ANNUAL PROGRESS REPORT OF KYK NANA-KANDHASAR (2007-08)

### 1. GENERAL INFORMATION ABOUT THE KVK:

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

Address	Telepho	one	E-mail	Web
	Office	Fax		Address
Krishi Vigyan Kendra,	02751-		rmjavia@	
Junagadh Agricultural University	294120		gmail.com	
Nana-Kandhasar-363 520				
Dist: Surendranagar				

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

Address	Telep	<b>E</b> -	Web	
	Office	Fax	mail	Address
Junagadh Agricultural University	0285-	0285-		jau.in
Junagadh- 362 001	2672080-90	2672653		

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

Name	Telephone / Contact				
	Residence	Mobile	E-mail		
Dr. R. M. Javia		094277 25505	rmjavia@gmail.		
I/C Programme Coordinator			com		
Krishi Vigyan Kendra,					
Junagadh Agricultural University					
Nanakandhasar-363 520					
Dist: Surendranagar					

1.4. Year of sanction: October, 2005

# 1.5. Staff Position (as on 30th September 2008)

Sr. No	Sanctioned post	Name of the incumbent	Designa- tion	Discipline	Higehest Qualificait on (for PC, SMS and Prof. Assit.)	Pay Scale with present basic	Date of joining	Perma nent / Temp orary	Category (SC/ST/ OBC/ Others)
1	Programme Coordinator	VACANT							
2	SMS	Dr. R. M. Javia	SMS	Plant Breeding & Genetics	Ph.D.	8000 - 13500 (9650)	22-8-2006	Т	Gen.
3	SMS	Mr. A.M. Bharadiya	SMS	Plant Protection	M.Sc.	° (8550)	21-8-2006	Т	SC
4	SMS	Dr. B. C. Bochalya	SMS	Ext Edu.	Ph.D.	° (9650)	23-8-2006	Т	Gen.
5	SMS	Miss B. M. Bhalala•	SMS	Home Science	M.Sc.	(8000)	23-8-2006	Т	Gen.
6	SMS	Dr. M. M. Tajapara	SMS	Animal Science	M.V. Sc.	° (8550)	22-8-2006	Т	Gen.
7	SMS	Mr. H. M. Bhuva	SMS	Agronomy	M.Sc.	(8000)	30-8-2006	Т	Gen.
8	Farm Manager	Mr. K.H. Ribadiya	Farm Manager	PBG	M.Sc.	5500-9000 (8125)	07-3-2006	Т	Gen.
9	Training Assistant	VACANT							
10	Computer Programmer	VACANT							
11	Accountant / Superintendent	Mr. V. F. Chaudhari	O. S. cum Accountant			5000–150 -8000	06-6-2007	Т	ST
12	Stenographer	VACANT							
13	Driver	Mr. P. D. Dave	Tractor Driver			4000–100 -6000	06-9-2007	Т	Gen.
14	Driver	Mr. H. R. Gohil	Jeep Driver			4000- 6000	01-8-2006	T	Gen.
15	Supporting staff	Mr. M. H. Solanki	Peon			2650-3540	08-3-2006	T	SC
16	Supporting staff	Mr. Y. B. Joshi	Peon			2650-3540	08-6-2007	Т	Gen.

<sup>\*</sup> Working at KVK, JAU, Targhadia.

### 1.6. Total land with KVK (in ha):

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

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# 1.7. Infrastructural Development:

# A) Buildings

Sr.	Name of	Source			Sta	ge		
No.	building	of funding		Complete Incomple				lete
		nunung	Completion Date	Plinth area (Sq.m)	Expenditure (Rs.) Total	Starting Date	Plint h area (Sq. m)	Status of construction
1.	Administrative Building		Near to completion		10.21	2005-06		
2.	Farmers Hostel		Near to comp	pletion	6.76	2005-06		
3.	Staff Quarters (6)		Near to completion	pletion	11.97	2005-06		
4	Fencing	ICAR	Near to completion		6.00	2007-08		
5	Rain Water harvesting system		March-07		7,43,411	2006-07		-
6	Farm godown		Near to comp	oletion		2005-06		-

# B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep Bolero	2006-07	4,86,500	25873	Transferred to DEE office, JAU, Junagadh
Jeep M&M Pizo	1991		6000	Working condition but required major repairing

# 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.

# 1.8. A). Details SAC meeting conducted in the 2007-08:

Sr. No.	Date	Number of Participants	Salient Recommendations	Action taken									
1.	26/10/07	20	Seed for FLD should be given on farm by giving training on seed processing and treatment	Suggestion accepted & action taken									
			Subsidy which is given by all line department	Suggestion accepted & training conducted in 1st qtr-on campus									
			Food grain storage	Suggestion accepted & training conducted in 4th qtr-off campus									
			IPM for red and white fungus in groundnut	Suggestion accepted & training conducted in 4th qtr-off campus									
			Medicinal and aromatic plant which is used for the preparation of shampoo and cream	Suggestion accepted & training conducted in 4th qtr-off campus									
								Farm god won for storage	Suggestion accepted & training conducted in 4th qtr-off campus				
												Value addition and quality production	Suggestion accepted & training conducted in 1st qtr -on & off campus
			Permanent demonstration unit for compost should be developed	Suggestion accepted & Demo unit established									
			Muth should be given as a part of FLD in place of Black gram	Suggestion accepted & FLD on Muth conducted in kharif-08-09									
			Local variety should be collected and evaluate it	Suggestion accepted & local variety "Vadhavani" chilly and "Morvadi" ber is sown at KVK farm									

	For conducting training, help of line department and NGO should be taken for making the training effective	service trainings are
	Training for seed production should be conducted before the time of sowing	Suggestion accepted & training organized in 1st, 2nd & 4th qtr – on campus and 1st, 3rd qtr – off campus
	Fodder demonstration unit should be developed at Krishi Vigyan Kendra	1
	Veterinary officer and health officer should be invited in SAC	Suggestion accepted & invitation given

#### 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.

Characteristics

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

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



Agro-climatic Zone



NORTH SAURASTRA AGRO - CLIMATIC ZONE

1. Total geographical area

2. Area under forest

3. Area under non agricultural use : 2.10 lakh ha.

4. Barren and uncultivated land

5. Permanent pasture

6. Current fallows

7. Net sown area

8. Total cropped area

9. Area sown more than one

10. Climate

11. Average rainfall

12. Soil type

: 35.02 lakh ha. : 1.47 lakh ha.

: 2.52 lakh ha.

: 2.45 lakh ha

: 1.70 lakh ha

: 22.17 lakh ha

: 25.77 lakh ha

: 3.61 lakh ha : Arid and semi arid

: 542.14 mm

: 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

• • • • • • • • • • • • • • • • • • • •			1000
(%	)		Crop
a) Kharif			Groundnut
Groundnut	-	40	Groundnut - Wheat
Cotton	:	15	Groundnut - Mustard
Pearmillet	:	12	Groundnut - Cumin
Sorghum	:	10	Groundnut - Chickpea
Sesamum	:	3	Pearl millet - Groundnut
Others	:	20	Pearl millet- Green gram
			Pearl millet- Cumin
b) Rabi			Pearl millet- Mustard
Wheat	:	5	Pearl millet - Garlic
Chickpea	:	2	Cotton
Cumin	:	3	Cotton - Groundnut

15. Crop sequence:

Cotton - Sorghum

KVK, Nana-Kandhasar (Surendranagar)

#### 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) 00 ha	Production 00 mt	Productivity Kg/ha
1	Cotton	1367	5924	737
2	Pearl millet	498	706	1417
3	Sesame	889	347	391
4	Groundnut	212	406	1918
5	Wheat	239	672	2812
6	Cumin	259	136	524
7	Castor	243	527	2168
8	Gram	683	843	1234
9	Onion	7	171	22512
10	Garlic	3	16	6123

<sup>\*</sup>in the year of 2006-2007

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#### 2.5. Weather data

Month	Rainfall	Temper	ature º C	Relative Humidity	
	(mm)	Maximum	Minimum	(%)	
April -07					
May-07					
June-07	56				
July-07	524				
August-07	361				
September-07	82				
October-07					
November-07	10				
December-07					
January-08					
February-08	85				
March-08					
April -08	120				
May -08					
June -08	2096				
July -08	217				
August -08	747				

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

Category	Population	Production	Productivity
Cattle	293758		
Crossbred	201	5461197 lit	
Indigenous	293557	3401197 III	
Buffalo	202939		
Sheep	100589		
Goats	179648		
Pigs	22948		
Rabbits			
Poultry			

# 2.6 Details of Operational area / Villages (2007-08)

Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Chotila	Hirasar	Bajra, Groundnut, Sesame, pulses Diary Farming,	Dry farming, Lower milk production	Dry farming technology Awareness for vaccination & artificial insemination of animals
	Panchavada	Bajra, Groundnut, Sesame, pulses Diary Farming,	Dry farming, HS disease	Dry farming technology Awareness for vaccination & artificial insemination of animals
	Lakhanka	Bajra, Cotton, Cumin, Groundnut, Sesame, pulses, Diary Farming,	Dry farming, Lower milk production, HS disease	Dry farming technology, Awareness for vaccination & artificial insemination of animals
	Kanpar	Bajra, Cotton, 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
	Vijadiya	Groundnut, Cotton, 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
Sayla	Dhedhuki	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
	Kesarpar	Cotton, Wheat, Cumin, Sesame, Bajra	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies
	Doliya	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

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	Aaya	Cotton, Wheat, Cumin, Sesame, Bajra, Groundnut	Lack of knowledge of modern dry land technologies, Injudicious use of fertilizers & Pesticides	Dry farming technologies,
	Kanpur	Horticulture Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	FMD, Lack of knowledge of modern dry land technologies	Awareness for vaccination & artificial insemination of animals
Muli	Umarda	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	FMD, Lack of knowledge of modern dry land technologies	Awareness for vaccination & artificial insemination of animals
	Palasa	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals
	Ramparda	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	HS disease, Injudicious use of fertilizers & Pesticides	Awareness for vaccination & artificial insemination of animals
	Gadhad	Diary Farming, Cotton, G'nut, Sesame, Wheat, Cumin, Bajra	Awareness for vaccination & artificial insemination of animals	Awareness for vaccination & artificial insemination of animals

# 2.7 Prioritized thrust areas

Sr. No.	Thrust area							
1	Dry farming technologies.							
2	Awareness for vaccination & artificial insemination of animals							
3	Adoption of organic farming, Bio-fertilizers & Vermi-compost.							
4	Integrated weed, pest and diseases & nutrient management.							
5	Farm women empowerment.							
6	To motivate farmers to grow arid and semi arid horticultural crops.							

