ANNUAL PROGRESS REPORT OF KVK NANA-KANDHASAR (APRIL-12 TO MARCH-13)

1. GENERAL INFORMATION ABOUT THE KVK:

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

Address	Telephone	
	Office	Fax
Krishi Vigyan Kendra, Junagadh Agricultural University Nana-Kandhasar-363 520 Dist: Surendranagar	02751- 294120	02751-280121
	E-mail	
	surendranagar.kvk@gmail.com	

1.2 .Name and address of host organization with phone, fax and e-mail

Address	Telephone		E-mail
	Office	Fax	
Junagadh Agricultural University Junagadh- 362 001	0285-2672080-90	0285-2672653	dee@jau.in

1.3. Name of the Programme Coordinator with phone & mobile No

Name	Telephone / Contact		
	Resi.	Mobile	E-mail
Dr. J.N. Nariya Programme Coordinator Krishi Vigyan Kendra, Junagadh Agril. University Nanakandhasar-363 520 Dist: Surendranagar	--	9913574917	surendranagar.kvk@gmail.com

1.4. Year of sanction: October, 2005

1.5. Staff Position (as on 1st April, 2013)

Sr. No	Sanctioned post	Name of the incumbent	Designa-tion	Discipline	Pay scale (Rs.) 6th Pay	Present Basic+ grade pay (Rs.)	Date of joining
1	Programme Coordinator 1	Dr. J N Nariya	Programme Coordinator	Soil science	37400-67000	43250+ 10000	01-8-2011
2	SMS 6	Mr. M.F. Bhoraniya	SMS	Plant Protection	15600-39100	19810+ 6000	
3		Dr. B. C. Bochalya	SMS	Ext Edu.	15600-39100	19810+ 6000	23-8-2006
4		Dr. M. M. Tajapara	SMS	Animal Science	15600-39100	19810+ 6000	22-8-2006
5		Mr. H. M. Bhuva	SMS	Agronomy	15600-39100	19810+ 6000	30-8-2006
6		Dr. R M Javia	SMS	Plant Breeding	15600-39100	19810+ 6000	22-8-2006
7		**VACANT**	SMS	Home Sci			**VACANT**
8	Training Assistant 2	G. K. Sapra	Tr. Asstt	PBG	10000 fix	10000 fix	07-01-2009
9		M V Pokar	Tr. Asstt	Ext Edu	10000 fix	10000 fix	23-02-2012
10	Computer Programmer 1	P T Patel **	Computer Programmer	B.E. (Comp.)	10000 fix	10000 fix	07-02-2008
11	Accountant / Superintendent 1	R P Vagadiya	O. S. cum Accountant	--	10000 fix	10000 fix	01-12-2011
12	Stenographer 1	**VACAN**	--	--	--	--	**VACANT**
13	Driver 2	Mr. P. D. Dave	Tractor Driver	--	5200-20200	11840+ 2400	06-9-2007
14		Mr. H. R. Gohil	Jeep Driver	--	5200-20200	9530+ 2400	01-8-2006
15	Supporting staff 2	Mr. M. H. Solanki	Peon	--	4440-7440	8020+ 1650	08-3-2006
16		**VACANT**	--	--			**VACANT**

* Working at Account office, JAU, Junagadh

1.6. Total land with KVK (in ha):

Sr. No.	Item	Area (ha)
1	Under Buildings	04.00
2.	Under Demonstration Units	16.00
3.	Under Crops	
4.	Orchard/Agro-forestry	
5.	Others	20.00

1.7. Infrastructural Development:

A) Buildings

	Name of building	Source of funding	Stage		
			Complete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.) Total
1	Administrative Building	ICAR	23/7/09	595	30,20,600
2	Farmers Hostel			296	20,74,700
3	Staff Quarters - 6			--	30,55,000
4	Demonstration Shed - 2			78	6,16,000
5	Rat Proof godown			158	8,30,750
6	Implement Shed			77	3,00,000
6	Training Hall	RKVY	1/4/10	191	13,94,500
7	Pilot Scale Processing Plant			198	15,72,000
8	Godown & Processing Shed			71	5,00,000
9	Implement Shed			77	3,00,000

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep Bolero (Purchased by KVK)	2006-07	4,86,500	25873	Transferred to DEE office, JAU, Junagadh
Jeep M&M Pizot*	1991	2,03,967*	65097	Not in Working condition

* Transfer from Department of Soil & Agril. Chemistry, J.A.U., Junagadh

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Computer	2006-07	49968	Working Cond.
Copier Machine	2006-07	49816	Working Cond.
Automatic Seed Drill	2006-07	31500	Working Cond.
Tractor mounted Sprayer (200ltr)	2007-08	43000	Working Cond.
Shredder	2007-08	43000	Working Cond.
Dibbler	2007-08	900	Working Cond.
Cotton stock puller	2007-08	1200	Working Cond.
Digital copier with network	2008-09	115300	Working Cond.
Rain gun	2007-08	19800	Working Cond.
LCD projector	2008-09	89985	Working Cond.
Rotavator	2008-09	96000	Working Cond.
Laptop	2008-09	47500	Working Cond.
Harrow cum cultivator (2)	2008-09	75000	Working Cond.
Groundnut Decorticator	2008-09	96530	Working Cond.
Mobile seed processing unit	2008-09	1685000	Working Cond.
Thresher	2008-09	114000	Working Cond.
Zero till drill	2008-09	66700	Working Cond.
Air assisted blower type sprayer	2008-09	98750	Working Cond.
Digital Camera	2008-09	23600	Working Cond.
Plasma TV	2008-09	73750	Working Cond.
Power Tiller	2010-11	1,15000	Working Cond.
Mini Tractor (Mahindra)	2011-12	1,98,000	Working Cond

1.8. A). Details SAC meeting conducted in the 2012-13:

The Seventh Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Nanakandhasar was held at Conference Hall, KVK, Nana kandhasar on 9th April, 2012. Following members were present in the meeting.

SR. No.	NAME & DESIGNATION	POSITION
1.	**Dr. A.M. Parakhia** Director of Extension Education, JAU, Junagadh.	Chairman
2.	**Dr. K. N. Akbari** A.D.R. and Research Scientist (Dry Farming) Main Dry Farming Research Station, JAU, Targhadia	Member
3.	**Dr. M. N. Popat** Asso. Director of Extension Education, JAU, Junagadh.	Member
4.	**Dr. I. U. Dhruj** Asso. Director of Research, JAU, Junagadh.	Member
5.	**Shri R.R. Sondarva** District Agriculture Officer, Surendranagar	Member
6.	**Shri D. M. Bhagia** Deputy Director of Horticulture, Surendranagar	Member
7.	**Shri K. B. Solanki** Programme Executive, Doordarshan Kendra, Rajkot	Member
8.	**Shri R. T. Chauhan** Range Forest Officer, Chotila, Dist. Surendranagar	Member
9.	**Dr. J. N. Nariya** Programme Co-ordinator, KVK, JAU, Nana-Kandhasar	Member-Secretary
10.	**Shri Rajesh Aiyer,** DDM, NABARD, Surendranagar	Invitee
11.	**Shri M.H. Gadhiya** Program Specialist, AKRSP, Sayla, Dist. Surendranagar	Member
12.	**Shri B. T. Vala** Project Director, DWDU, DRDA, Surendranagar	Member
13.	**Shri Vaskurbhai Punabhai Meta** At & Post: Vadali, Ta. Chotila, Dist. Surendranagar	Member Farmer
14.	**Shri Kishorbhai Harilal Sangani** At & Post: Aanandpur, Ta. Chotila, Dist. Surendranagar	Invitee progressive farmer
15.	**Shri. Harjibhai Dhorajiya** At & Post: Sangani, Ta. Chotila, Dist. Surendranagar	
16.	**Shri P. V. Jambukiya** At & Post: Magharikheda, Ta. Chotila,	
17.	**Shri Pratapshin Zala** At & Post : Chotila, Dist. Surendranagar	

18.	**Shri Hamir Savsibhai** At & Post : Bhimgadh, Ta. Chotila, Dist. Surendranagar	
19.	**Shri Bachubhai Dharajiya** At & Post: Bhimgadh, Ta. Chotila, Dist. Surendranagar	

COMMITTEE MADE THE FOLLOWING SUGGESTIONS AFTER ACTIVE INTERACTION:

- If the varieties are already accepted & sown by farmers, then FLD should be given on other components. In Cotton, FLD should be taken on application of micro nutrients.
- Honey bee rearing and production should be taken as a demonstration unit for the purpose of farmer awareness.
- Crop cafeteria with & without weed control should be established, so that farmers can easily identify the differences.
- PRA on Animal Husbandry should be conducted and FLDs of de-worming should be taken.
- Prepare annual schedule of green & dry fodder for animals & provide to farmer during training, and also try to demonstrate fodder beat at KVK farm.
- For establishment of demonstration unit of Date palm cultivation, application should be forwarded to Director of Horticulture through Dy Director of Horticulture, Surendranagar for free or subsidiaries date palm planting materials.

Training should be organized on the following aspects.

- Protected cultivation in net house / poly house.
- Off season lemon production & post harvest technology
- Banking schemes & government subsidiary schemes
- Seeds treatment (before monsoon & rabi) for farm women
- Fodder crop production technology
- Soil conservation (2^{nd} quarter- on campus)
- Artificial Insemination (Off campus)
- Balance fertilization & INM in Cotton (2^{nd} quarter- on campus)
- Farm management
- Weed management (On Campus)
- Biological control of pest & diseases in Cotton
- Soil reclamation (Off campus)
- Pulses crop production technology
- Inland fisheries & Fresh water prawn farming
- Solar cooker: Use & advantages
- Micro Irrigation (2^{nd} quarter- on campus)

2. DETAILS OF DISTRICT:

2.1 Major farming systems/enterprises

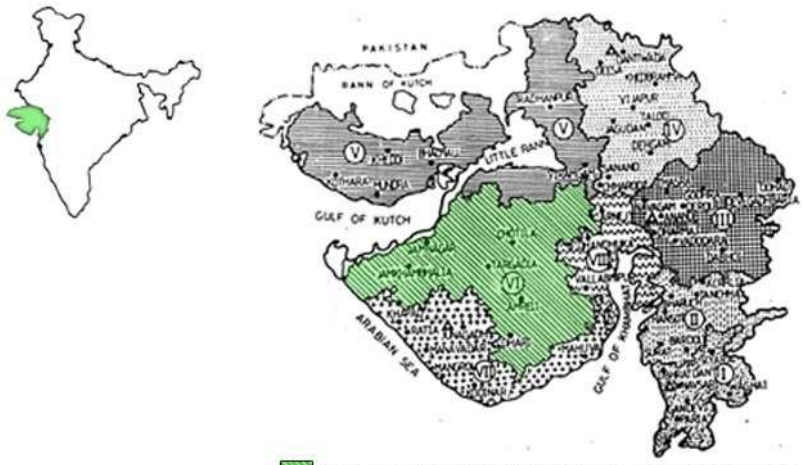
(based on the analysis made by the KVK):

Farming system/enterprise
The district Surendranagar mainly falls in north Saurashtra agro-climatic zone. The district located in India at 22.0° to 23.45° North latitude and 69.45° to 72.15° East longitude. Surendranagar district is bounded in north by Gulf of Kutch and Mehasana district, in the south by Bhavnagar and part of Ahmedabad district, on the east by part of Ahmedabad and west by Rajkot district. The average annual rainfall is 400 mm. The average temperature of the district ranges with 41°C maximum to 11°C minimum. The soil is mostly medium black, shallow to moderately deep and calcareous in nature, therefore cotton is the major crop of the district. Some patches of saline soil found in Dasada and Lakhtar talukas, calcareous sandy soil found in some part of Chotila, Sayla & Dhangdhra taluka and loamy soil is found in some part of Halvad and Dhangdhra taluka. The pH of the soil is alkaline and underground water is non saline in nature. The district covers 10.48 lakh ha geographical area out of which 6.90 lakh ha under cultivation, of which only 0.62 lakh ha is irrigated. Major area comes under rainfed farming. The main sources of irrigation are wells, tube wells, ponds and canals. The major crops of this region are cotton, sesame & pearl millet and others are sorghum, wheat, chick pea, groundnut, mustard, cumin, green gram, black gram, onion, garlic and vegetables. The fruit orchard area is very less.

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

Agro-climatic Zone	Characteristics

PROFILE OF THE
NORTH SAURASTRA AGRO - CLIMATIC ZONE VI - GUJARAT



NORTH SAURASTRA AGRO - CLIMATIC ZONE

1.	Total geographical area	: 35.02 lakh ha.
2.	Area under forest	: 1.47 lakh ha.
3.	Area under non agricultural use	: 2.10 lakh ha.
4.	Barren and uncultivated land	: 2.52 lakh ha.
5.	Permanent pasture	: 2.45 lakh ha
6.	Current fallows	: 1.70 lakh ha
7.	Net sown area	: 22.17 lakh ha
8.	Total cropped area	: 25.77 lakh ha
9.	Area sown more than one	: 3.61 lakh ha
10.	Climate	: Arid and semi arid
11.	Average rainfall	: 542.14 mm
12.	Soil type	: Black to brown & Shallow to moderately deep soil

13. Cropping pattern :

Crop		Area (lakh ha.)
Kharif cereals	:	5.58
Khrif pulses	:	0.23
Kharif oil seeds	:	12.14
Cash crops	:	4.00
Rabi cereals	:	1.57
Rabi pulses	:	0.56
Others	:	1.69

14. Major croped area (%)

a) Kharif

Groundnut	:	40
Cotton	:	15
Pearmillet	:	12
Sorghum	:	10
Sesamum	:	3
Others	:	20

b) Rabi

Wheat	:	5
Chickpea	:	2
Cumin	:	3

15. Crop sequence:

Crop

Groundnut - -
Groundnut - Wheat
Groundnut - Mustard
Groundnut - Cumin
Groundnut - Chickpea
Pearl millet - Groundnut
Pearl millet- Green gram
Pearl millet- Cumin
Pearl millet- Mustard
Pearl millet - Garlic
Cotton - -
Cotton - Groundnut
Cotton - Sorghum

Agro ecological situation
North Saurashtra agro-climatic zone-VI, Gujarat Eight agro-climatic zones have been identified in Gujarat. The North Saurashtra Agro climatic Zone-VI falls in Saurashtra region. The influence area of North Saurashtra Agro climatic Zone is spread among five districts of Saurashtra region viz., Amreli (9 talukas out of 11), Bhavnagar (6 talukas out of 13), Jamnagar (all the 10 talukas), Rajkot (11 talukas out of 14) and Surendranagar (7 talukas out of 10) covering 43 talukas in all. It is bounded in the north by the gulf of Kutch and parts of Rajkot as well as Surendranagar district, in the east by the Ahmadabad district and coastal part of Bhavnagar district, on the south by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arabian sea. The farming situation of the district Surendranagar is rainfed.

