



# **ANNUAL PROGRESS REPORT**



**1<sup>st</sup> APRIL-2012 TO 31<sup>ST</sup> MARCH-2013**

**SUBMITTED TO  
ZONAL PROJECT DIRECTORATE  
ZONE-VI, JODHPUR**



**SUBMITTED BY  
KRISHI VIGYAN KENDRA  
SAMODA-GANWADA  
TA.: SIDHPUR, DIST.:PATAN (N.G.)**

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# ANNUAL REPORT

(1<sup>ST</sup> APRIL-12 TO 31<sup>ST</sup> MARCH-13)

1

## GENERAL INFORMATION ABOUT THE K.V.K.

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra Samoda-Ganwada Ta.Sidhpur, Di. Patan Pin. 384 151 (N.G.)	02767 285528	02767 285528	www.kvksamoda@yahoo.com

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

Address	Telephone		E mail
	Office	FAX	
Saraswati Gram Vidyapeeth, Samoda-Ganwada Ta.Sidhpur, Di. Patan Pin. 384 151 (N.G.)	02767 285528	02767 285528	www.kvksamoda@yahoo.com

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

Name	Telephone / Contact		
	Residence	Mobile	E-mail
Dr. Sushil Kumar Sharma	09887030798	7567719487	sushil4sharma@gmail.com

1.4. Year of sanction: Year-1993

### 1.5. Staff Position (as on 31<sup>th</sup> March-2013)

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with basic	Date of joining	Permanent/ Temporary	Category (SC/ST/ OBC/ Others)
1.	Programme Coordinator	Dr. Sushil Kumar Sharma	Programme Coordinator	Soil Science	15600-39100 30320/-	8/8/2012	Permanent	General
2.	Subject Matter Specialist	Shri H.P.Patel	S.M.S.	Extension Education	15600-39100 31270/-	8/5/1993	Permanent	General
3.	Subject Matter Specialist	Shri G.A.Patel	S.M.S.	Plant Protection	15600-39100 31270/-	6/5/1993	Permanent	General
4.	Subject Matter Specialist	Smt. H.B.Patel	S.M.S.	Home Science	15600-39100 26870/-	19/8/2002	Permanent	General
5.	Subject Matter Specialist	Shri S.S. Darji	S.M.S.	Horticulture	15600-39100 21000/-	2/4/2012	Permanent	OBC
6.	Subject Matter Specialist	Shri Shayam Das	S.M.S.	Agronomy	15600-39100 21000/-	5/4/2012	Permanent	ST
7.	Programme Assistant	Shri D.N.Patel	Programme Assistant	-	9300-34800 21380/-	22/2/1996	Permanent	General

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with basic	Date of joining	Permanent/ Temporary	Category (SC/ST/OBC/ Others)
8.	Programme Assistant	Smt. J.N.Patel	Programme Assistant	-	9300-34800 21380/-	27/7/1996	<b>Permanent</b>	General
9.	Computer Programmer	Shri D.R.Patel	Computer Programmer	-	9300-34800 18980/-	1/9/2002	<b>Permanent</b>	General
10.	Accountant/ O. S.	Shri N.B.Patel	Accountant/ O. S.	-	9300-34800 21780/-	25/1/1996	<b>Permanent</b>	General
11.	Steno/ Jr.Clerk	Shri J.K.Patel	Steno/ Jr.Clerk	-	5200-20200 9860/-	1/9/2002	<b>Permanent</b>	General
12.	Driver	Shri R.A.Patel	Driver	-	5200-20200 8560/-	14/8/2010	<b>Permanent</b>	General
13.	Supporting Staff	Shri R.H.Desai	Supporting Staff	-	5200-20200 9330/-	14/5/1993	<b>Permanent</b>	OBC
14.	Supporting Staff	Shri R.D.Thakor	Supporting Staff	-	4440-7740 8810/-	25/1/1996	<b>Permanent</b>	OBC
15.	Supporting Staff	Shri K.A.Patel	Supporting Staff	-	4440-7740 8810/-	25/1/1996	<b>Permanent</b>	General
16.	Supporting Staff	Shri P.V.Parmar	Supporting Staff	-	5200-20200 9700/-	25/1/1996	<b>Permanent</b>	SC

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

S. No.	Item	Area (ha)
1	Under Buildings	1.00
2.	Under Demonstration Units	2.00
3.	Under Crops	9.00
4.	Orchard/Agro-forestry	5.00
5.	Others	3.00
	Total :	20.00

### 1.7. Infrastructural Development:

#### (A) Buildings

Sr. No	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (sq.m)	Expenditure (Rs.)	Starting Date	Plinth area sq.mt	Status of constructio
1.	Administrative Building	ICAR	1993	694	21,87,250=00	-	-	-
2.	Farmers Hostel	ICAR	1999-2000	308.82	12,37,848=11	-	-	-
3.	Staff Quarters (6)	ICAR	1996-97	731	16,89,512=74	-	-	-
4.	Demonstration Units (2)	SGVP	-	20,000	-	-	-	-
5.	Fencing	ICAR	2001-02	-	2,99,902=00	-	-	-
6.	Rain water Harvesting system	-	-	-	-	-	-	-
7.	Threshing floor Farm go down	ICAR	2006-07	262.89 44.89	2,68,039=00	-	-	-
8.	Implement shed	ICAR	2011-12	-	2,85,640=00	-	-	-

**(B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total KMS. Run	Present status
Tractor	1992-93	1,82,910=00	-	Write off
Jeep	2009-10	7,60,236=00	103120	-
Motorcycle	2010-11	49,695=00	19503	-

**(C) Equipments & AV aids**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Camera	1994	1,600=00	OK
Slide Projector/ O.H.P.	1994	23,969=00	OK
Mega Phone	1994	2,140=00	OK
Type Writer	1994	30,675=00	OK
Litho machine	1994	10,925=00	OK
TV	1995	15,695=00	OK
Computer + Printer	2006	66,530=00	OK
Xerox machine	2006	58,000=00	OK
Stabilizer	2006	1,750=00	OK
LCD Projector	2007	54,326=92	OK
DVD Player	2007	3,846=16	OK
Laptop	2007	39,423=08	OK
Digital Camera	2007	19,903=84	OK
Digital Camera	2009	24,800=00	OK
P.A. System	2009	28,600=00	OK
Computer	2009	49,500=00	OK
Generator	2009	98,500=00	OK
Fax machine	2009	19,800=00	OK
Multicrop thresher	2011	1,46,000=00	OK
Rotary weeder	2011	51,450=00	OK
Power sprayer	2011	15,855=00	OK
Seed cum fertilizer drill	2011	27,250=00	OK
K-YAN	2013	76,650=00	OK

### 1.8. ( A). Details of last SAC meeting\* conducted in the year

Sl. No	Date	Name & Designation of Participants	Salient Recommendations Of SAC (Dt.22/3/13)	Action taken of SAC Dt. 27/3/2012
1.	22/3/13	Shri L.V.Patel Director, KVK, SGVP, Samoda	<ul style="list-style-type: none"> <li>➤ Arrange the training programme about reclamation of problematic soil of Sami, Harij, Radhanpur &amp; Santalpur talukas of the district.</li> <li>➤ Arrange the demonstration about the use of potassic fertilizer in B.T. Cotton.</li> <li>➤ Extension activities of the KVK should cover all the blocks of the district</li> <li>➤ To study the impact of long term vocational training programme</li> <li>➤ To prepare proposals for OFT &amp; FLD of major crops &amp; send to the DAO of the district.</li> <li>➤ To increase the area under MIS in the district,</li> <li>➤ To organize the demonstration of qualitative fodder crops</li> <li>➤ To organize vocational training programme of value addition in carrot</li> <li>➤ Actively participation in Krushi Mahotsav</li> </ul>	<ul style="list-style-type: none"> <li>➤ FLD of each crop were organized on KVK Farm</li> <li>➤ Area under MIS was increased by imparting effective training</li> <li>➤ Improved seedlings &amp; saplings are raised at KVK nursery (Lime, Pomogranate, Brinjal, Cauliflower and Tobacco, Tomato)</li> <li>➤ Training programme were organized to create awareness regarding usage of solar cooker</li> <li>➤ KVK have conducted two training programme for popularization of Rotary weeder, Power sprayer and seed cum fertilizer drill</li> <li>➤ During this year 4 vocational training programme were organized for Rural youth on agarbatti, Aonla product, Vermi compost and Nursery raising</li> </ul>
		Dr.K.A.Thakkar D.E.E.,S.D.A.U.,S.K.Nagar		
		Dr. K.D.Solanki Associate Director of Ext.Edu.S.D.A.U., S.K.Nagar		
		Dr. Y.I.Sihora Dy.Director of Agriculture State Agril. Dept., Patan		
		Shri A.K.Nair, D.D.M., NABARD, Patan		
		Shri S.S.Patel Asst. Director of Agril. (Extn.) State Agril. Dept., Patan		
		Shri P.G.Patel Asst. Director (S.C.) G.S.L.D.C., Patan		
		Dr. P.H.Brahmabhatt V.O.I, Sidhpur		
		Shri J.B.Patel Dept. Incharge G.S.F.C., Sidhpur		
		Dr. M.V.Patel Programme Co-ordinator KVK, Mehsana		
		Dr. Sushilkumar Sharma Programme Co-ordinator KVK, Patan		
		Shri Lakhubhai S.Patel Farmer Representative		
		Shri Ramchandra T. Patel Farmer Representative		
		Smt. Varshaben V. Patel Farm Women Representative		
		Subject Matter Specialists (Agril. Ext., Pl.Protection, Horti., Crop Production, Home Science)		



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**DETAILS OF DISTRICT (2012-13)****2.1 Major farming systems/enterprises (based on the analysis made by the KVK)**

S. No	Farming system/enterprise
1.	Livestock raising with crop production (mixed farming)
2.	Livestock raising only
3.	Poultry Farming.
4.	Cropping system included in district - Mono cropping                      - Mix cropping - Inter cropping                      - Relay cropping
5.	Vegetables & fruits cultivated area is very low.

**2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography)**

S. N.	Agro-climatic Zone	Characteristics
1.	Zone No.4 (Patan, Sidhpur and Chansama taluka)	- Average rainfall is 610 mm. - Soil type is loamy, sandy, saline & medium black. - Main crops- Cotton, Wheat, Castor, Cumin, Bajara & Mustard, Fennel, Chilli, Carrot
2.	Zone No.8 (Harij, Sami, Radhanpur and Santalpur taluka)	- Average rainfall is 500mm. - Soil type is loamy, sandy, saline and medium black. - Main Crops - Rainfed Cotton, Wheat, Gram, Dillseed, Mustard & Cumin.