# 3. TECHNICAL ACHIEVEMENTS:

# 3.A. Details of target and achievements of mandatory activities by KVK during 2007-08

		OFT		FLD				
		1			ı	2		
Number of OFTs Number of Farmers			Number of FLDs Number of Farm			er of Farmers		
Targets	Targets Achievement Targets Achievement ment		Targets	Achieve- ment	Targets	Achievement		
3	3 9 9		57 ha	42 ha	114	84		

	Trai	ning		Extension Activities				
		3 4			4			
Number	of Courses	Number of Participants		Number of activities		_	nber of cipants	
Targets	Achieve- ment	Targets	Achieve- ment	Targets	Achieve- ment	Targets	Achieve- ment	
90	95		2165	20	20	-	-	

	Seed Production kg								
			5					6	
Target		F	Achiever	nent			Target	Achievement	
	Name of	Deta	ils of pro	duction	Amo	unt (Rs)			
	crop	Variety	Typeof produce	Quantity (Kg)	Cost of inputs	Gross income			
	Gnut	GG-20	General	150	1600	4237			
	Gnut	GG-2	Breeder	2590	70500	142450			
	Sesamum	Guj-2	Breeder	525	27000	57750			
	Sesamum	Guj-2	General	261	8000	12280			
	Black gram	T-9	General	962	6500	13468			

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### 3.B1. Abstract of interventions undertaken

						Interv	entions				
Sr. No.	Thrust area	Crop/ Enterprise	Identified Problem	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		Groundnut	Low yield		Varietal evaluation	IPM in Groundnut	1. Preseasonal	Filed Day - 10	FLD: Seed inputs:		
						Control measures for pest and diseases of kharif corps	training on rabi crops  2. Preseasonal		GG-20 Insecticide : Mancozeb 75 WP		
						Management of pest and disease of Groundnut	training on kharif crops				
2			um Low yield	yield Supplementary Imigation On yield of sesamum	Irrigation On yield of	ield Supplementary Irrigation On yield of	Supplementary evaluation of pes diseas sesamum	Management of pest & disease of sesame	of pest & methods disease of		FLD: Seed inputs: Guj.Sesamum- 2 OFT:
					Importance of thinning, gap filling & maintenance of plant population in major kharif crops		Endosulphan 35 %				
						Pure seed production techniques in sesame					
						Pest management in sesame					
						Pure seed production technique in sesame					
3		Green Gram	Low yield		Varietal evaluation	Integrated nutrient management in major kharif crops			FLD: Seed inputs: Guj.Greengram- 2		
						Role of intercropping in rainfed area					

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1	2	3	4	5	6	7	8	9	10
4		Cotton	Low yield	Management of sucking pests in Cotton	Varietal evaluation	Efficient use of chemical pesticides  Production technology of cotton  Importance of IPM  IMP in Cotton	«		FLD: Insecticide: Dimethoate 30 EC Trizophos 40 EC OFT: Thiomethoxan 25 % Imidachloprid 17.8 % Acetamaprid 20% Dimethoate 30% Methyl-o-demetone 25%
5		Bio-agent	Heavy infestation	Application of Tricho derma against stem rot Disease in g'nut	Yield evaluation	Precaution while handling pesticides  Methods of seed treatments for pest and disease management			FLD: Bio-agent: Trichoderma harzianum Culture OFT: Trichoderma harzianum Culture Culture Castor cake
6		Mustard	Low yield		Varietal evaluation	Plant protection measures in castor and mustard crop  Importance of preparing cropping scheme  Production technology of mustard and gram		Mustard-3 Insecticide Phospphan 40 EC  Seed inpu Guj.Gran Insecticid	Insecticide : Phospphamidon
7	-	Gram	Low yield		Varietal evaluation	Integrated weed management in major rabi field crops  Efficient water management in major rabi crops  IPM in Gram			Seed input : Guj.Gram-2 Insecticide : Endosulphan 35 EC
8	-	Cumin	Low yield		Varietal evaluation	Production technology of cumin and funnel  Pure seed production technique in cumin			Seed input : Guj.Gram-2 Fungicide : Mancozeb 75 WP Sulphur 80 WP

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1	2	3	4	5	6	7	8	9	10
						Plant protection measures for pest and disease in cumin		u	
9	-	Wheat	Low yield		Varietal evaluation	Control measures for pest and disease in cumin and wheat		"	Seed input : GW-366/ GW-496
						Improved cultivation practice for wheat and cumin			
						Pure seed production techniques in wheat and cumin			

# 3.B2 List of Technology Assessed during 2007-08

S. No.	Thematic area	Name of the technology assessed	Area (ha.)	Number of trials	Remarks if any
1	IDM	Application of Trichoderma against stem rot disease in groundnut	1.50	03	
2	IPM	Management of sucking pests in Cotton	1.50	03	
3	NRM	Effect of supplementary irrigation on yield of sesame	1.50	03	

# 3.B List of Technology Refined during 2007-08: under progress

S. No.	Thematic area	Name of the technology assessed	Area (ha.)	Number of trials	Remarks if any

# 3.C Details of technology used during reporting period

	Title of	Crop/		Mod	e of u	se		No. of	farmer	s covere	d		
	Technology	enterprise		OFT	FLD	Trai ning	Others (Field day)	Other	farmer	s	SC/S		
	Farmers need  Use of latest GG-20 Guj.Til-2 Guj. Green Gram-4 Bt varieties Trichoderma culture Guj.Musrard-3 Guj. Gram-2 Guj.Cumin-4 GW-366/496 Application of Trichoderma against stem rot Disease in gnut Management of sucking pests in Cotton							M	F	T	M	F	T
1	Farmers need	base training											
		Crop prod.		1	84	19	10	729	25	754	11 8	0	11 8
		Horticulture		-	-	5	-	101	6	107	6	0	6
		Soil health & fertility management		-	-	7	-	104	0	104	14	0	14
		Animal sci		-	-	14	-	196	0	196	21	0	21
		Home science		-	-	16	-	16	261	277	0	18	18
		Agril engg		-	-	9	-	142	0	142	18	0	18
		Plant protection	ı	2	-	17	-	229	0	229	22	0	22
		Seeds Prod		-	-	2	-	25	0	25	8	0	8
		Agro forestry		-	-	2	-	25	0	25	4	0	4
		Ext. education		-	-	4	-	67	0	67	5	0	5
		TOTAL		3	84	95	10	1634	292	1926	216	18	234
	Use of latest a	rea specific re	com	ımend	led var	ieties							
2	GG-20	Groundnut		10	)			9	-	9	1	-	1
3	Guj.Til-2	Sesamum		10	)			9	-	9	1	-	1
4	Guj. Green Gram-4	Green gram		10	)			6	2	8	2	-	2
5	Bt varieties	Cotton		10	)			10	-	10	-	-	-
6		Bio-agent		04	1			3	-	3	-	1	-
7	Guj.Musrard-3	Mustard		10	)			5	-	5	5	-	5
8	Guj. Gram-2	Gram		10	)			5	1	6	4	-	4
9	Guj.Cumin-4	Cumin		10	)			9	-	9	1	-	1
10	GW-366/496	Wheat		10	)			9	-	9	1	-	1
11	Trichoderma against stem rot	Groundnut	1					3	-	3	-	-	-
12	sucking pests in	Cotton	1					3	-	3	-	-	-
13	Effect of Supplementary Irrigation On yield of Sesamum	Sesamum	1					2	-	2	1	-	1

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# 3.1 Achievements on technologies assessed and refined

#### A. Results of On Farm Trials

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Dataon the parameter
1	2	3	4	5	6	7	8
1. G'nut	Irrigated	Stem rot	Application of Tricho derma against stem rot Disease in g'nut	3	T1- Farmer's practice (Control) T2- Mixing Trichoderma@ 2.5 Kg with castor cake@ 500 Kg at the time of sowing T3- Soil drenching of Trichoderma@ 50 gm/10 lit. of water with spray pump without nozzle	Yield evaluation	Yield (qt/ha)
2. Cotton	Irrigated	Sucking pest	Management of sucking pests in Cotton	3	*T1- Farmer's practice (Use of new insecticides with higher doses) *T2- Use of old insecticides at recommended dose *T3- Alternate treatment 1 & 2 with recommended doses *New insecticides Thiomethoxan Imidachloprid Acetamaprid *Old insecticides Dimethoate Methyl-o-demetone	Yield evaluation	Yield (qt/ha)
3. Sesamum	Irrigated	Time of Irrigation	Effect of Supplementary Irrigation On yield of sesamum	3	T1- Farmer's practice T2- Two irrigation 50 % flowering and capsule development stage T3- Irrigation at 50% flowering stage or at capsule development stage (Life saving irrigation)	Yield evaluation	Yield (qt/ha)

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	Result	sof assessi	nent	Redback from the farmer	Any Refinement done	Justification for refinement
		9				
	Av. Yie	eld (qt/1	ıa)	10	11	12
S.N	T-1	T-2	Т-3			
1	10.33	12.10	11.73	Treatment-2 shows good control against the stem rot of G'nut but unavailability of castor cake will be not sured at the time of application		
2	15.57	15.70	16.30	At the earlier stage of cotton old insecticides is better while later on when infestation of sucking pest becomes high than newly insecticides gives good results hence Treatment-3 is economic than Treatment-1 & 2 respectively	*T3- Alternate treatment 1 & 2 with recommended doses *New insecticides Thiomethoxan Imidachloprid Acetamaprid *Old insecticides Dimethoate Methyl-o-demetone	Farmers go quick & good results
3	5.05	5.72	5.65	When rains not occurs at the critical stage (i.e. Flowering & pod developed stage) at these critical stages irrigation Treatment-2 shows good output over the Treatment-1 & 3		

