

## PROGRESS REPORT OF KVK TARGHADIA (2004-05)

1. Name and address of the KVK with Zip code . : Krishi Vigyan Kendra,  
Main Dry Farming Research Station,  
Junagadh Agricultural, University,  
TARGHADIA, Dist.: Rajkot (Gujrat)  
Pin Code - 360 003.

Name of the host organization : Junagadh Agricultural, University, Junagadh.

Telephonic Address : Nil

Telephone with STD Code :

Office Resident	STD Code	Phone No.	FAX
Office	0281	2784170	2784722
Residence	Mo. 9426472218		

### 2. Staff Position ( as on 1<sup>st</sup> Sept. 2005)

Sr. No.	Name	Designation	Discipline	Pay Scale	Present basic Pay	Date of Joining	Catag-ory SC/ST/ OBC/ Others
1	2	3	4	5	6	7	8
1	Dr. M.S. Gajera	Training Organizer	Agro.	12000-420-18300	17040	06-09-05	Gen.
2	Shri. S.P. Vasvelia	Training Associate	Agro.	12000-420-18300	14100	16-09-04	OBC
3	Shri. B.M. Dhedhi	Training Associate	Pl. Patho.	10000-325-15200	12600	16-09-04	Gen.
4	Vacant	Training Associate	Horti.	8000-275-13500	-	-	-
5	Vacant	Training Associate	Home Science	8000-275-13500	-	-	-
6	Vacant	Training Associate	Agril. Eng	8000-275-13500	-	-	-
7	Vacant	Training Associate	Animal Hus.	8000-275-13500	-	-	-
8	Dr. P.D. Vekariya	Training Assistant	Agron..	5500-175-9000	7250	16-09-04	Gen.
9	Shri, G.B. Vekariya	Training Assistant	Pl. Phy.	5500-175-9000	8100	06-05-05	-
10	Vacant	Training Assistant	Comp. Ope.	5500-175-9000	-	-	-
11	Shri. R.M. Tripathi	Offi. Sup. cum A/c. Offi.	-	5500-175-9000	6800	16-09-04	Gen.

1	2	3	4	5	6	7	8
12	Vacant	Junior Steno	-	4000-100-6000	-	-	-
13	Shri. H.R.Gohil	Jeep Driver-Cum Mechanic	-	3050-100-4590	4200	16-09-04	Gen.
14	Shri.A.V. Parmar	Jeep Driver-Cum Mechanic	-	3050-100-4590	5500	16-09-04	Gen.
15	Shri. D.C. Dafda	Supporting Staff	-	2550-70-3200	3930	16-09-04	SC
16	Smt.U.G.Zala	Supporting Staff	-	2550-70-3200	2900	16-09-04	Gen.

### 3. Total Land with KVK 20 ha .

Sr No.	Item	Area (ha)
1	Under Buildings / Roads	1.00
2	Under Demonstration Units	0.50
3	Under Crops	9.00
4	Orchard / Agro- Forestry	6.00
5	Others /DFRS	3.50
	Total	20.00

### 4. Infrastructure Development.

Sr. No.	Name of the Building	Stage Completed ( Plinth Area in sq.m.)	In Completed ( Plinth Area in sq.m.)	Source Fund
1.	Administrative Buildings	147.60	-	State Government
2.	Farmers Hostel	607.00	-	ICAR
3.	Staff Position	-	-	-
4.	Demonstration Units	-	-	-
5.	Any Others	-	-	-
	Total	754.60	-	-

## **5. Description of Agro.- Climatic Zones and Farming Situations of the District:**

### **North Saurashtra Agro climatic Zone- VI, Gujarat**

Eight Agro-climatic zones have been identified in Gujarat. The North Saurashtra Agro climatic Zone- No.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 (8 talukas out of 11) covering 43 talukas in all. It is bounded in the north by the gulf of Kutchh 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 Rajkot is rainfed. Area production and productivity of field crops are given as below.

