya, Farmer, Village: Sarapdad, Tal: Padadhri, Dist.: Rajkot	Member
10	Dr. S. K. Tiwari, STO, NHRDF, Rajkot	Invitee Member	27	Chaturbhai Laljibhai Kalola Farmer,, Gadhka, Tal. Rajkot, Dist.: Rajkot	Member
11	Shri. Devesh Parmar, DDM, NABARD, Rajkot	Member	28	Shri. Atulbhai B. Sorathiya, Progressive Farmer, Bhojapara, Tal. Gondal, Dist.: Rajkot	Invitee Member
12	Dr. H. D. Kansagra, Deputy director of Animal Husbandry, Dis. Panchayat, Rajkot	Member	29	Shri. Dinesh Bhanabhai Moliya Progressive Farmer, Kheradi, Tal& Dist.: Rajkot	Invitee Member
13	Shri A. M. Jambukiya, DIC, Rajkot	Member	30.	Shri. Pareshbhai Bhalala Progressive Farmer (A.H.), Khijadia, Tal. Rajkot	Invitee Member
14	Shri V. K. Dholariya , All India Radio, Rajkot	Member	31.	Shri Shailendra Aoza, SD, DDK, Rajkot	Member

15	Dr. P.B. Kundariya, AGM, Gopal Dairy, Rajkot	Member	32.	Shri Karansigh Solanki, Retired SD, DDK, Rajkot	Invitee Member
16	Shri Nareshbahi M, MDT(Agri), DWDO, Rajkot	Invitee Member	33.	Dr. B. B. Kabaria, PC, KVK, Targhadia	Member Secretary
17	Smt. Vegda Shital B., MDT, CME, DWDO, Rajkot	Member			

In the beginning, Dr. B. B. Kabaria, PC, KVK, Targhadia warmly welcomed Chairman of the Committee Col(Dr) A.R. Pathak, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh, Dr. A. Y. Desai, Directorate of Research, JAU, Junagadh, Dr. A.M. Parakhia, Directorate of Extension Education, JAU, Junagadh, Dr. V.R. Kathiriya, Chairman, Guj. Gauseva Aayog, Govt. of Gujarat, Gandhinagar and all the SAC members, Progressive farmers and farm women of the cluster villages and scientists of this centre. Chairman of the meeting and all the members of SAC meeting were also welcomed with flowers.

Col (Dr) A.R. Pathak, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh inaugurated the meeting by lighting the lamp.

The introductory speech about the KVK activities and action plan of KVK was given by Dr. A. Y. Desai, Directorate of Research, JAU, Junagadh to the house.

Dr. A.M. Parakhia, DEE, JAU, Junagadh emphasized regarding awareness of fertilizer management, Quality production, Organic farming and use of bio pesticides in Agriculture. He also asked about the status of prevalence of Brucellosis in animal in the diatrcit.

Dr. B. B. Kabaria, PC, KVK, Targhadia presented the action taken report for 11th SAC meeting which was held on the 31st December, 2013. He also presented the general activities carried out by the center during the year.

Dr. J.B. Kathiriya, SMS (Animal Science) presented the activities carried out in discipline of Animal Science, Horticulture and Home Science where as Shri D.A. Saradava, SMS (Plant protection) presented the activities carried out in discipline of Plant protection and Crop production. Both the SMS presented annual progress report of April-2014 to February-2015 and Action plan for the Year 2015-16 including training achievements, different extension activities, results of the FLDs and OFTs etc. conducted by this center during the year.

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

- Every Agronomy FLDs / OFTs should be conducted with soil testing report.
- One OFT regarding Fertilizers management in wheat crop according to soil testing report should be added.
- Training regarding Identification and importance of natural enemies in crops, Skill development for preparation of botanical pesticides, Maintenance of Drip irrigation, and Quality control of Seeds, Pesticides, Fertilizers etc. should be added in action plan.
- One sponsored Training programme for A.I. Workers should be added in action plan.