Technology Assessed / Refined	*Production per unit	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16
1. Application of Trichodo	erma against s	tem rot disease in gro	undnut
Farmer's practice (T-1)	10.33	14858	1:1.10
Recommended (T-2)	12.10	17575	1:1.12
Modified (T-3)	11.73	18457	1:1.34
2. Management of sucking	g pests in Cotto	on	
Farmer's practice (T-1)	15.57	24210	1:1.08
Recommended (T-2)	15.70	26000	1:1.23
Modified (T-3)	16.30	26100	1:1.14
3. Effect of supplementar	y irrigation on	yield of sesame	
Farmer's practice (T-1)	5.05	19800	1:1.89
Recommended (T-2)	5.72	22620	1:1.93
Modified (T-3)	5.65	22800	1:2.05

# B. Details of each On farm trial to be furnished in the following format separately along with raw data as per the separate proforma provided

#### **B.1**

- 1. Title of Technology assessed / Refined:
  - \* Application of Trichoderma against stem rot disease in groundnut
- 2. Problem Definition
  - \*Heavy attack of stem rot
- 3. Details of technologies selected for assessment/refinement
  - \*T1- Farmer's practice (Control)
  - \*T2- Mixing Trichoderma @ 2.5 Kg with castor cake @ 500 Kg at the time of sowing
  - \*T3- Soil drenching of Trichoderma @ 50 gm/10 lit. of water with spray pump without nozzle
- 4. Source of technology
  - \*Junagadh Agricultural University, Junagadh.
- 5. Production system and thematic area
  - \*Package of practices
- 6. Performance of the Technology with performance indicators
  - \*Result is in Table -A
- 7. Final recommendation for micro level situation
  - \* Under progress
- 8. Constraints identified and feedback for research: NIL
- 9. Process of farmers participation and their reaction
  - \* Result is in Table -A

#### **B.2**

- 1. Title of Technology assessed / Refined:
  - \* Management of sucking pests in Cotton
- 2. Problem Definition
  - \*Heavy attack of sucking pests
- 3. Details of technologies selected for assessment/refinement
  - \*T1- Farmer's practice (Use of new insecticides with higher doses)
  - \*T2- Use of old insecticides at recommended dose
  - \*T3- Alternate treatment 1 & 2 with recommended doses

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\*Old insecticides

1. Dimethoate

2. Methyl-o-demetone

- \*New insecticides
  - 1. Thiomethoxan
  - 2. Imidachloprid
  - 3. Acetamaprid
- 4. Source of technology
  - \*Junagadh Agricultural University, Junagadh.
- 5. Production system and thematic area
  - \*Package of practices & recommended plant protection measures
- 6. Performance of the Technology with performance indicators
  - \* Result is in Table -A
- 7. Final recommendation for micro level situation: Under progress
- 8. Constraints identified and feedback for research: NIL
- 9. Process of farmers participation and their reaction
  - \* Result is in Table -A

#### **B.3**

- 1. Title of Technology assessed / Refined:
  - \* Effect of supplementary irrigation on yield of sesame
- 2. Problem Definition
  - \*Management of irrigation is not proper
- 3. Details of technologies selected for assessment/refinement
  - \*T1- Farmer's practice (Control)
  - \*T2- Irrigation at 50% flowering stage or at capsule development stage (Life saving irrigation)
  - \*T3- Two irrigation at 50% flowering & capsule development stage
- 4. Source of technology
  - \*Junagadh Agricultural University, Junagadh.
- 5. Production system and thematic area: Package of practices
- 6. Performance of the Technology with performance indicators
  - \* Result is in Table -A
- 7. Final recommendation for micro level situation: Under progress
- 8. Constraints identified and feedback for research: NIL
- 9. Process of farmers participation and their reaction
  - \* Result is in Table -A

#### 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 2007-08 and recommended for large scale adoption in the district

Sr. No	Thematic Area*	Technology demonstrated	Details of popularization	Horizo te	of	
			methods suggested to the Extension system	No. of villages	No. of farmers	Area in ha
1	Dry farming	GG-20 (G'nut)	Field Day, FLD,	14	1500	
2		Guj.Musrard-2 (Mustard)	Training & Krushi			
3		Guj. Gram-2 (Gram)	Mahotsav- 2007			
4		Guj.Cumin-4 (Cumin)				
5		GW – 322 & 496 (Wheat)				

# b. Details of FLDs implemented during 2007-08

Sr No	Crop	Thematic area	Technology Demon-	Season and	Area	(ha)	1	. of farr monstr	-	Reasons for
			strated	year	Proposed	Actual	SC /ST	Other s	Total	shortfall in achievement
1	G'nut		Varietal evaluation,	Kharif 2007-08	5.0	5.0	1/0	9	10	
2	Sesame		recommended package of practices	Kharif 2007-08	5.0	5.0	1/0	9	10	
3	Green Gram		1	Kharif 2007-08	5.0	5.0	2/0	8	10	
4	Cotton			Kharif 2007-08	5.0	5.0	0/0	10	10	
5	Bio- agent			Kharif 2007-08	2.0	2.0	1/0	3	4	
6	Mustard			Rabi 2007-08	10.0	5.0	5/0	5	10	Letter of additional
7	Gram			Rabi 2007-08	15.0	5.0	4/0	6	10	grant allotment was received after completion of sowing season

8	Cumin		Rabi 2007-08	5.0	5.0	1/0	9	10	
9	Wheat		Rabi 2007-08	-	5.0	1/0	9	10	
10	Black gram		Kharif 2007-08	5.5	0	0	0	0	- Latest recommended variety was not available.

# Details of farming situation

		lon (		St	tatus	of soil				1033       3         1033       3	As As
Crop	Season	Farming situation (RF/Irrigated)	Soil type	N	P	К	Previous crop	Sowing date	Harvest date	Seasonal rainf (mm)	No. of rainy days
G'nut	Kharif 07-08	Irrigated	Medium black	L	M	Н	Cotton	23/06/07	12/10/07	1033	31
		Irrigated	"	L	M	Н	Cotton	27/06/07	18/10/07	1033	31
		Irrigated	"	L	M	Н	Cumin	20/06/07	11/10/07	1033	31
		Irrigated	"	L	M	Н	Wheat	05/07/07	28/10/07	1033	31
		Irrigated	"	L	M	Н	Brinjal	28/06/07	21/10/07	1033	31
		Irrigated	"	L	M	Н	Wheat	05/06/07	24/10/07	1033	31
		Irrigated	"	L	M	Н	Bajra	26/06/07	15/10/07	1033	31
		Irrigated	"	L	M	Н	Castor	08/07/07	28/10/07	1033	31
		Irrigated	"	L	M	Н	Vegetable	26/06/07	25/10/07	1033	31
		Irrigated	"	L	M	Н	Castor	25/06/07	23/10/07	1033	31
Sesame	Kharif 07-08	Irrigated	Medium black	L	M	Н	Bajra	28/06/07	27/9/07	1033	31
		Rainfed	"	L	M	Н	Bajra	25/06/07	22/9/07	1033	31
		Irrigated	"	L	M	Н	Castor	23/06/07	26/9/07	1033	31
		Rainfed	"	L	M	Н	Cotton	23/06/07	28/9/07	1033	31
		Irrigated	"	L	M	Н	G'nut	24/06/07	22/9/07	1033	31
		Rainfed	"	L	M	Н	Sorghum	27/06/07	Crop failure	1033	31
		Rainfed	"	L	M	Н	Cotton	22/06/07	25/9/07	1033	31
		Rainfed	"	L	M	Н	Wheat	28/06/07	1/10/07	1033	31
		Rainfed	"	L	M	Н	Wheat	06/07/07	8/10/07	1033	31
		Rainfed	"	L	M	Н	G'nut	07/07/07	23/9/07	1033	31

Green Gram	Kharif 07-08	Irrigated	Medium black	L	M	Н	Wheat	08/07/07	28/09/07	1033	31
		Irrigated	"	L	M	Н	Sesamum	07/07/07	30/09/07	1033	31
		Irrigated	"	L	M	Н	Wheat	07/07/07	27/09/07	1033	31
		Irrigated	"	L	M	Н	Cotton	06/07/07	28/09/07	1033	31
		Irrigated	"	L	M	Н	Cotton	06/07/07	30/09/07	1033	31
		Irrigated	"	L	M	Н	Gram	04/07/07	02/10/07	1033	31
		Irrigated	"	L	M	Н	Cumin	27/06/07	17/09/07	1033	31
		Irrigated	"	L	M	Н	Bajra	26/06/07	30/09/07	1033	31
		Irrigated	"	L	M	Н	Cotton	24/06/07	27/09/07	1033	31
		Irrigated	"	L	M	Н	Cotton	25/06/07	26/09/07	1033	31
Cotton	Kharif 07-08	Irrigated	Medium black	L	M	Н	Cotton	22/06/07	Different pecking as and when required	1033	31
		Irrigated	"	L	M	Н	Wheat	22/06/07	28/11/06	1033	31
		Irrigated	"	L	M	Н	Cotton	20/06/07	05/01/07	1033	31
		Rainfed	"	L	M	Н	Cotton	05/07/07	29/11/06	1033	31
		Irrigated	"	L	M	Н	Sorghum	20/06/07	07/01/07	1033	31
		Rainfed	"	L	M	Н	Wheat	20/06/07	07/01/07	1033	31
		Irrigated	"	L	M	Н	Wheat	12/06/07	26/11/06	1033	31
		Irrigated	"	L	M	Н	Wheat	15/06/07	03/12/06	1033	31
		Irrigated	"	L	M	Н	Wheat	12/06/07	05/12/06	1033	31
		Irrigated	"	L	M	Н	Wheat	18/06/07	10/01/07	1033	31
Bio-agent	Kharif 07-08	Irrigated	Medium black	L	M	Н	Wheat	22/06/07	11/10/07	1033	31
		Irrigated	"	L	M	Н	Cotton	26/06/07	18/10/07	1033	31
		Irrigated	"	L	M	Н	Cumin	24/06/07	14/10/07	1033	31
		Irrigated	"	L	M	Н	Castor	27/06/07	16/10/07	1033	31
Mustard	Rabi 07-08	Irrigated	Medium black	L	M	Н	Green gram	20/10/07	15/02/08	1033	31
		Irrigated	"	L	M	Н	Sorghum	24/10/07	18/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	23/10/07	15/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	30/10/07	21/02/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	23/10/07	15/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	19/10/07	10/02/08	1033	31
		Irrigated	"	L	M	Н	Sorghum	22/10/07	17/02/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	19/10/07	23/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	24/10/07	22/02/08	1033	31