**Area, production and productivity of field crops of Rajkot district**

Name of crop	2000-2001			2001-2002			1998-2002 Ave. Yield (q/ha)	
	Area 00'ha	Prod. 00'mt	Yield q/ha	Area 00'ha	Prod. 00'mt	Yield q/ha	Rajkot Dist.	Gujarat State
Groundnut (Kharif)	3811	216	0.57	3682	4658	12.65	6.60	8.58
Groundnut (summer)	1	1	17.99	1	1	11.91	14.99	16.61
Cotton (rain fed)	373	67	0.31	630	389	1.05	2.85	4.21
Cotton (Irri.)	14.32	633	0.75	1393	1723	2.10	10.3 5	11.34
Sesamum	476	157	3.30	607	416	6.86	4.54	4.05
Castor	170	130	7.65	80	145	18.02	22.44	16.78
Pearl millet	416	239	5.74	425	662	15.58	8.49	10.82
Sorghum	52	32	6.31	111	83	7.51	9.76	9.05
Green gram	47	20	4.15	79	52	6.54	4.05	3.37
Blackgram	30	18	6.09	80	75	9.37	4.99	4.53
Pigeon pea	17	6	3.37	13	8	6.24	6.81	6.66
Moth bean	7	1	0.80	10	3	3.40	3.08	2.01
Wheat (Irri.)	29	66	22.81	101	265	26.33	27.86	25.23
Mustard	1	1	12.19	2	3	11.83	11.83	11.87
Chick pea	5	3	6.06	27	18	6.78	7.50	6.13
Chillies(Dry)	12	12	10.00	13	14	10.50	10.50	8.88
Cumin	28	12	4.10	68	31	4.49	4.42	4.00
Onion	2	54	212.99	11	382	349.73	297.64	243.89
Garlic	3	20	66.34	10	74	77.30	68.77	59.16

**(B)Live Stock :Total : 1173206 ,Viz., Bullocks & Cows: 494254,  
Buffaloes: 179234, Sheeps: 308742, Goats: 171178,  
Horses & Camels: 2066, Poultry:19085**

**6. Thrust areas of work identified through PRA, Survey or any other Method.**

1. Increasing the productivity of the major crops by adopting recommended dry farming technologies.
2. *In situ* soil moisture conservation and rain water harvesting.
3. Promoting the arid horticulture.
4. Motivating cotton growers to adopt Integrated Pest Management (IPM) practices for reducing the cost of production.
5. Enhancing productivity of milch animals by proper feeding and breeding management.
6. Providing self employment through skill oriented income generating activities
7. Developing interest among youth for agriculture as a profession.
8. Value addition in Agriculture produces through proper grading, processing, marketing and information technology.
9. Minimizing the post harvest losses and to create the awareness for proper storage.

## 7. Training Achievement

### (A) On Campus.

Sr. N.	Discipline(s)	No.of Course	No of Participants			SC/ ST Participants			GT
			Male	Female	T	Male	Female	T	
<b>Practicing farmers</b>									
1.	Crop Production	5	129	-	129	12	-	12	141
2.	Horticulture	2	63	-	63	4	-	4	67
3.	live stock production & management	1	16	-	16	1	-	1	17
4.	Home Science	1	-	23	23	-	3	3	26
5.	Agril. Engg.	2	173	30	203	14	2	16	219
6.	Plant Protection	5	127	-	127	13	-	13	140
7.	Fisheries	-	-	-	-	-	-	-	-
8.	Agril. Extn.	-	-	-	-	-	-	-	-
9.	Agro -Forestry	-	-	-	-	-	-	-	-
10.	Soil fertility & Management	-	-	-	-	-	-	-	-
11.	Others Agril.Meteo.	1	11	-	11	-	-	-	11
	<b>Total</b>	<b>17</b>	<b>519</b>	<b>53</b>	<b>572</b>	<b>44</b>	<b>5</b>	<b>49</b>	<b>621</b>
<b>Rural Youth</b>									
10.	Soil fertility and Management	1	14	-	14	-	-	-	14
	<b>Total</b>	<b>1</b>	<b>14</b>	<b>-</b>	<b>14</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>14</b>
<b>Extension Functionaries</b>									
1.	Crop production	2	32	-	32	-	-	-	32
6.	Plant protection	1	8	-	8	-	-	-	8
10.	Soil fertility & management	3	93	-	93	5	-	5	98
	<b>Total</b>	<b>6</b>	<b>133</b>	<b>-</b>	<b>133</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>138</b>
	<b>Grand Total</b>	<b>24</b>	<b>666</b>	<b>53</b>	<b>719</b>	<b>49</b>	<b>5</b>	<b>54</b>	<b>773</b>