- FLDs on inter cropping of pigeon pea with groundnut and FLD on different recommended varieties of vegetables should be conducted.

Col (Dr) A.R. Pathak, Honorable Vice Chancellor, Junagadh Agricultural University, Junagadh appreciated the work done by the center. He gives emphasis on the use of plastic mulch in drip irrigation and use of fertilizers on the basis of soil testing analysis report in dry farming condition. He discussed about supplementation of area specific minerals to animals.

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

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

District Profile - I

General census : 31.70 lac

Agricultural and allied census: 16.48 lac

Agro-climatic zones: North Saurashtra Agro climatic Zone-VI

Agro-ecosystems:

Sr. No	Agro ecological situation	Characteristics	Taluka Covered*
1.	Medium Black Soil with 500-600 mm Rainfall (Situation No. 2)	Shallow black to medium black moderately deep up to 30-80 cm.	Gondal, Jamkandorna
2.	Shallow black soil with 500-600 mm Rainfall (Situation No. 4)		Lodhika, Padadhari, Rajkot, Kotada sangani
3.	Residual Sandy Soils with 500-600 mm Rainfall (Situation No. 7)	Sandy and Saline	Morbi, Vankaner, Tankara, Maliya
4.	Hilly Soils with 500-600 mm Rainfall (Situation No. 14)	Hilly	Jasdan

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

Major and micro-farming systems

- Cotton-Cumin, Groundnut-Vegetable, Groundnut-Flower, Forage-Flower

Major production systems : Cotton and Groundnut base

- **The major crop sequences/rotations followed**

1. Groundnut : Groundnut – Groundnut, Groundnut –Wheat/Cumin/chick pea /vegetable/fodder crops. Groundnut – Cotton, Groundnut – sesamum,
2. Cotton : Cotton–Cotton/wheat/summer groundnut/summer sesamum/mung

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

Major agriculture and allied enterprises:

- Agriculture-Animal Husbandury
- Agriculture-Fisheries
- Agriculture + Arid Horticulture

Agro-ecosystem Analysis of the focus/target area - II

1. Names of villages, focus area, target area etc.

Sr. No.	Taluka	Name of the village	Focus area	Target area
1.	Jasdan	Jasapar	Heavy infestation of sucking pest and reddening of cotton , Stem rot disease in groundnut, Infertility problems in cattle, Mineral deficiency in animal fodder and Long inter-calving period in Buffalo	- IPM and INM in major crops of this area - Use of Trichoderma for management of Stem rot disease in groundnut - Reducing the inter- calving period in Buffalo - To create the awareness for grading, processing and marketing (value addition)
		Jivapar		
		Jungvad		
		Panchvada		
		Gundala		
2.	Morbi	Chachapar		
		Rajpar		
		Khanpar		
		Nani-Vavdi	Saline underground water, Black sticky soil & poor drainage of soil, Long inter-calving period in Buffalo, Nutritional deficiency in animal feed and fodder, Heavy infestation of sucking pest in cotton, Less area under Horticultural crops	* Increase drainage of soil * Use of gypsum in soil * Green manuring with dencha, sunhemp * Efficient use of irrigation water in salt affected soil * 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)
		Bagathala		
3.	Maliya	Vejalpar		
		Sarvad		
		Manaba		
		Kumbhariya		
		Khirai		

2. Survey methods used (survey by questionnaire, PRA, RRA, etc.) : PRA
3. Various techniques used and brief documentation of process involved in applying the techniques used like release transect, resource map, etc. : Resource map
4. Analysis and conclusions: Majority of farmers dose not aware with INM, IPM, efficient use of water, scientific management of animals and processing of agricultural products.