**2.3 Soil type/s**

S. No	Soil type	Characteristics	Area in ha
1.	Heavy black soil	- High Water holding capacity - Low permeability - Water logging condition - Fertile soil	30400
2.	Medium black soil	- Medium WHC - Medium permeability - Fertile soil	334400
3.	Loamy soil	- More retain water and nutrient than sandy soil and low retain water and nutrient than black soil	213220
4.	Sandy soil	- Low WHC - High permeability	165424
5.	Saline soil	- Salts accumulation on the soil surface - Water logging condition - Crack formation during Summer Season	109535

## 2.4. Area, Production and Productivity of major crop cultivated in the district

S. N.	Crop	Area (00,ha)	Production (00 ,m.ton)	Productivity (kg./ha)	
1.	Castor	459	756	1646	
2.	Mustard	429	599	1397	
3.	Cotton	Irrigated	208	1015	830
		Rainfed	480	395	140
4.	Bajra	Kharif	574	315	549
		Summer	82	212	2575
5.	Wheat	329	1030	3131	
6.	Cumin	198	78	395	
7.	Green-gram	153	55	362	
8.	Black-gram	122	59	480	
9.	Til	59	17	287	
10.	Guar (seed)	81	40	494	

## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)	
		Minimum	Maximum		
				At-7.40	At-14.40
April-12		29.72	38.28	-	-
May-12		31.06	39.96	-	-
June-12		31.04	40.55	-	-
July-12	115mm	30.44	40.18	-	-
August-12	122mm	26.13	35.22	-	-
September-12	160mm	25.01	30.34	-	-
Oct.-12		24.82	32.65	-	-
Nov.-12		17.78	27.82	-	-
Dec.-12		12.28	22.70	-	-
Jan.-13		10.37	19.83	-	-
Feb.-13		14.72	23.04	-	-
March-13		20.44	29.83	-	-

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

Sr. No.	Taluka	Name of the block	Name of the Village	Major crops & enterprises	Major problem identified	Identified thrust area
1,	Sidhpur	Sidhpur	Mudana, Lukhasan, Sandesari, Ganglasan, Biliya, Chandesar, Pitambarpura, Dhanawada, Vadhana, Ganeshpura, Dethali, Mesar, Chandravati, Sahesa, Mudvada, Madhapura, Dhumad, Dindrol	Castor Cotton Mustard Cumin Wheat Green-gram Fennel Bajra Carrot	-Average productivity is low in major crop. -Low ground water table. -Inadequate irrigation water & facility. -Pest & diseases like wilt in Castor, root rot in Cotton & termite in Wheat largely reduce the yield & blight in Cumin. -Mealybug in cotton. -Soil productivity status is low. -Poor knowledge & adoption of Horticultural crops. -Average production of milk per animal is low. -Loss of food grains due to poor knowledge & storage facility.	-Average productivity of major crops (castor, Cotton, Bajara, Green-gram, Mustard Wheat & Potato, Cumin) is low It can be increased by <ul style="list-style-type: none"> <li>• Adoption of improved &amp; high yielding variety &amp; INM</li> <li>• Imparting training regarding plant protection measures &amp; IPM &amp; IDM</li> <li>• Use of organic manures</li> </ul>
	Chanasma	Chanasma	Maniyar, Mithadharwa, Pindharpura, Bhatsar, Dhanodarda, Islampura Selavi			-Inadequate irrigation water It can be solved by <ul style="list-style-type: none"> <li>• Adoption of drip irrigation</li> <li>• Irrigation in alternate furrow method.</li> <li>• Adoption of less water required crops</li> </ul>
	Harij	Harij	Varana, Rafu, Harij,			
	Sami	Sami	Zilwana, Kuwarad, Jesada			
	Patan	Patan	Manud, Kamliwada, Hajipur, Kuder, Balisana, Sagodiya, Khimiyana			
	Radhanpur	Radhanpur	Vasada			-Area under fruits & vegetable crops is very low <ul style="list-style-type: none"> <li>• To introduce fruits &amp; vegetable crops like Aonla, Kagdi lime &amp; Ber, Cauliflower, Cabbage, Brinjal, Pomogranate</li> </ul>
	Santalpur	Santalpur	Ganjisar, Hamirpura, Varnosari			

Sr. No.	Taluka	Name of the block	Name of the Village	Major crops & enterprises	Major problem identified	Identified thrust area
					<p>*Low income of landless Agril. Labourers</p> <p>-Very poor knowledge &amp; adoption regarding fruits &amp; vegetables preservation</p>	<p>- Average milk production per animal is low</p> <p>It can be increased by</p> <ul style="list-style-type: none"> <li>• Fodder management</li> <li>• Breed selection</li> </ul> <p>- Value addition of fruits &amp; vegetable (Pickles, Jam, Jelly, Squash, Candy etc. )</p> <p>- Low income of landless Agril. Labourers.</p> <ul style="list-style-type: none"> <li>• Income generation activities through agro base Gruh Udayog</li> </ul>

## 2.7. Priority thrust areas

S. No	Thrust area
1.	Average productivity is low in major crops like Castor, Wheat, Mustard and Cotton.
2.	Inadequate irrigation water facility.
3.	Area under horticultural crops is less.
4.	Average productivity of milk per animal is low
5.	Deterioration of food grains
6.	Low income of landless agricultural labourers



### 3.B. Abstract of interventions undertaken

S. No.	Thrust area	Crop/ Enterprise	Identified problem	Title of OFT in 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.	Productivity of major crops is low	Cotton	-Para wilt -Integrated pest management -Integrated nutrient management	Lower income from cotton cultivation	-INM	-Production technology -INM -IPM	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration	-Supplied of micronutrient
		Castor	-Wilt disease -No adoption of high yielding variety	-	Introduction of high yielding & disease (Wilt & root rot) resistance variety	-Scientific cultivation of Castor -Management of wilt disease	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration -Agri. magazine	-
		Mustard	-Use of local variety -Deficiency of sulphur in soil	-	-	-Scientific cultivation of Mustard -Integrated nutrient management Mustard	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration -Agri. magazine	-
		Pulses Green-gram	-Use of local variety -No use of phosphatic fertilizer	-	Introduction of Improved & high yielding variety	-Importance of phosphatic ferti. In pulses -Cultivation practices of Green-gram	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration -Agri. magazine	Seed of high yielding variety

S. No.	Thrust area	Crop/ Enterprise	Identified problem	Title of OFT in 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.
		Wheat	-Use of local variety -Less adoption of weed, fertilizer and micro nutrient management practices	Low yield of wheat	Introduction of improved & high yielding variety	-Scientific cultivation of wheat -Fertilizer and irrigation management in wheat	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration	-Supplied of seed -Supply of Thiourea
		Cumin	-Use of local variety -No adoption of disease management practices	-Incidence of wilt disease -Poor germination of seed	Introduction of improved & high yielding variety	-Scientific cultivation of cumin -Wilt disease management in cumin	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration -Article -Agri. magazine	-Seed of high yielding variety -Bio-fungicide -Plant growth regulator
		Fennel	-Use of local variety -No adoption of IPM	-	Introduction of improved & high yielding variety	-Scientific cultivation of fennel -Sucking pest & sugary disease management	Awareness about the latest technologies of agriculture	-Training -Field day -Demonstration -Article -Agri. magazine	Seed of high yielding variety
2.	Problematic soil	Alkaline soil	-Exchangeable sodium content high	-	-	-Management of problematic soil -Importance of soil and water analysis in crop production	Awareness about the latest technologies of agriculture	-Training	-
		Saline soil	-Soluble salts content high						



S. No.	Thrust area	Crop/ Enterprise	Identified problem	Title of OFT in 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.
3.	Shortage of irrigation water	-Agril. Engg.	-Ground water table low.	-	-	-Importance of water saving devices like alternate furrow method of irrigation Drip & sprinkler method of irrigation at critical stages	Awareness about the latest technologies of agriculture	-Training	-
4.	Area under fruit crops is less	Lime	-Less fruit production in summer season	-	-	-Introduction of less water required horticulture crop -Importance & application of Bahar treatment	Awareness about the latest technologies of agriculture	-Training	Sapling of kagzi lime
5.	Average milk production per animal is low	Live stock	-Most of the indigenous breeds -Fodder requirement imbalance	-	-	-Management of fodder & concentrate for milch animal	Awareness about the latest technologies of agriculture	-Training	-
6.	Low income of land less agril. Labour	Rural youth	-	-	-	Create awareness and skill about income generation activities	-	-Training	-

### 3.1 Achievements on technologies assessed and refined

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial crops	Vegetable	Fruits	Spices	Plantation crops	Tuber crops	Total
Varietals Evaluation	-	-	-	-	-	-	---	-	-	-
Seed/ Plant production	-	-	-	-	-	-	-	-	-	-
Weed management	-	--	-	-	-	-	-	-	-	-
Integrated crop management	-	-	-	√	-	-	-	-	-	01
Integrated Nutrient management	√	-	-	-	-	-	√	-	-	02
Integrated farming systems	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-	-	-	-	-	-
Farm Machineries	-	-	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest management	-	-	-	--	-	-	-	-	-	-
Integrated Disease management	-	-	-	-	-	-	√	-	-	01
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
<b>TOTAL :</b>	<b>01</b>	-	-	<b>01</b>	-	-	<b>02</b>	-	-	<b>04</b>

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial crops	Fruits	Spices	Tuber crops	Total
Varietals Evaluation	-	-	-	-	-	-	-	-
Seed/Plant production	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-
Integrated crop management	-	-	-	<b>Cotton + Castor intercrop</b>	-	-	-	<b>01</b>
Integrated Nutrient management	<b>Use of thiourea</b>	-	-	-	-	<b>Use of growth hormones</b>	-	<b>02</b>
Integrated farming systems	-	-	-	-	-	-	-	-
Mushroom cultivation	-	--	-	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-	--	-	-
Farm Machineries	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Integrated Pest management	-	-	-	-	-	-	-	-
Integrated Disease management	-	-	-	-	<b>Bioagent-Trichoderma</b>	-	-	<b>01</b>
Resource conservation technology	-	-	-	-	-	-	--	-
Small scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL :</b>	<b>01</b>	<b>-</b>	<b>-</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>-</b>	<b>04</b>

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

**A. Technology Assessment**

**(I) Trial – 1 (Crop : Cotton) Year- 2011-12**

1. Title : Lower income from Cotton mono crop
2. Problem diagnose/ : Not sown intercrop in Cotton  
Defined
3. Details of technology selected for assessment / Refinement & source of Technology

Category	Source of technology	Technology details
T1 : Farmer practices	Farmers	-No intercrop 120 x 60 cms.
T2 : SAU's Recommendation	State Agril. University	-No intercrop -Sowing distance 120 x 45 cms.
T3 : Refine technology	KVK	-Intercropping with Castor -Sowing distance 150 x 60 cms

4. Production system : Integrated Farming systems
5. Thematic area : Integrated cropping system
6. Performance of the technology with performance indicators  
(Result of 1 year)

Treatment	Av. Yield (qt./ha.)	Gross Income Rs./ha.
T1	Cotton : 22.9	91,600
T2	Cotton : 24.8	99,200
T3	Cotton : 21.6 Castor : 14.4	86,400 43,200

### (II) Trial – 2 (Crop : Cumin) Year : 2011-12

1. Title : Low yield of Cumin
2. Problem diagnose/ : Incidence of wilt disease  
Defined
3. Details of technology selected for assessment / Refinement & source of Technology

Category	Source of technology	Technology details
T1 : Farmer practices	Farmers	-No seed treatment
T2 : SAU's Recommendation	State Agril. University	-Seed treatment with Carbendazim 50wp @ 3g./1 kg Seed
T3 : Refine technology	KVK	-Soil application of Trichoderma @ 3kg. /ha. & seed treatment by Trichoderma spp. @ 20g. /1 kg. seed

4. Production system : Integrated Farming systems
5. Thematic area : Integrated disease management
6. Performance of the technology with performance indicators

(Result of 1 year)

Treatment	% wilt infection	Av.yield (qt./ha.)
T1	12.7	7.4
T2	9.3	8.7
T3	7.5	9.2

### (III) Trial – 3 (Crop : Wheat) Year-2012-13

#### (1) Crop Production

#### (a) Low yield of wheat

**Title :- Low yield of wheat**

**Location :- Dhummad**

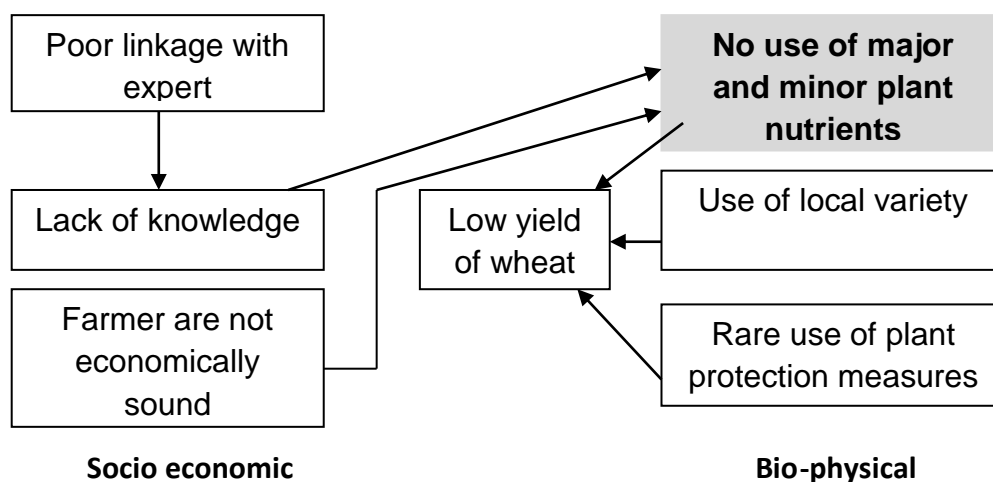
**Problem :-**

Abiotic stress and deficiency of sulphur diagnosed, Wheat is the main crop of Patan district. The yield of wheat could be optimized through proper fertilization. In later stage crop face some abiotic stresses. Like hot wind and water scarcity, which mitigate through spray of thiourea. It supplies N and S.