**(B) Off Campus.**

Sr. N.	Discipline(s)	No.of Course	No of Participants			SC/ ST Participants			GT
			Male	Female	T	Male	Femal e	T	
<b>Practicing farmers</b>									
1.	Crop Production	7	296	32	328	26	8	34	362
2.	Horticulture	3	156	-	156	3	-	3	159
3.	live stock produ.manage.	1	18	5	23	-	-	-	23
4.	Home Science	2	-	32	32	-	-	-	32
5.	Agril. Engg.	1	24	-	24	2	-	2	26
6.	Plant Protection	6	280	15	295	20	5	25	320
7.	Fisheries	-	-	-	-	-	-	-	-
8.	Agril. Extn.	-	-	-	-	-	-	-	-
9.	Agro -Forestry	-	-	-	-	-	-	-	-
10.	Soil fertility & Management	-	-	-	-	-	-	-	
11.	Others Agri. Meteorology	2	66	-	66	6	-	6	72
	<b>Total</b>	<b>22</b>	<b>840</b>	<b>84</b>	<b>929</b>	<b>57</b>	<b>13</b>	<b>70</b>	<b>994</b>
<b>Rural Youth</b>									
1.	Crop production	1	19	-	19	2	-	2	21
	<b>Total</b>	<b>1</b>	<b>19</b>	<b>-</b>	<b>19</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>21</b>
<b>Extension Functionaries</b>									
1.	Soil fertility & management	1	24	-	24	-	-	-	24
	<b>Total</b>	<b>1</b>	<b>24</b>	<b>-</b>	<b>24</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>24</b>
	<b>Grand total</b>	<b>24</b>	<b>883</b>	<b>84</b>	<b>967</b>	<b>59</b>	<b>13</b>	<b>72</b>	<b>1039</b>

## (C) Consolidated Table ( On + Off Campus )

Sr. N.	Discipline(s)	No.of Course	No of Participants			SC/ ST Participants			GT
			Male	Female	T	Male	Female	T	
<b>Practicing farmers</b>									
1.	Crop Production	12	425	32	457	38	8	46	503
2.	Horticulture	5	219	-	219	7	-	7	226
3.	live stock production & management	2	34	5	39	1	-	1	40
4.	Home Science	3	-	55	55	-	3	-	58
5.	Agril. Engg.	3	197	30	227	16	2	18	245
6.	Plant Protection	11	407	15	422	33	5	38	460
7.	Fisheries	-	-	-	-	-	-	-	-
8.	Agril. Extn.	-	-	-	-	-	-	-	-
9.	Agro -Forestry	-	-	-	-	-	-	-	-
10.	Soil fertility & Management	-	-	-	-	-	-	-	-
11.	Others Agril.Meteo.	3	77	-	77	6	-	6	83
	<b>Total</b>	<b>39</b>	<b>1359</b>	<b>137</b>	<b>1496</b>	<b>101</b>	<b>18</b>	<b>119</b>	<b>1615</b>
<b>Rural Youth</b>									
10.	Soil fertility and Management	2	33	-	33	2	-	2	35
	<b>Total</b>	<b>2</b>	<b>33</b>	<b>-</b>	<b>33</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>35</b>
<b>Extension Functionaries</b>									
1.	Crop production	3	56	-	56	-	-	-	56
6.	Plant protection	1	8	-	8	-	-	-	8
10.	Soil fertility & management	3	93	-	93	5	-	5	98
	<b>Total</b>	<b>7</b>	<b>157</b>	<b>-</b>	<b>157</b>	<b>5</b>	<b>-</b>	<b>5</b>	<b>162</b>
	<b>Grand Total</b>	<b>48</b>	<b>1549</b>	<b>137</b>	<b>1686</b>	<b>108</b>	<b>18</b>	<b>126</b>	<b>1812</b>



**( D ) Sponsored Training Programmes.**

**(i) For Practicing Farmers:**

Sr. No.	Title	Discipline (s)	Month	Duration	No of Participants			SC/ ST Participants			Sponsoring Agency
					M	F	T	M	F	T	
1	Vegetable crop production technology	Horticulture	Aug-05	17-08-05	64	-	64	10	-	10	N.H.R.D F.
2	Onion - garlic production technology	Horticulture	Aug-05	18-08-05	54	-	54	7	-	7	N.H.R.D F.
3	Storage and value addition of vegetable crops	Horticulture	Aug-05	23-08-05	68	9	77	10	3	13	N.H.R.D F.
	<b>Total</b>				<b>186</b>	<b>9</b>	<b>195</b>	<b>27</b>	<b>3</b>	<b>30</b>	<b>-</b>

**(ii) For Rural Youth**

Sr. No.	Title	Discipline (s)	Month	Duration	No of Participants			SC/ ST Participant			Sponsoring Agency
					M	F	T	M	F	T	
1	Canning and preservation of fruit and vegetables products	Horticulture	May - 05	16-05-05 to 22-05-05	-	28	28	-	2	2	State Department
2	Green House Technology for vegetable production	Horticulture	September	12-09-05	42	10	52	-	-	-	NHRDF
	<b>Total</b>				<b>42</b>	<b>38</b>	<b>80</b>	<b>-</b>	<b>2</b>	<b>2</b>	