2.3 Soil type/s

Sr. No.	Soil type	Area
1	Medium black	Vadhvan & Muli
2	Saline & Alkaline soils	Dasada & Lakhatar
3	Shallow calcareous sandy soil	Dhanghdhra
4	Red Loamy soil	Halvad, Dhanghdhra
5	Low land soils	Limbadi, Lakhatar
6	Calcareous Sandy soil	Chotila, Sayla

2.4. Area, Production and Productivity of major crops cultivated in the district Surendranagar:

Sr. No.	Crop	Area (ha)	Production (t)	Productivity (Kg/ha)
1	Cotton (Irri)	327000	1326100	690
2	Cotton (Rainfed)	172100	294300	291
3	Sesame	49700	20400	410
4	Groundnut	23600	43200	1832
5	Wheat	59300	200000	3373
6	Cumin	61900	50600	818
7	Gram	21600	26300	1218
8	Green Gram	5800	2400	414
9	Mustard	1200	1900	1583

*in the year of 2010-2011

2.5. Weather data

Month	Rainfall (mm)	Rainy Days	Temperature ^{0} C		R. Humidity (%)	
			Max.	Min.	Max.	Min.
April -12	-	-	40.2	22.6	52	16
May-12	-	-	40.7	24.4	51	15
June-12	138	5	38.0	26.3	50	16
July-12	38	3	35.2	23.3	52	16
August-12	23.5	5	34.0	24.3	52	17
September-12	228	10	34.0	22.5	51	17
October-12	-	-	35.7	19.6	56	17
November-12	-	-	33.9	16.7	58	17
December-12	-	-	32.4	11.9	58	17
January-13	-	-	30.2	9.8	58	17
February-13	-	-	33.6	11.9	57	22
March-13	-	-	37.5	15.6	57	14

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

Category	Population	Production	Productivity
Cattle	293758	5461197 lit	
Crossbred	201		--
Indigenous	293557		--
Buffalo	202939		--
Sheep	100589	--	--
Goats	179648	--	--
Pigs	22948	--	--
Rabbits	--	--	--
Poultry	--	--	--

2.6 Details of Operational area / Villages (2012-13)

Sr. No.	Taluka	Name of block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	2	3	4	5	6	7
1	Chotila	Chotila	Magharikheda	Cotton, Bajra, Sesame, Pulses, Diary Farming,	Dry farming,Sucking pest in cotton Wild animals Redding in cotton Lower milk production	Dry farming technology Awareness for vaccination & artificial insemination of animals
			Sangani	Coton, Bajra, Groundnut, Sesame, Pulses Diary Farming,	Dry farming, HS disease	Dry farming technology Awareness for vaccination & artificial insemination of animals
			Resamiya	Cotton, Cumin, Groundnut, Sesame, Pulses, Vegetables Diary Farming,	Dry farming, Lower milk production, HS disease	Dry farming technology, Awareness for vaccination & artificial insemination of animals
			Rajapara	Cotton, Bajra, Cumin, Wheat, Sesame, Diary Farming,	Dry farming, Injudicious use of fertilizers & Pesticides, Black quarter disease	Adoption of organic farming, Bio-fertilizers & Vermi-compost Dry farming technologies Awareness for vaccination & artificial insemination of animals
			Moti-modli	Cotton, Groundnut, Cumin, Wheat, Sesame, Diary Farming	Lack of knowledge of modern dry land technologies, lack of Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals

1	2	3	4	5	6	7
2	Sayla	Sayla	Sapar	Cotton, Castor, Groundnut, Wheat Diary Farming,	Lack of knowledge of modern dry land technologies, FMD	Dry farming technologies, Awareness for vaccination & artificial insemination of animals
			Ratanpar	Cotton, Wheat, Cumin, Sesame, Bajra	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies
			Samatpar	Cotton, Bajra, Sesame, Wheat, Cumin, Diary Farming, Horticulture	Lack of knowledge about weed, pest and diseases & nutrient management HS disease, Trypanosomesis disease	To motivate farmers to grow arid and semi arid horticultural crops. Awareness for vaccination & artificial insemination of animals
			Titoda	Cotton, Wheat, Cumin, Sesame, Bajra, Groundnut	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies,
			Nawa-sudamada	Horticulture Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Rainfed farming, soil salinity, poor water quality FMD, Lack of knowledge of modern dry land technologies	Awareness for vaccination & artificial insemination of animals
3	Limbadi	Limbadi	Tokarala	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Soil salinity, Dry farming, poor drainage system FMD, Lack of knowledge of modern dry land technologies, INM,I PM etc	Awareness for vaccination & artificial insemination of animals
			Raska	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Soil salinity, Dry farming Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals
			Umedpar	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Soil salinity, dry farming low knowledge of scientific cultivation of crops ,HS disease, Injudicious use of fertilizers & Pesticides	Awareness for vaccination & artificial insemination of animals

			Zamdi	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Soil salinity, poor water quality for irrigation, , low knowledge about INM, IPM , in crops,	
			Borana	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Soil salinity, poor water quality for irrigation, , low knowledge about INM, IPM , in crops,	

2.7 Prioritized thrust areas

Crop/ Enterprise	Thrust area
Cotton, Sesamum, Groundnut, Bajra	Dry farming technologies.
Animal Husbandry	Awareness for vaccination & artificial insemination of animals
Crop Management	Adoption of organic farming, Bio-fertilizers & Vermi-compost.
Integrated Crop Management	Integrated weed, pest and diseases & nutrient management.
Home Science	Farm women empowerment.
Lemon, Ber	Motivate farmers to grow arid and semi arid horticultural crops.
Fisheries	Aqua culture & inland fisheries

3. TECHNICAL ACHIEVEMENTS:

3.A Details of target and achievements of mandatory activities by KVK during 12-13

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
T	A	T	A	T	A	T	A
2	2	6	6	125	125	125	125
Other OFT				Other FLD			
2	2	29	29	--	--	--	50
Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)				Extension Activities			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
T	A	T	A	T	A	T	A
97	115	2425	3589	150	352	--	16582

Seed Production kg							Planting material (Nos.)	
5							6	
T	Achievement						T	A
--	Name of crop	Variety	Type of produce	Quantity (Kg)	Seeds sale (Kg)	Income (Rs.)	10000	19000
	Ground Nut	2.08	GG-2	1343	315	19425		--
	Ground Nut	0.90	TPG-41	208	208	9765		--
	Ground Nut	4.93	GJG-31	3898	2580	177160		
	Sesamum	0.86	GT-3	209	209	25080		--
	Sesamum	0.50	GT-1	151	151	18128		
	Green gram	1.93	GM-4	860	860	49665		
	Bajara	1.50	GHB-732	158	158	11,070		
	Bajara	1.50	GHB-744	244	-	-		--
	Cumin	2.00	GC-4	1020	1020	1,93,000		

3.B. Abstract of interventions undertaken

Sr. No.	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	2	3	4	5	6	7	8	9	10
1	-	Gram	Low yield	--	Varietal evaluation	Improved cultivation practices for gram & mustard		FLD, Field Days, Training	Seed input : Guj.Gram-3
2	-	Cumin	Low yield	--	Varietal evaluation	Plant protection measures for pest & disease in cumin		FLD, Field Days, Training	Seed input : Guj.Cumin-4
						Improved cultivation practices for wheat & cumin			
						Pure seed production technique in Cumin			
						Efficient water management in major rabi field crops			
3	-	Wheat	Low yield	--	Varietal evaluation	Improved cultivation practices for wheat & cumin		FLD, Field Days, Training	Seed input : GW-496
						Pure seed production technique in Wheat			

						Control measures for pest & disease in cumin & wheat			
4	--	Groundnut	Low yield	--	Varietal evaluation	Pure seed production technique in Groundnut IPM in G'nut Pure seed production technique in Groundnut		FLD, Field Days, Training	Seed input : GG-20
5	--	Sesamum	Low yield		Varietal evaluation	Pure seed production technique in sesamum Pure seed production technique in sesamum Improved cultivation practices for cotton and sesamum Pure seed production technique in sesamum Importance of thinning, gap filling & maintenance of plant populations in major kharif crops Management of pest & disease of sesame		FLD, Field Days, Training	FLD : Seed inputs : Guj.Sesamum-2
6	--	Green Gram	Low yield	--	Varietal evaluation	Proper use of weedicides in field crops	FLD, Field Days,	FLD, Field Days,	FLD : Seed inputs : Guj.Greengram-4

						Control measures for pest & disease of kharif pulses Integrated nutrient management in kharif field crops	Training	Training	
7	--	Cotton	Low yield	Low yield	INM	Improved cultivation practices for cotton and sesamum IPM in cotton	FLD, Field Days, Training		FLD : Fertilizer : Posak (Multimicro) OFT : Insecticides : Methyl Parathionn 2 % dust Methyl parathion 50 % Chlorpyriphos 20 % Bio pesticides : *Verticillium lacani*
8	--	Cotton (CMM-II)	Low yield	Low yield	INM	Importance of IPM	FLD, Field Days, Training		FLD : Fertilizer : Posak (Multimicro)
9	--	Bio-agent	Heavy infestation	Application of Tricho derma against stem rot Disease in g'nut	Yield evaluation	Importance of IDM	FLD, Field Days, Training		FLD : Bio-agent : *Trichoderma harzianum* Culture

3.1. Achievements on technologies assessed and refined

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	TOTAL
Varietals Evaluation	-	-	-	-	**-**
Seed / Plant production	-	-	-	-	**-**
Weed Management	-	-	-	-	**-**
Integrated Crop Management	-		-	1	**1**

INM	-	-	-	-	-
Integrated Farming System	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-
Drudgery reduction	-	-	-	-	-
Farm machineries	-	-	-	-	-
Value addition	-	-	-	-	-
IPM	-	-	-	1	**1**
IDM	-		-	-	-
Resource conservation technology	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**2**	**2**

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	TOTAL
Varietals Evaluation	-	-	-	-	-
Seed / Plant production	-	-	-	-	-
Weed Management	-	-	-	-	-
Integrated Crop Mgmt	-		-	-	-
INM	-	-	-	-	-
Integrated Farming System	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-
Drudgery reduction	-	-	-	-	-
Farm machineries	-	-	-	-	-
Value addition	-	-	-	-	-
IPM	-	-	-	-	-
IDM	-	-	-	-	-
Resource conservation technology	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-
TOTAL	**-**	**-**	**-**		**-**

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Other	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-
Women & Child care	-	-	-	-	-	-
TOTAL	**-**	**-**	**-**	**-**	**-**	**-**

A.4 Abstract of the number of technologies refined in respect of livestock / enterprises: NIL

B. Details of each On Farm Trial to be furnished in the following format

Trial 1: Low yield of cotton.

1. Title of Technology assessed / Refined : Low yield of cotton

2. Problem Definition

   1. Unbalance fertilization.
   2. Problems of sucking pest.
   3. Lack of knowledge of fertilizations.
   4. Less use of organic manure in soil.

3. Details of technologies selected for assessment/refinement

   1. Farmers practice
   2. Recommended dose of fertilizer (160-0-0 NPK kg/ha) in four split.
   3. T-2 + 50 kg P2O5 /ha through DAP + 50 kg K2O/ha through MOP as a basal dose.
   4. T-3 + 25 kg MgSo4/ha + 10 kg ZnSo4/ha as a basal dose.

4. Source of technology: Junagadh Agricultural University, Junagadh.

5. Production system: Balance use of Fertilizer

6. Thematic area: Integrated Nutrient management

7. Performance of the Technology with performance indicators

   *Result is in Table -A

8. Final recommendation for micro level situation

   Recommended dose of fertilizer (160-0-0 NPK kg/ha) in four Split +
   50 kg P2O5 /ha through DAP + 50 kg K2O/ha through MOP +
   25 kg MgSo4/ha + 10 kg ZnSo4/ha as a basal dose.

9. Constraints identified and feedback for research : NIL

10. Process of farmers participation and their reaction: Result is in Table -A

11. Result of On Farm Trial

Table – A

Crop/ enterpris	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter
1	2	3	4	5	6	7	8
Cotton	Irrigated	Imbalance use of Fertilizer	Low yield of cotton.	3	1. Farmers practice 2. Recommended dose of fertilizer (160-0-0 NPK kg/ha) in four split. 3. T-2 + 50 kg P2O5 /ha through DAP + 50 kg K2O/ha through MOP as a basal dose. 4. T-3 + 25 kg MgSo4/ha + 10 kg ZnSo4/ha as a basal dose.	Yield evaluation	Seed Cotton Yield (qt/ha)

Pooled Results of assessment				Feedback from the farmer
9				10
Seed cotton Av. Yield (qt/ha)				Application of MgSo4 and Znso4 as well as Potash give very good response to Cotton crops
T1	T2	T3	T4	
22.99	22.47	25.77	27.52	

Technology Assessed / Refined	Seed cotton (Qt/ha)	No. of bolls/ plant	Net Return (Profit) in Rs. / unit	BC Ratio
Seed Cotton (Qt/ha)			13	14
1.Farmers practice	22.99	43.5	77912	3.37
2.Recommended dose of fertilizer (160-0-0 NPK kg/ha) in four split.	22.47	41.2	77548	3.53
3.T-2 + 50 kg P2O5 /ha through DAP + 50 kg K2O/ha through MOP as a basal dose.	25.77	46.7	90570	3.70
4.T-3 + 25 kg MgSo4/ha + 10 kg ZnSo4/ha as a basal dose.	27.52	49.2	98291	3.87
The result stated that for growing of Bt. cotton are recommended to apply RDF (160-0-0 kg NPK/ha) in four equal splits along with 50 kg P_2O_5 through DAP, 50 kg K_2O through MOP, 25 kg $MgSo_4$ and 10 kg $ZnSo_4$/ha as a basal dose for obtaining higher yield & net realization as well as maximum BCR.				

Trial 2: Management of Mealy bug infestation in Cotton.

1. Title of Technology assessed / Refined :

   * Management of Mealy bug infestation in Cotton

2. Problem Definition

   1. Lack of knowledge about the use of particular pesticides
   2. No adoption of recommended practices
   3. Farmers follows instruction given by the local pesticides retailer.

3. Details of technologies selected for assessment/refinement

   T-1.Farmers practice (Use of conventional insecticides after infestation)

   T-2.Recommended practices: pre-sowing application of Methyl parathion 2% Dust, application of insecticides at the time of infestation & Recommended cultural practices.

   T-3.Dusting of Methyl parathion 2% dust as & when required + application of bio-pesticides (Beaveria spp. or Verticillium spp.)

4 Source of technology: Junagadh Agricultural University, Junagadh.

5 Production system: Reduce mealy bug infestation

6 Thematic area: IPM for suppression of mealy bug

7 Performance of the Technology with performance indicators

   *Result is in Table -A

8 Final recommendation for micro level situation

   Recommended practices as well as Dusting of Methyl parathion 2% dust as & when required with application of bio-pesticides (Beaveria spp. or Verticillium spp.)