**Reason :-**

- Use of local variety
- Rare use of plant protection measures
- Insufficient use of major & minor plant nutrient
- Abiotic stress (Hot wind & water stress at later stage of the season)

#### PROBLEM CAUSE DIAGRAM



**Treatment :-**

- T1 = Farmers practices  
Use of local variety  
No use of proper nutrient management
- T2 = SAU recommendation  
Recommended N+P and use of variety GW-496
- T3 = Refined technology  
Recommended N+P and use of variety GW-496 + two foliar spray of Thiourea (0.1%) at tillering and spike initiation stage.

**Replication :- 10**

**Inputs :-**

Area 2.5 ha.

Seed – GW-496

Thiourea – 2.5kg.

**Note :- Result awaited**

## **(b) Castor Cotton Intercropping Year: 2012-13**

**Title :- Lower income of Cotton cultivation**

**Location :- Balisana**

**Problem :-**

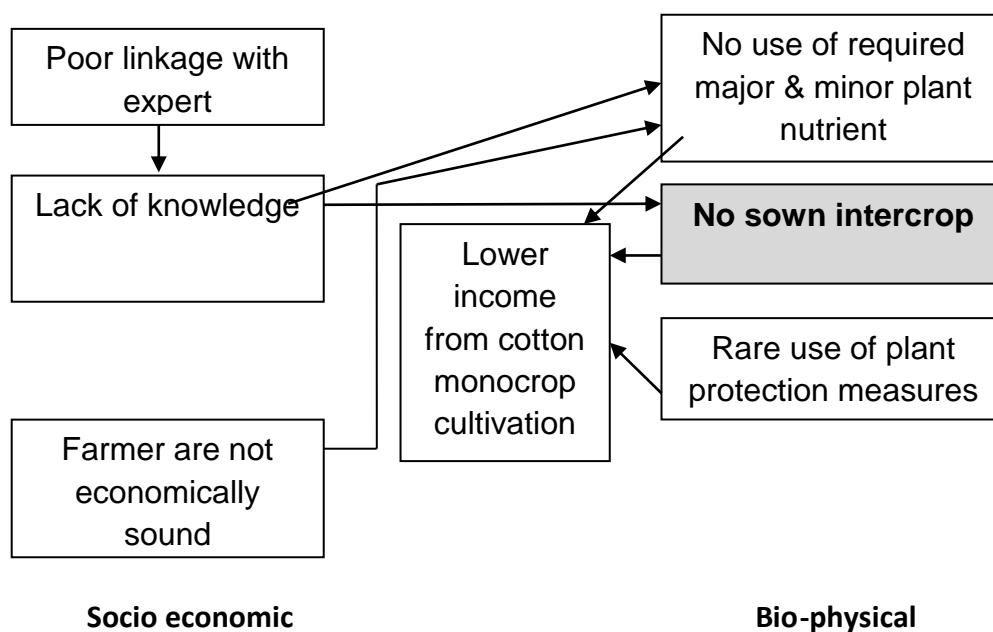
Cotton becomes a main crop so far as cultivation area of the North Gujarat. As per cash the crop canopy of the BT Cotton, Sowing distance of the crop is 150cms. between two rows. In the part of this practice intercropping of castor in cotton is possible. Intercrop of castor gives additional income.

**Reason :-**

- Not sown intercrop in cotton
- Rare use of plant protection measures
- Insufficient use of major & minor plant nutrient

**Intervening point :- Not sown intercrops**

### **PROBLEM CAUSE DIAGRAM**



**Treatment :-**

- T1 = Farmers practices  
No intercrop  
Spacing 120 x 60 cms
- T2 = SAU recommendation  
No intercrop  
Spacing 120 x 45 cms
- T3 = Refined technology  
Intercropping with castor  
Spacing 150 x 60 cms

Note :- Sowing time : Cotton : 1<sup>st</sup> fortnight of June  
Castor : Last week of August

**Replication :- 10**

**Inputs :-**

Area 2.5 ha. Seed – Castor

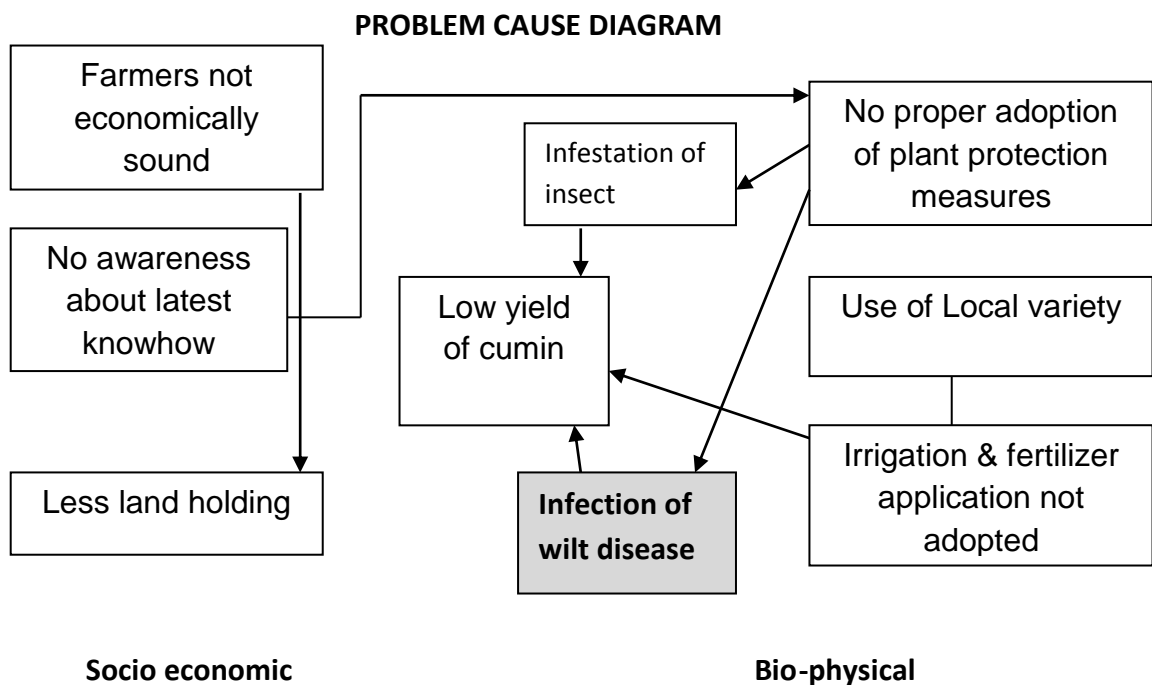
**Note :- Result awaited**

**(2) Plant Protection Year : 2012-13**

**Title :- Low yield of Cumin**

**Location :- Kuvarad, Pindharpura, Palasar**

**Intervening point :- Infection of wilt disease**





**Treatment :-**

- T1 = Farmers practices  
Use of local variety without seed treatments
- T2 = SAU recommendation  
Use of GC-4 variety with seed treatment by carbendazim 50 wp @ 1g./1kg seed
- T3 = Refined /Assessed technology  
Use of GC-4 variety with seed treatment by bio-fungicide i.e. Trichoderma @ 20g./1 kg seed and soil application of trichoderma @ 3kg./ha Along with vermi compost before sowing.

**Replication :- 10****Inputs :-**

Area 2.5 ha.            Seed – 40kg    Trichoderma :- 10kg (Bio fungicide)  
Vermi compost : 500 kg

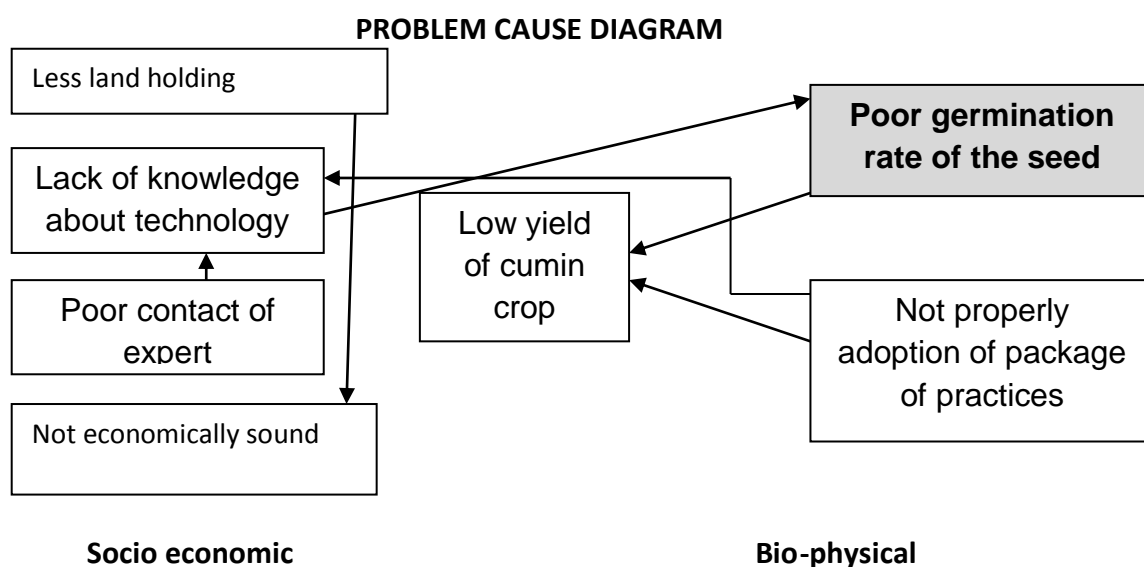
**Note :- Result awaited**

**(3) Horticulture**

**Title :- Low yield of Cumin**

**Location :- Selavi, Palasar**

**Problem Diagnosis :- Poor germination of the crop**



**Treatment :-**

- T1 = Farmers practices  
Use of local variety  
No seed treatment
- T2 = SAU recommendation  
Seed treatment by Azospirillum and PSB culture
- T3 = Refined /Assessed technology  
Use of plant humic acid for seed treatment @ 5 ml./ 1kg seed & spraying  
the crop @ 0.5 ml./1 lit water 30, 45 & 60 DAS

**Replication :- 10****Inputs :-**

Area 2.5 ha.                      Seed – 40kg      Sulphur – 50kg  
Humico :- 2 lit.

**Note :- Result awaited**

### 3.2. Achievements of Frontline Demonstrations

#### a. Follow-up results of FLDs implemented during previous Years

S N	Thematic Area	Technology demonstra- tion	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No.of Village	No.of farmers	Area in ha.
A	Green-gram	G.M.-4	Demonstration Field day	20	825	240
B	Castor					
	Varietal evaluation	GCH-7	Demonstration Field day.	35	1200	560
C	Wheat					
	Varietal evaluation	GW-366 GW-496	Demonstration Field day.	16	670	330
D	Cumin					
	Varietal evaluation	GC-4	Demonstration Field day.	15	350	210
E	Summer Bajara					
	Varietal evaluation	GHB-558	Demonstration Field day.	8	300	220
F	Mustard					
	Varietal evaluation	G.M.-3	Demonstration Field day	24	830	380
G	Fennel					
	Varietal evaluation	G.F.-11	Demonstration Field day	11	270	105
H	Cotton					
	INM	Use of micronutrient	Demonstration Field day	15	300	200

**b.1 Details of FLDs implemented during 2011-12 (Rabi), 2012-13 (Kharif)**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year
1	2	3	4	5
1.	Fennel	Varietal evaluation	G.F.11	Rabi-2011-12
2.	Wheat	Varietal evaluation	G.W.366	Rabi -2011-12
3.	Cumin	Varietal evaluation	G.C.4	Rabi -2011-12
4.	Cumin	Bio-agent	Trichoderma	Rabi -2011-12
5.	Bajra (INSIMP)	Varietal evaluation	GHB-538	Summer-2011-12
6.	Bajra	Varietal evaluation	GHB-538	Summer-2011-12
7	Cotton	INM	ZnSO <sub>4</sub>	Kharif-2012-13
8.	Green-gram	Varietal evaluation	GM-4	Kharif-2012-13

Area (ha)		No.of farmers/demonstration			Reasons for shortfall in achievement
6	7	8	9	10	11
Proposed	Actual	SC/ST	Others	Total	
20	20	-	50	50	-
20	20	03	48	51	-
20	06	06	18	24	Unavailability of sufficient seeds of GC-4 variety
05	05	01	13	14	-
04	04	02	10	12	-
20	20	01	51	52	
15	12.5	03	47	50	-
20	12.5	02	51	53	

### Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil		
				N	P	K
1	2	3	4	5	6	7
Fennel	Rabi- 2011-12	Irrigated	Sandy loam	L	L	M
Wheat	Rabi - 2011-12	Irrigated	Sandy loam to Medium black	L	L	M
Cumin	Rabi - 2011-12	Irrigated	Sandy to Sandy loam	L	L	M
Cumin	Rabi - 2011-12	Irrigated	Sandy loam	L	L	M
Bajra (INSIMP)	Summer- 2011-12	Irrigated	Sandy loam	L	L	M
Bajra	Summer- 2011-12	Irrigated	Sandy loam	L	L	M
Cotton	Kharif- 2012-13	Irrigated	Sandy loam	L	L	M
Green- gram	Kharif- 2012-13	Rainfed	Sandy loam	L	L	M

Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No.of rainy days
8	9	10	11	12
Green-gram/ Black-gram	25/10/11 to 05/11/11	20/4/12 to 28/4/12	-	-
Green-gram/ Black-gram	20/11/11 to 28/11/11	07/4/12 to 17/4/12	-	-
Fallow	15/11/11 to 20/11/11	23/3/12 to 27/3/12	-	-
Fallow	17/11/11 to 22/11/11	21/3/12 to 25/3/12	-	-
Mustard	25/2/12 to 29/2/12	3/6/12 to 8/6/12		
Green-gram	26/2/12 to 4/3/12	15/5/12 to 28/5/12		
Summer Bajara	-	Result awaited	397	15
Fallow		Crop failure due to Scanty rainfall	115	8

**FRONT LINE DEMONSTRATION**



**F.L.D. – FENNEL**



**F.L.D.- WHEAT**



**F.L.D.- CUMIN**



**F.L.D.- COTTON**

### Performance of FLD

S.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)
1	2	3	4	5	6
1.	Fennel	Varietals evaluation	G.F.11	50	20
2.	Wheat	Varietals evaluation	G.W.366	51	20
3.	Cumin	Varietals evaluation	G.C.4	24	06
4.	Cumin	Bio-agent	Trichoderma	14	05
5.	Bajra (INSIMP)	Varietals evaluation	GHB-538	12	04
6.	Bajra	Varietals evaluation	GHB-538	52	20
7	Cotton	INM	ZnSO <sub>4</sub>	50	12.5
8.	Green-gram	Varietal evaluation	GM-4	53	12.5

Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
H	L	A			Demonstration	Local
7	8	9	10	11	12	13
18.8	13.7	15.6	13.2	18.2	Plant height(cm)-140 No. of branches-9 No. of umbels-20	131 7 17
51.2	40.8	45.6	38.4	18.8	Plant height(cm)-74 No. of effective tillers-8 Test weight(g)-39.7	81 6 37
11.2	7.9	8.8	7.1	23.9	Plant height(cm)-29.5 No. of umbels-16.3 Test weight(g)-5.3	27.6 14 4.9
12.1	8.2	10.4	8.9	16.6	Plant height(cm)-31 No. of umbels-20.5 Test weight(g)-5.4	28.6 15.9 4.95
35.2	28.8	33.8	27.5	22.9	-	-
34.4	29.6	32.3	26.4	22.3	-	-



Average cost of cultivation (Rs./ha.)		Average Gross return (Rs./ha.)		Average Net return (Profit) (Rs./ha.)		Benefit cost ratio (Gross return/ Gross cost)	
Demonstratio	Local check	Demonstratio	Local check	Demonstratio	Local check	Demonstratio	Local check
14	15	16	17	18	19	20	21
28500	26700	85800	72600	57300	45900	3.01	2.72
24800	23600	68400	57600	43600	34000	2.75	2.44
28200	26500	105600	85200	77400	58700	3.74	3.21
29400	28600	124800	106800	95400	78200	4.24	3.73
18950	16100	33800	27500	14850	11400	1.8	1.7
18000	15800	31300	26400	14300	10600	1.8	1.6

### Analytical Review of component demonstrations

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
Fennel	Rabi	G.F.11	Irrigated	15.6	13.2	18.2
Wheat	Rabi	G.W.366	Irrigated	45.6	38.4	18.8
Cumin	Rabi	G.C.4	Irrigated	8.8	7.1	23.9
Cumin	Rabi	Trichoderma	Irrigated	10.4	8.9	16.6
Bajra (INSIMP)	Summer	GHB-538	Irrigated	33.8	27.5	22.9
Bajra	Summer	GHB-538	Irrigated	32.3	26.4	22.3

### Technical Feedback on the demonstrated technologies

S. No	Feed Back
1.	Fennel Required sugary disease resistant variety
2.	Wheat Required drought resistant high yielding variety
3.	Cumin Requirement of completely blight and wilt resistant variety in cloudy weather
4.	Cumin (Bio-agent) Requirement of highly viable and qualitative strain of bio agent.
4.	Bajra Required drought resistant variety.

### Farmers' reactions on specific technologies

S. No	Farmer's reactions
1.	Fennel GF-11 is high yielding variety less lodging effect
2.	Wheat GW-366 is high yielding variety
3.	Cumin GC-4 is high yielding variety
4.	Cumin(Bio-agent) Trichoderma is effective against wilt disease.
4.	Bajra High yield of grain and fodder, luster of grain is good.

### Extension and Training activities under FLD

Sr.No.	Activity	No.of activities organized	No.of participants	Remarks
<b>1.</b>	<b>Fennel</b>			
	Training	01	18	
	Field day	01	29	
	Field visit	02	13	
<b>2.</b>	<b>Wheat</b>			
	Training	02	51	
	Field day	01	37	
	Field visit	03	21	
<b>3.</b>	<b>Cumin</b>			
	Training	02	37	
	Field day	01	25	
	Field visit	03	11	
<b>4.</b>	<b>Cumin (Bio-agent)</b>			
	Training	02	31	
	Field day	01	25	
	Field visit	03	15	
<b>5.</b>	<b>Bajra(INSIMP)</b>			
	Training	01	19	
	Field visit	01	08	
<b>6.</b>	<b>Bajra</b>			
	Training	01	15	
	Field visit	01	06	

## b.2 Details of FLDs implemented during 2012-13(Rabi),

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year
1	2	3	4	5
1.	Fennel	Varietals evaluation	G.F.-11,12	Rabi 2012-13
2.	Cumin	Varietals evaluation	G.C.-4	Rabi 2012-13
3.	Cumin	Bio-agent	Trichoderma	Rabi 2012-13
4.	Wheat	Varietals evaluation	G.W.-366	Rabi 2012-13

Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
6	7	8	9	10	11
Proposed	Actual	SC/ST	Others	Total	
15	15	3	27	30	-
15	15	6	24	30	-
05	05	0	10	10	-
15	15	2	45	47	-

### Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil		
				N	P	K
1	2	3	4	5	6	7
Fennel	Rabi 2012-13	Irrigated	Sandy loam	L	L	M
Cumin	Rabi 2012-13	Irrigated	Sandy loam	L	L	M
Cumin	Rabi 2012-13	Irrigated	Sandy loam	L	L	M
Wheat	Rabi 2012-13	Irrigated	Sandy loam	L	L	M

<b>Previous crop</b>	<b>Sowing date</b>	<b>Harvest date</b>	<b>Seasonal rainfall (mm)</b>	<b>No. of rainy days</b>
8	9	10	11	12
Green-gram/ Black-gram	09/11/12 to 19/11/12	Crop is in standing position		
Green-gram/ Black-gram	14/11/12 to 23/11/12	Crop is in standing position		
Green-gram/ Black-gram	14/11/12 to 20/11/12	Crop is in standing position		
Green-gram/ Black-gram	28/11/12 to 05/12/12	Crop is in standing position		
Fallow	09/11/12 to 19/11/12	Crop is in standing position		











Thematic area	No.of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
House hold food security										
Women and child care										
Low cost and nutrient efficient diet designing	01	-	25	25	-	07	07	-	32	32
Production and use of organic inputs										
Gender mainstreaming through SHGs										
Soil and water conservation practiced										
Training need assesment and PRA techniques	01	15	25	40	05	04	09	20	29	49
<b>TOTAL :</b>	02	15	50	65	05	11	16	20	61	81



Thematic area	No. of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
<b>c) Spices</b>										
Production and management technology	06	141	-	141	14	-	14	155	-	155
Processing and value addition										
<b>d) Medicinal and Aromatic plants</b>										
Nursery management										
Production management technology	01	25	-	25	-	-	-	25	-	25
Post harvest technology and value addition										
<b>III. Soil and Health and Fertility management</b>										
Soil fertility management										
Soil and water conservation										
Integrated nutrient management	01	14	-	14	02	-	02	16	-	16
Production & use of organic inputs										
Management of problematic soils	01	27	06	33	03	-	03	30	06	36
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Soil & water testing										
<b>IV. Livestock production and management</b>										
Dairy management	01	-	18	18	-	07	07	-	25	25
Fodder management	02	-	58	58	-	-	-	-	58	58
<b>V. Home Science / Women empowerment</b>										
House hold food security by kitchen gardening and nutrition gardening	01	-	17	17	-	10	10	-	27	27
Design and development of low/mini. Cost .diet	01	-	21	21	-	-	-	-	21	21
Designing and development for high nutrient efficiency diet.										
Minimization of nutrient loss in processing	01	-	14	14	-	-	-	-	14	14
Gender mainstreaming through SHGs	02	-	49	49	-	-	-	-	49	49





Thematic area	No.of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
House hold food security										
Women and child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
Soil and water conservation practiced	01	32	-	32	02	01	03	34	01	35
Training need assessment and PRA techniques	01	09	12	21	01	01	02	10	13	23
<b>TOTAL :</b>	06	126	46	172	06	10	16	132	56	188





Thematic area	No. of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
<b>c) Spices</b>										
Production and management technology	08	174	-	174	25	-	25	199	-	199
Processing and value addition										
<b>d) Medicinal and Aromatic plants</b>										
Nursery management										
Production management technology	01	25	-	25	-	-	-	25	-	25
Post harvest technology and value addition										
<b>III. Soil and Health and Fertility management</b>										
Soil fertility management										
Soil and water conservation										
Integrated nutrient management	01	14	-	14	02	-	02	16	-	16
Production & use of organic inputs	01	27	06	33	03	-	03	30	06	36
Management of problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Soil & water testing										
<b>IV. Livestock production and management</b>										
Dairy management	03	-	76	76	-	26	26	102	-	102
Fodder management	02	-	58	58	-	-	-	58	-	58
<b>V. Home Science/Women empowerment</b>										
House hold food security by kitchen gardening and nutrition gardening	02	-	39	39	-	10	10	-	49	49
Design and development of low/mini. Cost .diet	01	-	21	21	-	-	-	-	21	21
Designing and development for high nutrient efficiency diet.										
Minimization of nutrient loss in processing	02	-	51	51	-	12	12	-	63	63
Gender mainstreaming through SHGs	02	-	49	49	-	-	-	-	49	49





Thematic area	No.of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
House hold food security	01	-	25	25	-	07	07	-	32	32
Women and child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
Soil and water conservation practiced	01	32	-	32	02	01	03	34	01	35
Training need assessment and PRA techniques	02	24	37	61	06	05	11	30	42	72
<b>TOTAL :</b>	08	141	96	237	11	21	32	152	111	269
<b>Grand Total :</b>	105	1665	931	2596	146	119	265	1811	1050	2861

## Achievements on Training (Including the sponsored and FLD training programme)

### (A) ON CAMPUS

#### Farmers and Farm Women

#### (1) Crop Production

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
1.	Scientific cultivation of pulse crops	On	18/6/12	22	-	22	3	-	3	25
2.	Cultivation of pulses crops green-gram & moth bean against drought prone condition	On	24/7/12	31	-	31	12	-	12	43
3.	Weed management in castor	On	22/8/12	21	-	21	-	-	-	21
4.	Production technology of Wheat	On	27/11/12	41	-	41	5	-	5	46
5.	Advances in production technology of summer Bajara	On	13/3/13	11	-	11	3	-	3	14

#### (2) Plant Protection

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
1.	Selection & time of pesticide application for insect pest control	On	7/5/12	28	-	28	3	-	3	31
2.	Precautionary measures of control the sucking pest in BT Cotton.	On	6/6/12	22	-	22	-	-	-	22
3.	Control measures of sucking pest in cotton	On	5/7/12	41	-	41	02	-	02	43
4.	Control measures of disease in BT cotton	On	30/8/12	36	-	36	08	-	08	44
5.	Control measures of citrus canker & gummosis in lime	On	29/9/12	33	-	33	02	-	02	35