**(iii) For Extension Personnel : Nil**

**8. Results of Front line demonstration :**

**8.1 Crop –wise Area of Front line demonstration :**

**( A ) OIL SEEDS :**

a) Details of Implementation

Sr. No	Crop	Year	Season	Verity	Area (ha.)		No.Of Farmers Demonstrations			Rem arks
					Proposed	Actual	SC/ST	Other	Total	
1	G'nut	2004 - 05	<i>Kharif</i>	GG - 7	3.2	3.2	-	8	8	-

b) Details of farming situation

Crop	Season	farming situation (RF/ Irrigated)	Type of Soil	Status of Soil (low/medium/ high)			Previ-ous Crop	Sowing date	Harvest date	Seaso-nal rain-fall (mm)	No. of rainy days
				N	P	K					
G'nut	<i>Kharif</i>	Rainfed	Medium black	--	--	--	G'nut	17-06-04	24-10-04	-	-
								19-06-04	30-09-04	-	-
								20-06-04	15-10-04	-	-
								20-06-04	10-10-04	-	-
								18-06-04	09-10-04	-	-
								18-06-04	28-09-04	-	-
								18-06-04	22-10-04	-	-
								17-06-04	24-10-04	-	-

c). Crop Performance:

Crop	Variety	No.of Farmers	Area (ha.)	Demonstration Yield (q/ha)				Increase in Yield (%)	Cost of additional cash input(Rs./ha)	
				High-est	Low-est	Aver-age	Local Check		Demon-stration	Local Check
G'nut	GG-7	8	3.2	19.00	4.46	7.72	6.20	24.5	1450	1100

**B. Pulses.**

a. Details of Implementation.

Crop	Year	Season	Variety	Area (ha.)		No.Of Farmers Demonstrations			Remarks
				Proposed	Actual	SC/ST	Others	Total	
Gram	2004-05	Rabi	G.G.-1	1.60	1.60	-	4	4	-

**b) Details of farming situation**

Crop	Season	farming situation (RF/Irrigated)	Type of Soil	Status of Soil (low/medium/high)			Previous Crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Gram	Rabi	Irrigated	Medium black	-	-	-	G'nut.	08-11-04	26-02-05	-	-
								10-11-04	28-02-05	-	
								20-11-04	27-02-05	-	-
								16-11-04	03-03-05	-	-

**c). Crop Performance:**

Crop	Variety	No.of Farmers	Area (ha.)	Demonstration Yield (q/ha)				Increase in Yield (%)	Cost of additional cash input(Rs./acre)	
				High est	Low est	Ave rage	Local Check		Demonstr ation	Local Check
Gram	G.G.-1	4	0.4	9.60	8.35	9.10	7.70	20.7	615	309

**C. Analytical Review of Components of Demonstration:**

Crop	Season	Farming Situation	Component	Yield (q/ha)	Local Check Yield (q/ha)	Percentage increase in productivity over local Check
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	6.50	5.50	18.20
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	6.00	5.50	9.10
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	7.00	5.00	40.00
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	7.50	5.50	40.00
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	19.00	14.00	35.70
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	6.50	5.50	40.00
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	4.46	4.20	6.20
G'nut .	<i>Kharif</i>	Rainfed	Seed (Variety) GG-7	7.80	4.42	8.60
Gram .	Rabi	Irrigated	Seed (Variety) Guj.- 1	9.60	8.15	10.40
Gram .	Rabi	Irrigated	Seed (Variety) Guj.- 1	8.35	6.50	28.50
Gram .	Rabi	Irrigated	Seed (Variety) Guj.- 1	8.90	7.15	24.50
Gram .	Rabi	Irrigated	Seed (Variety) Guj.- 1	9.55	8.00	19.40

#### **D. Technical Feed Back.**

1. To enhance the farmers to use recently developed notified varieties of related crop.
2. Proper use of fertilizers, insecticides and fungicides as per recommendation to reduce the production cost.
3. To avoid the heavy irrigation with minimizing the number of irrigation and suggestion made for to introduce new technology of drip irrigation in field crops and horticultural crops.

#### **E. Farmer's Reactions**

1. Yield may be decrease if last showers not received timely.
2. They assume that new varieties are most probably susceptible to insect- pest and diseases.
3. In case of groundnut GG-7 , Due to bold size kernel, testa damages during seed preparation and due to more proteinous material seed borne disease develop fast.