9 Constraints identified and feedback for research : NIL

10 Process of farmers participation and their reaction: Result is in Table -A

11 Result of On Farm Trial

Table – A

Crop/ enterpri	Farming situation	Problem Diagnose	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter
1	2	3	4	5	6	7	8
Cotton	Irrigated	Mealy bug	Management of Mealy bug infestation in Cotton	3	1.Farmers practice(Use of conventional insecticides after infestation) 2. Recommended practices: pre-sowing application of Methyl parathion 2% Dust, application of insecticides at the time of infestation & Recommended cultural practices. 3. Dusting of Methyl parathion 2% dust as & when required, application of bio-pesticides (Beaveria spp. or Verticillium spp.)	Mealy bug infestation	% Plant infested with mealy bug

% Plant infestation with mealy bug			
T1	T2	T3	T-2 as well as T-3 has at par result
12	7	8	

Technology Assessed / Refined	Seed cotton (Qt/ha)	Net Return (Profit) in Rs. / unit	BC Ratio
		13	14
T-1	16.73	45,808	2.67
T-2	18.57	54,229	3.01
T-3	17.42	49,498	2.85

C. Technology Refinement: NIL

3.2 Achievements of Frontline Demonstrations

a. Follow-up for results of FLDs implemented during previous years List of technologies demonstrated during previous year and popularized during 2010-11 and recommended for large scale adoption in the district

Sr. No.	Thematic area	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of villages	No. of farmers	Area in ha
1	Dry farming	Guj. Gram-3 (Gram)	FLD, Field Day & Training	15	3500	500
2		Guj.Cumin-4 (Cumin)				
3		GW – 366 (Wheat)				
4		GG-31 (G'nut)				
5		Guj.Til-3 (Sesame)				
6		Guj. Green gram-4 (Green gram)				
7		Bt Cotton varieties				
8		*Trichoderma* culture (Bio-agent)				
9		INM in Sorghum				
10		INM in bajara				

b. Details of FLDs implemented during 2012-13

Sr No	Crop	Thematic area	Technology Demon-strated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall
					Proposed	Actual	SC/ST	Others	Total	
1	Gram	Package of practices	Varietal evaluation, recommended package of practices	Rabi: 11-12	10	10	6	4	10	–
2	Cumin			Rabi: 11-12	20	20	3	17	20	–
3	Wheat			Rabi: 11-12	20	20	5	15	20	–
4	G'nut			Kharif: 12-13	10	10	0	10	10	–
5	Sesame			Kharif: 12-13	10	10	1	9	10	–
6	Moong			Kharif: 12-13	10	10	2	8	10	–
7	Cotton			Kharif: 12-13	25	25	3	22	25	–
8	Bio-ager			Kharif: 12-13	5	5	0	5	5	-
9	INM jowar			Kharif: 12-13	10	10	0	10	10	–
10	INM bajara			Kharif: 12-13	5	5	0	5	5	

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					
Gram	Rabi 11-12	Irrigated	–"–	L	M	H	Cumin	8/11/11	22/2/12	425.0	25
		Irrigated	–"–	L	M	H	Cotton	16/11/11	28/2/12		
		Irrigated	–"–	L	M	H	G'nut	14/11/11	24/2/12		
		Irrigated	–"–	L	M	H	Bajara	12/11/11	20/2/12		
		Irrigated	–"–	L	M	H	Cotton	21/11/11	3/3/12		
		Irrigated	–"–	L	M	H	Cotton	23/11/11	5/3/12		
		Irrigated	–"–	L	M	H	Cotton	17/11/11	25/2/12		
		Irrigated	–"–	L	M	H	Bajara	11/11/11	1/3/12		
		Irrigated	–"–	L	M	H	Cotton	16/11/11	26/2/12		
		Irrigated	–"–	L	M	H	Cotton	18/11/11	1/3/12		
Cumin	Rabi 11-12	Irrigated	–"–	L	M	H	Wheat	12/11/11	7/3/12		
		Irrigated	–"–	L	M	H	Cumin	10/11/11	4/3/12		
		Irrigated	–"–	L	M	H	Cotton	18/11/11	10/3/12		
		Irrigated	–"–	L	M	H	G'nut	6/11/11	3/3/12		
		Irrigated	–"–	L	M	H	G'nut	6/11/11	1/3/12		
		Irrigated	–"–	L	M	H	Cotton	17/11/11	8/3/12		
		Irrigated	–"–	L	M	H	G'nut	9/11/11	7/3/12		
		Irrigated	–"–	L	M	H	Wheat	7/11/11	1/3/12		
		Irrigated	–"–	L	M	H	Sorghum	10/11/11	3/3/12		
		Irrigated	–"–	L	M	H	Bajara	12/11/11	4/3/12		
		Irrigated	–"–	L	M	H	Sorghum	7/11/11	2/3/12		
		Irrigated	–"–	L	M	H	Bajara	8/11/11	2/3/12		
		Irrigated	–"–	L	M	H	Sorghum	12/11/11	6/3/12		
		Irrigated	–"–	L	M	H	Sesame	12/11/11	9/3/12		
		Irrigated	–"–	L	M	H	Cotton	7/11/11	4/3/12		
		Irrigated	–"–	L	M	H	Cotton	8/11/11	2/3/12		

		Irrigated	–"–	L	M	H	Sorghum	7/11/11	1/3/12		
		Irrigated	–"–	L	M	H	Sorghum	11/11/11	7/3/12		
		Irrigated	–"–	L	M	H	Sorghum	12/11/11	3/3/12		
		Irrigated	–"–	L	M	H	Vegetable	17/11/11	8/3/12		
Wheat	Rabi 10-11	Irrigated	Medium black	L	M	H	Wheat	9/11/11	3/3/12		
		Irrigated		L	M	H	Sorghum	11/11/11	9/3/12		
		Irrigated	–"–	L	M	H	Wheat	15/11/11	11/3/12		
		Irrigated	–"–	L	M	H	Sorghum	13/11/11	8/3/12		
		Irrigated	–"–	L	M	H	Cotton	9/11/11	1/3/12		
		Irrigated	–"–	L	M	H	Sorghum	9/11/11	4/3/12		
		Irrigated	–"–	L	M	H	Cotton	20/11/11	15/3/12		
		Irrigated	–"–	L	M	H	Wheat	15/11/11	13/3/12		
		Irrigated	–"–	L	M	H	Cotton	13/11/11	10/3/12		
		Irrigated	–"–	L	M	H	Vegetable	10/11/11	3/3/12		
		Irrigated	–"–	L	M	H	Bajara	14/11/11	8/3/12		
		Irrigated	–"–	L	M	H	Bajara	9/11/11	7/3/12		
		Irrigated	–"–	L	M	H	Sorgum	12/11/11	11/3/12		
		Irrigated	–"–	L	M	H	Cotton	15/11/11	11/3/12		
		Irrigated	–"–	L	M	H	Wheat	22/11/11	14/3/12		
		Irrigated	–"–	L	M	H	G'nut	8/11/11	2/3/12		
		Irrigated	–"–	L	M	H	Vegetable	16/11/11	8/3/12		
		Irrigated	–"–	L	M	H	Cotton	22/11/11	13/3/12		
		Irrigated	–"–	L	M	H	Cotton	24/11/11	15/3/12		
		Irrigated	–"–	L	M	H	Cotton	16/11/11	10/3/12		
G'nut	*Kharif 12-13*	Rainfed	Medium black	L	M	H	Wheat	5/7/12	25/10/12		
		Rainfed		L	M	H	Cumin	5/7/12	30/10/12		
		Rainfed	--"--	L	M	H	Wheat	28/6/12	23/10/12		
		Rainfed	--"--	L	M	H	Wheat	27/6/12	25/10/12		
		Rainfed	--"--	L	M	H	Cumin	29/6/12	22/10/12		
		Rainfed	--"--	L	M	H	Wheat	27/6/12	20/10/12		
		Rainfed	--"--	L	M	H	G'nut	5/7/12	26/10/12		
		Rainfed	--"--	L	M	H	Wheat	3/7/12	28/10/12		
		Rainfed	--"--	L	M	H	Cumin	5/7/12	26/10/12		
		Rainfed	--"--	L	M	H	Wheat	4/7/12	29/10/12		
Sesame	*Kharif*	Rainfed	--"--	L	M	H	Cumin	7/7/12	4/10/12		

	12-13	Rainfed	–"–	L	M	H	G'nut	5/7/12	30/9/12		
		Rainfed	–"–	L	M	H	G'nut	28/6/12	1/10/12		
		Rainfed	–"–	L	M	H	Wheat	6/7/12	1/10/12		
		Rainfed	–"–	L	M	H	Wheat	7/7/12	7/10/12		
		Rainfed	–"–	L	M	H	Cumin	27/6/12	23/9/12		
		Rainfed	–"–	L	M	H	Gram	5/7/12	28/9/12		
		Rainfed	–"–	L	M	H	Cumin	6/7/12	2/10/12		
		Rainfed	–"–	L	M	H	Wheat	10/7/12	4/10/12		
		Rainfed	–"–	L	M	H	Wheat	4/7/12	1/10/12		
Green Gram	*Kharif 11-12*	Rainfed	–"–	L	M	H	Cumin	16/7/12	29/9/12		
		Rainfed	–"–	L	M	H	Wheat	3/7/12	20/9/12		
		Rainfed	–"–	L	M	H	Wheat	10/7/12	24/9/12		
		Rainfed	–"–	L	M	H	Wheat	28/6/12	12/9/12		
		Rainfed	–"–	L	M	H	Cotton	1/7/12	14/9/12		
		Rainfed	–"–	L	M	H	Gram	9/7/12	20/9/12		
		Rainfed	–"–	L	M	H	Cumin	6/7/12	22/9/12		
		Rainfed	–"–	L	M	H	Wheat	2/7/12	13/9/12		
		Rainfed	–"–	L	M	H	Wheat	7/7/12	27/9/12		
		Rainfed	–"–	L	M	H	Cotton	3/7/12	15/9/12		
Cotton	*Kharif 12-13*	Irrigated	Medium black	L	M	H	Wheat	20/6/12	12/1/13		
		Irrigated	–"–	L	M	H	Wheat	18/6/12	2/1/13		
		Irrigated	–"–	L	M	H	Cumin	16/6/12	29/12/12		
		Irrigated	–"–	L	M	H	Wheat	26/6/12	12/1/13		
		Irrigated	–"–	L	M	H	Wheat	29/6/12	16/1/13		
		Irrigated	–"–	L	M	H	Cumin	2/7/12	1/1/13		
		Irrigated	–"–	L	M	H	Sesame	8/7/12	10/1/13		
		Irrigated	–"–	L	M	H	Cumin	19/6/12	8/1/13		
		Irrigated	–"–	L	M	H	Cumin	25/6/12	12/1/13		
		Irrigated	–"–	L	M	H	Cotton	2/7/12	16/1/13		
		Irrigated	–"–	L	M	H	Cotton	4/7/12	26/12/12		
		Irrigated	–"–	L	M	H	Wheat	25/6/12	17/1/13		
		Irrigated	–"–	L	M	H	Cumin	27/6/12	13/1/13		
		Irrigated	–"–	L	M	H	Cumin	28/6/12	3/1/13		
		Irrigated	–"–	L	M	H	Cotton	26/6/12	30/12/12		

		Irrigated	–"–	L	M	H	Wheat	29/6/12	13/1/13		
		Irrigated	–"–	L	M	H	Cumin	3/7/12	12/1/13		
		Irrigated	–"–	L	M	H	Wheat	4/7/12	15/1/13		
		Irrigated	–"–	L	M	H	Wheat	29/6/12	1/1/13		
		Irrigated	–"–	L	M	H	Sorghum	28/6/12	1/1/13		
		Irrigated	–"–	L	M	H	Wheat	1/7/12	12/1/13		
		Irrigated	–"–	L	M	H	Cumin	27/6/12	27/12/12		
		Irrigated	–"–	L	M	H	Wheat	26/6/12	10/1/13		
		Irrigated	–"–	L	M	H	Cotton	26/6/12	15/1/13		
		Irrigated	–"–	L	M	H	Cotton	28/6/12	12/1/13		
Bio-agent	*Kharif 12-13*	Rainfed	Medium black	L	M	H	Cumin	26/6/12	21/10/12		
		Rainfed	–"–	L	M	H	Cumin	24/6/12	20/10/12		
		Rainfed	–"–	L	M	H	Cumin	28/6/12	22/10/12		
		Rainfed	–"–	L	M	H	Wheat	27/6/12	16/10/12		
		Rainfed	–"–	L	M	H	G'nut	3/7/12	25/10/12		
Sorghur	*Kharif 12-13*	Rainfed	Medium black	L	M	H	Bajara	16/6/12	19/9/12		
		Rainfed		L	M	H	Cotton	18/6/12	25/9/12		
		Rainfed		L	M	H	Cotton	16/6/12	22/9/12		
		Rainfed		L	M	H	Bajara	20/6/12	27/9/12		
		Rainfed	–"–	L	M	H	Cumin	17/6/12	15/9/12		
		Rainfed	–"–	L	M	H	Sorghum	19/6/12	18/9/12		
		Rainfed	–"–	L	M	H	Castor	22/6/12	25/9/12		
		Rainfed	–"–	L	M	H	Cotton	18/6/12	23/9/12		
		Rainfed	–"–	L	M	H	Cotton	17/6/12	26/9/12		
		Rainfed	–"–	L	M	H	G'nut	10/6/12	20/9/12		
Bajara	*Kharif 12-13*	Rainfed	–"–	L	M	H	Wheat	26/6/12	18/9/12		
		Rainfed	–"–	L	M	H	Cotton	26/6/12	15/9/12		
		Rainfed	–"–	L	M	H	Wheat	28/6/12	20/9/12		
		Rainfed	–"–	L	M	H	Cumin	27/6/12	21/9/12		
		Rainfed	–"–	L	M	H	Wheat	16/6/12	10/9/12		

Performance of FLD

Sr. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Dem	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Gram	Varietal evaluation, recommended package of practices	Guj.Gram-3	10	04	17.80	12.20	15.20	13.47	12.84	-	-
2	Cumin		G.Cumin-4	20	08	9.20	5.20	8.03	7.09	13.19	-	-
3	Wheat		GW-366	20	08	46.00	25.00	41.11	36.14	13.77	-	-
4	G'nut		GG-31	10	04	9.60	7.30	8.81	7.79	13.03	-	-
5	Sesame		Guj.Til-3	10	04	5.20	4.10	4.67	4.10	13.90	-	-
6	Green Gram		Guj.Green Gram-4	10	04	7.20	4.90	5.86	5.15	13.69	-	-
7	Cotton		Bt Irrigated	25	10	21.40	11.60	16.40	14.88	10.22	-	-
8	G'nut		Bio-Agent	05	02	9.90	8.80	9.22	8.02	14.96	-	-
9	Sorghum		Local	10	04	38.40	26.30	32.57	30.80	5.75	-	-
10	Bajara		GHB-732	05	02	19.60	13.80	16.65	14.66	13.57	-	-

Economic Impact (Continuation of previous table)

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return/ Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
13700	13900	47880	42431	34180	28531	1:3.49
15800	16100	98368	86853	82568	70753	1:6.23
17500	17600	59610	52403	42110	34803	1:3.41
18350	17950	49528	43819	31178	25869	1:2.70
12850	12550	39695	34850	26845	22300	1:3.09
10500	10300	26348	23175	15848	12875	1:2.51
26500	27000	71771	65118	45271	38118	1:2.71
18550	17950	52313	45844	33763	27894	1:2.82
10750	10550	32570	30800	21820	20250	1:3.03
11850	11650	24143	21257	12293	9607	1:2.04

Analytical Review of component demonstrations (details of each component for rainfed / irrigated situations to be given separately for each season).