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		Irrigated	"	L	M	Н	Fallow	18/10/07	15/02/08	1033	31
Gram	Rabi 07-08	Irrigated	Medium black	L	M	Н	Groundnut	29/10/07	08/02/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	05/11/07	25/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	05/11/07	23/02/08	1033	31
		Irrigated	"	L	M	Н	Vegetables	10/11/07	05/02/08	1033	31
		Irrigated	"	L	M	Н	Black gram	15/11/07	08/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	01/11/07	25/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	02/11/07	28/02/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	13/11/07	03/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	08/11/07	05/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	19/11/07	10/03/08	1033	31
Cumin	Rabi 07-08	Irrigated	Medium black	L	M	Н	Groundnut	28/10/07	20/02/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	01/11/07	25/02/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	10/11/07	28/02/08	1033	31
		Irrigated	"	L	M	Н	Green gram	03/11/07	24/02/08	1033	31
		Irrigated	"	L	M	Н	Black gram	07/11/07	28/02/08	1033	31
		Irrigated	"	L	M	Н	Vegetables	09/11/07	01/03/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	14/11/07	03/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	03/11/07	28/02/08	1033	31
		Irrigated	"	L	M	Н	Black gram	02/11/07	26/02/08	1033	31
		Irrigated	"	L	M	Н	Bajra	29/10/07	23/02/08	1033	31
Wheat	Rabi 07-08	Irrigated	Medium black	L	M	Н	Groundnut	20/11/07	15/03/08	1033	31
		Irrigated	"	L	M	Н	Sesamum	24/11/07	23/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	19/11/07	15/03/08	1033	31
		Irrigated	"	L	M	Н	Cotton	22/11/07	18/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	23/11/07	20/03/08	1033	31
		Irrigated	"	L	M	Н	Cotton	24/11/07	16/03/08	1033	31
		Irrigated	"	L	M	Н	Cotton	18/11/07	15/03/08	1033	31
		Irrigated	"	L	M	Н	Muth	23/11/07	19/03/08	1033	31
		Irrigated	"	L	M	Н	Cotton	24/11/07	20/03/08	1033	31
		Irrigated	"	L	M	Н	Groundnut	26/11/07	16/03/08	1033	31

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### Performance of FLD

Sir. No	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)		Demo, Yield Yield of local Check Qti./ha		Increase in yield (%)	parar rela tech	ta on meter in tion to mology nstrated	
						Н	L	A			Dem	Local
1	2 3	3	4	5	6	7	8	9	10	11	12	13
1	G'nut	Varietal	GG-20	10	5.0	16.80	09.20	13.78	11.62	18.58	-	-
2	Sesame	evaluation, recommended	Guj.Til-2	10	5.0	07.20	03.10	05.20	04.50	15.56	-	-
3	Green Gram	package of practices	Guj.Green Gram-2	10	5.0	10.40	05.40	08.29	07.02	18.09	-	-
4	Cotton		Bt Irrigated	10	5.0	29.60	11.50	19.94	17.46	14.20	-	-
5	Bio- agent		Trichodermo harzianum	04	2.0	16.50	09.80	13.85	12.63	09.66	-	-
6	Mustar		Guj. Mustard-3	10	5.0	20.80	08.90	14.81	12.43	19.15	-	-
7	Gram		Guj. Gram-2	10	5.0	17.40	07.30	12.44	10.48	18.70	-	-
8	Cumin		Guj.Cumin- 4	10	5.0	10.10	04.30	06.84	05.67	20.63	-	-
	Wheat		GW-366	06	3.0	44.50	28.40	35.73	31.22	14.44	-	-
9			GW-496	04	2.0	38.60	28.40	34.02	29.93	13.66	-	-

### **Economic Impact (Continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross (Rs./ha		_	Average Net Return (Profit) (Rs./ha)				
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	Ratio (Gross Return / Gross Cost)			
14	15	16	17	18	19	20			
15080	14330	37895	30793	22815	16463	1:2.51			
13100	12800	31200	26550	18100	13750	1:2.38			
8635	8140	19688	16146	11053	8006	1:2.28			
21050	22075	59820	52380	38770	30305	1:2.84			
15235	14525	38088	33154	22853	18629	1:2.50			
13052	12825	37025	30765	23973	17940	1:2.84			
12250	11325	29234	24104	16984	12779	1:2.39			
18921	18550	58140	48195	39219	29645	1:3.07			
16070	15000	37516	32781	21446	17781	1:2.33			
16253	15425	35721	31427	19468	16002	1:2.20			

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

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in Productivity over local check
		1. Seed/Variety				
G'nut	Kharif 07-08	GG-20	Irrigated	13.78	11.62	18.58
Sesame	Kharif 07-08	Guj.Til-2	Irrigated	05.20	04.50	15.56
Green Gram	Kharif 07-08	Guj.Green Gram-4	Irrigated	08.29	07.02	18.09
Cotton	Kharif 07-08	Bt	Irrigated	19.94	17.46	14.20
Bio-agent	Kharif 07-08	Trichoderma harzianum	Irrigated	13.85	12.63	09.66
Mustard	Rabi 07-08	Guj. Mustard-3	Irrigated	14.81	12.43	19.15
Gram	Rabi 07-08	Guj. Gram-2	Irrigated	12.44	10.48	18.70
Cumin	Rabi 07-08	Guj. Cumin-4	Irrigated	06.84	05.67	20.63
Wheat	Rabi	GW-366	Irrigated	35.73	31.22	14.44
	07-08	GW-496	Irrigated	34.02	29.93	13.66

# Technical Feedback on the demonstrated technologies

Sr. No	Feed Back
1	In mustard, aphid resistant variety highly needed
2	In sesamum there is need for short duration drought resistant variety because of untimely and erratic rainfall
3	In cotton there is further need for tolerant variety against the sucking pest
4	The wheat variety GW-366 is superior but requires research variety for short duration and late sowing so cotton growers can be adopt it
5	Groundnut short duration and disease resistance variety required for kharif season so suitable for dry farming
6	Gram wilt resistance variety required so losses up to 70 % minimize

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# Farmers' reactions on specific technologies

Sr. No	Feed Back
1	<ul> <li>Wheat: 366</li> <li>Warmer temp. during crop season shorten the growth duration resulting in poor yield</li> <li>The variety yield better than Lok-1 and GW-496</li> <li>The baking quality also fine</li> </ul>
2	Mustard:  - The variety GM-3 is higher yielder but aphid attack reduces the yield
3	Gram:  - It is good variety over local varieties, but at maturity stage, wilt and pod borer infestation occur
4	Cumin:  - High yielder and wilt resistance but poor and late germination
5	Groundnut:  - GG-20 is good but, it is require short duration variety erratic rainfall affect the yield of groundnut
6	Sesamum: - Guj. Til-2 is higher yielder over local but requires disease resistance variety
7	Cotton:  - Like Bt variety resistance over larvae, it is require the sucking pest resistance variety
8	Green gram: Guj.Green gram-4 is superior over K-851, it mature once a time so more picking not required

# Extension and Training activities under FLD

Sr. No	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	1	01/10/07	13	
		1	03/10/07	18	
		1	04/10/07	17	
		1	15/10/07	17	
		1	30/01/08	18	
		1	04/02/08	20	
		1	13/02/08	24	
		1	05/03/08	19	
		1	10/03/08	16	
		1	13/03/08	17	
	Total	10		179	
2	Farmers Training	1	11/10/07	19	
		1	25/10/07	15	
		1	19/11/07	18	
		1	21/11/07	23	
		1	26/11/07	13	
		1	07/12/07	19	
		1	15/12/07	23	
		1	17/12/07	16	
		1	18/12/07	20	
		1	19/12/07	19	
		1	10/01/08	21	
		1	08/04/08	11	
		1	11/04/08	16	
		1	15/04/08	28	
		1	05/05/08	09	
		1	11/06/08	12	
		1	13/06/08	18	
		1	18/06/08	12	
		1	20/06/08	17	
		1	24/06/08	10	
		1	27/06/08	12	

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		1	15/07/08	14	
		1	23/07/08	14	
		1	30/07/08	13	
		1	30/07/08	16	
		1	30/08/08	19	
		1	02/09/08	12	
		1	04/09/08	14	
	Total	28		453	
3	Media coverage				
	Total				
4	Training for	1	15/10/07	20	
	extension functionaries	1	18/06/08 To 19/06/08	25	
		1	28/08/08	20	
		1	15/09/08	23	
	Total	4		88	

# c. Details of FLD on Enterprises

### (ii) Farm Implements:

Name of the implement	Crop	No. of farmers	Area (ha.)	Performance parameters/ indicators	Data on parameter in relation to technology demonstrated		parameter in relation to technology		% change in the parameter	Remarks
					Demo	Local check				
Cotton Shredder	Cotton	30	30					To boost the farmers to use of crop residue as a compost for next season		
Tractor mounted Power Sprayer	Diff. crops	10	10					To popularized the use of newly tractor mounted power sprayer		

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# (iii) Livestock Enterprises: NIL

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters/indicators	parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demo	Local check		

(iv) Other Enterprises: NIL

Enterprise	Variety/ breed/ species/ others	No. of farmers	No. of units	Performance parameters/indicators	Data on parameter in relation to technology demonstrated  Local check		% change in the parameter	Remarks
					Demo	Local check		