#### **F. Extension Training Activities.**

Sr. No.	Activity	Date	No. of activities organized	No.of participants			Remarks
				M	F	T	
1	Field day on Groundnut	Aug-Sept.	16	238	15	253	
2	Field day on gram	Dec. Jan	8	80	15	95	
3	Farmer training on campus	Oct.-Feb	2	61	5	66	
4	Farmer training off campus	Oct.-Feb	2	50	12	62	

## G. Other Demonstrations.

### a. Details of Implementation.

Sr. No	Crop	Year	Season	Varities	Area (ha.)		No.Of Farmers Demonstrations			Remarks
					Prop-osed	Actual	SC/ST	Others	Total	
1	Bajara	2004-05	<i>Kharif</i>	GHB-577	4.00	4.00	1	9	10	
2	Wheat	2004-05	Rabi	GW-322	2.00	2.00	-	5	5	
3	Cumin	2004-05	Rabi	GC-3	1.60	1.60	-	4	4	
4	Cumin	2004-05	Rabi	GC-4	3.20	3.20	-	8	8	

### b) Details of farming situation

Crop	Season	farming situation (RF/Irrigated)	Type of Soil	Status of Soil (low/medium/high)			Previous Crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
1	2	3	4	5	6	7	8	9	10	11	12
Bajara	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Cotton	18-06-04	11-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Groundnut	19-06-04	13-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Sesamum	19-06-04	15-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Cotton	17-09-04	16-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Groundnut	19-06-04	16-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Mung	18-06-04	17-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Cotton	18-06-04	15-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Groundnut	19-06-04	17-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Cotton	17-06-04	26-09-04	--	--
	<i>Kharif</i>	Rainfed	Medium black	-	-	-	Groundnut	16-06-04	23-09-04	--	--
Wheat	Rabi	Irrigated	Medium black	-	-	-	Groundnut	4-11-04	28-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Onion	18-11-04	12-03-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	12-11-04	07-03-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	4-11-04	23-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	fallow	3-11-04	28-02-05	--	--

1	2	3	4	5	6	7	8	9	10	11	12
Cumin	Rabi	Irrigated	Medium black	-	-	-	Groundnut	19-11-04	23-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	15-11-04	17-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	05-11-04	11-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	09-11-04	13-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	06-11-04	11-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	18-11-04	25-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	22-11-04	Failed	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	16-11-04	21-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	15-11-04	22-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	23-11-04	03-03-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	18-11-04	28-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	11-11-04	18-02-05	--	--
	Rabi	Irrigated	Medium black	-	-	-	Groundnut	15-11-04	26-02-05	--	--

### c). Crop Performance:

Sr. No	Crop	Variety	No. of Farmers	Area (ha.)	Demonstration Yield (q/ha)				Increase in Yield (%)	Cost of additional cash input(Rs./acre)	
					High-est	Low-est	Aver-age	Local Check		Demons tration	Local Check
1	Bajara	GHB-577	10	4.00	25.0	6.25	14.28	9.43	51.43	60	90
2	Wheat	GW-322	5	2.00	47.10	41.35	44.86	35.88	25.02	600	450
3	Cumin	GC-3	5	2.00	5.10	3.00	4.28	3.29	30.09	220	250
4	Cumin	GC-4	8	3.20	11.15	3.90	5.88	3.49	68.48	220	250

## 9. Other Extension Activities.

Sr. No	Activities	No	No.of Participant			No.of SC/ST			No.of Exten. Officer		
			M	F	T	M	F	T	M	F	T
1	Kishan Goshti/Mela Field Day	24	3043	330	3373	398	38	43	48	-	48
2	Farmers Meeting	29	2363	202	2565	255	32	287	133	11	144
3	Kishan Mela (Participated)	5	1600	134	1734	190	28	218	10	-	10
4	Crop Shibir	16	13545	390	13935	655	86	741	58	-	58
5	T.V. Show	10	1033	105	1138	141	20	161	24	-	24
6	Radio Talk	5	-	-	-	-	-	-	-	-	-
7	T.V. Talk Programme	15	-	-	-	-	-	-	-	-	-
8	Diagnostic Services	53	779	2	781	85	2	89	-	-	-
9	News Paper Coverage	40	-	-	-	-	-	-	-	-	-

### SEASONAL FEATURES:

During the year, 2004 a total of 973.3 mm rainfall was received in 37 rainy days, which was about 64.7 % higher than the average of the station. The pre-seasonal rainfall was recorded during the standard week number 19, with a quantum of 94.4 mm in 2 rainy days. The seasonal precipitation of *Kharif* 2004 was 878.9 mm in 35 rainy days.