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
6.	Precautionary measures to control the disease of Fennel	On	7/11/12	18	-	18	1	-	1	19
7.	Control measures of sugary disease in fennel	On	9/1/13	25	-	25	2	-	2	27
8.	Importance of Bio-agent (Trichodemra) in disease management of field crops	On	15/3/13	21	-	21	5	-	5	26

### (3) Horticulture

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
1.	Grading and standardization in brinjal	On	23/5/12	18	-	18	8	-	8	26
2.	Importance of MIS in fruit orchards	On	2/7/12	25	-	25	-	-	-	25
3.	Production management technology in cumin	On	11/11/12	18	-	18	10	-	10	28
4.	Protective cultivation of green capsicum in green house	On	29/12/12	19	-	19	-	-	-	19
5.	Production technology of medicinal crops	On	24/1/13	15	-	15	1	-	1	16
6.	Importance & scope of Micro irrigation systems of orchards	On	12/3/13	12	-	12	4	-	4	16

**(4) Animal Science :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
1.	Dairy management	On	15/6/12	-	21	21	-	7	7	28
2.	Management of milch animal & calf raising	On	21/9/12	-	37	37	-	12	12	49

**(5) Home Science :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
1.	Alternate source of energy (solar cooker)	On	9/4/12	-	15	15	-	5	5	20
2.	Preparation and preservation of mango product	On	9/5/12	-	25	25	-	-	-	25
3.	Preparation and preservation of mango product	On	14/6/12	-	30	30	-	-	-	30
4.	Preparation & preservation of mango product	On	29-30/6/12	-	28	28	-	3	3	31
5.	Importance & techniques of kitchen gardening	On	12/7/12	-	22	22	-	-	-	22
6.	Minimization of nutrient loss while preparation of pulses food	On	28/8/12	-	37	37	-	12	1	49
7.	Value addition in soya products	On	7/9/12	-	35	35	-	-	-	35
8.	Production and preservation of mixed fruit jam and chatney	On	24/11/12	-	33	33	-	1	1	34
9.	Preparation and preservation of Aonla product	On	5/12/12	-	17	17	-	-	-	17
10.	Preparation and preservation of tomato ketch up, soop & chatney	On	27/12/12	-	39	39	-	-	-	39

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	T	M	F	T	
11.	Preparation of decorative items from waste material	On	3/1/13	-	21	21	-	-	-	21
12.	Preparation & preservation of mixed fruit jam and chataney	On	31/1/13	-	41	41	-	-	-	41
13.	Awareness regarding kitchen appliances (Juicer, Blender, Chilli cutter etc.)	On	2/3/13	-	21	21	-	4	4	25

**(B) For Rural Youth/ School dropout :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Nursery raising of kagzi lime	On	31/8/12 to 1/9/12	16	-	16	10	-	10	26
2.	Method of vermi composting	On	28/2/13 to 1/3/13	20	-	20	3	-	3	23

**(C) For Extension functionaries / In-service training programme :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Preparation & preservation of fruit and vegetable	On	19/4/12	-	25	25	-	7	7	32
2.	PRA techniques	On	31/7/12	15	25	40	05	04	09	49



**(D) Sponsored Training Programme :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No.of participants			No.of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Irrigation management in rainfed crops	On	25/4/12	34	-	34	1	-	1	35
2.	Importance and use of organic matter in rainfed cotton	On	30/4/12	14	-	14	1	-	1	15
3.	Preparation & Preservation of Mango product	On	25/5/12	-	44	44	-	-	-	44
4.	Production technology of rainfed cotton	On	4/6/12	34	-	34	-	-	-	34
5.	Fruits & vegetable preservation	On	8/6/12	-	58	58	-	-	-	58
6.	Scientific cultivation of castor	On	29/8/12	32	-	32	03	-	03	35
7.	Post harvest technology of food grains	On	30/8/12 to 31/8/12	38	-	38	07	-	07	45
8.	Production technology of Rabi crops Cumin & wheat	On	28/9/12	23	-	23	02	-	02	25
9.	Preparation of value added products from fruit and vegetable	On	19/11/12 to 23/11/12	-	33	33	-	1	1	34

**(B) OFF CAMPUS****Farmers and Farm Women****(1) Crop Production**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Reclamation of problematic soil	Off	13/4/12	27	06	33	03	-	03	36
2.	Integrated nutrient management in BT Cotton	Off	29/5/12	14	-	14	02	-	02	16
3.	Scientific cultivation green-gram	Off	25/6/12	20	-	20	-	-	-	20
4.	Scientific cultivation of Cotton	Off	26/6/12	22	-	22	-	-	-	22
5.	Draught mitigation strategies in cotton crop viz. Life saving irrigation & water saving Irrigation methods	Off	13/7/12	33	-	33	-	-	-	33
6.	Water management in castor & cotton crops	Off	27/8/12	22	-	22	02	-	02	24
7.	Scientific cultivation of mustard	Off	18/9/12	38	-	38	-	-	-	38
8.	Seed production technique of Mustard	Off	19/10/12	19	-	19	-	-	-	19
9.	Production technology of Fennel	Off	2/11/12	14	-	14	6	-	6	20
10.	Water management in Wheat and Mustard crop	Off	11/12/12	17	-	17	-	-	-	17
11.	Importance and use of organic inputs like bio-fertilizer FYM in crop production	Off	10/1/13	18	-	18	1	-	1	19
12.	Integrated weed mgt. in Rabi crops	Off	19/2/13	22	-	22	1	-	1	23
13.	Scientific cultivation of fodder sorghum and bajara	Off	8/3/13	17	-	17	-	-	-	17

**(2) Plant Protection**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Plant Protection measures of sucking pest in summer vegetables	Off	16/4/12	28	-	28	-	-	-	28
2.	Identification of Bioagent & their role in insect pest control	Off	16/5/12	19	-	19	1	-	1	20
3.	Control measures of insect pest and disease in pulse crops	Off	1/6/12	14	-	14	4	-	4	18
4.	Precautionary measures to control para wilt in BT Cotton	Off	25/6/12	40	-	40	-	-	-	40
5.	Insect pest management technique in drought condition for kharif crops	Off	12/7/12	20	-	20	-	-	-	20
6.	Identification & control measures of insect pest of castor	Off	31/8/12	23	-	23	-	-	-	23
7.	Control measures of sucking pest mealy bug in BT Cotton	Off	7/9/12	19	-	19	01	-	01	20
8.	Precautionary measures of control the pest & disease of Mustard	Off	11/10/12	44	10	54	-	-	-	54
9.	Importance of seed treatment in pest & disease management	Off	15/10/12	51	-	51	3	-	3	54
10.	P.P. measures of fennel & suva	Off	9/11/12	22	-	22	1	-	1	23

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
11.	Control measures of termite in wheat	Off	19/11/12	30	-	30	3	-	3	33
12.	Precautionary measures to control the aphids and powdery mildew in mustard	Off	13/12/12	22	-	22	-	-	-	22
13.	P.P. measures of sucking pest in Lucerne	Off	21/12/12	27	-	27	-	-	-	27
14.	P.P. measures of pest and disease in cumin	Off	8/1/13	19	-	19	-	-	-	19
15.	Importance of seed treatment by fungicide for disease management in field crops	Off	15/2/13	30	7	37	-	-	-	37

### (3) Horticulture

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Production technology of chilli crops	Off	27/4/12	21	-	21	-	-	-	21
2.	Nursery management in brinjal crop	Off	17/5/12	20	-	20	1	-	1	21
3.	Management of young plants of pomegranate	<b>Off</b>	8/6/12	20	-	20	-	-	-	20
4.	Cultivation of pomegranate and lemon fruits	<b>Off</b>	16/6/12	21	-	21	4	-	4	25

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
5.	Production management technology of aloe vera	Off	19/7/12	25	-	25	-	-	-	25
6.	Production technology of carrot	Off	7/8/12	16	-	16	3	-	3	19
7.	Production & management technology of cumin & fennel	Off	22/9/12	41	-	41	10	-	10	51
8.	Production management technology of fennel	Off	20/10/12	17	-	17	-	-	-	17
9.	Production management technology of Cumin	Off	10/11/12	16	-	16	4	-	4	20
10.	Scientific cultivation of Cumin	Off	21/11/12	26	-	26	-	-	-	26
11.	Nutrient management in chilli	Off	11/12/12	20	-	20	-	-	-	20
12.	Scientific cultivation of pomegranate plants	Off	10/1/13	21	-	21	-	-	-	21
13.	Scientific cultivation of Papaya	Off	5/2/13	32	-	32	-	-	-	32
14.	Importance & scope of pomegranate cultivation in north Gujarat	Off	8/3/13	22	-	22	-	-	-	22
15.	Importance & scope of MIS in orchards	Off	12/3/13	12	-	12	4	-	4	16

**(4) Animal Science**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No.of participants			No.of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Importance of vaccination in livestock management	Off	17/5/12	-	18	18	-	7	7	25
2.	Importance of fodder management and mineral mixture for milch animals	Off	29/8/12	-	30	30	-	-	-	30
3.	Fodder management for milch animals	Off	22/2/13	-	28	28	-	-	-	28

**(5) Home Science :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No.of participants			No.of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Storage of food grains	Off	17/4/12	-	25	25	-	-	-	25
2.	Income generation activities for empowerment of rural women	Off	25/4/12	-	19	19	-	11	11	30
3.	Alternate source of energy solar cooker	Off	17/5/12	-	13	13	-	10	10	23
4.	Minimization of nutrient loss while preparation of pulses food	Off	11/6/12	-	14	14	-	-	-	14
5.	House hold food security by kitchen gardening & nutrition gardening	Off	5/7/12	-	17	17	-	10	10	27

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
6.	Balance diet for pregnant women	Off	29/8/12	-	30	30	-	-	-	30
7.	Preparation of decorative items from waste materials	Off	25/9/12	-	22	22	-	-	-	22
8.	Care and nutrition for children	Off	18/10/12	-	23	23	-	-	-	23
9.	Preparation of low cost diet from sargavi	Off	30/11/12	-	21	21	-	-	-	21
10.	Dehydration of green leafy vegetable like palak, Methi	Off	19/12/12	-	57	57	-	-	-	57
11.	Importance of self help group	Off	11/1/13	-	23	23	-	-	-	23
12.	Importance of self help group	Off	20/2/13	-	26	26	-	-	-	26
13.	Income generation activities for empowerment of Rural Women	Off	13/3/13	-	18	18	-	3	3	21

**(B) For Rural Youth/ School dropout :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Detergant powder making	Off	1-2/6/12	-	14	14	-	2	2	16
2.	Agarbatti making	Off	22/8/12 to 23/8/12	-	25	25	-	-	-	25

**(C) For Extension functionaries / In-service training programme :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Training need assessment & PRA techniques	Off	1/5/12	9	12	21	01	01	02	23
2.	Awareness regarding latest agril. Technology	Off	23/8/12	30	-	30	03	-	03	33
3.	Soil and water conservation practice	Off	17/1/13	32	-	32	2	1	3	35
4.	Awareness regarding latest agril. Know how	Off	23/1/13	18	1	19	-	-	-	19
5.	Establishment & formation of SHG	Off	6/2/13	-	33	33	-	8	8	41
6.	Method of application for new molecules of pesticide in pest management	Off	8/2/13	37	-	37	-	-	-	37

**(D) Sponsored Training Programme :-**

Sr. No.	Name of Training programme	Type of training programme	Duration	Total No. of participants			No. of SC/ST			Grand Total
				M	F	Total	M	F	Total	
1.	Vermi compost & Nursery raising	Off	27/4/12	-	34	34	-	-	-	34
2.	Preparation and preservation of lemon pickle	Off	13/9/12	-	58	58	-	02	02	60
3.	Preparation of different sweet by value addition in coconut & date palm	Off	14/12/12	-	22	22	-	5	5	27



## ON CAMPUS TRAINING PROGRAMME



FARMERS



FARM WOMEN

**OFF CAMPUS TRAINING PROGRAMME**



**FARMERS**



**FARM WOMEN**

**(C) Vocational Training Programme for Rural Youth (On + Off Campus)**

Sr. No.	Name of Training programme	Crop/ Enterprise	Duration (Day)	Date	Total No. of participants			No. of SC/ST			Grand Total
					M	F	Total	M	F	Total	
1.	Detergent powder making	Home science	02	1/6/12 to 2/6/12	-	14	14	-	2	2	16
2.	Agarbatti making	Home Science	02	22/8/12 to 23/8/12	-	25	25	-	-	-	25
3.	Nursery raising of kagzi lime	Horticulture	02	31/8/12 to 1/9/12	16	-	16	10	-	10	26
4.	Method of vermi composting	Crop production	02	28/2/13 to 1/3/13	20	-	20	3	-	3	23