5& 6. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem:

Sr. No.	location specific problems	brief description of frequency	extent/ intensity/ severity of each problem	Matrix ranking of problems
1.	Heavy infestation of sucking pest in Cotton	Trips: at the time of dry spell	Heavy infestation	Regularly
		Jassid: month of September	Heavy infestation	Regularly
		White fly: Oct.-Nov.	Moderate infestation	Occasionally
2.	Reddening of cotton	In the month of September and water stagnation condition	Moderate infestation	Regularly
3.	Stem rot disease in groundnut	After one month of showing of groundnut	Moderate infestation	Sporadically
		Severity increased during dry spell.	Heavy infestation	Frequently
4.	Infertility problems in cattle	Due to silent heat in cattle	Moderate infestation	Regularly
5.	Long inter-calving period in Buffalo	Mostly in Jafrabadi buffaloes	Moderate infestation	Regularly

7. 8. & 9. List of location specific thrust areas

Sr. No.	Taluka	Name of the village	Thrust area	List of location specific technology needs for OFT and FLD	Matrix ranking of technologies
1.	Jasdan Morbi	Jasapar Jivapar Jungvad Panchvada Gundala Chachapar Rajpar Khanpar	INM in major crops of this area	INM in Bt. Cotton for overcome the reddening pro	Regularly
			IPM in major crops of this area	Inter cropping of Maize to attract bio agent for conservation	Regularly
			IDM in Groundnut	Use of Trichoderma for management of Stem rot disease in groundnut	Occasionally
			Reducing the inter-calving period in Buffal	OVYSYNC Protocol given by NDRI-Karnal	Regularly
			To create the awareness for grading, processing and marketing (value addition)	Demonstration of implements at village level	Regularly
2.	Morbi	Nani-Vavdi Bagathala	Water lodging condition of soil	To add the organic matter in soil	Regularly
3.	Maliya	Vejalpar Sarvad Manaba Kumbhariya Khirai	Black-sticky saline soil	Use of gypsum in soil	Occasionally
			Less are under horticulture crops	Motivate the farmers for arid Horticultural crops.	Regularly

10.List of location specific training need

1	Quality improvement of roughages by Urea treatment
2	Rain water harvesting and their efficient use for crop production
3	Importance of drip irrigation in horticultural crops.
4	Selection, maintenance and use of improved farm implements and machinery
5	Importance of fertilizer management in cotton and groundnut crops
6	Management of reproductive and metabolic disorders in animals
7	Emerging insect pests & disease of Bt.cotton & their management
8	Cultivation of vegetable & flower in green house.
9	Insitu moisture conservation practices in dry land agriculture
10	Value addition in agricultural crops
11	Management of salt affected soil
12.	Home level processing of agricultural produces
13.	Stem rot management in Groundnut
14.	To increase the organic matter in soil by use of mobile chopper and rotavetor
15.	Role of micronutrient for soil sustainability

Technology Inventory and Activity Chart - III

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

Sl. No	Technology	Crop/enterprise	Year of release or recommendation of technology	Source of technology	Reference/citation
1.	Cv. GG-3	Chick pea	2007	Pulse research station JAU, Junagadh	-
2.	To increase the organic matter in soil by use of cotton stock shredder	Cotton, Castor, sesame and pigeon pea	2012	DFRS-Targhadia (JAU, Junagadh)	-

3. Activity Chart

Crop/Animal/ Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Cotton	1)Reddening of Cotton 2) Sucking pest in cotton	1) Imbalance fertilizer application and Pest and disease occurrence 2) improper use of nitrogenous fertilizers, insecticide and mono cropping of cotton	1) Application of recommend dose of Nutrients 2) Integrated Pest management for sucking pest 3) Irrigation managament	1. Single component FLD to demonstrate effect of recommended dose of nutrients 2. Training and FLD programme on integrated pest management of cotton pest 3. OFT on management of cotton reddening	Recommendations of JAU, Junagadh
Groundnut	Stem rot	1) Mono cropping of Groundnut 2) Frequent inter culturing	1) Crop rotation 2) Need base inter culturing 3) Use of Trichoderma	1) Training 2) Training and FLD 3) FLD and OFT	Recommendations of JAU, Junagadh
Animal Husbandry	Long inter calving period	1) Improper feeding 2) Imbalance of nutrition	1) Proper feeding 2) Balanced use of nutrition	1) Training 2) Training and FLD 3) FLD and OFT	Recommendations of JAU, Junagadh
Water management	Water scarcity for agriculture	Improper and haphazard use of water	Use of MIS	1) Training 2) Training and FLD	Recommendations of JAU, Junagadh