The regular monsoon commenced with the first effective precipitation of 23.2 mm and 29.0 mm on 12<sup>th</sup> and 16<sup>th</sup> June respectively (24<sup>th</sup> std. week). The distribution of rainfall was uneven. The stress of rainfall was observed during 35<sup>th</sup> to 37<sup>th</sup> std. week (pegging and pod development stage). The heavy rainfall was recorded during 31<sup>st</sup> and 32<sup>nd</sup> std. week. The crop yields were adversely affected due to these both situations.

The maximum and minimum temperature ranged from 28.8 to 40.3 °C and 16.9 to 26.3 °C, respectively. The mean relative humidity varied from 54 % to 95 %. The yields of long duration crops like cotton, castor and pigeon pea were good. The yields of groundnut, sesamum, pearl millet and sorghum were normal, while the yields of pulses crop were poor.

### Meteorological data (Average of the week)

Date/ Month	Week No.	Temperature		Humidity	Rainfall (mm)	No. of rainy day
		Minimum	Maximum			
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
May - June- 2004	19	25.7	37.7	62	94.40	2
	20	25.8	38.3	63	0.0	0
	21	26.0	37.6	64	0.0	0
	22	25.3	40.3	62	0.0	0
June- July- 2004	23	26.03	39.6	64	0.0	0
	24	25.6	36.0	77	60.20	3
	25	26.2	34.7	66	3.20	1
	26	25.5	35.4	73	31.20	2
July- August- 2004	27	24.6	34.3	79	160.40	2
	28	25.0	33.8	75	0.0	0
	29	25.2	35.4	74	0.0	0
	30	24.3	28.8	79	34.30	2
	31	23.5	30.8	95	226.60	6
August- September 2004	32	23.8	29.0	95	151.60	6
	33	24.1	29.6	88	13.20	3
	34	23.9	30.3	85	22.40	3
	35	23.6	32.3	73	0.0	0
September 2004	36	23.3	33.3	70	0.0	0
	37	23.1	33.1	74	0.0	0
	38	23.7	32.5	76	62.00	2
	39	24.0	34.7	76	86.80	3
October- November 2004	40	23.8	33.2	79	22.8	1
	41	20.2	32.2	66	4.2	1
	42	18.1	34.0	59	0.0	0
	43	18.0	34.9	54	0.0	0
	44	19.0	33.9	66	0.0	0
November December 2004	45	18.7	33.5	72	0.	0
	46	20.2	34.7	72	0.0	0
	47	17.0	33.8	75	0.0	0
	48	16.9	33.3	73	0.0	0
December 2004	49	15.4	31.4	71	0.0	0
	50	14.2	32.3	81	0.0	0
	51	13.5	30.7	67	0.0	0
	52	14.7	28.5	50	0.0	0
January – 2005	1	26.3	9.2	58	0.0	0
	2	27.5	10.9	65	0.0	0
	3	26.7	10.6	57	0.0	0
	4	26.6	11.2	64	0.0	0
February- 2005	5	25.9	10.0	73	0.0	0
	6	29.8	14.5	82	0.0	0
	7	30.8	14.5	80	0.0	0
	8	25.7	9.3	50	0.0	0
	9	35.4	17.8	63	0.0	0



1	2	3	4	5	6	7
March – 2005	10	32.4	17.1	70	0.0	0
	11	35.7	17.7	70	0.0	0
	12	35.9	20.0	77	0.0	0
	13	37.3	19.7	72	0.0	0
April – 2005	14	40.3	19.2	51	0.0	0
	15	38.2	18.7	6	0.0	0
	16	40.7	22.3	74	0.0	0
	17	40.5	23.4	78	0.0	0
	18	39.1	24.1	76	7.2	1
May – 2005	19	40.2	22.4	82	0.0	0
	20	41.6	23.5	80	0.0	0
	21	42.3	25.4	80	0.0	0
	22	40.3	26.1	84	0.0	0
June - 2005	23	40.8	26.8	81	0.0	0
	24	40.2	26.7	84	0.0	0
	25	37.3	26.0	90	55.2	3
	26	28.7	24.5	96	278.3	7

## 10. Results of on - farm Testing. Nil

## 11. Success Stories /Case Studies, if any

### A) Success story

#### 1. Higher benefit through Use of small/wrinkled seed of Groundnut crop

Farmers prefer the bold seeds of groundnut for sowing purpose because they believe that bold seed of groundnut have luxurious growth of plant and produce more yield in the cluster of KVK. due to this seed requirement per unit area is more than recommended seed rate. at the time of off campus training programme, it was suggested that small/ wrinkled / medium seeds of groundnut are equally good for germination as well as for yield potential. Mr. Ravjibhai Bhut took the initiative interest for the same and he has been allotted O.F.T. on 0.4 ha. of land with 3 treatments i.e. sowing of small seeds, bold seeds and mixed seeds. he obtained 23.76 q/ha. yield of groundnut from small seed plot, 21.40 q/ha from mixed seed plot and 20.50 q/ha from bold seed plot. a field day was organized on his field for encouraging the farmers and advised not to remove the small/ wrinkled seeds from the seed materials which in turn save the 24 % requirement of seeds and also recorded high yield due to optimum plant population in unit area.