Crop	Season	Component 1. Seed/Variety	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in Productivity over local check
Gram	Rabi 11-12	Guj. Gram-3	Irrigated	15.20	13.47	12.84
Cumin		Guj. Cumin-4	Irrigated	8.03	7.09	13.19
Wheat		GW-366	Irrigated	41.11	36.14	13.77
G'nut	Kharif 12-13	GG-31	Rainfed	8.81	7.79	13.03
Sesame		Guj.Til-3	Rainfed	4.67	4.10	13.90
Green Gram		Guj. Green Gram-4	Rainfed	5.86	5.15	13.69
Cotton		Bt	Irrigated	16.40	14.88	10.22
G'nut		Bio-Agent	Rainfed	9.22	8.02	14.96
Sorghum		Local	Rainfed	32.57	30.80	5.75
Bajara		GHB-732	Rainfed	16.65	14.66	13.57

Technical Feedback on the demonstrated technologies

Sr. No	Feed Back
1	Groundnut GJG-31 is good variety for pod as well as fodder suitable for *kharif* season in dry farming condition.
2	The wheat variety GW-366 is superior but requires research variety for short duration and late sowing so fit in cotton based cropping pattern.
3	Gram wilt resistance & early maturity variety required.
4	In cotton there is further need for tolerant variety against the sucking pest
5	In sesamum there is need for short duration & water logged resistant variety because of heavy rainfall

Farmers' reactions on specific technologies

Sr. No	Feed Back
1	**Gram :** - It is good variety over local varieties, but at maturity stage pod borer infestation occur
2	**Cumin :** - High yielder and wilt resistance but late germination observed
3	**Wheat : 496** i. The variety yield better than Lok-1 ii. The baking quality also fine
4	**Sesamum :** - Guj. Til-3 is higher yielder over local
5	**Groundnut :** - GJG-31 is good for pod as well as fodder but it is require short duration variety erratic rainfall affect the yield of groundnut
6	**Green gram :** - Guj. Green gram-4 is superior over K-851, it mature once a time so more picking not required
7	**Cotton :** - Like Bt variety resistance over larvae, it is require the sucking pest resistance variety

Extension and Training activities under FLD

Sr. No	Activity	No. of activities organized	Date	Number of participants
1	Field days	1	28/09/12	27
		1	29/09/12	34
		1	01/10/12	20
		1	05/10/12	32
		1	05/10/12	22
		1	06/10/12	19
		1	06/10/12	21
		1	08/10/12	23
		1	08/10/12	22
		1	10/10/12	27
		1	12/10/12	30
		1	15/10/12	21
		1	25/02/13	17
		1	25/02/13	17
		1	26/02/13	15
		1	26/02/13	14
		1	27/02/13	16
		1	27/02/13	21
		1	04/03/13	18
		1	04/03/13	19
Total		**20**		**435**
2	Farmers Training	15		374
3	Training for extension functionaries	1	25/06/2012	81
		2	12/02/2013	62
	Total			**143**

C. Details of FLD on Enterprises

(i) Farm Implements:

Sr. No.	Physical achievement	Demonstration	
		No. of Demonstration (hectare)	No. of beneficiaries
1	Seed drill	12.5 ha	7
2	Rotavator	15 ha	9
3	Shredder	4	4
4	Seed dressing drum	5	5
8	Chaff cutter	2	2
9	Groundnut decorticator	5	5

(ii) Other Enterprises:

1. **Deworming of buffalo calf in regular interval for reduction of incidence of worms & calf mortality**

	Parameter	Results		% change in parameter
		Farmer practices	Recommended practices	
1	Incidence of worms	80%	15%	81%
2	Buffalo calf mortality	35%	13%	57%

Result : Reduction in parasitic infestation leads to increase income of farmer

2. **Mineral Mixture for improve livestock infertility of Cow & Buffalo**

	Parameter	Results		% change in parameter
		Farmer practices	Recommended practices	
1	Reproductive disorder	45%	15%	67%
2	Post partum heat (Month)	6 month	3 month	50%

Result : Reduction in reproductive disorder & post partum heat period leads to improve fertility of animal

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		
		M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women										
I Crop Production	**5**	**103**	**0**	**103**	**7**	**0**	**7**	**110**	**0**	**110**
Weed Management	1	21	0	21	0	0	0	21	0	21
Resource Conservation Technologies	-	-	-	-	-	-	-	-	-	-
Cropping Systems	-	-	-	-	-	-	-	-	-	-
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	-	-	-	-	-	-	-	-	-	-
Water management	-	-	-	-	-	-	-	-	-	-
Seed production	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	3	59	0	59	6	0	6	65	0	65
Fodder production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	1	23	0	23	1	0	1	24	0	24
II Horticulture	-	-	-	-	-	-	-	-	-	-
a) Vegetable Crops	-	-	-	-	-	-	-	-	-	-
Production of low volume and high value crops	-	-	-	-	-	-	-	-	-	-
Off-season vegetables	-	-	-	-	-	-	-	-	-	-
Nursery raising	-	-	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-	-	-
Export potential vegetables	-	-	-	-	-	-	-	-	-	-

Grading and standardization	-	-	-	-	-	-	-	-	-	-
Protective cultivation (Green Houses, Shade Net etc.)	-	-	-	-	-	-	-	-	-	-
b) Fruits	-	-	-	-	-	-	-	-	-	-
Training and Pruning	-	-	-	-	-	-	-	-	-	-
Layout and Management of Orchards	-	-	-	-	-	-	-	-	-	-
Cultivation of Fruit	-	-	-	-	-	-	-	-	-	-
Management of young plants/orchards	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Export potential fruits	-	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
c) Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornemental Plants	-	-	-	-	-	-	-	-	-	-
d) Plantation crops	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
e) Tuber crops	-	-	-	-	-	-	-	-	-	-

Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
f) Spices	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
III Soil Health and Fertility Management	**3**	**59**	**0**	**59**	**10**	**0**	**10**	**69**	**0**	**69**
Soil fertility management	-	-	-	-	-	-	-	-	-	-
Soil and Water Conservation	1	18	0	18	8	0	8	26	0	26
Integrated Nutrient Management	1	23	0	23	1	0	1	24	0	24
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	1	18	0	18	1	0	1	19	0	19

IV Livestock Production and Management	**6**	**101**	**0**	**101**	**12**	**0**	**12**	**113**	**0**	**113**
Dairy Management	3	51	0	51	4	0	4	55	0	55
Poultry Management	-	-	-	-	-	-	-	-	-	-
Piggery Management	-	-	-	-	-	-	-	-	-	-
Rabbit Management	-	-	-	-	-	-	-	-	-	-
Disease Management	1	17	0	17	1	0	1	18	0	18
Feed management	2	33	0	33	7	0	7	40	0	40
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Design and deve. of low/minimum cost diet	-	-	-	-	-	-	-	-	-	-
Designing and development for high nutrient efficiency diet	-	-	-	-	-	-	-	-	-	-
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-
Storage loss minimization techniques	-	-	-	-	-	-	-	-	-	-
Value addition										
Income generation activities for										

empowerment of rural Women										
Location specific drudgery reduction technologies	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Women and child care	-	-	-	-	-	-	-	-	-	-
VI Agril. Engineering	**1**	**20**	**0**	**20**	**7**	**0**	**7**	**27**	**0**	**27**
Installation and maintenance of micro irrigation systems	1	20	0	20	7	0	7	27	0	27
Use of Plastics in farming practices	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
Small scale processing and value addition										
Post Harvest Technology										
VII Plant Protection	**5**	**95**	**1**	**96**	**24**	**0**	**24**	**119**	**1**	**120**
Integrated Pest Management	2	32	0	32	9	0	9	41	0	41
Integrated Disease Management	2	36	1	37	12	0	12	48	1	49
Bio-control of pests and diseases	1	27	0	27	3	0	3	30	0	30
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
VIII Fisheries	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	-	-	-	-	-	-	-	-	-	-

Carp breeding and hatchery management	-	-	-	-	-	-	-	-	-	-
Carp fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Hatchery management and culture of freshwater prawn	-	-	-	-	-	-	-	-	-	-
Breeding and culture of ornamental fishes	-	-	-	-	-	-	-	-	-	-
Portable plastic carp hatchery	-	-	-	-	-	-	-	-	-	-
Pen culture of fish and prawn	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Edible oyster farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Fish processing and value addition	-	-	-	-	-	-	-	-	-	-
IX Production of Inputs at site	**6**	**92**	**0**	**92**	**59**	**0**	**59**	**151**	**0**	**151**
Seed Production	6	92	0	92	59	0	59	151	0	151
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Production of fry and fingerlings	-	-	-	-	-	-	-	-	-	-

Production of Bee-colonies and wax sheets	-	-	-	-	-	-	-	-	-	-
Small tools and implements	-	-	-	-	-	-	-	-	-	-
Production of livestock feed and fodder	-	-	-	-	-	-	-	-	-	-
Production of Fish feed	-	-	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	**2**	**75**	**0**	**75**	**23**	**0**	**23**	**98**	**0**	**98**
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	50	0	50	20	0	20	70	0	70
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	1	25	0	25	3	0	3	28	0	28
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-	-	-
Production technologies	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Farming Systems	-	-	-	-	-	-	-	-	-	-
TOTAL	**28**	**545**	**1**	**546**	**142**	**0**	**142**	**687**	**1**	**688**

(B) RURAL YOUTH										
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Bee-keeping	1	20	0	20	0	0	0	20	0	20
Integrated farming	-	-	-	-	-	-	-	-	-	-
Seed production										
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Integrated Farming	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	1	20	0	20	3	0	3	23	0	23
Commercial fruit production	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	25	0	25	0	0	0	25	0	25
Nursery Management of Horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Value addition	2	0	70	70	0	0	0	0	70	70
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
Dairying										
Sheep and goat rearing	1	44	0	44	0	0	0	44	0	44
Quail farming	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-
Rabbit farming	-	-	-	-	-	-	-	-	-	-
Poultry production	1	30	0	30	0	0	0	30	0	30
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-

Para vets	-	-	-	-	-	-	-	-	-	-
Para extension workers	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Freshwater prawn culture	1	13	0	13	2	0	2	15	0	15
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Cold water fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Small scale processing	-	-	-	-	-	-	-	-	-	-
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Tailoring&Stitching	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Global warming & effect of climate change in Agri.	2	38	0	38	11	0	11	49	0	49
Govt subsidy scheme in Agri	1	13	0	13	6	0	6	19	0	19
Farm Management	1	14	0	14	6	0	6	20	0	20
TOTAL	**12**	**217**	**70**	**287**	**28**	**0**	**28**	**245**	**70**	**315**

(C) Extension Personnel										
Productivity enhancement in field crops	2	101	0	101	0	0	0	101	0	101
Integrated Pest Management	1	300	0	300	0	0	0	300	0	300
Integrated Nutrient mgmt	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation	1	60	2	62	0	0	0	60	2	62

technology										
Formation & Mgmt of SHGs	-	-	-	-	-	-	-	-	-	-
Group Dynamics & farmers organization	1	45	0	45	0	0	0	45	0	45
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
Capacity building for ICT application	-	-	-	-	-	-	-	-	-	-
Care and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
WTO,IPR issues	-	-	-	-	-	-	-	-	-	-
Management in farm animals	1	200	108	308	-	-	-	200	108	308
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-
Training for mitigate drought condition	1	35	0	35	0	0	0	35	0	35
TOTAL	**7**	**741**	**110**	**851**	**0**	**0**	**0**	**741**	**110**	**851**
ON CAMPUS TOTAL	**47**	**1503**	**181**	**1684**	**170**	**0**	**170**	**1673**	**181**	**1854**

B) OFF Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women										
I Crop Production	**7**	**162**	**0**	**162**	**13**	**0**	**13**	**175**	**0**	**175**
Weed Management	1	36	0	36	4	0	4	40	0	40
Resource Conservation Technologies	-	-	-	-	-	-	-	-	-	-
Cropping Systems	-	-	-	-	-	-	-	-	-	-
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	-	-	-	-	-	-	-	-	-	-
Water management	1	18	0	18	1	0	1	19	0	19
Seed production										
Nursery management										
Integrated Crop Management	4	88	0	88	6	0	6	94	0	94
Fodder production										
Production of organic inputs	1	20	0	20	2	0	2	22	0	22
II Horticulture	**4**	**81**	**0**	**81**	**20**	**0**	**20**	**101**	**0**	**101**
a) Vegetable Crops	-	-	-	-	-	-	-	-	-	-
Production of low volume and high value crops	-	-	-	-	-	-	-	-	-	-
Off-season vegetables	-	-	-	-	-	-	-	-	-	-
Nursery raising	-	-	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-	-	-
Export potential vegetables	-	-	-	-	-	-	-	-	-	-
Grading and	-	-	-	-	-	-	-	-	-	-

standardization										
Protective cultivation (Green Houses, Shade Net etc.)	3	67	0	67	17	0	17	84	0	84
b) Fruits	-	-	-	-	-	-	-	-	-	-
Training and Pruning	-	-	-	-	-	-	-	-	-	-
Layout and Management of Orchards	-	-	-	-	-	-	-	-	-	-
Cultivation of Fruit	1	14	0	14	3	0	3	17	0	17
Management of young plants/orchards	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Export potential fruits	-	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
c) Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-
d) Plantation crops	-	-	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-	-	-

technology										
Processing and value addition	-	-	-	-	-	-	-	-	-	-
e) Tuber crops	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
f) Spices										
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
III Soil Health and Fertility Management	**2**	**46**	**0**	**46**	**3**	**0**	**3**	**49**	**0**	**49**
Soil fertility management	1	24	0	24	2	0	2	26	0	26
Soil and Water Conservation	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	1	22	0	22	1	0	1	23	0	23
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in	-	-	-	-	-	-	-	-	-	-

crops										
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	-	-	-	-	-	-	-	-	-	-
IV Livestock Production and Management	**8**	**143**	**0**	**143**	**17**	**0**	**17**	**160**	**0**	**160**
Dairy Management	6	108	0	108	12	0	12	120	0	120
Poultry Management	-	-	-	-	-	-	-	-	-	-
Piggery Management	-	-	-	-	-	-	-	-	-	-
Rabbit Management	-	-	-	-	-	-	-	-	-	-
Disease Management	1	17	0	17	3	0	3	20	0	20
Feed management	1	18	0	18	2	0	2	20	0	20
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
V Home Science/Women empowerment	-	-	-	-	-	-	-	-	-	-
Household food security by kitchen gardening and nutrition gardening	-	-	-	-	-	-	-	-	-	-
Design and development of low/minimum cost diet	-	-	-	-	-	-	-	-	-	-
Designing and development for high nutrient efficiency diet	-	-	-	-	-	-	-	-	-	-
Minimization of nutrient loss in processing	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming	-	-	-	-	-	-	-	-	-	-

through SHGs										
Storage loss minimization techniques	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Income generation activities for empowerment of rural Women	-	-	-	-	-	-	-	-	-	-
Location specific drudgery reduction technologies	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Women and child care	-	-	-	-	-	-	-	-	-	-
VI Agril. Engineering	**4**	**82**	**0**	**82**	**14**	**0**	**14**	**96**	**0**	**96**
Installation and maintenance of micro irrigation systems	3	63	0	63	8	0	8	71	0	71
Use of Plastics in farming practices	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	19	0	19	6	0	6	25	0	25
Small scale processing and value addition										
Post Harvest Technology										
VII Plant Protection	**6**	**129**	**0**	**129**	**24**	**1**	**25**	**153**	**1**	**154**
Integrated Pest Management	3	72	0	72	15	0	15	87	0	87
Integrated Disease Management	3	57	0	57	9	1	10	66	1	67