# 3.3 Achievements on Training (Including the sponsored and FLD training programmes):

### A) ON Campus

#### Farmers and Farm women

Date	Title of the training programme	Dura- Tion in	Tion participants			Number of SC/ST			Total number of participants		
		days	M	F	T	M	F	T	M	F	T
11/10/07	Improved cultivation practices for wheat & cumin	1	14	0	14	5	0	5	19	0	19
19/11/07	Efficient water management in major Rabi crops	1	10	0	10	6	0	6	16	0	16
23/11/07	Method for dehydration of different vegetables	1	0	17	17	0	0	0	0	17	17
26/11/07	IPM in Gram	1	11	0	11	2	0	2	13	0	13
14/12/07	Govt. subsidy in drips, sprinkler and agricultural impliments	1	12	0	12	5	0	5	17	0	17

17/12/07	Plant protection measures for pest and disease in cumin	1	16	0	16	0	0	0	16	0	16
19/12/07	Pure seed production technique in wheat and cumin	1	12	0	12	7	0	7	19	0	19
20/12/07	Foot and mouth disease and its control	1	18	0	18	0	0	0	18	0	18
27/12/07	Preparation and preservation of fruits and vegetables	1	0	15	15	0	0	0	0	15	15
28/01/08	Production technology of summer groundnut	1	15	0	15	7	0	7	22	0	22
27/02/08	Care and management of milch animals	1	15	0	15	1	0	1	16	0	16
01/04/08	Organic residue and farm waste management	1	15	0	15	2	0	2	17	0	17
08/04/08	Importance of IPM	1	9	0	9	2	0	2	11	0	11
15/04/08	IPM in cotton	1	25	0	25	3	0	3	28	0	28
22/04/08	Efficient use of harvested water	1	28	0	28	2	0	2	30	0	30
05/05/08	Pest management in Sesamum	1	9	0	9	0	0	0	9	0	9
13/06/08	Importance of preparing cropping scheme	1	13	0	13	5	0	5	18	0	18
18/06/0/8	Management of pest and disease of Groundnut	1	9	0	9	3	0	3	12	0	12
21/06/0/8	Importance of colostrums in calves	1	11	0	11	0	0	0	11	0	11
24/06/08	Hemorrhagic septicemia and its control	1	9	0	9	3	0	3	12	0	12
25/06/08	In-situ moisture conservation practices in dry farming	1	11	0	11	0	0	0	11	0	11
09/07/08	Use of sprouted pulses in preparation of low cost nutrition	1	16	0	16	0	0	0	16	0	16
30/07/08	Role of intercropping in rainfed area	1	12	0	12	4	0	4	16	0	16
31/07/08	Rain water management technology	1	13	0	13	3	0	3	16	0	16
31/07/08	Importance of green fodder in milk production	1	15	0	15	0	0	0	15	0	15
12/08/08	Castor production technology	1	12	0	12	4	0	4	16	0	16
25/08/08	Cause, treatment and control of bloat	1	8	0	8	4	0	4	12	0	12
27/08/08	IPM in castor	1	10	0	10	1	0	1	11	0	11
04/09/08	Pure seed production technology in sesame	1	11	0	11	3	0	3	14	0	14

06/09/08	Improved cultivation practices for vegetables includes onion & garlic	1	6	0	6	2	0	2	8	0	8
11/09/08	Production technology of arid fruits	1	6	0	6	3	0	3	9	0	9
Total		31	335	52	387	70	5	75	405	57	462

#### Rural Youth:

Date	Title of the training programme	Dura- Tion in	pa	umber rticipa Genera	nts		nber o C/ST	of		l numl rticipa	
		days	M	F	T	M	F	T	M	F	T
22/11/07	Selection tip while purchasing milch animals	1	14	0	14	2	0	2	16	0	16
03/09/08	Preparation of different handwork	1	0	6	6	0	5	5	0	11	11
Total		2	14	6	20	2	5	7	16	11	27

### **Extension Personnel:**

Date	te Title of the training programme	Dura- Tion in	pa	umber rticipa Genera	nts	1	nber o C/ST	f		l num rticipa	ber of ants
		days	M	F	T	M	F	T	M	F	T
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# B) OFF Campus

# Farmers and Farm women

Date	Title of the training programme	Dura- Tion	Number of participants (General)				mber SC/S1			al numb articipa:	
		in days	M	F	T	M	F	T	M	F	T
25/10/07	Production technology of Cumin and funnel	1	11	0	11	4	0	4	15	0	15
29/10/07	Importance of mineral mixture in animal feeding	1	20	0	20	0	0	0	20	0	20
21/11/07	Plant protection measures in castor and mustard crops	1	21	0	21	2	0	2	23	0	23
21/11/07	Trouble shooting of micro irrigation system	1	19	0	19	0	0	0	19	0	19

05/12/07	Preparation and preservation of vegetable pickles.	1	0	35	35	0	0	0	0	35	35
07/12/07	Integrated weed management in major rabi field corps	1	17	0	17	2	0	2	19	0	19
12/12/07	Drip irrigation on horticulture crop	1	48	6	54	14	0	14	62	6	68
15/12/07	Control measures for pest and disease in cumin and wheat	1	23	0	23	0	0	0	23	0	23
18/12/07	Nutrition management in mother and child	1	0	22	22	0	0	0	0	22	22
18/12/07	Pure seeds production technique in cumin	1	19	0	19	1	0	1	20	0	20
19/12/07	Foot and mouth disease and its control	1	17	0	17	2	0	2	19	0	19
24/12/07	Importance of floriculture	1	17	0	17	1	0	1	18	0	18
27/12/07	Seasonal training on rabi crops	1	85	25	110	0	0	0	85	25	110
10/01/08	Efficient use of chemical pesticides	1	21	0	21	0	0	0	21	0	21
08/02/08	Technique for vermicoposting	1	13	0	13	6	0	6	19	0	19
03/03/08	Nutrition for preschool children	1	0	18	18	0	0	0	0	18	18
04/03/08	Importance of heat detection and artificial insemination	1	11	0	11	3	0	3	14	0	14
05/03/08	Awareness about extension activities of KVK	1	16	0	16	1	0	1	17	0	17
10/03/08	Formation of Kisan clubs	1	16	0	16	0	0	0	16	0	16
11/03/08	First aid treatment of important animal disease	1	17	0	17	2	0	2	19	0	19
12/03/08	Preparation and preservation of lemon	1	0	16	16	0	0	0	0	16	16
14/03/08	Unconventional animal feeds during scarcity	1	15	0	15	3	0	3	18	0	18
17/03/08	Improved nutrition through fortification of food items	1	0	21	21	0	0	0	0	21	21
25/03/08	Training on cotton crop technology	1	180	0	180	20	0	20	200	0	200

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03/04/08	Soil sampling methods	1	12	0	12	1	0	1	13	0	13
9-10/4/08	Training on cotton crop	1	260	0	260	40	0	40	300	0	300
03/05/08	Nutrition deficiency in women and their control	1	0	17	17	0	5	5	0	22	22
05/05/08	Vaccination of mother and children	1	0	13	13	0	0	0	0	13	13
09/05/08	Soil sampling methods	1	12	0	12	2	0	2	14	0	14
07/06/08	Preparation of self help group	1	0	20	20	0	0	0	0	20	20
11/06/08	Production technology of cotton	1	10	0	10	2	0	2	12	0	12
20/06/08	Integrated nutrient management in major kharif field crops	1	13	0	13	4	0	4	17	0	17
23/06/08	Care and management of animals during monsoon	1	10	0	10	2	0	2	12	0	12
24/06/08	Methods of seed treatments for pest and disease management	1	10	0	10	0	0	0	10	0	10
27/06/08	Management of pest and disease of sesamum	1	11	0	11	1	0	1	12	0	12
05/07/08	Food grain storage technique	1	0	17	17	0	0	0	0	17	17
07/07/08	Preparation of decorative items from waste materials	1	0	11	11	0	8	8	0	19	19
15/07/08	Importance of thinning, gap filling and maintenance of plant population in major kharif crops	1	10	0	10	4	0	4	14	0	14
16/07/08	Farm implements and their use	1	12	0	12	6	0	6	18	0	18
16/07/08	Vaccination and deworming in animals	1	14	0	14	0	0	0	14	0	14
21/07/08	Govt. subsidy scheme in agriculture	1	15	0	15	4	0	4	19	0	19
23/07/08	IPM in Groundnut	1	11	0	11	3	0	3	14	0	14
25/07/08	IPM in Vegetables	1	11	0	11	1	0	1	12	0	12
30/07/08	Pure seed production techniques in sesame	1	11	0	11	2	0	2	13	0	13

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Total	and plantation	52	1104	234	1338	142	8	150	1246	242	1488
05/09/08	Jetropha in waste land plantation	1	13	0	13	1	0	1	14	0	14
04/09/08	Production technology of major arid fruit crops	1	10	0	10	0	0	0	10	0	10
02/09/08	Significance of medicinal and aromatic plants	1	12	0	12	3	0	3	15	0	15
02/09/08	Production technology of mustard and gram	1	5	0	5	7	0	7	12	0	12
30/08/08	Control measures for pest and disease of kharif pulses	1	16	0	16	3	0	3	19	0	19
30/08/08	Introduction and use of chaff cutter	1	16	0	16	2	0	2	18	0	18
29/08/08	Different handwork stitches	1	0	17	17	0	0	0	0	17	17
26/08/08	Selection and maintenance of pump set	1	13	0	13	4	0	4	17	0	17

# Rural Youth:

Date	Title of the training programme	Dura- Tion	_	Number ipants (	of General)		ımber SC/S1			l numi rticipa	ber of ints
		in days	M	F	T	M	F	T	M	F	T
15/11/07	Value addition in fruit crop like anola, drumstick, lemon, mango	1	16	0	16	0	0	0	16	0	16
10/01/08	Introduction to new developed farm implements and their use	1	19	0	19	0	0	0	19	0	19
17/03/08	Preparation of enrich compost	1	12	0	12	2	0	2	14	0	14
05/04/08	Selection and maintenance of pump set	1	17	0	17	0	0	0	17	0	17
11/04/08	Precautions while handling pesticides	1	16	0	16	1	0	1	17	0	17
27/06/08	Introduction of effective and improved agricultural equipments	1	17	0	17	0	0	0	17	0	17
Total		6	97	0	97	3	0	3	100	0	100