**(D) Sponsored training programme :-****(On + Off Campus)**

Sr. No.	Date	Title	Discipline	Duration (Days)
1	2	3	4	5
1.	25/4/12	Irrigation management in Rainfed crop	Agriculture	01
2.	27/4/12	Vermi compost and Nursery raising	Agriculture	01
3.	30/4/12	Importance and use of organic matter in rainfed cotton	Agriculture	01
4.	22/5/12	Preparation and preservation of mango products	Home Science	01
5.	4/6/12	Production technology of rainfed cotton	Agriculture	01
6.	8/6/12	Fruit and vegetable preservation	Home Science	01
7.	29/8/12	Scientific cultivation of castor	Agriculture	01
8.	30/8/12 to 31/8/12	Post harvest technology of food grain	Agriculture	02
9.	13/9/12	Preparation and preservation of lemon pickle	Home Science	01
10.	28/9/12	Production technology of Rabi crops cumin and wheat	Agriculture	01
11.	19/11/12 to 23/11/12	Preparation of value added products from fruit and vegetables	Home Science	05
12.	9/1/13	Use of solar cooker as alternate sources of energy	Home Science	01

No.of courses	No.of participants									Sponsoring Agency
	Other			SC/ST			Total			
	M	F	T	M	F	T	M	F	T	
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
01	34	-	34	01	-	01	35	-	35	ATMA Patan
01	-	34	34	-	-	-	-	34	34	IWMP Patan
01	14	-	14	01	-	01	15	-	15	ATMA Patan
01	-	44	44	-	-	-	-	44	44	ATMA Patan
01	34	-	34	-	-	-	34	-	34	ATMA Patan
01	-	58	58	-	-	-	-	58	58	ATMA Patan
01	32	-	32	03	-	03	35	-	35	ATMA B.K.
01	38	-	38	07	-	07	45	-	45	Central Ware Housing corporation Ahmedabad
01	-	58	58	-	02	02	-	60	60	FTC Patan
01	23	-	23	02	-	02	25	-	25	ATMA Surandranagar
01	-	33	33	-	01	01	-	34	34	FTC Patan
01	-	24	24	-	06	06	-	30	30	FTC Patan

**SPONSORED TRAINING PROGRAMME**



**ATMA-PATAN**



**ATMA- BANASKANTHA**



**F.T.C.-PATAN**



**CENTRAL WARE HOUSING CORPORATION, AHMEDABAD**

### 3.4. Extension Activities (including activities of FLD Programme)

S. N.	Nature of Extension Activity	Purpose/Topic and date	No. of activities	Participants											
				Farmers & Farm women			SC/ST			Extension officers			Total		
				M	F	T	M	F	T	M	F	T	M	F	T
1.	Field day	S.Bajara 25/5/12	1	41	-	41	-	-	-	-	-	-	41	-	41
		Green-gram 15/9/12	1	38	-	38	3	-	3	-	-	-	41	-	41
		Cotton 26/9/12	1	28	-	28	2	-	2	-	-	-	30	-	30
		Fennel 12/2/13	1	41	-	41	3	-	3	-	-	-	44	-	44
		Cumin 7/3/13	1	19	-	19	8	-	8	-	-	-	29	-	29
		Wheat 8/3/13	1	18	-	18	-	-	-	-	-	-	18	-	18
2.	Method demonstration	Sandasary 23/5/12	1	11	-	11	3	-	3	-	-	-	14	-	14
		Matpur 26/6/12	1	12	-	12	2	-	2	2	-	2	16	-	16
		Samoda, Nagvasana 5/7/12	1	18	-	18	-	-	-	-	-	-	18	-	18
		Samoda 29/1/12	1	05	-	05	6	-	6	-	-	-	11	-	11
3.	Ex-trainee meeting	Samoda	1	-	10	10	-	6	6	-	-	-	-	16	16
4.	Self Help Group formation	Pindharpura 22/2/13	2	-	13	13	-	3	16	-	-	-	-	16	16
				-	19	19	-	-	-	-	-	-	19	19	
5.	Night meeting	Ganwada 21/5/12	1	18	5	23	1	1	2	-	-	-	19	6	25
6.	Farm Science club	Madhupura 28/6/12	1	24	10	34	-	-	-	2	-	2	36	-	36
		Palasar 8/1/13	1	19	-	19	-	-	-	-	-	-	19	-	19
7.	Kisan Gosthi	Nagvasana 3/5/12	1	36	-	36	9	-	9	-	-	-	45	-	45
8.	World food day	Khimiyana 16/10/12	1	-	62	62	-	-	-	-	-	-	62	-	62
9.	Women in agril day	Kahoda 4/12/12	1	-	31	31	-	-	-	-	-	-	31	-	31
10.	Farmer day	Palasar Selavi 23/12/12	1	20	31	51	-	-	-	-	-	-	20	31	51
11.	Celebration of ICAR establishment day	Kamliwada 16/7/12	1	22	-	22	1	-	1	-	-	-	23	-	23





## EXTENSION ACTIVITIES



WORLD FOOD DAY



FIELD DAY-COTTON



**FARMER DAY**



**KISAN DIWAS**



**FARM SCIENCE CLUB**



**METHOD DEMONSTRATION (POWER WEEDER)**

### 3.5. Production and supply of Technological products

#### PLANTING MATERIALS

Sr.No.	Crop	Variety	Quantity (no.)	Value (Rs.)	Provided to No. of farmer
FRUITS	Lime	Kagzi lime	703	10545	38
SPICES	-	-	-	-	-
VEGETABLES	-	-	-	-	-
FOREST SPECIES	-	-	-	-	-
ORNAMENTAL CROPS	-	-	240	2670	53
OTHERS	Tobacco	GCT-4	210500	21050	39
	Vermi compost	-	1450kg	4350	4

#### SUMMARY

Sr.No.	Crop	Quantity (no.)	Value (Rs.)	Provided to No. of farmer
1.	FRUITS	703	10545	38
2.	SPICES	-	-	-
3.	VEGETABLES	-	-	-
4.	FOREST SPECIES	-	-	-
5.	ORNAMENTAL CROPS	240	2670	53
6.	PLANTATION CROPS	-	-	-
7.	OTHERS	210500	21050	39
8.	VERMI COMPOST	1450kg	4350	04

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

#### (A) KVK News letter (Date of start, Periodicity, Number of copies distributed etc.)

-----NIL-----

#### (B) Literature developed/ published

Item	Title	Authors name	Name of Journal	Number
Research papers	Effect of paddy straw and paper mill effluent on the physico chemical properties of wheat rhizosphere	S.K.Sharma Y.K.Sharma Shayamdas	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
	Effect of paddy straw and paper mill effluent on physico chemical properties of soil	S.K.Sharma Y.K.Sharma Shayamdas	Journal of Green agricultural science, Vol.1, Issue 1	
	Weed management Study in gram (cicer aritinum L) + mustard (Brassica Juncea) intercropping system in north western Rajasthan	S.R.Dhikwal S.M.Kumawat Shayam Das Abdul Amin	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
	Response of different methods of potassium application on growth and yield of barley (Hordeum vulgare L.) in western Rajasthan		International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	

Item	Title	Authors name	Name of Journal	Number
	Response of phosphoru on growth yield and quality of chickpea (Cicer arietinum L.) in North western Rajasthan	Shayam Das B.L.Paseek S.R. Dhikwal Abdul Amin	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
News letters	-	-	-	-
Technical bulletins	-	-	-	-
Popular articles	Jaivik Kheti : Tikau Kheti ka ek aavshyak aadhar	Dr.Sushil Kumar Sharma	Kisan International July – Dec.12	
Books	Jaivik Kheti evam Vermi composting	Dr.S.K.Sharma Dr. R.K.Gangwar		500
	Samanya Krishi Vigyan	Dr.S.K.Sharma Dr. R.K.Gangwar		500
Extension literature	<ol style="list-style-type: none"> <li>1. Scientific cultivation of Castor</li> <li>2. Scientific cultivation of Cotton</li> <li>3. Scientific cultivation of Potato</li> <li>4. Scientific cultivation of Wheat</li> <li>5. Scientific cultivation of Cumin</li> <li>6. Scientific cultivation of Chiku &amp; mango</li> <li>7. Scientific cultivation of Lime</li> <li>8. Preparation &amp; preservation of lemon products</li> <li>9. Preparation &amp; preservation of Aonla products</li> <li>10. Preparation &amp; preservation of Mango products</li> </ol>			500 each

### (C) Details of Electronic Media Produced

Sr.No.	Type of media (CD/VCD/DVD/Audio-cassette)	Title of the programme	Number
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**3.7. Success stories/Case studies, if any (two or three pages write-up on each case with suitable action photographs)**



**SUCCESS STORY**  
**AONLA PRODUCT**  
**Thematic area : Rural Craft**

Cultivation of fruit crops like Lemon and Aonla in Patan district. Value addition in this crops gives maximum return as compared to direct selling to market.

With the objective to motivate farmer/farm women for preparation of Aonla products, KVK Samoda had arranged vocational training programme. After the completion of training programme. Thakor Taraben Pradipsinh has started the preparation of Chavanprash at her home.

(1) Aonla Product (Chavanprash)

**General Information :-**

1.	Name	Thakor Taraben Pradipsinh
2.	Address	At. & Po.: Brahmanvada, Ta.Sidhpur, Dist. Patan
3.	District	Patan
4.	Age	43 years
5.	Occupation	House wife
6.	Training	Preparation of Aonla Products
7.	Venue	KVK, Samoda
8.	Total No.of participants	34
9.	Income before training	-
10.	Date of training	19/11/12 to 23/11/12
11.	Date of starting	Dec.-2012

### ECONOMICS OF CHAVANPRASH

Name of products	Production cost kg./Rs.	Selling price Rs./kg	Production quantity	Expenditure (Rs.)	Income (Rs.)
Chavanprash	167=00	220=00	50kg	8350=00	11000=00

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

- (1) For effective & fruitful training programme for farmers, farm women & rural youth presentation of subject matter with action photograph by LCD projector
- (2) To give more emphasis on method demonstration for effective dissemination of technology.
- (3) To prepare technology display plot in village to exhibit the technologies at a time

### 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)

Sr.No.	Crop/Enterprise	ITK Practiced	Purpose of ITK
1.	Nursery seedling	Use of Tobacco dust solution	To control damping off disease in Nursery plants
2.	Wheat, Chilli, Cotton etc.	Use of calotropics decomposed leaves & twigs solution along with irrigation water	To control termite in different crops
3.	Cumin	Using wood ash + old Bajara flour dusting	To control blight disease in Cumin
4.	Lemon	To broadcast Tobacco dust	To control aphid & other sucking pest in Lemon



### **3.10 Indicate the specific training need analysis tools/ methodology followed for**

- (a) Identification of courses for farmers/farm women
  - Benchmark Survey as well as PRA technique
  - Group discussion
- (b) Rural Youth
  - Group discussion
  - Pre-structure interview
- (c) In-service personnel
  - To identify the common needs of in-service personnel by  
Group discussion

### **3.11 Field activities**

- i. Number of villages adopted - 05
- ii. No. of farm families selected - 200
- iii. No. of survey/PRA conducted - 05

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

Status of establishment of Lab

(i) Year of establishment : 2004

(ii) List of equipments purchased with amount

SI. No	Name of the Equipment	Qty.	Cost
1	Sepctophotometer	01	1,10,294=00
2	Flame Photometer	01	
3	PH meter	01	18,630=00
4.	Conductivity meter	01	
5.	Rotary shekar (for 16 flask)	01	88,504=00
6.	Rotary shekar (for 25 flask)	01	
7.	Hot Plate 18 x 24	01	
8.	Hot Plate 12 x 18	01	
9.	Physical Balance	01	23,348=00
10.	Chemical Balance	01	1.09,760=00
11.	Hot Air oven	01	29,536=00
12.	Glass distillation unit	01	75,832=00
13.	Vili mil	01	
14.	Kel Plus digestion system	01	2,35,675=00
15.	Distilation system	01	
16.	Acid nutilizer	01	
17.	Electroleux freeze	01	14,000=00
18.	Gas sagadi	03	2,200=00
19.	Stabilizer (for freeze)	01	550=00
20.	Store vel	01	7,900=00
21.	Iron table	02	
22.	Hygrometer	01	5,292=00
23.	Revolving chair	02	6,300=00
24.	Round stool with wheel	01	
25.	Round stool	01	
26.	Burner	02	5,328=00
27.	Stand	02	
28.	Electric Hot plate	02	
29.	Stabilizer	02	13,120=00
30.	Exost fen	02	1,500=00
31.	Gas connection	01	1,643=00