Bio-control of pests and diseases	-	-	-	-	-	-	-	-	-	-
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
VIII Fisheries	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Carp breeding and hatchery management	-	-	-	-	-	-	-	-	-	-
Carp fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Hatchery management & culture of fresh water prawn	-	-	-	-	-	-	-	-	-	-
Breeding and culture of ornamental fishes	-	-	-	-	-	-	-	-	-	-
Portable plastic carp hatchery	-	-	-	-	-	-	-	-	-	-
Pen culture of fish and prawn	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Edible oyster farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Fish processing and value addition	-	-	-	-	-	-	-	-	-	-
IX Production of Inputs at site	**4**	**83**	**0**	**83**	**24**	**0**	**24**	**107**	**0**	**107**
Seed Production	4	83	0	83	24	0	24	107	0	107
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-

Bio-fertilizer production	-	-	-	-	-	-	-	-	-	-
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Production of fry and fingerlings	-	-	-	-	-	-	-	-	-	-
Production of Bee-colonies and wax sheets	-	-	-	-	-	-	-	-	-	-
Small tools and implements	-	-	-	-	-	-	-	-	-	-
Production of livestock feed and fodder	-	-	-	-	-	-	-	-	-	-
Production of Fish feed	-	-	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	**2**	**42**	**0**	**42**	**8**	**0**	**8**	**50**	**0**	**50**
Leadership development										
Group dynamics	1	20	0	20	3	0	3	23	0	23
Formation and Management of SHGs	1	22	0	22	5	0	5	27	0	27
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	-	-	-	-	-	-	-	-	-	-
WTO, IPR issues	-	-	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-	-	-
Production technologies	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Farming Systems	-	-	-	-	-	-	-	-	-	-
TOTAL PF	**37**	**768**	**0**	**768**	**123**	**1**	**124**	**891**	**1**	**892**

(B) RURAL YOUTH										
Mushroom Production	-	-	-	-	-	-	-	-	-	-
Bee-keeping	1	15	4	19	4	0	4	19	4	23
Integrated farming										
Seed production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops										
Commercial fruit production	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	26	0	26	2	0	2	28	0	28
Nursery Mgmt of Horticulture crops	-	-	-	-	-	-	-	-	-	-
Training &pruning of orchards	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
Dairying										
Sheep and goat rearing	-	-	-	-	-	-	-	-	-	-
Quail farming	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-
Rabbit farming	-	-	-	-	-	-	-	-	-	-
Poultry production	-	-	-	-	-	-	-	-	-	-
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Para vets	-	-	-	-	-	-	-	-	-	-

Para extension workers	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Freshwater prawn culture	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Cold water fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Small scale processing	1	19	0	19	5	0	5	24	0	24
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Tailoring and Stitching	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Global warming & effect of climate change in Agri.	1	20	0	20	5	0	5	25	0	25
Govt subsidy scheme in Agri	2	50	0	50	17	0	17	67	0	67
TOTAL RY	**6**	**130**	**4**	**134**	**33**	**0**	**33**	**163**	**4**	**167**

(C) Extension Personnel										
Productivity enhancement in field crops	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient management	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-

Protected cultivation technology	-	-	-	-	-	-	-	-	-	-
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-
Group Dynamics and farmers organization	-	-	-	-	-	-	-	-	-	-
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
Capacity building for ICT application	-	-	-	-	-	-	-	-	-	-
Care and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-
Management in farm animals	-	-	-	-	-	-	-	-	-	-
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-
Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-
Production & use of organic inputs	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-
OFF CAMPUS TOTAL	**43**	**898**	**4**	**902**	**156**	**1**	**157**	**1054**	**5**	**1059**

C) Consolidated table (ON and OFF Campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women										
I Crop Production	**12**	**265**	**0**	**265**	**20**	**0**	**20**	**285**	**0**	**285**
Weed Management	2	57	0	57	4	0	4	61	0	61
Resource Conservation Technologies										
Cropping Systems	-	-	-	-	-	-	-	-	-	-
Crop Diversification	-	-	-	-	-	-	-	-	-	-
Integrated Farming	-	-	-	-	-	-	-	-	-	-
Water management	1	18	0	18	1	0	1	19	0	19
Seed production	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	7	147	0	147	12	0	12	159	0	159
Fodder production	-	-	-	-	-	-	-	-	-	-
Production of organic inputs	2	43	0	43	3	0	3	46	0	46
II Horticulture	**4**	**81**	**0**	**81**	**20**	**0**	**20**	**101**	**0**	**101**
a) Vegetable Crops	-	-	-	-	-	-	-	-	-	-
Production of low volume and high value crops	-	-	-	-	-	-	-	-	-	-
Off-season vegetables	-	-	-	-	-	-	-	-	-	-
Nursery raising	-	-	-	-	-	-	-	-	-	-
Exotic vegetables like Broccoli	-	-	-	-	-	-	-	-	-	-
Export potential	-	-	-	-	-	-	-	-	-	-

vegetables										
Grading and standardization	-	-	-	-	-	-	-	-	-	-
Protective cultivation (Green Houses, Shade Net etc.)	3	67	0	67	17	0	17	84	0	84
b) Fruits	-	-	-	-	-	-	-	-	-	-
Training and Pruning	-	-	-	-	-	-	-	-	-	-
Layout and Management of Orchards	-	-	-	-	-	-	-	-	-	-
Cultivation of Fruit	1	14	0	14	3	0	3	17	0	17
Management of young plants/orchards	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Export potential fruits	-	-	-	-	-	-	-	-	-	-
Micro irrigation systems of orchards	-	-	-	-	-	-	-	-	-	-
Plant propagation techniques	-	-	-	-	-	-	-	-	-	-
c) Ornamental Plants	-	-	-	-	-	-	-	-	-	-
Nursery Management	-	-	-	-	-	-	-	-	-	-
Management of potted plants	-	-	-	-	-	-	-	-	-	-
Export potential of ornamental plants	-	-	-	-	-	-	-	-	-	-
Propagation techniques of Ornamental Plants	-	-	-	-	-	-	-	-	-	-

d) Plantation crops	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
e) Tuber crops	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
f) Spices	-	-	-	-	-	-	-	-	-	-
Production and Management technology	-	-	-	-	-	-	-	-	-	-
Processing and value addition	-	-	-	-	-	-	-	-	-	-
g) Medicinal and Aromatic Plants	-	-	-	-	-	-	-	-	-	-
Nursery management	-	-	-	-	-	-	-	-	-	-
Production and management technology	-	-	-	-	-	-	-	-	-	-
Post harvest technology and value addition	-	-	-	-	-	-	-	-	-	-
III Soil Health and Fertility Management	**5**	**105**	**0**	**105**	**13**	**0**	**13**	**118**	**0**	**118**
Soil fertility management	1	24	0	24	2	0	2	26	0	26
Soil and Water Conservation	1	18	0	18	8	0	8	26	0	26
Integrated Nutrient Management	2	45	0	45	2	0	2	47	0	47
Production and use of organic	-	-	-	-	-	-	-	-	-	-

inputs										
Management of Problematic soils	-	-	-	-	-	-	-	-	-	-
Micro nutrient deficiency in crops	-	-	-	-	-	-	-	-	-	-
Nutrient Use Efficiency	-	-	-	-	-	-	-	-	-	-
Soil and Water Testing	1	18	0	18	1	0	1	19	0	19
IV Livestock Production and Management	**14**	**244**	**0**	**244**	**29**	**0**	**29**	**273**	**0**	**273**
Dairy Management	9	159	0	159	16	0	16	175	0	175
Poultry Management	-	-	-	-	-	-	-	-	-	-
Piggery Mgmt	-	-	-	-	-	-	-	-	-	-
Rabbit Mgmt	-	-	-	-	-	-	-	-	-	-
Disease Management	2	34	0	34	4	0	4	38	0	38
Feed management	3	51	0	51	9	0	9	60	0	60
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
V Home Science/Women empowerment										
Household food security by kitchen gardening	-	-	-	-	-	-	-	-	-	-
Design and development of low/minimum cost diet	-	-	-	-	-	-	-	-	-	-
Designing and development for high nutrient efficiency diet	-	-	-	-	-	-	-	-	-	-
Minimization of nutrient loss in processing										

Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition										
Income generation activities for empowerment of rural Women										
Location specific drudgery reductio technologies	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Women and child care	-	-	-	-	-	-	-	-	-	-
VI Agril. Engineering	**5**	**102**	**0**	**102**	**21**	**0**	**21**	**123**	**0**	**123**
Installation and maintenance of MI systems	4	83	0	83	15	0	15	98	0	98
Use of Plastics in farming practices	-	-	-	-	-	-	-	-	-	-
Production of small tools and implements	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	1	19	0	19	6	0	6	25	0	25
Small scale processing and value addition										
Post Harvest Tech										
VII Plant Protection	**11**	**224**	**1**	**225**	**48**	**1**	**49**	**272**	**2**	**274**
Integrated Pest Management	5	104	0	104	24	0	24	128	0	128
Integrated Disease Management	5	93	1	94	21	1	22	114	2	116

Bio-control of pests and diseases	1	27	0	27	3	0	3	30	0	30
Production of bio control agents and bio pesticides	-	-	-	-	-	-	-	-	-	-
VIII Fisheries	-	-	-	-	-	-	-	-	-	-
Integrated fish farming	-	-	-	-	-	-	-	-	-	-
Carp breeding & hatchery mgmt	-	-	-	-	-	-	-	-	-	-
Carp fry & fingerling rearing	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Hatchery management	-	-	-	-	-	-	-	-	-	-
Breeding& culture of ornamental fishes	-	-	-	-	-	-	-	-	-	-
Portable plastic carp hatchery	-	-	-	-	-	-	-	-	-	-
Pen culture of fish and prawn	-	-	-	-	-	-	-	-	-	-
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Edible oyster farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Fish processing & value addition	-	-	-	-	-	-	-	-	-	-
IX Production of Inputs at site	**10**	**175**	**0**	**175**	**83**	**0**	**83**	**258**	**0**	**258**
Seed Production	10	175	0	175	83	0	83	258	0	258
Planting material production	-	-	-	-	-	-	-	-	-	-
Bio-agents production	-	-	-	-	-	-	-	-	-	-
Bio-pesticides production	-	-	-	-	-	-	-	-	-	-
Bio-fertilizer	-	-	-	-	-	-	-	-	-	-

production										
Vermi-compost production	-	-	-	-	-	-	-	-	-	-
Organic manures production	-	-	-	-	-	-	-	-	-	-
Production of fry and fingerlings	-	-	-	-	-	-	-	-	-	-
Production of Bee-colonies and wax sheets	-	-	-	-	-	-	-	-	-	-
Small tools and implements	-	-	-	-	-	-	-	-	-	-
Production of livestock feed and fodder	-	-	-	-	-	-	-	-	-	-
Production of Fish feed	-	-	-	-	-	-	-	-	-	-
X Capacity Building and Group Dynamics	**4**	**117**	**0**	**117**	**31**	**0**	**31**	**148**	**0**	**148**
Global warming & climate change										
Group dynamics	1	20	0	20	3	0	3	23	0	23
Formation and Management of SHGs	2	72	0	72	25	0	25	97	0	97
Mobilization of social capital	-	-	-	-	-	-	-	-	-	-
Entrepreneurial development of farmers/youths	1	25	0	25	3	0	3	28	0	28
WTO, IPR issues	-	-	-	-	-	-	-	-	-	-
XI Agro-forestry	-	-	-	-	-	-	-	-	-	-
Production technologies	-	-	-	-	-	-	-	-	-	-
Nursery mgmt	-	-	-	-	-	-	-	-	-	-
Integrated Farming Systems	-	-	-	-	-	-	-	-	-	-
TOTAL PF	**65**	**1313**	**1**	**1314**	**265**	**1**	**266**	**1578**	**2**	**1580**

(B) RURAL YOUTH										
Global warming & climate change										
Bee-keeping	2	35	4	39	4	0	4	39	4	43
Integrated farming										
Seed production										
Production of organic inputs	-	-	-	-	-	-	-	-	-	-
Integrated Farming	-	-	-	-	-	-	-	-	-	-
Planting material production	-	-	-	-	-	-	-	-	-	-
Vermi-culture	-	-	-	-	-	-	-	-	-	-
Sericulture	-	-	-	-	-	-	-	-	-	-
Protected cultivation of vegetable crops	1	20	0	20	3	0	3	23	0	23
Commercial fruit production	-	-	-	-	-	-	-	-	-	-
Repair and maintenance of farm machinery and implements	2	51	0	51	2	0	2	53	0	53
Nursery Management of Horticulture crops	-	-	-	-	-	-	-	-	-	-
Training and pruning of orchards	-	-	-	-	-	-	-	-	-	-
Value addition	2	0	70	70	0	0	0	0	70	70
Production of quality animal products	-	-	-	-	-	-	-	-	-	-
Dairying										
Sheep and goat rearing	1	44	0	44	0	0	0	44	0	44
Quail farming	-	-	-	-	-	-	-	-	-	-
Piggery	-	-	-	-	-	-	-	-	-	-

Rabbit farming	-	-	-	-	-	-	-	-	-	-
Poultry production	1	30	0	30	0	0	0	30	0	30
Ornamental fisheries	-	-	-	-	-	-	-	-	-	-
Para vets	-	-	-	-	-	-	-	-	-	-
Para extension workers	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-
Freshwater prawn culture	1	13	0	13	2	0	2	15	0	15
Shrimp farming	-	-	-	-	-	-	-	-	-	-
Pearl culture	-	-	-	-	-	-	-	-	-	-
Cold water fisheries	-	-	-	-	-	-	-	-	-	-
Fish harvest and processing technology	-	-	-	-	-	-	-	-	-	-
Fry and fingerling rearing	-	-	-	-	-	-	-	-	-	-
Small scale processing	1	19	0	19	5	0	5	24	0	24
Post Harvest Technology	-	-	-	-	-	-	-	-	-	-
Tailoring and Stitching	-	-	-	-	-	-	-	-	-	-
Rural Crafts	-	-	-	-	-	-	-	-	-	-
Making different house hold products	-	-	-	-	-	-	-	-	-	-
Global warming & effect of climate change in Agri.	3	58	0	58	16	0	16	74	0	74
Govt subsidy scheme in Agri	3	63	0	63	23	0	23	86	0	86
Farm Management	1	14	0	14	6	0	6	20	0	20
TOTAL RY	**18**	**347**	**74**	**421**	**61**	**0**	**61**	**408**	**74**	**482**

(C) Extension Personnel										
Productivity enhancement in field crops	2	101	0	101	0	0	0	101	0	101
Integrated Pest Management	1	300	0	300	0	0	0	300	0	300
Integrated Nutrient management	-	-	-	-	-	-	-	-	-	-
Rejuvenation of old orchards	-	-	-	-	-	-	-	-	-	-
Protected cultivation technology	1	60	2	62	0	0	0	60	2	62
Formation and Management of SHGs	-	-	-	-	-	-	-	-	-	-
Group Dynamics and farmers organization	1	45	0	45	0	0	0	45	0	45
Information networking among farmers	-	-	-	-	-	-	-	-	-	-
Capacity building for ICT application	-	-	-	-	-	-	-	-	-	-
Care and maintenance of farm machinery and implements	-	-	-	-	-	-	-	-	-	-
WTO and IPR issues	-	-	-	-	-	-	-	-	-	-
Management in farm animals	1	200	108	308	-	-	-	200	108	308
Livestock feed and fodder production	-	-	-	-	-	-	-	-	-	-
Household food security	-	-	-	-	-	-	-	-	-	-
Women and Child care	-	-	-	-	-	-	-	-	-	-