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#### **Extension Personnel:**

Date	Title of the training programme	Dura- Tion in	pa	umber rticipa: Genera		nber o C/ST	of		numl ticipa	ber of ints	
		days	M	F	T	M	F	T	M	F	T
15/10/07	Pre-seasonal training on rabi crops	1	16	0	16	4	0	4	20	0	20
18/06/08 to 19/06/08	Pre-seasonal training on kharif crops	1	25	0	25	0	0	0	25	0	25
28/08/08	Extension methods	1	20	0	20	0	0	0	20	0	20
15/09/08	Cotton production technology	1	23	0	23	0	0	0	23	0	23
Total		4	84	0	84	4	0	4	88	0	88

# C) Consolidated table (ON and OFF Campus)

#### Farmers and Farm women

Date	Title of the training	Dura- Tion		r of part (Genera	icipants l)		mber SC/ST			tal num participa	
	programme	in days	M	F	Т	M	F	T	M	F	T
11/10/07	Improved cultivation practices for wheat & cumin	1	14	0	14	5	0	5	19	0	19
19/11/07	Efficient water management in major Rabi crops	1	10	0	10	6	0	6	16	0	16
22/11/07	Selection tip while purchasing milch animals	1	16	0	16	1	0	1	17	0	17
23/11/07	Method for dehydration of different vegetables	1	0	17	17	0	0	0	0	17	17
26/11/07	IPM in Gram	1	11	0	11	2	0	2	13	0	13
14/12/07	Govt. subsidy in drips, sprinkler and agricultural impliments	1	12	0	12	5	0	5	17	0	17
17/12/07	Plant protection measures for pest and disease in cumin	1	16	0	16	0	0	0	16	0	16
19/12/07	Pure seed production technique in wheat and cumin	1	12	0	12	7	0	7	19	0	19
20/12/07	Foot and mouth disease and its control	1	18	0	18	0	0	0	18	0	18

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27/12/07	Preparation and preservation of fruits and vegetables	1	0	15	15	0	0	0	0	15	15
28/01/08	Production technology of summer groundnut	1	15	0	15	7	0	7	22	0	22
27/02/08	Care and management of milch animals	1	15	0	15	1	0	1	16	0	16
01/04/08	Organic residue and farm waste management	1	15	0	15	2	0	2	17	0	17
08/04/08	Importance of IPM	1	9	0	9	2	0	2	11	0	11
15/04/08	IPM in cotton	1	25	0	25	3	0	3	28	0	28
22/04/08	Efficient use of harvested water	1	28	0	28	2	0	2	30	0	30
05/05/08	Pest management in Sesamum	1	9	0	9	0	0	0	9	0	9
13/06/08	Importance of preparing cropping scheme	1	13	0	13	5	0	5	18	0	18
18/06/0/8	Management of pest and disease of Groundnut	1	9	0	9	3	0	3	12	0	12
21/06/0/8	Importance of colostrums in calves	1	11	0	11	0	0	0	11	0	11
24/06/08	Hemorrhagic septicemia and its control	1	9	0	9	3	0	3	12	0	12
25/06/08	In-situ moisture conservation practices in dry farming	1	11	0	11	0	0	0	11	0	11
09/07/08	Use of sprouted pulses in preparation of low cost nutrition	1	16	0	16	0	0	0	16	0	16
30/07/08	Role of intercropping in rainfed area	1	12	0	12	4	0	4	16	0	16
31/07/08	Rain water management technology	1	13	0	13	3	0	3	16	0	16
31/07/08	Importance of green fodder in milk production	1	15	0	15	0	0	0	15	0	15
12/08/08	Castor production technology	1	12	0	12	4	0	4	16	0	16
25/08/08	Cause, treatment and control of bloat	1	8	0	8	4	0	4	12	0	12
27/08/08	IPM in castor	1	10	0	10	1	0	1	11	0	11

03/09/08	Preparation of different handwork	1	0	6	6	0	5	5	0	11	11
04/09/08	Pure seed production technology in sesame	1	11	0	11	3	0	3	14	0	14
06/09/08	Improved cultivation practices for vegetables includes onion & garlic	1	6	0	6	2	0	2	8	0	8
11/09/08	Production technology of arid fruits	1	6	0	6	3	0	3	9	0	9
25/10/07	Production technology of Cumin and funnel	1	11	0	11	4	0	4	15	0	15
29/10/07	Importance of mineral mixture in animal feeding	1	20	0	20	0	0	0	20	0	20
21/11/07	Plant protection measures in castor and mustard crops	1	21	0	21	2	0	2	23	0	23
21/11/07	Trouble shooting of micro irrigation system	1	19	0	19	0	0	0	19	0	19
05/12/07	Preparation and preservation of vegetable pickles.	1	0	35	35	0	0	0	0	35	35
07/12/07	Integrated weed management in major rabi field corps	1	17	0	17	2	0	2	19	0	19
12/12/07	Drip irrigation on horticulture crop	1	48	6	54	14	0	14	62	6	68
15/12/07	Control measures for pest and disease in cumin and wheat	1	23	0	23	0	0	0	23	0	23
18/12/07	Nutrition management in mother and child	1	0	22	22	0	0	0	0	22	22
18/12/07	Pure seeds production technique in cumin	1	19	0	19	1	0	1	20	0	20
19/12/07	Foot and mouth disease and its control	1	17	0	17	2	0	2	19	0	19
24/12/07	Importance of floriculture	1	17	0	17	1	0	1	18	0	18
27/12/07	Seasonal training on rabi crops	1	85	25	110	0	0	0	85	25	110
10/01/08	Efficient use of chemical pesticides	1	21	0	21	0	0	0	21	0	21

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10/01/08	Introduction to new developed farm implements and their use	1	19	0	19	0	0	0	19	0	19
08/02/08	Technique for vermicoposting	1	13	0	13	6	0	6	19	0	19
03/03/08	Nutrition for preschool children	1	0	18	18	0	0	0	0	18	18
04/03/08	Importance of heat detection and artificial insemination	1	11	0	11	3	0	3	14	0	14
05/03/08	Awareness about extension activities of KVK	1	16	0	16	1	0	1	17	0	17
10/03/08	Formation of Kisan clubs	1	16	0	16	0	0	0	16	0	16
11/03/08	First aid treatment of important animal disease	1	17	0	17	2	0	2	19	0	19
12/03/08	Preparation and preservation of lemon	1	0	16	16	0	0	0	0	16	16
14/03/08	Unconventional animal feeds during scarcity	1	15	0	15	3	0	3	18	0	18
17/03/08	Preparation of enrich compost	1	12	0	12	2	0	2	14	0	14
17/03/08	Improved nutrition through fortification of food items	1	0	21	21	0	0	0	0	21	21
25/03/08	Training on cotton crop technology	1	180	0	180	20	0	20	200	0	200
03/04/08	Soil sampling methods	1	12	0	12	1	0	1	13	0	13
05/04/08	Selection and maintenance of pump set	1	17	0	17	0	0	0	17	0	17
9-10/4/08	Training on cotton crop	1	260	0	260	40	0	40	300	0	300
11/04/08	Precautions while handling pesticides	1	14	0	14	2	0	2	16	0	16
03/05/08	Nutrition deficiency in women and their control	1	0	17	17	0	5	5	0	22	22
05/05/08	Vaccination of mother and children	1	0	13	13	0	0	0	0	13	13
09/05/08	Soil sampling methods	1	12	0	12	2	0	2	14	0	14
07/06/08	Preparation of self help group	1	0	20	20	0	0	0	0	20	20
11/06/08	Production technology of cotton	1	10	0	10	2	0	2	12	0	12

20/06/08	Integrated nutrient management in major kharif field crops	1	13	0	13	4	0	4	17	0	17
23/06/08	Care and management of animals during monsoon	1	10	0	10	2	0	2	12	0	12
24/06/08	Methods of seed treatments for pest and disease management	1	10	0	10	0	0	0	10	0	10
27/06/08	Management of pest and disease of sesamum	1	11	0	11	1	0	1	12	0	12
27/06/08	Introduction of effective and improved agricultural equipments	1	17	0	17	0	0	0	17	0	17
05/07/08	Food grain storage technique	1	0	17	17	0	0	0	0	17	17
07/07/08	Preparation of decorative items from waste materials	1	0	11	11	0	8	8	0	19	19
15/07/08	Importance of thinning, gap filling and maintenance of plant population in major kharif crops	1	10	0	10	4	0	4	14	0	14
16/07/08	Farm implements and their use	1	12	0	12	6	0	6	18	0	18
16/07/08	Vaccination and deworming in animals	1	14	0	14	0	0	0	14	0	14
21/07/08	Govt. subsidy scheme in agriculture	1	15	0	15	4	0	4	19	0	19
23/07/08	IPM in Groundnut	1	11	0	11	3	0	3	14	0	14
25/07/08	IPM in Vegetables	1	11	0	11	1	0	1	12	0	12
30/07/08	Pure seed production techniques in sesame	1	11	0	11	2	0	2	13	0	13
26/08/08	Selection and maintenance of pump set	1	13	0	13	4	0	4	17	0	17
29/08/08	Different handwork stitches	1	0	17	17	0	0	0	0	17	17
30/08/08	Introduction and use of chaff cutter	1	16	0	16	2	0	2	18	0	18

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l'otal		83	1439	286	1725	212	13	225	1651	299	1950
05/09/08	Jetropha in waste land plantation	1	13	0	13	1	0	1	14	0	14
04/09/08	Production technology of major arid fruit crops	1	10	0	10	0	0	0	10	0	10
02/09/08	Significance of medicinal and aromatic plants	1	12	0	12	3	0	3	15	0	15
02/09/08	Production technology of mustard and gram	1	5	0	5	7	0	7	12	0	12
30/08/08	Control measures for pest and disease of kharif pulses	1	16	0	16	3	0	3	19	0	19