**(iii) Details of samples analyzed so far :**

<b>Details</b>	<b>No. of Samples</b>	<b>No. of Farmers</b>	<b>No. of Villages</b>	<b>Amount realized</b>
Soil Samples	458	351	54	-
Water Samples	48	44	21	-
Plant samples	-	-	-	-
Total	506	395	75	-

**(iv) Details of samples analyzed during 2012-13**

<b>Details</b>	<b>No. of Samples</b>	<b>No. of Farmers</b>	<b>No. of Villages</b>	<b>Amount realized</b>
Soil Samples	-	-	-	-
Water Samples	-	-	-	-
Plant samples	-	-	-	-
Total	-	-	-	-

## 4.0 IMPACT

### 4.1. Impact of KVK activities (Not to be restricted for reporting period). No.of Ex.Trainee-50

Name of specific technology/skill transferred	No.of participants	% of adoption
Improved variety		
Castor-GCH-7	43	86
Green-gram-GM-4	38	76
Fennel-GF-11	26	52
Wheat-GW-322	20	40
Cumin-GC-4	37	74
Integrated Nutrient management		
Use of ZnSO <sub>4</sub> in BT Cotton	23	46
Use of sulphatic fertilizer in oil seed crops	30	60
Weed management in Wheat & Cumin	34	68
Integrated pest management & integrated disease management		
-Seed treatment by pesticide	21	42
-Identification of insect	33	46
-Selection & time of pesticide application	30	60
Importance of soil & water analysis	18	36
Micro irrigation system	17	34
Colostrums feeding in calf raising	39	78
Value addition in fruits & vegetable	24	48
Storage of food grains	36	72
Importance of organic matter	32	64

### 4.2 Cases of large scale adoption

Sr.No	Case	Adoption
1.	Use of improved variety of Castor, Mustard, Wheat, Cumin & Green-gram	Most of the farmers of adopted villages have sown improved variety of Castor, Mustard, Wheat, Cumin & Green-gram
2.	Cultivation of genetically modified variety (B.T.) of Cotton	Majority of the farmers have adopted B.T. variety of Cotton
3.	Water saving devices (Drip irrigation)	Some of the farmers have adopted the drip & sprinkler irrigation
4.	Colostrum feeding in calf raising	Most of the live stock keeper have adopted the colostrums feeding technology
5.	Use of sulphatic fertilizer in Oil seed crops	Majority of the farmers have adopted the use of sulphatic fertilizer in oil seed crop

### **4.3 Details of impact analysis of KVK activities carried out during the reporting period**

For the impact analysis of the activities the technical personnel of the KVK have carried out the follow up study of Ex-trainees.

Along with follow up study, the ex-trainee meeting of farmers and farm women also arranged at Krishi Vigyan Kendra for impact analysis of KVK activities carried out during the previous years.

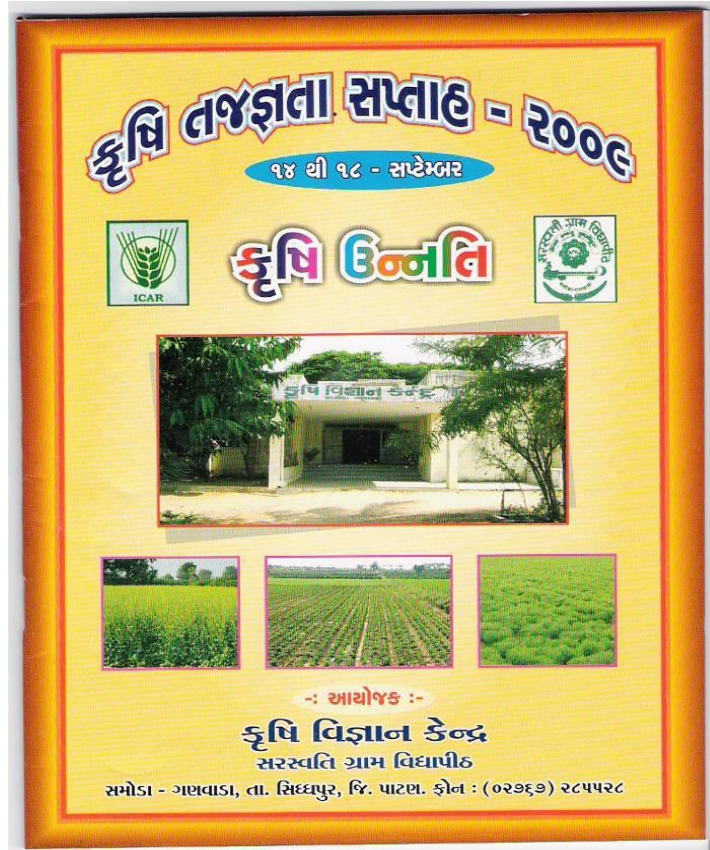
## 5.0 LINKAGES

### 5.1 Functional linkage with different organizations

Sr. No.	Name of Organization	Nature of Linkage
1.	Sardarkrushinagar Dantiwada Agril. University	-Linkage for seasonal training cum workshop of kharif, Rabi and summer crops. -Linkage for various demonstration of farm technology. -Linkage for diagnostic services
2.	Agril. Department Gujarat State, Patan	-Linkage for exchange of information regarding farming. -Linkage for training programme of seasonal crops. -Linkage for training of extension functionaries.
3.	Gujarat State Fertilizer & Chemical Ltd. Sidhpur	-linkage for demonstration about efficient and proper use of chemical fertilizer and importance of bio-fertilizer. -Linkage for soil and water analysis and training programme to farmers
4.	G.N.F.C. Sidhpur	-Linkage for soil and water analysis. -Linkage for farmer training programme
5.	Department of Animal Husbandry, Gujarat State, Patan	-Linkage for training of management of milking animal & steps to solve the burning problem of cattle owner.
6.	Dept. of Horticulture Gujarat State, Patan	To create awareness regarding different scheme Horticulture development. -To increase the awareness about protective cultivation in shade net
7.	Farmers Training Centre, Patan	-linkage for imparting training of kitchen gardening and fruits & vegetable preservation.
8.	ICDS Patan	In-service training programme and sponsored training programme
9.	ATMA Patan	-Seasonal training programme -Demonstration of Agril. technology -Survey work
10.	IWMP, Patan	Imparting training to the extension functionaries, farmers & farm women about soil reclamation.
11.	VIKSAT Ahmedabad	-Imparting training to the members of farm science club of patan district

## Agriculture Magazine : - “ Krushi Unnati”

Name of Newsletter	Number of issues of newsletter published by your KVK
Krushi Unnati	Quarterly-500



## FUNCTIONAL LINKAGE



I.W.M.P.-PATAN



F.T.C.-PATAN





**A.T.M.A.-PATAN**



**A.T.M.A.-PATAN**

## DEMONSTRATION UNITS



NURSERY UNIT



NET HOUSE



**VERMI COMPOST UNIT**



**TOBACCO NURSERY**



**KITCHEN WESTE**



**MUSEUM**

**5.3 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.)
-	-	-	-

**5.4 Details of linkage with ATMA**

Sr.No.	Programme	Nature of linkage	Remarks
1.	Survey/training	Survey for identification of gap	
		Imparting training to farmers & farm women	

**5.5 Give details of programmes implemented under National Horticultural Mission**

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

**5.6 Nature of linkage with National Fisheries Development Board**

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

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

### 6.1. Performance of demonstration units (other than instructional farm)

Sr. No	Demonstration unit	Year of estt.	Area	Details of production			Amount (Rs.)	
				Variety	Produce	Qty	Cost of inputs	Gross income
1.	Nursery	1995						
	Tomato		200sq.mt	Abhinav	Fruits (kg)	214	1830	1810
	Tobacco		400sq.mt.	GCT-4	Seedling (No.)	210500	1200	21050
	Ornamental crops				Seedling (No.)	240	-	2670
	Lime				Sapling (No.)	703	-	10545
2.	Orchard							
	Chiku	1994	0.25ha.	Kalipatti	Tree (No.)	20	-	-
	Mango	1994	0.30 ha.	Kesar	Tree (No.)	38	-	-
	Lime	2004	2.5ha.	Kagdi lime	Tree (No.)	571	-	-
3.	Vermi compost	2003	200sq.mt.		Compost bag (50kg each)	29	-	4350

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

Name of the crop	Date of sowing	Date of harvest	Area (ha.)	Details of production			Amount (Rs.)	
				Variety	Type of produce	Qty. (qt.)	Cost of inputs	Gross income
Cotton	6/6/12	2/10/12	0.5	BT Cotton	Seed	0.93	5387=00	-
Cotton	11/6/12	-	0.8	BT.Cotton (Express)	Bulk	10.74	9552=00	44800=00
Guar	15/7/12	29/10/12	1.5	GG-4	Bulk	1.50	-	11270=00
Castor	11/8/12	-	2.0	GCH-7	Bulk	-	9025=00	-
Mustard	18/10/12	4/3/12	1.5	GM-3	Bulk	-	5114=00	-
Tobacco	18/11/12	-	1.75	GCT-4	Bulk	-	13468=00	-
Wheat	7/12/12	-	1.5	GW-366	Bulk	-	5695=00	-

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

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

### 6.4. Performance of instructional farm (livestock and fisheries production)

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

### 6.5 Utilization of hostel facilities

Accommodation available (No. of beds)

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2012	35	30	-
May 2012	35	14	-
June 2012	37	30	-
July 2012	37	31	-
August 2012	37	12	-
September 2012	39	30	-
October 2012	39	07	-
November 2012	34	05	-
December 2012	38	06	-
January 2013	38	31	-
February 2013	23	28	-
March 2013	38	03	-

**7. DETAIL ON RAIN WATER HARVESTING  
STRUCTURE AND MICRO-IRRIGATION SYSTEM**

-----NIL-----



## 8. FINANCIAL PERFORMANCE

### 8.1 Details of KVK Bank accounts

Bank Account	Name of the Bank	Location	Account Number
With Host Institute	S.B.I.	Sidhpur	10265325092
With KVK	MDCC	Sidhpur & Kahoda	063 & 04

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

Item	Released By ICAR		Expenditure		Unspent balance as on 1st April 2012
	Kharif 2012-13	Rabi 2012-13	Kharif 2012-13	Rabi 2012-13	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
Total	-	-	-	-	-

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

Item	Released By ICAR		Expenditure		Unspent balance as on 1st April 2012
	Kharif 2012-13	Rabi 2012-13	Kharif 2012-13	Rabi 2012-13	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
Total	-	-	-	-	-

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

Item	Released By ICAR		Expenditure		Unspent balance as on 1st April 2012
	Kharif 2012-13	Rabi 2012-13	Kharif 2012-13	Rabi 2012-13	
Inputs	-	-	-	-	-
Extension activities	-	-	-	-	-
TA/DA/POL etc.	-	-	-	-	-
Total	-	-	-	-	-

## 8.5 Utilization of KVK funds during the year (year-wise separately) (current year and previous year)

### (1) KVK funds during the year-2011-12

Sr. No	Particulars	Sanctioned (In lacs)	Released (In lacs)	Progressive Expenditure up to 31 <sup>st</sup> March-12
<b>A.</b>	<b>RECURRING CONTIGENCES</b>			
1.	Pay and allowance	60.00	60.00	55,18,551=00
2.	Traveling allowance	01.50	01.50	41,169=00
3.	Contingencies			
a.	Stationery, telephone, postage and other expenditure on office running publication of Newsletter and library maintenance (Purchase of News paper & Magazines)	01.75	01.75	1,96,798=00
b.	POL, repair of vehicle, tractor and equipment	01.05	01.05	89,818=00
c.	Meals/refreshment of trainees (ceiling up to Rs. 40=00 day/trainees be maintained)	00.80	00.80	64,675=00
d.	Training materials (Postage, charts, demonstration materials including chemicals etc. required for conducting the training)	00.90	00.90	25,777=00
e.	Front line demonstration except oilseed and pulses (Minimum of 30 demonstration	02.00	02.00	1,39,128=00
f.	On farm testing (On need based location specific and newly generated information in the major production system on the area)	00.60	00.60	6,136=00
g.	Training of extension functionaries	00.50	00.50	12,990=00
h.	Maintenance of building	00.40	00.40	39,737=00
	<b>TOTAL</b>	<b>69.50</b>	<b>69.50</b>	<b>61,34,779=00</b>
<b>B.</b>	<b>NON-RECURRING CONTIGENCE</b>			
1.	Equipment and furniture a. Multicrop thresher b. Roatry weeder c. Power sprayer d. Seed cum fertilizer drill	-	-	-
2.	Works (Implement shed)	-	-	-
3.	Vehicle (Motorcycle)	-	-	-
4.	Library (Purchase of assets like books & journals)	-	-	-
	<b>TOTAL</b>	-	-	-
<b>C.</b>	<b>REVOLVING FUNDS</b>	-	-	-
	<b>GRAND TOTAL (A+B+C)</b>	<b>69.50</b>	<b>69.50</b>	<b>61,34,779=00</b>