4. Details of each of the technology under Assessment, Refinement and demonstration

Sr. o.	Crop	Variety	Characters
1	Groundnut	GG-20	Management of major disease of groundnut
2	Sesamum	GT-4	To test yield potentiality of newly released sesamum varieties
3	Cotton	Bt. Cotton	To reduce the reddening in cotton
4	Green gram	GM-4	To test yield potentiality of Green gram
5	Gram	GJG-3	To test yield potentiality of Gram
6	Wheat	GW-496	Quality production of Wheat through management of disease
7	Cumin	GC-4	To test yield potentiality of Cumin

Sr. No.	OFT/FLD	Crop	Recommended technology	Year & Centre
1	*2*	*3*	*4*	*5*
OFT				
1.	Low yield of cotton	Cotton	Recommended dose of fertilizer 240 – 50 – 150 + 50 ZnSO4 and three spray of KNO3 (i) 240 Kg N in four equal split first as a basal second, third and fourth at 30, 60 and 90 days after sowing. (ii) 50 Kg P2O5 as basal dose. (iii) 150 Kg K2O as basal or in two equal split.(iv) Three spraying of KNO3 at 15 days interval starting from flowering.	2012, DFRS, JAU, Targhadia
2.	Management of sucking pests in cotton.	Cotton	IPM : alternate spraying of chemical and bio pesticide and intercropping of maize / cow pea with cotton 1:10 Row	2009, Dept. of Agril. Entomology JAU, Junagadh
3.	Soil moisture conservation through deep plowing up to 20 cm depth	Groundnut	Deep ploughing with 2-3 inter culturing	2008, DFRS, JAU,Targhadia
4.	Assessment of Fertility improvement in Buffalo	Buffalo	Treated by “OVSYNCH” protocol as per NDRI Karnal	NDRI Karnal
5.	Comparison of solar cooker with traditional cooking system	solar cooker	preparation by solar cooker	-
6.	Integrated Nutrient Management in Onion Crop	Onion	Use of NPK as a 125 kg N/ha, 50kg P/ha, and 50kg K/ha with 20 kg S/ha	Vegetable Research Station, JAU, Junagadh
7.	Use of Trichoderma for wilt disease management in cumin	Cumin	Application of Trichoderma @ 2.5 kg /ha with castor cake @ 500 kg / ha at the time of sowing with the help of multipurpose seed drill.	-
8.	Effect of different type of mulching materials for water management in Cotton	Cotton	Black plastic mulch (50 micron) under drip irrigation system	SAU,Gujarat
9.	Effect of salt & oil on spoilage of mango pickles	Mango pickles	Salt 15% (150 gm) + Oil 250ml/ kg mango	-
10.	To assess the effect of probiotic and prebiotic on milk production	Livestock	Use of Probiotic & prebiotic in animal feed (Sacchromyses cerevisiae + Lactobacillus sporogenes+ Aspergillus oryzae+ Fructo oligosaccharide+ Biotin+ DL Methionine + Zinc Sulphate + Cobalt Sulphate Copper Sulphate) two bolus per day for 6o days	SAU,Gujarat
FLD:				
11.	Management of major disease of groundnut	Groundnut (GG-20)	High yielding variety	Dept. of Agril. Pathology JAU, Junagadh
12.	To test yield potentiality of newly released sesamum varieties	Sesamum (GT-4)	High yielding variety, Good grain quality	ARS, JAU, Amreli
13.	To test yield potentiality of newly released Chickpea variety	Chickpea (GJG-3)	High yielding and suitable for irrigation and un-irrigated condition, moderate wilt resistance	Pulse Research station, JAU, Junagadh
14.	Quality production of wheat through spraying of fungicide at milking stage.	Wheat GW-366)	High yielding variety, Good grain quality	Pulse Research station, JAU, Junagadh
15.	Management of wilt through bio agent	Cumin (GC-4)	High yielding and wilt resistance	SAU, Gujarat