Low cost and nutrient efficient diet designing	-	-	-	-	-	-	-	-	-	-
Production and use of organic inputs	-	-	-	-	-	-	-	-	-	-
Gender mainstreaming through SHGs	-	-	-	-	-	-	-	-	-	-
Training for mitigate drought condition	1	35	0	35	0	0	0	35	0	35
TOTAL	**7**	**741**	**110**	**851**	**0**	**0**	**0**	**741**	**110**	**851**
GRAND TOTAL	**90**	**2401**	**185**	**2586**	**326**	**1**	**327**	**2727**	**186**	**2913**

Note: Please furnish the details of above training programmes as Annexure in the proforma given below

Date	Title of the training programme	Discipline	Thematic area	Duration in days	(Off / On Campus)	Number of other participants			Number of SC/ST			Total number of participangs		
						Male	Female	Total	Male	Female	Total	Male	Female	Total
For Farmers & Farm women														
14/5/12	Care & management of animals during summer	Animal Science		1	ON	19	0	19	0	0	0	19	0	19
25/5/12	Management of pest & diseases of groundnut	Plant Protection		1	ON	16	0	16	2	0	2	18	0	18
12/6/12	Pure seeds production technique in sesamum	Plant Breeding		1	ON	21	0	21	6	0	6	27	0	27
1/6/12	Seed treatment in kharif crops	Plant Protection		1	ON	16	0	16	7	0	7	23	0	23
16/6/12	Improved cultivation practices for cotton & sesame	Agronomy		1	ON	21	0	21	2	0	2	23	0	23
16/6/12	Biological & chemical control measures of pest & diseases of kharif crops	Plant Protection		1	ON	27	0	27	3	0	3	30	0	30

22/6/12	Pure seeds production technique in sesamum	Plant Breeding		1	ON	18	0	18	8	0	8	26	0	26
2/7/12	Pure seeds production technique in Green gram & Black gram	Plant Breeding		1	ON	6	0	6	19	0	19	25	0	25
5/7/12	Pure seeds production technique in Groundnut	Plant Breeding		1	ON	15	0	15	10	0	10	25	0	25
11/7/12	entrepreneur ship through secondary agriculture	Extension Edu.		1	ON	25	0	25	3	0	3	28	0	28
26/7/12	Pure seeds production technique in Groundnut	Plant Breeding		1	ON	14	0	14	12	0	12	26	0	26
30/7/12	INM in cotton	Soil Science		1	ON	23	0	23	1	0	1	24	0	24
4/8/2012	Pulses Crop Production Technology	Agronomy		1	ON	20	0	20	2	0	2	22	0	22
20/8/2012	Care & management of animals during monsoon	Animal Science		1	ON	16	0	16	2	0	2	18	0	18
15/9/12	Micro irrigation system	Agril. Engg.		1	ON	20	0	20	7	0	7	27	0	27
25/9/2012	Importance & use of green fodder in milk production	Animal Science		1	ON	18	0	18	3	0	3	21	0	21

25/10/2012	improved cultivation practices for wheat & cumin	Agronomy		1	ON	18	0	18	2	0	2	20	0	20
29/10/2012	Breeds of livestock & improve through selective breeding	Animal Science		1	ON	16	0	16	2	0	2	18	0	18
23/11/12	Foot & Mouth disease and its control	Animal Science		1	ON	17	0	17	1	0	1	18	0	18
3/12/201	Formation and Management of SHG	Extension Edu.		1	ON	50	0	50	20	0	20	70	0	70
7/12/2012	Integrated weed management in major rabi field crops	Agronomy		1	ON	21	0	21	0	0	0	21	0	21
11/12/2012	Control measures of pest & diseases on cumin & wheat	Plant Protection		1	ON	23	0	23	7	0	7	30	0	30
18/12/12	Soil Moisture conservation	Agril. Engg.		1	ON	18	0	18	8	0	8	26	0	26
2/1/2013	Pure seeds production technique in Cumin	Plant Breeding		1	ON	18	0	18	4	0	4	22	0	22
4/2/13	Precaution while handling pesticides	Plant Protection		1	ON	13	1	14	5	0	5	18	1	19

6/2/2013	Use of mineral mixture for balance feeding	Animal Science		1	ON	15	0	15	4	0	4	19	0	19
22/2/13	Preparation of enriched compost	Agronomy		1	ON	23	0	23	1	0	1	24	0	24
4/3/13	Soil sampling method	Soil Science		1	ON	18	0	18	1	0	1	19	0	19
			ON CAMPUS			**545**	**1**	**546**	**142**	**0**	**142**	**687**	**1**	**688**
12/4/12	Soil reclamation	Soil Science		1	OFF	24	0	24	2	0	2	26	0	26
14/5/12	INM in major field crops	Agronomy		1	OFF	22	0	22	1	0	1	23	0	23
29/5/12	Care & management of animals during summer	Animal Science		1	OFF	17	0	17	0	0	0	17	0	17
5/6/12	IPM in cotton	Plant Protection		1	OFF	39	0	39	12	0	12	51	0	51
15/6/12	Rain water harvesting technology	Agril. Engg.		1	OFF	13	0	13	5	0	5	18	0	18
28/6/12	Importance of colostrum in calves	Animal Science		1	OFF	17	0	17	2	0	2	19	0	19

17/7/12	Management of pest & diseases of Sesamum	Plant Protection		1	OFF	15	0	15	2	0	2	17	0	17
19/7/12	Management of pest & diseases of Vegetables	Plant Protection		1	OFF	18	0	18	1	0	1	19	0	19
24/7/12	Formation of SHG	Extension Edu.		1	OFF	22	0	22	5	0	5	27	0	27
1/8/12	Protected cultivation	Plant Breeding		1	OFF	24	0	24	7	0	7	31	0	31
8/8/12	Pure seeds production technique in Groundnut	Plant Breeding		1	OFF	20	0	20	4	0	4	24	0	24
22/8/12	HS & its control	Animal Science		1	OFF	17	0	17	3	0	3	20	0	20
27/8/12	Pure seeds production technique in sesamum	Plant Breeding		1	OFF	18	0	18	2	0	2	20	0	20
26/9/12	Improved cultivation practices for Mustard & Gram	Agronomy		1	OFF	24	0	24	2	0	2	26	0	26
13/9/12	Micro irrigation system in orchard	Agril. Engg.		1	OFF	28	0	28	0	0	0	28	0	28
27/9/12	Use of improved farm implements	Agril. Engg.		1	OFF	19	0	19	6	0	6	25	0	25

27/9/12	Fodder crop production technology	Animal Science		1	OFF	18	0	18	2	0	2	20	0	20
1/10/12	Clean milk production by proper milking, watering & washing	Animal Science		1	OFF	18	0	18	3	0	3	21	0	21
3/10/12	Off season Lemon production & post harvest technology	Plant Breeding		1	OFF	14	0	14	3	0	3	17	0	17
6/10/12	Protected cultivation	Plant Breeding		1	OFF	18	0	18	4	0	4	22	0	22
10/10/12	Pure seeds production technique in cumin & wheat	Plant Breeding		1	OFF	20	0	20	14	0	14	34	0	34
15/10/12	Seed treatment in rabi crops	Plant Protection		1	OFF	18	0	18	2	1	3	20	1	21
15/10/12	Integrated weed management in major rabi field crops	Agronomy		1	OFF	36	0	36	4	0	4	40	0	40
22/11/12	Efficient water management in major rabi field crops	Agronomy		1	OFF	18	0	18	1	0	1	19	0	19
22/12/12	Care & management of animals during winter	Animal Science		1	OFF	17	0	17	2	0	2	19	0	19

26/12/12	Control measures of pest & diseases of Rabi crops	Plant Protection		1	OFF	26	0	26	3	0	3	29	0	29
28/12/12	Group dynamics & mobilization of social capital	Extension Edu.		1	OFF	20	0	20	3	0	3	23	0	23
9/1/13	Protected cultivation	Plant Breeding		1	OFF	25	0	25	6	0	6	31	0	31
10/1/13	Pure seeds production technique in Summer Groundnut	Plant Breeding		1	OFF	25	0	25	4	0	4	29	0	29
23/1/13	Production technology of summer groundnut and sesame	Agronomy		1	OFF	22	0	22	1	0	1	23	0	23
29/1/13	Care & management of pregnant cow & buffalo	Animal Science		1	OFF	19	0	19	3	0	3	22	0	22
14/2/13	Importance of AI in cow & buffalo	Animal Science		1	OFF	20	0	20	2	0	2	22	0	22
16/2/13	Organic residue and farm waste management	Agronomy		1	OFF	20	0	20	2	0	2	22	0	22
22/2/13	Importance of natural enemies	Plant Protection		1	OFF	13	0	13	4	0	4	17	0	17

7/3/13	Improved Cultivation practices for Gum guar	Agronomy		1	OFF	21	0	21	2	0	2	23	0	23
8/3/13	Micro irrigation system in orchard	Agril. Engg.		1	OFF	22	0	22	3	0	3	25	0	25
11/3/13	Improved Cultivation practices for summer sesamum	Agronomy		1	OFF	21	0	21	1	0	1	22	0	22
	OFF CAMPUS					**768**	**0**	**768**	**123**	**1**	**124**	**891**	**1**	**892**
	TOTAL (For Practicing Farmer)					**13113**	**1**	**13114**	**265**	**1**	**266**	**15578**	**2**	**15800**

For Rural youth

ON CAMPUS

27/6/12	Govt. subsidiary scheme in Agri.	Extension Edu.		1	ON	13	0	13	6	0	6	19	0	19
28/9/12	Farm management	Extension Edu.		1	ON	14	0	14	6	0	6	20	0	20
1/1/13	Cultivation of tomato & capsicum in poly house	Horticulture		1	ON	20	0	20	3	0	3	23	0	23
1/3/13	Fresh water prawn farming	Fisheries		1	ON	13	0	13	2	0	2	15	0	15

4/3/13	Effect of global warming & climate change	Extension Edu.		1	ON	20	0	20	4	0	4	24	0	24
5/3/13	Effect of global warming & climate change	Extension Edu.		1	ON	18	0	18	7	0	7	25	0	25
OFF CAMPUS														
10/4/12	Effect of globa warming & climate change	Extension Edu.		1	OFF	20	0	20	5	0	5	25	0	25
25/4/12	Govt. subsidary scheme in Agri.	Extension Edu.		1	OFF	30	0	30	17	0	17	47	0	47
8/6/12	Use of improved farm implements	Agril. Engg.		1	OFF	26	0	26	2	0	2	28	0	28
31/1/13	Govt. subsidary scheme in Agri.	Extension Edu.		1	OFF	20	0	20	0	0	0	20	0	20
14/2/13	Honey bee rearing technique	Plant Protection		1	OFF	15	4	19	4	0	4	19	4	23
6/3/13	Income generation for farmers through secondary agriculture & Small scale processing	Extension Edu.		1	OFF	19	0	19	5	0	5	24	0	24
	TOTAL (For Rural youth)					**228**	**4**	**232**	**61**	**0**	**61**	**289**	**4**	**293**

For Extension Functionaries (In-Service Training)														
25/6/12	Pre-seasonal training for kharif crops					81	0	81	0	0	0	81	0	81
4/8/12	Training for mitigate drought condition					35	0	35	0	0	0	35	0	35
30-31/10/12	Latest Agril technologies & Package of practices (SMS-ATMA)					20	0	20	0	0	0	20	0	20
12/2/13	Protected cultivation & Gum guar cultivation					60	2	62	0	0	0	60	2	62
	TOTAL For Extension Functionaries (In-Service Training)					**196**	**2**	**198**	**0**	**0**	**0**	**196**	**2**	**198**

	GRAND TOTAL (PF + RY+ EF)	**17377**	**7**	**17444**	**3266**	**1**	**3277**	**20663**	**8**	**20071**

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
					M	F	T	Type of units	Number of units	Number of persons employed	
	21/11/12	Value addition & Bakery products		1	**0**	**48**	**48**	**-**	**-**	**-**	-
	4/12/12	Preparation and preservation of tomato ketchup and lemon syrup		1	**0**	**22**	**22**	**-**	**-**	**-**	-
	21/1/13	Goat rearing		1	**44**	**0**	**44**	**-**	**-**	**-**	-
	4/2/13	Poultry rearing		1	**30**	**0**	**30**	**-**	**-**	**-**	-
	279/12	Repairs & Maintenance of improved farm implements		1	**25**	**0**	**25**	**-**	-	**-**	-
	7/3/13	Honey bee rearing		1	**20**	**0**	**20**	**-**	-	**-**	-
					119	**70**	**189**	**-**	**-**	**-**	**-**

E) Sponsored/ Collabrative Training Programmes

SN	Date	Title	DISCIPLINE	Thematic area	Duration (days)	Client (PF/RY/EF)	No. of courses	No. of Participants									Sponsoring Agency
								Others			SC/ST			Total			
								M	F	T	M	F	T	M	F	T	
1	23/812	Latest Agril technologies		-	1	PF	1	45	0	45	0	0	0	45	0	45	ATMA, S' nagar
2	22,23,24/1/13	Integrated Rodent Management		-	3	PF	1	300	0	300	0	0	0	300	0	300	State dept of Agri, S'nagar
3	7/2/13	Block level pasu shibir : Care & Management of Animals.		-	1	PF	1	200	108	308	0	0	0	200	108	308	Animal Dispensary-Chotila)
								545	**108**	**653**	**0**	**0**	**0**	**545**	**108**	**653**	

F) Training Programmes under seed village programme

SN	Title	Participants		
		Others	SC/ST	Total
1	Pure seed Production technique in Cumin	25	6	31
2	Pure seed Production technique in Wheat	27	7	34
3	Pure seed Production technique in Wheat	25	5	30
4	Pure seed Production technique in Cumin	19	7	26
	TOTAL	**96**	**25**	**121**

G. Training Programmes under RKVY programme

SN	Title	Participants		
		Others	SC/ST	Total
1	Moisture conservation technique in soil	24	5	29
2	Water conservation technique	21	9	30
3	Micro irrigation system	20	4	24
4	Care & management of animal during monsoon	25	3	28
5	Fodder production technology	25	5	30
6	Pure seed production technique in cumin	21	4	25
7	IPM & IDM in cumin	21	4	25
8	Value addition in cumin & Wheat	21	4	25
9	Production technology of Cumin	18	1	19
10	Efficient water management in Cumin	24	2	26
11	Post harvest technology of Cumin	20	1	21
	TOTAL	**240**	**42**	**282**