#### Impact :

A saving of around Rs. 150 crores on cost of groundnut seed in area of 18 lakh ha. of Gujarat state.

## **2. Bumper harvest through Groundnut Variety GG-7 in Rajkot District**

Mr. Dhirubhai Ragor is a farmer of Juna Rajpipla village of Kotda Sagani taluka, Dist. Rajkot. He is a progressive farmer and he regularly remains in touch with the activities of KVK. Previously he was cultivating groundnut with locally available seed and was getting lower yield. After coming in contact with the scientist of KVK, he cultivated the improved variety of groundnut i.e. GG-7 as Front Line Demonstration and harvested good yield (24.00q/ha) as compared to local one (19.25 q/ha) during *Kharif* 2002. With the introduction of new variety, he got additional net return of Rs. 81500.00 ha as he sold the groundnut as seed purpose to the other neighboring farmers at the rate of Rs. 50/kg. By observing his experience, other farmers of this region are inquiring about the source of the seeds of the improved variety as well as cultivation practices of the same.

### **Impact**

This variety (GG-7) will increase the production of groundnut from 19.25 q/ha to 24.00 q/ha which will increase the economic growth of the state by earning additional income.

## **3. An effective approach for the management of groundnut stem rot**

Groundnut and cotton are the major *Kharif* crops and cummin in *Rabi* season in operational area of KVK. During the survey in March 2001, it was observed that majority of farmers are growing groundnut variety GG-20 with wide spreading of 90 cm, so that agricultural practices can be done easily. Farmers are recommended to sow groundnut by keeping row spacing of 60 cm and for controlling the stem rot, seed should be treated with *trichoderma* culture @ 4 gm/kg seeds and soil application @ 2.5 kg with 50 kg of castor cake at 30-40 days after sowing by using drill in moist condition. By organizing the activities like group discussion, night meeting, field day etc. Mr. Bhupatsinh Jadeja a farmer of Devalia village who took the interest to conduct demonstration under complete guidance and frequent supervision of KVK scientist.

After adopting this improved technology, Mr. Bhupatsinh Jadeja harvest Groundnut pod yield of 31.25 q/ha with gross return of Rs. 46875 per ha as compared to 23.75 q/ ha with gross return of Rs. 35625 per ha by traditional practice.

As a result of the front line demonstration organized by KVK scientists an active role of Mr. Bhupatsinh Jadeja, other farmers of the village are also convinced to adopt scientific technology for higher groundnut production and getting maximum net return per unit area.

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**Impact :**

An additional yield can be obtained in case of groundnut by application of *trichoderama*.

**4. Inter-cropping system ; a sustainable approach in rain fed farming**

The villages of KVK fall in dry farming areas. the rainfall in the operational area of KVK is irregular, uncertain and inadequate. the crop generally fails due to the water stress at different critical stages of the crops. against the failure of crop due to water stress or drought, Main Dry Farming Research Station , G.A.U., Targhadia has already recommended the inter cropping systems like Groundnut + Pigeon pea (3:1), Groundnut + Castor (3:1), Pearl millet + Pigeon pea (2:1), etc. the frontline demonstration on Groundnut + Pigeon pea )3:1), conducted on the filed of Mr. Kesubhai Rupapara of Bhadva village to overcome the risk. He recorded 13.00 q/ha groundnut as sole crop. Whereas in inter cropping system Groundnut + Pigeon pea (3: 1), he produced 12.00 q/ha. groundnut and 11.50 q/ha grain of pigeon pea. He earned more of Rs. 10150/ha from the inter-cropping as compared to sole groundnut.

**Impact**

This method of cultivation will take care of the risk involved due to uncertainty of rainfall as well as improve the economic condition of the farmers.

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**2. Constraints.****a. Administrative.**

1. Remuneration should be permitted for invitee speaker during the training course.
2. Minimum two post of qualified administrative persons should be created.
3. One post of skill field assistant should be granted.