# Rural Youth:

Date	Title of the training programme	Dura- Tion in	pa	umber rticipa Genera	nts		mber ( C/ST			l numi rticipa	
		days	M	F	T	M	F	T	M	F	T
15/11/07	Value addition in fruit crop like anola, drumstick, lemon, mango	1	16	0	16	0	0	0	16	0	16
22/11/07	Selection tip while purchasing milch animals	1	16	0	16	1	0	1	17	0	17
10/01/08	Introduction to new developed farm implements and their use	1	19	0	19	0	0	0	19	0	19
17/03/08	Preparation of enrich compost	1	12	0	12	2	0	2	14	0	14
05/04/08	Selection and maintenance of pump set	1	17	0	17	0	0	0	17	0	17
11/04/08	Precautions while handling pesticides	1	14	0	14	2	0	2	16	0	16
27/06/08	Introduction of effective and improved agricultural equipments	1	17	0	17	0	0	0	17	0	17
03/09/08	Preparation of different handwork	1	0	6	6	0	5	5	0	11	11
Total	otal		111	6	117	5	5	10	116	11	127

## **Extension Personnel:**

Date	Title of the training programme	Dura- Tion in	pa	umber rticipa: Genera	nts		nber o C/ST	of		numl ticipa	
		days	M	F	T	M	F	T	M	F	T
15/10/07	Pre-seasonal training on rabi crops	1	16	0	16	4	0	4	20	0	20
18/06/08 to 19/06/08	Pre-seasonal training on kharif crops	1	25	0	25	0	0	0	25	0	25
28/08/08	Extension methods	1	20	0	20	0	0	0	20	0	20
15/09/08	Cotton production technology	1	23	0	23	0	0	0	23	0	23
Total		4	84	0	84	4	0	4	88	0	88

# D) Vocational training programmes for Rural Youth:

						f Partici Genera	•		f Partici SC/ST	-	No. of	Partici Total	pants	Numbe r of
Crop/ Ehterpris e	Identifie d Thrust area	Training title	No. of cours es	Duratio n	М	F	Т	M	F	Т	M	F	Т	Person s emplo yed else where
Bakery	Income generatio n	Production of bakery products	1	02		20	20	-	9	9		29	29	-
Agronom y	Organic fertilizer	Preparation of vermicopost	1	01	20	0	20	8	0	8	28	0	28	-
Total	l'otal		2	03	20	20	40	8	9	17	28	29	57	-

# E) Sponsored Training Programmes Farmers:

	Themati			Dura	Clien t	No. of			No. of	Partici	pants			Sponsori
Sr. No	Title	С	Month	tion	PF/	es	Ma	le	Fem	ale		Total		ng
		area		(days	RY/ EF		Other s	SC/ ST	Other s	SC/ ST	Other s	SC/ ST	Tota 1	Agency
1	Drip irrigation on horticultural corp	Drip irrigation	Dec07	1	PF	1	62	-	6	-	68	-	68	AKRSP, Sayla
2	Seasonal training on rabi crops	Rabi crops	Dec07	1	PF	1	85	-	25	-	110	-	110	Hort. Deptt., Surendra nagar
3	Training on cotton crop technology	Crop technology	March-08	1	PF	1	180	20	-	-	180	20	200	GNFC, Surendra nagar
4	Training of cotton crop	Crop technology	Aptril-08	1	PF	1	260	40	-	-	260	40	300	AKRSP, Chotila
Tota	al			4	-	4	587	60	31	-	618	60	678	

KVK, Nana-Kandhasar (Surendranagar)

# **Rural Youths:**

					Client	No. of			No. a	(Particip	ents .			
St.	Sr. No Title	Thematic area	Month	Dura- tion	PF/	courses	Ma	le	Fem	ale		Total		Sponsoring Agency
		aica		(days)			Other s	SC/ ST	Other s	SC/ ST	Other s	SC/ ST	Tota 1	Agaily
1	Value addition in fruit crop like drumstick, lemon, mango	Value addition	Nov07	1	PF	1	16	-	-	-	16	-	16	AKRSP, Chotila
Tota	ป			1	-	1	16	-	-	-	16	-	16	-

# **Extension Personnel:**

				Dura	Clien	No. of			No. of	Partici	pants			Sponsori
Sr. No	Title	Thematic	Month	tion	PF/	es	Ma	Male		ale		Total		ng
				(days	RY/ EF		Other s	SC/ ST	Other s	SC/ ST	Other s	SC/ ST	Tota 1	Agency
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

.....

# 3.4. Extension Programmes (including activities of FLD programmes)

Nature of Extension	No. of	I	arme	rs		xten Offic	sion ials		Tota	1
Activity	activities	M	F	T	M	F	T	M	F	T
Field Day	10	179	-	179	-	-	-	179	_	179
Kisan Mela	_	-	-	-	-	-	-	-	_	-
Kisan Ghosthi	8	124	25	149	-	-	_	124	25	149
Exhibition (Tarnetar mela)	1	-	-	_	10	-	10	A	bout 50	0,000
Film Show	1	0	17	17	-	-	-	0	17	17
Method Demonstrations	_	-	-	_	-	-	-	-	- 1	-
Farmers Meeting	4	55	37	92	-	-	-	55	37	92
Workshop	3	_	-	-	-	-	-	-	-	-
Group meetings	10	72	-	72	-	-	_	72	- 1	72
Lectures delivered as resource persons	1	52	119	171	-	-	-	52	119	171
Newspaper coverage	15	-	-	-	-	-	-	-	-	-
Radio talks	3	-	-	-	-	-	_	-	-	-
TV talks	3	-	-	-	-	-	-	-	- I	-
Popular articles	_	-	-	_	-	-	-	-	- i	-
Extension Literature	2	-	-	_	-	-	-	-	- i	-
Advisory Services	124	-	-	-	-	-	-	-	- i	-
Scientific visit to farmers field	53	-	-	-	-	-	_	-	-	-
Farmers visit to KVK	524	524	0	524	-	-	-	524	0	524
Diagnostic visits	37	-	-	-	-	-	-	-	-	-
Soil health camp	-	-	-	-	-	-	-	-	-	-
Animal Health Camp	4	-	-	-	-	-	-	-	- i	-
Agri mobile clinic	_	-	-	-	-	-	-	-	- 1	-
Soil test campaigns	_	-	-	-	-	-	-	-	- 1	-
Farm Science Club Conveners meet	-	-	-	-	-	-	-	-	-	-
Self Help Group Conveners meetings	-	-	-	-	-	-	-	-	-	-
Mahila Mandals Conveners meetings	-	-	-	-	-	-	-	-	-	-
Celebration of important days (women day)	1	-	-	-	-	-	-	-	-	-
Total	-	1006	198	1204	10	-	10	1016	198	51214

# 3.5 Production and supply of Technological products

SEED MATERIALS:

	Crop	Variety	Quantity (Kg)	Value (Rs)	Provided to no of farmers
1	G'nut	GG-20	1500	4237	-
2	G'nut	GG-2	2590	142450	-
3	Cotton	Bt.	1201	26485	-
4	Sesamum	Guj-2	525	57750	-
5	Sesamum	Guj-2	261	12280	-
6	Black gram	T-9	962	13468	-
7	Sorghum	Local	300	1500	-
8	Wheat	GW-366	3745		-
9	Cumin	Guj4	198		-
10	G'nut	GG-2			
11	G'nut	GG-20			
12	Blackgram	T-9			
13	Muth	Guj-2		Crop standi	ng condition
14	Cotton	Bt		1	
15	Castor	Л-96			
16	Pegeonpea	BDN-2			

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

(A) KVK News Letter: nil

(B) Literature developed/published

Item	Title	Authors name	Number
Research papers	Heterosis in Sesame (Sesamum indicum L.)	R.M. Javia; H.M. Pandya & H.L. Dhaduk	1
	Genetic diversify in macroni wheat (Triticum durum Dest)	K.H.Ribadia <i>et al</i>	1
	Combining ability through line x tester analysis in macroni wheat (Triticum durum Dest)	K.H.Ribadia <i>et al</i> .	1

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TOTAL	8		6500
	Khadyapadarth ma belsel	Ms. B.M. Bhalala, Ms. H.A. Manavar Dr. B.B. Kabaria	250
	Pandurog-Gramya mahila o ma jova malto samanya rog	Ms. B.M. Bhalala, Ms. H.A. Manavar Dr. B.B. Kabaria	250
	Jad sangrahni vividh paddhatio	Mr. G.V.Prajapati, Dr. R.M.Javia	1000
	Suki khetima vadhare pak utpadan kevi rite medavaso?	Mr.H.M.Bhuva, Dr. R.M.Javia	1000
	Khedut mahilao mate poshan xamya aahar	Ms. B.M.Bhalala, Dr. R.M.Javia	1000
	Vadhu dudh utpadan kem medavaso?	Dr.M.M.Tajapara, Dr. R.M.Javia	1000
	Kapas ma jivato tatha rogoni niyantran vyavastha	Mr.A.M.Bhradiya, Dr. R.M.Javia	1000
Extension literature	Surendranagar jilla nu krushi mandir	Dr. R.M.Javia Dr.B.B.Kabariya	1000

#### (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

#### 1) Adaptation of new high yielding variety of wheat

1. Name of farmer : Bhagvanbhai Arjanbhai Lakum

2. Name of village : Doliya (Sayala)3. District : Surendranagar

Wheat is the staple food grain for Gujarat. It is monocot self pollinated crop grown during the rabi season. *Triticum aestivum* is grown as bread wheat in Gujarat. For the increasing population it is essential to grow more food grains to meet the requirement of the growing population. But land is a limiting factor hence it's productivity will be depends on high

yielding varieties. The average productivity of wheat in Gujarat state is very low and also in the district. In Surendranagar district wheat is grown in 23900 ha area with average productivity is 2200 Kg/ha. The productivity of wheat can be enhance by using recently release GW-366 variety so FLD conducted on this particular technology.