Annexure III

Details of Training programme

Date	Clientele	Title of the training programme	Discipline	Duration in days	Venue (Off/On Campus	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*
26/6/134	FW	Preparation of bakery products with the help of Solar Cooker	H.S.	1	On		30	30			0	0	30	30
10/07/14	PF	Quality improvement of roughages by Urea treatment	A.S.	1	On	17		17			0	17	0	17
11/07/14	PF	Seed treatment for insect pests and diseases management.	P.P.	1	On	15		15	1		1	16	0	16
24/07/14	PF	Production technologies for major summer crops	C.P.	1	On	28		28	1		1	29	0	29
25/07/14	PF	Management of reproductive and metabolic disorders in animals	A.S.	1	On	41		41	3		3	44	0	44
28/07/14	PF	Rain water harvesting and their efficient use in crop production	Agri.	1	On	20		20			0	20	0	20
01/08/14	PF	Integrated insect pests and diseases management in *kharif* crops	P.P.	1	On	15		15			0	15	0	15
27/08/14	FW	Use of sprouted pulses in preparation of low cost nutrition diet.	H.S.	1	On		21	21			0	0	21	21
27/08/14	PF	Different propagation methods for fruit crops suitable for arid and semi arid region.	Horti.	1	On	19		19			0	19	0	19
28/08/14	PF	Improved cultivation practices for important fruit crops	Horti.	1	On	16		16			0	16	0	16
30/08/14	PF	Operation and maintenance of micro irrigation system	A.E.	1	On	18		18	2		2	20	0	20
05/09/14	PF	Fodder management in animal round the year.	A.S.	1	On	15		15			0	15	0	15

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
17/09/14	PF	Importance of green leafly vegetables in diet and preparing recipes from vegetables	H.S.	1	On	14		14			0	14	0	14
21/11/14	PF	Integrated insect pests & disease manag. in *Rabi* crops.	P.P.	1	On	72		72			0	72	0	72
10/12/14	PF	Control of ecto and endo parasites in cattles	A.S.	1	On	15		15			0	15	0	15
18/12/14	FW	Veterinary first aid & control of infectious diseases	A.S.	1	On		26	26			0	0	26	26
19/12/14	FW	Value addition in anola.	H.S.	1	On		18	18			0	0	18	18
19/12/14	PF	Production technologies for major *Rabi* crops.	C.P.	1	On	20		20			0	20	0	20
22/12/14	PF	Importance of bio fertilizers in Agriculture	C.P.	1	On	21		21			0	21	0	21
24/12/14	PF	Insitu moisture conservation practices in dry land agriculture	A.E.	1	On	22		22	1		1	23	0	23
27/01/15	PF	Control measures of insect pest in protected cultivation	P.P.	1	On	23		23			0	23	0	23
28/01/15	PF	Selection, repair and maintenanceof plant protection equipments	A.E.	1	On	22		22	2		2	24	0	24
30/01/15	PF	Care for clean milk production	A.S.	1	On	23		23			0	23	0	23
11/02/15	PF	Scientific Dairy management	A.S.	1	On	24		24			0	24	0	24
16/02/15	PF	Production technologies of *Sumer* crops.	C.P.	1	On	27		27			0	27	0	27
2-3/9/14	PF	Importance of soil analysis and method of soil sampling	C.P.	2	On	45		45			0	45	0	45
17-19/4/14	RY	Importance of Primary animal treatment and Artificial Insemination	A.S.	3	On	10		10			0	10	0	10
12/05/14	EF	Integrated sucking insect pests management in Bt. Cotton	P.P.	1	On	18	2	20	3	1	4	21	3	24
23-24/6/14	EF	Importance of bio fertilizers in Agriculture	C.P.	2	On	16		16			0	16	0	16
30/07/14	EF	Integrated sucking insect pests management in Bt. Cotton	P.P.	2	On	12		12			0	12	0	12