**b. Financial.**

1. Training hall and Hostel facilities should be developed.
2. Separate computer A.C. room/Building
3. Quarter wise fund should be released earlier or in time so, that activities for the purchase of instrument can be done in time .
4. Revalidation of unspent amounts of last year for B. H. 2704-15 and 2704-24 is also needed
5. Due to inadequate allocation of funds, follow up programme becomes difficult.
6. A Two-Wheeler motorcycle for frequent visit of FLD should

- be provided
7. A minibus having 24 seat capacity for transportation

### c. Technical.

Following scientific equipment is require for technical work

1. A Digital Shooting/still camera with accessories
2. One compound microscope for laboratory purpose.
3. One stereo-zoom binocular
4. One microscope with camera attachment system

### 12. Functional Linkages with different Organizations.

Sr. No.	Name of Organization	Nature of Linkage
1.	State department of Agriculture - Dy. Director of Agriculture (Extension) - Dy. Director of Horticulture - Dy. Director of Animal husbanbary - Dy. Director of Soil Conservation - Dy. Director of Social Forestry	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.
2.	Jilla Udyog Kendra	
3.	Milk Co-operative Society	
4.	State bank of Saurashtra	
5.	Doordarshan Kendra	
6.	All India Radio	
7.	Gramin Bhandaran Yojana (Govt. of India )	
8.	National Horticultural Research and Development Foundation	

### 13. Performance of Instructional Farm including Seed production.

Twenty hectare (20 ha.) land is allotted to our center this year and seed production programme of Groundnut and Urid bean and other commercial crop production of sesamum and bajara has been taken during *Kharif* 2005.

### 14. Details of KVK Bank Accounts.

	Name of the Bank	Location	Account Number
a. With Host. Institute	SBI	Junagadh	---
b. With KVK	SBI	Rajkot	10353003175

### 15. Utilization of KVK Funds.

#### (A) Year - 2004 - 05

Sr. No.	Item	Sanctioned (Rs.) 16-09-04 to 31-03-05	Released (Rs.)	Expenditure (Rs.)
1	Pay & Allowances	5.50	5.50	1184155

2	Recurring Contingencies	2.00	2.00	196496
3	Non - Recurring Contingencies	5.10	5.10	490200
	<b>Total</b>	<b>12.60</b>	<b>12.60</b>	<b>1870851</b>

**(B) Year - 2005 - 06**

Sr. No.	Item	Sanctioned (Rs.) 01-05-05 to 30-09-05	Released (Rs.)	Expenditure (Rs.)	Req. of fund up to Feb-06
1	Pay & Allowances	12.00	6.00	11.22	13.72
2	T.A.	00.50	0.25	0.34	0.70
3	Recurring Contingencies	06.20	3.10	1.15	--
3	Non - Recurring Contingencies	08.70	4.35	-	--
	<b>Total</b>	<b>27.40</b>	<b>13.70</b>	<b>12.71</b>	<b>14.42</b>

Additional requirement of funds for pay & allowance is demanded due to increase of D.A., bonus Leave salary of retire of person, merger DA of 50 % of pay arrears of C.A. & requirement of T.A. for Technical staff

**16. Utilization of Fund under FLD on Oilseeds/Pulses (Rs. in Lakhs).**

Sr. No	Item	Sanctioned by ZC		Release by Host Institute		Expenditure		Unspent Balance as on 1 <sup>st</sup> April
		Kharif	Rabi	Kharif	Rabi	Kharif	Rabi	
1	Oilseeds	131740	-	131740	-	81750	-	131740
a.	Inputs							
b.	Extension activities	-	-	-	-	-	-	-
c.	TA/DA/POL. etc.	-	-	-	-	-	-	-
	<b>Total</b>	<b>131740</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>81750</b>	<b>-</b>	<b>131740</b>
2	Pulses	-	9740	-	9740	-	-	9740
a.	Inputs							
b.	Extension activities							
c.	TA/DA/POL. etc.							
	<b>Total</b>	<b>-</b>	<b>9740</b>	<b>-</b>	<b>9740</b>	<b>-</b>	<b>-</b>	<b>9740</b>

N.B. Unspent balance is yet not revalidated.

**17. Status of Revolving Fund ( Rs.in Lakhs) of the Last Three Years.**

Sr. No.	Year	Opening Balance	Expenditure	Income	Net Balance in hand as on 1 <sup>st</sup> April of each year
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			<b>Fixed Deposit</b>	<b>Farm Income</b>	
1	2002 - 03	---	---	---	---
2	2003 - 04	---	---	---	---
3	2004 - 05	100000	---	---	100000