Shri Bhagvanbhai Arjanbhai Lakum is a small farmer of the Doliya village of Sayala Taluka, his name comes in the category of progressive farmer of the village. He grows mostly wheat in rabi season taking old one variety like GW-496/Loc-1 etc. A FLD of wheat variety GW-366 was conducted on his field during year-2007-08 against the local check GW-496. The new variety GW-366 shows better yield as compared to GW-496, he told approximately 10 % yield was increase due to adoption of this variety.

**IMPACT:** Due to 10 % increase in yield by adopting GW-366 variety over GW-496. The economic gain automatically seen by the result as well as by the farmer responses. The farmer further told during the discussion during the field day with KVK staff and other farmers, that it is a bold seeded variety and backing quality also very good, hence the farmer said that an average almost farmers seen the crop and demanding the seed of this variety. KVK staff encourages him to keep the seed of this variety for distribution among the other farmers of village.

#### 2) Adaptation of disease resistance variety of cumin

1. Name of farmer : Jethabhai Jerambhai Zala

2. Name of village : Vijadiya (Chotila)3. District : Surendranagar

The area of cumin in the district increasing recently, since two to three year. The climate and high remunerative price is also suitable to the crop. Cumin is winter season crop. The RH remains higher during the growing season which favored the cumin disease like blight, wilt and powdery mildew. Recently, Guj. Cumin-4 variety has been found resistant against wilt and therefore it is recommended for the cultivation.

Shri Jethabhai is progressive farmer of Vijadiya village. He grows cumin since the five years. Mostly he used the local available seed before the contact of KVK. Due to the high infestation of disease the cost of cultivation becomes very high. He comes with contact with KVK and one FLD conducted at his field during year-2006-07. The Guj.Cumin-4 performed better yield and shows higher disease resistance as compaired to local variety. He again ask to provide the seed of Guj.cumin-4 variety during year 2007-08 and an FLD is also conducted at his farm to follow up the programme.

**IMPACT:** The yield data of two consecutive year i.e. 2006-07 & 2007-08 the Guj.cumin-4 performed higher yield over the local variety. The average yield was enhancing approximately 10 % over the local variety, the yield of new variety demonstrated automatically shows the economic gain of the farmer. During the field day and various training programmes the farmer told to other farmers of the village about the advantages of the Guj.cumin-4 variety that it is a wilt resistance and higher yielder than local variety. It results that almost the all farmers of the village were aware about this variety and villagers were agree to grow it in coming year.

# 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 Dr. R. M. Javia, Programme coordinator, a field experiment on cumin was conducted at the

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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

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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:

o Training for value addition in groundnut and pulse

## \* Rural Youth:

- o Care and maintenance of farm implements.
- o Safe use of agro chemicals.
- o Organic farming.

### \* Inservice personnel:

o Pre seasonal training on kharif and rabi crops management

#### 3.11 Field activities

Number of villages adopted : 14
No. of farm families selected : 140

\* No. of survey/PRA conducted : 1 PRA, 1 Bench Mark Survey

#### 3.12. Activities of Soil and Water Testing Laboratory

Status of establishment of Lab : Not Established

1. Year of establishment : Not Established

2. List of equipments purchased with amount : --

Sr. No.	Name of the Equipment	Qty.	Cost

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# 3. Details of samples analyzed so far

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples				
Water Samples				
Total				

# 4. IMPACT

# 4.1 Impact of KVK activities

Name of specific	No. of participants	% <b>of</b>	Change in income (Rs.)		
technology/skill transferred		adoption	Before (Rs./Unit)	After (Rs./Unit)	
Guj.Cumin-4	40	5	48000	53500	
Use of Trichoderma in groundnut	25	32	28400	33200	

# 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 villages	No. of farmers	Area in ha
1	Dry farming	Latest recommended variety	Field Day, FLD, Training &	14	1500	
		GG-20 (G'nut)	Krushi Mahotsav- 2007			
		Guj.Musrard-2 (Mustard)				
		Guj. Gram-2 (Gram)				
		Guj.Cumin-4 (Cumin)				
		GW – 322 & 496 (Wheat)				
2	Animal husbandry	Vaccination	Night meeting, training, treatment camp	4		

# 4.3 Details of impact analysis of KVK activities carried out during the reporting period: Under progress

# 5. LINKAGES

### 5.1 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  Jilla Udyog Kendra	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.
Milk Co-operative Society	
State bank of Saurashtra	
Doordarshan Kendra	
All India Radio	
AKRSP, Sayala	
NHRDF	
Farmers Training Centre	

# 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.)

## 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district: No

Sr. No.	Programme	Nature of linkage	Remarks

# 5.4 Give details of programmes implemented under National Horticultural Mission:

Sr. No.	Programme	Nature of linkage	Constraints if any
1	District level seminar on vegetable cultivation	Lecture delivered by scientists	

## 5.5 Nature of linkage with National Fisheries Development Board:

Sr. No.	Programme	Nature of linkage	Remarks

# 6. PERFORMANCE OF INFRASTRUCTURE IN KVK:

# 6.1 Performance of demonstration units (other than instructional farm): Demonstration units are under construction

# 6.2 Performance of instructional farm (Crops) including seed production

	Name of	Date of	Date of	Area		Details of prod	luction	Am	ount (Rs)
	crop	sowing harvest	sowing harvest (ha)	Variety	Type of produce	Quantity (Kg)	Cost of inputs	Gross income	
1	Gnut	05-06-07	27-11-07	0.20	GG-20	General	1500	1600	4237
2	G'nut	06-07-07	28-11-07	6.00	GG-2	Breeder	2590	70500	142450
3	Cotton	19-06-07	Different picking	1.34	Bt.	General	1201	12200	26485
4	Sesamum	06-07-07	6-11-07	1.00	Guj-2	Breeder	525	27000	57750
5	Sesamum	07-07-07	30-11-07	0.57	Guj-2	General	261	8000	12280
6	Black gram	08-07-07	10-10-07	2.00	T-9	General	962	6500	13468
7	Sorghum	01-08-07	21-12-07	0.45	Local	General	300	600	1500
8	Wheat	21-11-07	15-03-08	2.00	GW-366	General	3745	_	_
9	Cumin	17-11-07	05-03-08	0.40	Guj4	General	198	_	_
10	G'nut	13-06-08 to 03-07-08	_	6.00	GG-2	Breeder	Crop standi	ing condition	
11	G'nut	12-06-08	_	2.07	GG-20	General			
12	Blackgram	03-07-08	_	1.40	T-9	General			
13	Muth	04-07-08	_	0.40	Guj-2	General			
14	Cotton	16-06-08	_	1.61	Bt	General			
15	Castor	02-08-08	_	0.25	JI-96	Nucleus			
16	Pegeonpea	04-06-08	_	0.30	BDN-2	General			

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

Sr.	Name of the	Qty	Amount (Rs.)		
No.	product	Cost of inputs		Gross income	Remarks
1	Vermicompost	100 Kg	200		Use at KVK farm

# 6.4 Performance of instructional farm (livestock and fisheries production) : ${\rm NIL}$

**6.5 Utilization of hostel facilities:** Under construction Accommodation available (No. of beds): Under construction

# 6.6 Details on rain water harvesting structure and micro-irrigation system

	Expendit Details of ure (Rs.) infrastructure		Activities conducted						
Amount saction (Rs.)	are (eas)	created/micro irrigation system etc	No. of Training program me	No. of demo.	No. of plant material produced	Visit by farmers (No.)	Visit by officials (No.)	Quantity of water harvested in '000 litres	Area irrigated/t tilization pattern
988000	743000	Drip irrigation in Cotton, Sprinkler and mini sprinker system in Groundnut and water storage structure	11	3		524	20	1350	Life saving irrigati on

## 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)

2007-08	Grant Sanctioned by ZC (ICAR),		Grant Released by host institute		Expenditure by KVK		Unspent Balance as on 1st april	
	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi		
Oil seed	Oil seed							
Inputs	21000	17500	403	00	275	50	37550	
Ext activities	3000	2500						
TA/DA/POL	3000	2500						
5 % SAU/DEE	1500	1250						
Total	28500	23750	403	00	27	5 <i>0</i>	37550	

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

2007-08	Grant Sanctioned by ZC (ICAR),		Grant Released by host institute		Expenditure by KVK		Unspent Balance as on 1st april		
	Kharif	Rabi	Kharif	Rabi	Kharif	Rabi			
Pulses									
Inputs	18200	32550	32955		17386		15569		
Ext activities	2600	4650							
TA/DA/POL	2600	4650							
5 % SAU/DEE	1300	2325							
Total	24700	44175	329	55	1 <i>7</i> 3	86	15569		

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

2007-08	Grant Sanctioned by ZC (ICAR),	Grant Released by host institute	Expenditure by KVK	Unspent Balance as on 1st april
Inputs	50000	140000		140000
Farm implements	100000			
Total	150000	140000		140000

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# 7.5 Utilization of KVK funds during the year 2007 -08

	Particulars	Sanctioned	Released	Expenditure
A. Red	curring Contingencies			
1	Pay & Allowances	29,00,000	29,00,000	25,13,300
2	Traveling allowances	1,00,000	1,00,000	61,046
3	Contingencies	4,00,000	4,00,000	3,95,951
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	95,000	95,000	83,966
В	POL, repair of vehicles, tractor and equipments	45,000	45,000	85,252
С	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	55,000	55,000	19,252
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	65,000	65,000	71,311
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	70,000	70,000	33,055
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	40,000	40,000	68,519
G	Training of extension functionaries	30,000	30,000	34,596
Н	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTA	L (A)	34,00,000	34,00,000	29,70,297
1	Works	10,21,000	10,21,000	10,21,000
2	Equipments including SWTL & Furniture	6,96,000	6,96,000	6,96,000
3	Vehicle	11,97,000	11,97,000	11,97,000
4	4 Library		6,00,000	6,00,000
TOTA	AL (B)	34,94,000	34,94,000	34,94,000
(C) R	ain water harvesting structure			
GRA	ND TOTAL (A+B+C)	68,94,000	68,94,000	68,94,000

# 7.6 Status of revolving fund (Rs. in lakhs) for the three years

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> 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