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
12-13/8/14	EF	Watershed management in Kharif crops	A.E.	1	On	33	3	36	4		4	37	3	40
8-9/5/14	EF	Importance of primary tillage.	C.P.	2	On	52	2	54	7	1	8	59	3	62
14/05/14	PF	Production technologies for major summer crops	C.P.	2	On	9	2	11	2		2	11	2	13
19-20/5/14	EF	Integrated insect pests and diseases management in *kharif* crops	P.P.	2	On	42		42	4		4	46	0	46
19-20/8/14	EF	Integrated farming	C.P	1	On	42		42	4		4	46	0	46
25-26/8/14	EF	Cultivation of vegetable & flower in green house.	Horti.	1	On	43	4	47	4	1	5	47	5	52
21-22/8/14	EF	Fertilizer management in *Kharif* crops.	C.P.	1	On	21	16	37	4	3	7	25	19	44
07/11/14	PF	Different formulation of pesticides and their applications	P.P.	1	On	91		91			0	91	0	91
02/12/14	PF	Ecofriendly management of insect pests & disease in vegetable crops.	P.P.	1	On	30		30			0	30	0	30
03/02/15	PF	Irrigation management in *Rabi* crops.	C.P.	1	On	62		62	8		8	70	0	70
27/06/14	PF	Improved cultivation practices for important fruit crops	Horti	1	On	28		28			0	28	0	28
28/07/14	PF	Fodder management in animal round the year.	A.S.	1	On	30		30			0	30	0	30
08/08/14	PF	Operation and maintenance of micro irrigation system	A.E.	1	On		12	12		3	3	0	15	15
08/08/14	PF	Integrated insect pests and diseases management in *kharif* crops	P.P.	1	On		16	16			0	0	16	16
11/08/14	PF	Importance of mineral mixture in feeding for cattle and buffaloes	A.S	1	On	45		45	4		4	49	0	49
26/08/14	PF	Irrigation management in *Rabi* crops.	C.P.	1	On	50		50	5		5	55	0	55
27/08/14	RY	Cottage level food processing entrepreneurship for farmers	A.E.	1	On	17		17	1		1	18	0	18

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
27/08/14	PF	Fruit & vegetable production technology	Horti	1	On	25		25			0	25	0	25
27/08/14	PF	Deworming and vaccination in live stock	A.S.	1	On	17		17			0	17	0	17
1-3/9/14	RY	Post harvest technology of different field crops	A.E.	3	On	26		26	5		5	31	0	31
08/09/14	PF	Different formulation of pesticides and their applications	P.P	1	On	22		22	2		2	24	0	24
10/09/14	PF	Importance of bio fertilizers in Agriculture	C.P.	1	On	21		21	2		2	23	0	23
09/12/14	RY	Value addition in Agri. product	C.P	1	On	17		17			0	17	0	17
15/12/14	RY	Value addition in Horti. crops	Horti	1	On	15		15			0	15	0	15
18/12/14	PF	Integrated insect pests & disease management in *Rabi* crops.	P.P	1	On	14		14			0	14	0	14
23/12/15	PF	Control of ecto and endo parasites in cattles	A.S	1	On	23		23			0	23	0	23
31/01/15	PF	Value addition in anola.	H.S.	1	On		49	49			0	0	49	49
03/02/15	PF	Care for clean milk production.	A.S.	1	On	21		21			0	21	0	21
09/02/15	PF	Control of ecto and endo parasites in cattles	A.S.	1	On	29		29	4		4	33	0	33
14/05/14	PF	Importance of primary tillage.	C.P.	1	Off	20		20			0	20	0	20
16/06/14	PF	Safe food and seed storage	P.P.	1	Off	25		25			0	25	0	25
16/06/14	PF	Rain water harvesting and their efficient use in crop production	A.E.	1	Off	47		47			0	47	0	47
20/06/14	PF	Selection, maintenance and use of improved farm implements and machinery	A.E.	1	Off	28		28			0	28	0	28
20/06/14	PF	Seed treatment for insect pests and diseases management.	P.P.	1	Off	47		47			0	47	0	47
25/06/14	FW	Proper methods for cooking	H.S.	1	Off		14	14			0	0	14	14
25/06/14	PF	Vaccination schedule against contagious diseases in animals and poultry.	A.S	1	Off	15		15			0	15	0	15
25/06/14	PF	Importance of soil health card in crop production	C.P	1	Off	36		36			0	36	0	36