3.4. Extension Programmes (including activities of FLD programmes)

Nature of Extension Activity	Purpose/ topic Date	No. of activities	Participants											
			Farmers (Others) (I)			SC/ST (Farmers) (II)			Extension Officials (III)			Grand Total (I+II+III)		
			M	F	T	M	F	T	M	F	T	M	F	T
Field Day	28/09/12	1	20	7	27	0	0	0	0	0	0	20	7	27
	29/09/12	1	27	7	34	0	0	0	0	0	0	27	7	34
	01/10/12	1	15	5	20	0	0	0	0	0	0	15	5	20
	05/10/12	1	25	7	32	0	0	0	0	0	0	25	7	32
	05/10/12	1	15	7	22	0	0	0	0	0	0	15	7	22
	06/10/12	1	14	5	19	0	0	0	0	0	0	14	5	19
	06/10/12	1	20	1	21	0	0	0	0	0	0	20	1	21
	08/10/12	1	23	0	23	0	0	0	0	0	0	23	0	23
	08/10/12	1	18	4	22	0	0	0	0	0	0	18	4	22
	10/10/12	1	21	6	27	0	0	0	0	0	0	21	6	27
	12/10/12	1	22	8	30	0	0	0	0	0	0	22	8	30
	15/10/12	1	21	0	21	0	0	0	0	0	0	21	0	21

	25/02/13	1	10	7	17	0	0	0	0	0	0	10	7	17
	25/02/13	1	15	2	17	0	0	0	0	0	0	15	2	17
	26/02/13	1	14	1	15	0	0	0	0	0	0	14	1	15
	26/02/13	1	14	0	14	0	0	0	0	0	0	14	0	14
	27/02/13	1	12	4	16	0	0	0	0	0	0	12	4	16
	27/02/13	1	17	4	21	0	0	0	0	0	0	17	4	21
	04/03/13	1	13	5	18	0	0	0	0	0	0	13	5	18
	04/03/13	1	14	5	19	0	0	0	0	0	0	14	5	19
Field Day		20	350	85	435	0	0	0	0	0	0	350	85	435
Kisan Ghosthi		16	667	126	793	0	0	0	0	0	0	667	126	793
Film Show		30	1597	188	1785	0	0	0	0	0	0	1597	188	1785
Farmers Meeting		10	592	15	607	0	0	0	0	0	0	592	15	607
Khedut Shibir		13	899	16	915	0	0	0	0	0	0	899	16	915
Lectures delivered as resource persons		93	3614	693	4307	0	0	0	0	0	0	3614	693	4307
Radio talks		3												
TV talks		4												
Extension Literature distributed		3700												
Advisory Services		5	84	0	84	0	0	0	0	0	0	84	0	84
Scientific visit to farmers field		26	294	38	332	0	0	0	0	0	0	294	38	332
Farmers visit to KVK		111	4022	906	4928	0	0	0	0	0	0	4022	906	4928
Diagnostic visits		2	32	9	41	0	0	0	0	0	0	32	9	41
Soil health Camp		59				0	0	0	0	0	0			
Animal Health Camp		7	266	0	266	0	0	0	0	0	0	266beneficiaries 480 animal		
Celebration of Technology week 17-21 /9 /2012		1	414	157	571	0	0	0	0	0	0	414	157	571

3.5 Production and supply of Technological products

SEED MATERIALS:

Major group/class	Crop	Variety	Quantity (Kg.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	--	--	--	--	--
OILSEEDS	Groundnut	GG-2	315	19425	7
	Groundnut	GJG-31	2580	177160	55
	Groundnut	TPG-41	208	9765	6
	Sesamum	GT-3	209	25080	95
	Sesamum	GT-1	151	18128	65
PULSES	Green-gram	Guj.-4	860	49665	270
OTHERS (Specify)	Cumin	GC-4	1020	193000	414
	Bajara	GHB-732	158	11070	81

SUMMARY

Sl. No.	Major group/class	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS			
2	OILSEEDS	3463	249558	228
3	PULSES	860	49665	270
4	VEGETABLES	0	0	0
5	FLOWER CROPS	0	0	0
6	OTHERS	1178	204070	495
TOTAL		5501	503293	993

PLANTING MATERIALS :

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
Fruits					
Spices					
Vegetables	Tomato	GT-3	5000		**240**
	Brinjal	GBJ-3	2000		**15**
	Brinjal	Local	7000		**370**

	Chilli	Local Vadhvani	5000		**200**
Forest Species					
Ornamental Crops					
Plantation Crops					
Others (Specify)					

BIO-PRODUCT :

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOFERTILIZERS						
1	Trichoderma	Trichoderma viride		857	59990	581
2	Azotobacter	Azotobacter		242	14460	205
3	Azospirilum	Azospirilum		1	75	1
4	Rhizobium culture	Rhizobium melilopy		7	525	7
	PSB	PSB		2	150	1

SUMMARY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	(kg)		
1	BIOAGENTS	-	-	-	-	-
2	BIO FERTILIZERS			1109	75200	795
3	BIO PESTICIDE	-	-	-	-	-
	TOTAL					

LIVESTOCK : NIL

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

(A) KVK News Letter: nil

(B) Literature developed / published

Item	Title	Authors name	Number of copies
1	2	3	4
Research papers	Hetreosis in sesame (*Sesame indicum* L.)	Javia R.M., Pandya H.M. and Dhaduk H.L.	--
	Response of jatropha curcas grown on wasteland to nitrogen and phosphorus fertilization	Bhuva H.M., Chaudhari D.R., Chikara J., Parmar D.R. and Patolia J.S.	--
	Effect of nutrient management in sesame on sulphur and micronutrient availability in sandy loam soil	Suratria G.S., Vora V.D., Javia R.M., Akbari K.N. and Padmani D.R.	--
	Effect of nutrient management on sesame yield and post harvest soil fertility in sandy loam soils	Akbari K.N., Sutaria G.S., Javia R.M., Vora V.D. and Padmani D.R.	--
	Identification of technological needs and problems of farmers in Agril. Entomology	Bochlya B.C., Javia R.M., Bharadiya A.M. and Bhuva H.M.	--
Total	**05**	**--**	**--**
Leaflets/ folders	Surendranagar jilanu krushi mandir	Kabariya B.B. and Javia R.M.	1000
	Suki khetima vadhare pak utpadan kevi rite Medavasho	Bhuva H.M. and Javia R.M.	1000
	Kapasma jivato tatha rogoni niyantran vyavatha	Bharadiya A.M. and Javia R.M.	1000
	Vadhu dudha utpadan kem midavasho	Tajapar M.M. amd Javia R.M.	1000

	Jal sangrah ane teni vividh paddhatio	Prajapati G.V. and Javia R.M.	1000
	Khedut mahilao ane poshhankhham aahar	Bhalala B.M. and Javia R.M.	1000
	Chaniya khatar no ek matra paryay etle kapasni santhinu khatar	Bhuva H.M., Javia R.M. and Bochliya B.C.	1000
	Alasiya apanavo jamin bachavo	Bhuva H.M., Javia R.M. and Bochliya B.C.	1000
	Ratanjyotni kheti paddhati	Bhuva H.M., Javia R.M. and Tajpara M.M.	1000
	Magafalini jivato ane tenu niyantran	Bharadiya A.M., Javia R.M. and Bhuva H.M.	1000
	Talma rog – jivat niyantran	Bharadiya A.M., Javia R.M. and Bhuva H.M.	1000
	Dudh utpadanma ghatado ane teno ukel	Tajpara M.M., Javia R.M. and Bhuva H.M.	1000
	Pashuchikitsama vaparati davao ane pashurahethanma vaparata jantunashako	Tajpara M.M., Javia R.M. and Bhuva H.M.	1000
Total	**13**	**--**	**13000**

(C) Details of Electronic Media Produced :

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

3.7. Success stories/Case studies

Success Story-1.

<table>
<tr><td>  </td><td>Thematic Area: Agri-prenuership
“Raising of Vegetable Nursery”
Sh.Ramshibhai Chhaganbhai Metaliya
Village:Panchvada, Taluka: Chotila
District: Surendranagar, Gujarat
Mo.: +91 99095 47122</td></tr>
<tr><td>Profile:

Age: 46 year

Education: literate

Land Holding: 2 Acre

Farming Experience: 20 Yr

<u>Crop Grown</u> :
Kharif:-
Cotton, Vegetables

Rabi Crops:-Cumin

Fruit Crops:- Lemon

Raising of Vegetable Nursery

Live Stock :Buffalos</td><td>Description: Mr.Ramshibhai is a small farmer of the village Panchvada. He is literate only. Initially he is engaged in taking field crops along with lemon orchards. Due to limited resources, he faced the many constraints most of economic. He is hard worker. Meanwhile, he came in contact with KVK. He appraised about the Nursery demonstration unit and other training programmes of KVK. After that he established liaison with KVK scientists for proper advice. Based on his skill and knowledge KVK scientists encouraged him to start nursery enterprise for extra income to support his family. Initially, he was acquainted with local demand of farmers & purchase good quality Hybrid seeds of vegetables of private companies. Within 2 year from establishment of unit, he produces about 16,00,000 seedlings of different vegetable crops and marketed in nearby village of Chotila taluka. He is Intelligent in marketing and Advertise about his enterprise as quick as possible and win the faith of farmers. Now he is growing these seedlings in plug trays and supply by own rickshaw. Today he earns about Rs.2,00,000 (Two lacs.) extra income per year from this enterprise.

Utility: Today farmers of surrounding area can purchase good quality of seedlings of hybrid variety of vegetable crops directly & also give order of specific crop & variety seedlings to Ramshibhai bhai</td></tr>
<tr><td> 
Nursery Board</td><td> 
Nursery of Vegetable crops</td></tr>
</table>

Adoption of INM in Bt cotton

1. Name of farmer : Rajubhai Dalpatbhai Maharaj
2. Name of village : Sapar (Sayala)
3. District : Surendranagar

Cotton is the main cash crop in Surendranagar district of Gujarat, most of the farmers of this area cultivated cotton as a Kharif crop. The average productivity seen in this area for cotton is i.e. 1825 kg/ha of district. Most of the farmer was used bt variety of cotton. These varieties are higher yielder hence more balance requirements of nutrients. Most of the farmers used only DAP and Urea. They not aware about the use of micronutrients. So the yield comes low due to defoliation at the time of maturity and less setting of flower due to more use of nitrogenous fertilizers.

Shri Rajubhai Dalpatbhai Maharaj is a progressive farmer of the Sapar village, Talulka: Sayala. He has about 2 ha land on which he grows mostly cotton in Kharif season. Through Krishi Vigyan Kendra one FLD on INM in cotton was conducted on his field. The treated plots shows vigorous plant growth, more branching and high boll formation than the control plot, hence as a result more yield was obtained against the local check. He told that approximately 15-18 % yields were increased due to the adoption of INM in cotton. He said that for the forthcoming year he will definitely use INM due to higher yield and superior quality.

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

1. **Method of sowing (Row sowing of cumin):**

Cumin is highly remunerative as compared to other spice crops. In Surendranagar district the area of cumin is increasing due to suitable climatic condition of the district. For successful cultivation of cumin dry and cool climate is most favorable, hence Surendranagar district is suited to its cultivation.

During PRA survey and various field diagnostic visits, it was found that most of the farmers were adopted broad casting method for sowing of cumin. After discussing with all the Subject Matter Specialists of the Krishi Vigyan Kendra under the chairmanship of Programme coordinator, a field experiment on cumin was conducted at the Krishi Vigyan Kendra. The plot is divided into two halves, one for farmer's practice and other for row sowing i.e. for improved practice. All the component of production technologies keeps same. During the initial stage of germination, the germination occurs very well in row sowing as compare to local check. The growth parameters were also good in improved practices than the check. It was found that heavy attack of powdery mildew occur in dense populated farmer's practices plot as compared to improved practices plot. The yield of the crop was also fluctuated. As a result we found that the row sowing method is more suitable for cumin sowing rather than broad casting method.

2. Use of *Tricoderma harzianum* against stem rot disease of groundnut.
3. Cotton Stalk Shredder
4. Cotton Stalk Puller
5. Tractor mounted spryer
6. Minimizing the Fertilizer and Maximizing organic manure in Cotton crop
7. IPM in Cotton

3.9 Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)

	Crop	ITK Practiced	Purpose of ITK
1	Cotton	Cow urine + Dhatura + Desi Aakada boiled and their boiled extract sprays on cotton crop to control the sucking pest.	To control sucking pest.
2	Black gram	Uses of Mehandi powdar and Black gram for minimize the repeat breeder (Uthalo)	To minimize repeat breeder
3	Cattle	For the control of H.S. disease (Locally called Humaro), Kalthi pulse used in feeding	To control H.S. disease
4	Cotton	Boiled mixture of neem oil (500 gms), Aelovera (4 kg), tobacco (500 gms)& water (20 lit) used to control the heleothis, pink boll worm, semi looper	To control the heleothis, pink boll worm, semi looper
5	Wheat	Use of cactus leaves & fruits to control the termites	To control termites
6	Cumin	For the control of powdery mildew in cumin, boiled extract of 3 kg leaves of Piludi + 20 lit water spray on cumin	To control powdery mildew
7	Castor	Milk of cactus is used for the control of stem rot in castor	To control stem rot
8	Cotton	Fermented bajra floor (Bajra floor dig in heap of gobber for 10 days) used for the control of different larvae in Cotton	To control different larvae
9	Pulses	Ash powder is used to preserve the pulses.	For the storage
10	Grain	Neem leaves are used to store pulses as well as grains.	For the storage
11	Child care	To cure cough and cold in children, ajwain seed or nagarvel leaf should be used. Those are applying on chest and give hot towel treatment to child.	Child care
12	Child care	To cure dehydration, jaggery water is given to child	Child care

Indicate the specific training need analysis tools / methodology followed for

* ***Identification of courses for farmers/farm women:***
    - Training for value addition in wheat, groundnut and pulse
* ***Rural Youth:***
    - Care and maintenance of farm implements.
    - Safe use of agro chemicals.
    - Organic farming.
* ***Inservice personnel:***
    - Pre seasonal training on kharif and rabi crops management

3.11 Field activities

* Number of villages adopted : 15
* No. of farm families selected : 300
* No. of survey/PRA conducted : 3 PRA, 5 Bench Mark Survey

3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Completed

1. Year of establishment : 2010-11
2. List of equipments purchased with amount : --

Sr. No.	Name of the Equipment	Qty.	Cost
1	Specto-photo meter	1	39,480
2	Flame-photo meter	1	4,4887
3	PH meter	2	7,600
4	Conductivity bridge EC Meter	1	9,450
5	Physical balance	1	6,616
6	Chemical balance	1	45,066
7	Water distillation steel	1	1,57,500
8	Shaker	2	36,000
9	Refrigerator	1	19,200
10	Oven	1	15,215
11	Hot plate	2	9,450

3. Details of samples analyzed so far:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	59	59	15	8850
Water Samples	59	59	15	2950
Total	**25**	**25**	**5**	**11800**

4. IMPACT

4.1 Impact of KVK activities : Details given in Impact analysis

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Composting by using cotton shredder	545	57	--	--
INM in Cotton	40	35	--	--

4.2. Cases of large scale adoption:

Sr. No	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of village	No. of farmers	Area in ha
1	Dry farming	**Latest recommended variety**	Field Day, FLD, Training	15	4400	250
		GG-20, GJG-31 (G'nut)				
		Guj. Til-2,3 (Sesamum)				
		Guj. Greengram-4				
		Guj.Musrard-2 (Mustard)				
		Guj.Gram-3 (Gram)				
		Guj.Cumin-4 (Cumin)				
		GW – 496,366 (Wheat)				
2	Animal husbandry	Vaccination	Training, Animal treatment camp	15	2500	1700 animal
		De-worming		15	1250	2800 animal

- **Details of impact analysis of KVK activities carried out during the reporting period:**

Impact Study of KVK Surendranagar

Krishi Vigyan Kendra, Surendranagar is working in 3 cluster of 14 villages of Chotila, Sayala and Muli talukas of Surendranagar district from 2006. Different programmes like FLDs and OFTs were organized for practicing farmers in selected villages since its inception. The need based training programmes are being planned and organized as on-campus and off campus trainings for the adopted villages. The topics selected were mostly crop production technologies, plant protection measures, water managements etc. the front line demonstrations on recently released varieties of major growing crops and cropping system were organized on farmers fields.

An Interview schedule was prepared to measure the impact of KVK activities such as training, FLDs OFT on beneficiaries. An attempt was made to study the profile of the participants trainees, knowledge and adoption of different agricultural technologies and increase in yield in major crops before KVK and after KVK. The interview schedule was prepared in local language and 100 participant trainees were interview by random sampling method. The study was conducted with following objectives:

1. **To know the profile of trainees**
2. **to identify the agricultural information sources before KVK and after KVK**
3. **to assess the knowledge and adoption of trainees about agricultural technology before and after KVK**
4. **to assess the yield of major growing crops before and after KVK**

(1) Profile of the trainees

A. Age of participants

S.NO.	Category	Percentage
1	Up to 35 years	30
2	36 to 50 years	53
3	More than 50 years	17

The data reveals that about 50 per cent of the participants belongs to 36 to 50 year age group and 30 per cent of participants were from young age group. Hence, more emphasis may be given to attract young age farmers due to their education.

B. Educational status of the participants

S. No.	Category	Percentage
1	Illiterate	18
2	Primary level	52
3	S.S.C./ H.S.C. level	23
4	Graduate and above	7

Majority of the of the farmers were having either primary or high school education the data also show that very few 7 per cent of the respondents were graduate and above. It shows that they are not interested in agriculture and allied aspects.

C. Area of farmland (ha.)

S.No.	Category	Percentage
1	Less than 1 ha.	18
2	1 to 4 ha	57
3	More than 4 ha.	25

The data indicates that majority of the participants farmers were middle to big farmers category.

D. Annual Income (Rs.)

S. N.	Category	Percentage	
		Before KVK	At present
1	10000 to 50000	28	22
2	50001 to 100000	34	30
3	More than 100000	38	48

The farmers having annual income of Rs 10,000 to 50,000 were 28 percent, where as 34 per cent farmers had 50,001 to 1,00000 and 38 percent farmers were having annual income more the 100000 before KVK inception. At present 48 percent farmers were having annual income more than Rs.100000, 30 percent were having Rs 50001 to 100000 and 22 percent having 10000 to 50000. It shows that after KVK, the annual income of the farmers has increased to some extent.

2. Sources of Agricultural information before KVK and at present

S. No.	Sources of agril. information	Percentage	
		Before KVK	At present
1	Radio	30	42
2	TV.	42	48
3	Telephone	23	35
4	News Paper	20	40
5	Agril Literature	28	37
6	KVK Scientist	-	85
7	NGOs	12	25
8	Agro agencies	54	68

The data presented in the table reveals that 54 percent of the respondents got agricultural information from agro agencies, 42 per cent from TV, 30 per cent from radio 28 percent from agril literature and remaining from news papers and various NGO activities. Before the KVK started .in this area. But at present 85 percent getting the information from KVK Scientist, 68 per cent from agro agencies 48 per cent from TV, 42 per cent from Radio and remaining from various sources.

3. Knowledge and Adoption of Agril. Technology before KVK and at present by trainees

A. Knowledge and adoption of Cotton Production Technology

S. N	Particulars	Before KVK		At present	
		Knowledge	Adoption	Knowledge	Adoption
1.	High Yielding Varieties, Bt cotton	60	30	100	95
2	Sowing Time	85	78	95	90
3	Seed Rate	60	55	100	90
4	Seed Treatment	30	25	45	35
5	Row Spacing	35	30	75	70
6	Application of Fertilizer	25	22	85	75
7	Irrigation	78	72	85	80
8	Control measures for Insects	25	20	75	70
9	Control measures for Diseases	22	18	45	40

B. Knowledge and adoption of Groundnut Production Technology

S.No	Particulars	Before KVK		At present	
		Knowledge	Adoption	Knowledge	Adoption
1.	High Yielding Varieties	48	24	95	84
2	Sowing Time	80	75	95	88
3	Seed Rate	65	53	80	75
4	Seed Treatment with Trichoderma	10	2	55	45
5	Row Spacing	26	14	90	85
6	Application of Fertilizer	49	45	65	60
7	Irrigation	78	70	92	88
8	Control measures for Insects	33	27	85	76
9	Control measures for Diseases	28	26	84	74

C. Knowledge and adoption of wheat Production Technology

S. N	Particulars	Before KVK		At present	
		Knowledge	Adoption	Knowledge	Adoption
1.	High Yielding Varieties GW-496, GW-366, 273	65	60	85	84
2	Sowing Time	80	75	98	92
3	Seed Rate	71	65	85	78
4	Seed Treatment	38	30	55	45
5	Row Spacing	46	36	70	65
6	Application of Fertilizer	45	35	75	65
7	Irrigation	75	65	80	75
8	Control measures for Insects	33	25	65	60
9	Control measures for Diseases	10	-	85	45

D. Knowledge and adoption of Cumin Production Technology

S. N	Particulars	Before KVK		At present	
		Knowledge	Adoption	Knowledge	Adoption
1.	High Yielding Varieties GC-2,3,4	40	35	100	100
2	Sowing Time	90	85	100	100
3	Seed Rate	56	50	90	80
4	Seed Treatment	45	40	88	85
5	Row Spacing	45	40	85	80
6	Application of Fertilizer	38	35	90	80
7	Irrigation	80	73	100	94
8	Control measures for Insects	35	30	86	80
9	Control measures for Diseases	28	21	100	95

E. Knowledge and adoption of Chickpea Production Technology

S. N	Particulars	Before KVK		At present	
		Knowledge	Adoption	Knowledge	Adoption
1.	High Yielding Varieties Guj Gram 1,2,3	17	5	75	65
2	Seed Rate	58	39	90	80
3	Seed Treatment	15	-	55	45
4	Row Spacing	55	50	75	70
5	Application of Fertilizer	55	50	80	70
6	Irrigation	86	70	95	90
7	Control measures for Insects	33	25	55	50
8	Control measures for Diseases	22	20	50	45

5. LINKAGES

- **Functional linkage with different organizations**

Name of organization	Nature of linkage
State department of Agriculture - Dy. Director of Agriculture (Extension) - Dy. Director of Horticulture - Dy. Director of Animal husbandry - Dy. Director of Soil Conservation - Dy. Director of Social Forestry -Dy. Director of Fisheries	The head of all the organizations are members of Scientific Advisory Committee of KVK and have linkage with different activities of KVK viz., training programmes, farmers day, field days, etc.
Jilla Udyog Kendra	
Milk Co-operative Society	
State bank of India	
Doordarshan Kendra	
All India Radio	
ATMA, Surendranagar	
AKRSP, Sayala	
NHRDF	
Farmers Training Centre	
ATMA	

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.) 2012-13	
			Recurring	Non-recurring
RKVY	April-2012	GOG	3,00,700	--
ATIC	April-2012	GOG	6,11,000	1,00,000
Seed Village	April-2012	GOG	11,52,500	--

5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district: Yes

Sr. No.	Programme	Nature of linkage	Remarks
1	Training for farmers, FW, RY	Technical support	
2	Training for SMS (ATMA)		
3	FFS		
4	Farmers meeting		

5.4 Give details of programmes implemented under National Horticultural Mission:

Sr. No.	Programme	Nature of linkage	Constraints if any
1	Training for Mali	Lecture delivered as resource person	--
2	Khedut shibir		

5.5 Nature of linkage with National Fisheries Development Board: NIL

6. PERFORMANCE OF INFRASTRUCTURE IN KVK :

6.1 Performance of demonstration units (other than instructional farm) :

- Establishment of IFS Model

Components:

1. Fish Rearing
2. Poultry (layering)
3. Goat rearing
4. Vegetables Production
5. Cereal Production
6. Composing unit
7. Gir cow rearing

6.2 Performance of instructional farm (Crops) including seed production

Sr. No.	Name of crop	Date of sowing	Date of harvest	Area (ha)	Variety	Type of produce	Quantity (Kg)	Seeds Sale (Kg)	Income (Rs.)
1	Ground Nut	–	–	2.08	GG-2	Breeder	1343	315	19425
2	Ground Nut	–	–	0.90	TPG-41	TF	208	208	9765
3	Ground Nut	–	–	4.93	GJG-31	TF	3898	2580	177160
4	Sesamum	–	–	0.86	GT-3	Breeder	209	209	25080
5	Sesamum	–	–	0.50	GT-1	Breeder	151	151	18128
6	Green gram	–	–	1.93	GM-4	TF	860	860	49665
7	Bajara	–	–	1.50	GHB-732	Hybrid	158	158	11,070
8	Bajara	–	–	1.50	GHB-744	Hybrid	244	-	-
9	Cumin	–	–	2.00	GC-4	TF	1020	1020	1,93,000

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

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

6.4 Performance of instructional farm (livestock and fisheries production) : NIL

6.5 Rainwater Harvesting Training programme conducted by using rainwater harvesting demonstration unit

Date	Title of the training course	Client	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
				M	F	T	M	F	T

6.6 Utilization of hostel facilities:

Accommodation available (No. of beds): 20

Months	Title of the training course/ Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2012	--	00	00	
May 2012	--	240	12	
June 2012	--	00	00	
July 2012	--	00	00	
August 2012	--	00	00	
September 2012	--	68	08	
October 2012	--	27	02	
November 2012	--	103	03	
December 2012	--	06	02	
January 2013	--	08	01	
February 2013	--	00	00	
March 2013	--	34	01	
Grand total		486	29	

7. FINANCIAL PERFORMANCE

7.1 Details of KVK Bank accounts

	Name of the Bank	Location	A/c Number
a. With Host. Institute	SBI	Junagadh	---
b. With KVK (2704 -18)	SBS	Chotila	66002464030
c. With KVK (2076- 22)	SBS	Chotila	66002438769

7.2 Utilization of funds under FLD on Oilseed *(Rs. In Lakhs)*

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2013
	Kharif 2012-13	Rabi 2012–13	Kharif 2012-13	Rabi 2012-13	
Inputs	0	0	0	0	0
Extension activities	0	0	0	0	0
TA/DA/POL etc	0	0	0	0	0
TOTAL	0	0	0	0	0

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

Item	Released by ICAR		Expenditure		Unspent balance as on 1st April 2013
	Kharif 2012-13	Rabi 2012–13	Kharif 2012-13	Rabi 2012-13	
Inputs	0	0	0	0	0
Extension activities	0	0	0	0	0
TA/DA/POL etc.	0	0	0	0	0
TOTAL	0	0	0	0	0

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

Item	Released by ICAR	Expenditure	Unspent balance as on 1st April 2013
	Kharif 2012-13	Kharif 2012-13	
Inputs	0	0	0
Extension activities	0	0	0
TA/DA/POL etc.	0	0	0
TOTAL	0	0	0

7.5 Utilization of KVK funds during the year 2012 -13

SN	Items/Head	Sanctioned grant	Grant received	Expenditure
A RECURRING CONTIGENCY				
1	**Pay & Allowances**	**47,50,000**		**47,06,401**
2	**Traveling Allowances**	**1,50,000**		**1,30,000**
3	**Contingencies**	**10,50,000**		**10,48,301**
a.	Stationary, Telephone, Postage and other expenditure on office running	4,20,000		4,19,992
b.	POL, repair of vehicles, tractor and equipments			
c.	Meals/refreshments of trainees	6,30,000		6,28,309
d.	Training materials			
e.	Frontline demonstration except oilseeds and pulses			
f.	On farm testing			
g.	Training of extension functionaries			
h.	Maintenance of building			
	TOTAL-A	**59,50,000**		
B NON-RECURRING CONTIGENCY				
1	Plant Health Clinic	10,00,000	00	9,18,469
	TOTAL-B			
	GRAND TOTAL	**69,50,000**	**66,27,000**	**68,03646**

7.3 Status of revolving fund (Rs.) as on 31st March - 2013

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 2005 to March 2006	1,00,000	--	--	1,00,000
April 2006 to March 2007	1,00,000	73,778	15,709	1,58,069
April 2007 to March 2008	1,58,069	3,60,622	3,31,160	1,87,531
April 2008 to March 2009	1,87,531	2,87,137	1,87,888	2,86,780
April 2009 to March 2010	2,86,780	6,24,618	1,00,011	8,11,387
April 2010 to March 2011	8,11,387	1,71,380	51	9,82,716
April 2011 to March 2012	9,82,716	6,77,483	5,12,461	11,47,738
April 2012 to March 2013	11,47,738	9,03,804	3,07,645	17,43,897

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

8.1 Constraints

(a) Administrative : Nil
(b) Financial : Nil
(c) Technical : Nil

Technology Inventory and Activity Chart - III

S.N	Technology	Crop/ enterprise	Year of release or recommendation of technology	Source of technology	Reference/ citation
1.	Variety : Guj. Mustard-2	Mustard	2004	S.K.A.U., S.K. Nagar	--
2.	Variety : Guj. Gram - 3	Gram	2008	J.A.U., Junagadh	--
3.	Variety : Guj. Cumin - 4	Cumin	2002	G.A.U., S.K. Nagar	--
5	Variety : GW-496	Wheat	1989	J.A.U., Junagadh	--
7	Variety : GG-20	Groundnut	1991	G.A.U., S.K. Nagar	--
8	Application of Trichoderma against stem rot disease in Groundnut		--	J.A.U., Junagadh	--
9	Variety : Guj. Sesamum-2	Sesamum	1994	J.A.U., Junagadh	--
10	Variety : Guj. Greengram - 4	Green Gram	2002	G.A.U., S.K. Nagar	--
11	Variety : RCH-2 (Bt)	Cotton	--	--	--
12	Management of mealy bug in cotton		--	J.A.U., Junagadh	--

Activity Chart

Crop/ Animal/ Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Mustard	Low yield	--	Improved variety	FLD, Training, Field day	S.K.A.U., S.K. Nagar
Gram	Low yield	--	Improved variety	FLD, Training, Field day	J.A.U., Junagadh
Cumin	Low yield	--	Improved variety	FLD, Training, Field day	G.A.U., S.K. Nagar
Wheat	Low yield	--	Improved variety	FLD, Training, Field day	J.A.U., Junagadh
Groundnut	Low yield	Disease infestation	IDM	FLD, Training, Field day	J.A.U., Junagadh
Sesamum	Low yield	--	Improved variety	FLD, Training, Field day	J.A.U., Junagadh
Green gram	Low yield	--	Improved variety	FLD, Training, Field day	G.A.U., S.K. Nagar
Cotton	Low yield	--	Improved variety	FLD, Training, Field day	--
	Low yield	Infestation of Mealy bug	Management of Mealy bug in cotton	OFT, Training, Field day	J.A.U., Junagadh