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
25/06/14	PF	Importance of drip irrigation in horticultural crops.	Horti	1	Off	32		32			0	32	0	32
09/07/14	PF	Importance of mineral mixture in feeding for cattle and buffaloes	A.S.	1	Off	14		14			0	14	0	14
10/07/14	PF	Fertilizer management in *Kharif* crops.	C.P	1	Off	24		24			0	24	0	24
10/07/14	PF	Selection and use of interculturing operational tools	A.E.	1	Off	62	2	64			0	62	2	64
18/07/14	PF	Preparation of milk products	H.S.	1	Off	17		17			0	17	0	17
18/07/14	PF	Emerging insect pests & disease of Bt.cotton & their management.	P.P.	1	Off	17		17			0	17	0	17
18/07/14	PF	Deworming and vaccination in live stock	A.S.	1	Off	25		25			0	25	0	25
13/10/14	PF	Importance of organic farming	C.P.	1	Off	30		30			0	30	0	30
08/11/14	PF	Irrigation management in cotton crop.	C.P.	1	Off	18		18			0	18	0	18
14/11/14	PF	Enrichment of low grade dry fodder for cattle	A.S.	1	Off	33		33			0	33	0	33
24/11/14	PF	Minimizing the mortality of buffalo calves during winter season	A.S.	1	Off	16		16			0	16	0	16
24/11/14	RY	Home level processing of tomato	H.S.	1	Off		17	17			0	0	17	17
25/11/14	PF	Management of salt affected soil	A.E.	1	Off	24		24			0	24	0	24
25/11/14	PF	Ecofriendly management of insect pests & disease in vegetable crops.	P.P.	1	Off	23		23			0	23	0	23
03/12/14	PF	Control of common diseases in livestock & vaccination	A.S.	1	Off	48		48			0	48	0	48
09/01/15	PF	Irrigation management in *Rabi* crops.	C.P.	1	Off	18		18			0	18	0	18
09/01/15	FW	Optimizing reproductive efficiency & to reduce age of 1st calving (AFC)	A.S.	1	Off	4	12	16		2	2	4	14	18

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*	*14*	*15*
12/01/15	PF	Importance of secondary agriculture	A.E.	1	Off	36		36			0	36	0	36
26/02/15	PF	Pest and disease management in protected cultivation	P.P.	1	Off	15		15			0	15	0	15
03/03/15	PF	Management of insect pest & disease in summer crops.	P.P.	1	Off	21		21			0	21	0	21
25/03/15	PF	Integrated management of non insect pests in field condition	P.P.	1	Off	12		12			0	12	0	12
25/03/15	FW	Preparation and preservation of fruits & vegetables	H.S.	1	Off		17	17			0	0	17	17
26/03/15	RY	Preparation of milk products	H.S.	1	Off		19	19			0	0	19	19
26/03/15	FW	Grading, sorting and pawing of fruits & vegetables.	Horti.	1	Off		11	11			0	0	11	11
09/03/15	FW	Nutritional management in Mother and Child	H.S.	1	Off	5	17	22		2	2	5	19	24
		92				**2125**	**310**	**2435**	**73**	**13**	**86**	**2198**	**323**	**2521**