**(2) KVK funds during the Year-2012-13**

Sr. No	Particulars	Sanctioned (In lacs)	Released	Progressive Expenditure up to 31st March-11
<b>A.</b>	<b>RECURRING CONTIGENCES</b>			
1.	Pay and allowance	68.50	68.50	67,44,059=00
2.	Traveling allowance	01.00	01.00	68,875=00
3.	Contingencies			
a.	Stationery, telephone, postage and other expenditure on office running publication of Newsletter and library maintenance (Purchase of News paper & Magazines)	02.00	02.00	1,80,660=00
b.	POL, repair of vehicle, tractor and equipment	01.20	01.20	1,39,324=00
c.	Meals/refreshment of trainees (ceiling up to Rs.40=00 day/trainees be maintained)	01.00	01.00	87,224=00
d.	Training materials (Postage, chards, demonstration materials including chemicals etc required for conducting the training)	01.00	01.00	1,13,129=00
e.	Front Line demonstration except oilseed and pulses (Minimum of 30 demonstration)	01.20	01.20	1,24,429=00
f.	On farm testing (On need based location specific and newly generated information in the production system on the area)	00.60	00.60	37,953=00
g.	Training of extension functionaries	00.60	00.60	23,270=00
h.	Maintenance of building	00.40	00.40	40,255=00
	<b>TOTAL –A</b>	<b>77.50</b>	<b>77.50</b>	<b>75,59,178=00</b>
1.	Equipment and furniture	00.00		
a.	Digital Camera with accessories	00.00		
b.	LCD projector with accessories	00.00		
2.	Works	00.00		
a.	Adm. Building (02 and final Instt.)	00.00		
b.	Farmers Hostel (02 and final Instt.)	00.00		
c.	Staff Quarter (02 and final Instt.)	00.00		
3.	Library (purchase of assets like books & journals)	00.00		
4.	Vehicle	00.00		
	<b>TOTAL- B</b>	<b>00.00</b>		
<b>C.</b>	<b>REVOLVING FUNDS</b>	<b>00.00</b>	<b>-</b>	<b>-</b>
	<b>GRAND TOTAL (A+B)</b>	<b>77.50</b>		

### 8.6. 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-2010 to March-2011	1,65,618=00	6,11,046=00	4,96,926=00	2,79,738=00
April-2011 to March-2012	2,79,738=00	7,22,660=00	8,47,467=00	1,54,655=00
April-2012 to March-2013	1,54,655=00	4,25,917=00	4,23,780=00	1,56,792=00

**9. PLEASE INCLUDE INFORMATION WHICH HAS NOT BEEN REFLECTED ABOVE (Write in details)**

**9.1. Constrains :**

**(a) Financial --**

**(b) Technical :**

- Orientation training programme should be arranged for the newly appointed technical personnel.

**(c) Administrative :-**

-Rules & regulation should be same for all the NGO's KVKs. Same as ICAR or SAU's

## ANNEXURES

### DISTRICT PROFILE- I

#### GENERAL SENSUS

#### AREA & POPULATION AS PER CENSUS -2001

Sr.No.	Name of Taluka	Area	Total population	Population density/sq.km.	No.of village	No.of cities
1.	Patan	1011.2	383961	415	138	01
2.	Sidhpur	443.6	190937	345	54	01
3.	Chanasma	448.6	128629	186	59	01
4.	Harij	377.38	84813	194	39	01
5.	Sami	1513.8	164705	97	98	00
6.	Radhanpur	559.05	120177	64	56	01
7.	Santalpur	1350.6	1094487	178	73	00
	Total	5703.6	1182709	1479	517	05

#### CLASSIFICATION OF CITIES BASES IN POPULATION

Sr.No.	Group according to size	No.of city	Percentage of total No. city	Urban population	% of the total urban population
1.	1,00,000 and above	01	20	1137749	47.70
2.	50,000 to 99,999	01	20	58194	24.40
3.	20,000 to 49,999	01	20	32191	13.50
4.	10,000 to 19,999	02	40	34234	14.38
5.	5,000 to 9,999	00	00	00	00
6.	5,000 and above	00	00	00	00
	Total	05	100	238368	99.98

#### URBAN POPULATION AS PER CENSUS-2001

Sr.No.	Name of Taluka	No.of cities	Urban Population		
			Male	Female	Total
1.	Patan	Patan	59955	53794	113749
2.	Sidhpur	Sidhpur	30138	28056	58194
3.	Chanasma	Chanasma	8244	7578	15822
4.	Harij	Harij	9728	8744	18472
5.	Sami	Sami	00	00	00
6.	Radhanpur	Radhanpur	16769	15422	32191
7.	Santalpur	Santalpur	00	00	00
	Total		124834	113594	238428

### NAME OF VILLAGE MORE THAN 5000 POPULATION AS PER 2001 CENSUS

Sr.No.	Name of taluka	Name of village	Population	Name of village	Population
1.	Patan	Nayata	5143	Kungher	5717
		Aghar	5599	Ranuj	6634
		Der	7092	Sander	5052
		Balisana	9939	Sariyad	5315
2.	Sidhpur	Kakosi	8456	Biliya	6732
		Kuwara	5028	Dindrol	5709
3.	Chanasma	Dhinoj	10860	Vadowali	5136
		Sunasar	6322	-	-
4.	Harij	-	-	-	-
5.	Sami	Sami	11607	Sankheswar	7646
6.	Radhanpur	-	-	-	-
7.	Santalpur	Varahi	8802	Santalpur	5324
	<b>Total</b>		<b>68848</b>		<b>53265</b>

### SCHEDULE CAST & SCHEDULE TRIBE POPULATION AS PER CENSUS-2001

Sr. No.	Name of taluka	Rural Urban	SC				ST			
			Male	Female	Total	%	Male	Female	Total	%
1.	Sidhpur	Rural	8149	7363	15512	16.87	337	304	641	9.59
		Urban	3555	3296	6851	27.49	547	451	998	16.75
		Total	11704	10659	22363	19.14	884	755	1639	12.96
2.	Patan	Rural	14991	13435	28426	30.91	562	485	1047	15.75
		Urban	5979	5435	11414	45.08	1170	1564	2734	56.29
		Total	20970	18870	39840	34.08	1732	2049	3781	34.82
3.	Chanasma	Rural	5508	4941	10449	11.36	268	209	477	6.70
		Urban	999	914	1913	7.67	43	23	66	1.10
		Total	6507	5855	12362	10.57	311	232	543	4.30
4.	Harij	Rural	3331	3107	3362	7.01	211	144	355	5.31
		Urban	869	729	1598	6.41	356	263	619	10.38
		Total	4200	760	4960	6.88	567	407	974	7.70
5.	Sami	Rural	8876	8358	17234	18.74	301	244	545	8.15
		Urban	00	00	00	0.00	00	00	00	0.00
		Total	8876	8358	17234	18.74	301	244	545	8.15
6.	Radhanpur	Rural	3321	3192	6513	7.08	1136	1134	2270	33.98
		Urban	1610	1537	3147	12.60	858	463	1321	15.45
		Total	4931	4729	9660	19.68	1994	1597	3591	25.25
7.	Santalpur	Rural	3835	3549	7384	8.03	713	631	1344	20.12
		Urban	00	00	00	0.00	00	00	00	0.00
		Total	3835	3549	7384	8.03	713	631	1344	20.12
District Total		Rural	48011	40869	88880	78.67	3528	3151	6679	52.85
		Urban	13012	11911	24923	21.32	2974	2764	5738	47.14
		Total	61023	52780	113803	99.99	6502	5915	12417	99.99

## MAJOR AGRICULTURE AND ALLIED CENSUS

### (I) LAND CLASSIFICATION

1.	Total Geographical area of the district	: 5740 sq.km.
2.	Total cultivation area of the district	: 422445 ha.
3.	Uncultivated land	: 45152 ha.
4.	Forest land	: 46526ha.
5.	Pasture /fallow land	: 15540ha.
6.	Irrigated land	: 1,19,141 ha.(29.0%)
7.	Un irrigated land	: 2,96,154 ha. (71%)

### (II) LIVE STOCK POPULATION

1.	Cow	: 55338
2.	Buffalo	: 173756
3.	Sheep	: 49235
4.	Goat	: 99601
5.	Poultry birds	: 10311

### (III) MILK CO-OPERATIVE SOCIETY OF THE DISTRICT

Sr.No.	Name of the taluka	No.of the milk co-operative society
1.	Patan	NA
2.	Sidhpur	58
3.	Chanasma	NA
4.	Harij	52
5.	Sami	104
6.	Radhanpur	56
7.	Santalpur	54
	<b>Total</b>	<b>342</b>



**(IV) AREA UNDER SPICES AND CONDIMENTS CROP IN PATAN DISTRICT**

Sr. No.	Name of Taluka	Chilli	Fennel	Cumin	Isabgul	Spice & condiment
1.	Chanasma	166	1526	3539	498	5365
2.	Harij	05	05	5348	37	5358
3.	Patan	314	566	2697	482	3847
4.	Radhanpur	12	25	4100	110	4137
5.	Sami	08	00	3583	10	3591
6.	Santalpur	00	00	7525	280	7525
7.	Sidhpur	338	580	872	165	2145
	<b>Total</b>	<b>843</b>	<b>2702</b>	<b>27664</b>	<b>1582</b>	<b>31968</b>

**(V) AREA UNDER FRUITS AND VEGETABLE CROP IN PATAN DISTRICT**

Sr.No.	Name of Taluka	Fruits	Potato	Vegetables	Total fruits vegetable
1.	Chanasma	46	00	86	132
2.	Harij	04	00	123	127
3.	Patan	165	04	2658	2823
4.	Radhanpur	13	00	179	192
5.	Sami	04	00	31	35
6.	Santalpur	00	00	37	37
7.	Sidhpur	348	337	1247	1595
	<b>Total</b>	<b>580</b>	<b>341</b>	<b>4361</b>	<b>4941</b>

**(VI) Area under oilseed crops**

Sr.No.	Name of Taluka	Total area
1.	Chanasma	9132
2.	Harij	2950
3.	Patan	24744
4.	Radhanpur	5625
5.	Sami	1167
6.	Santalpur	8429
7.	Sidhpur	9979

## AGRO-CLIMATIC ZONES

S. N.	Agro-climatic Zone	Characteristics
1.	Zone No.4 (Patan, Sidhpur and Chansama taluka)	- Average rainfall is 610 mm. - Soil type is loamy , sandy, saline & medium black. - Main crops- Cotton, Wheat, Castor, Cumin, Bajara & Mustard
2.	Zone No.8 (Harij, Sami, Radhanpur and Santalpur taluka)	- Average rainfall is 500mm. - Soil type is loamy, sandy, saline and medium black. - Main Crops - Rainfed Cotton, Wheat, Gram, Dillseed, Mustard & Cumin.

## MAJOR AND MICRO FARMING SYSTEMS

S. No	Farming system/enterprise
1.	Livestock raising with crop production (mixed farming)
2.	Livestock raising only
3.	Poultry Farming.
4.	Cropping system included in district <ul style="list-style-type: none"> <li>- Mono cropping</li> <li>- Mix cropping</li> <li>- Inter cropping</li> <li>- Relay cropping</li> </ul>
5.	Vegetables & fruits cultivated area is very low.

## MAJOR PRODUCTION SYSTEMS

Cotton based - Cotton – fallow

Cotton – Wheat

Cotton – Bajara

Castor based- Castor- Fallow

Other	Kharif	Rabi	Summer
	Bajara	Mustard	Fallow
	Black gram	Wheat	Bajara
	Sesamum	Cumin	Sorghun
	Green-gram	Tobacco	Black-gram
		Lucerne	Bajra
		Potato	
		Fennel	
		Dill seed	

## MAJOR AGRICULTURE AND ALLIED ENTERPRISES

Sr.No.	Name of enterprises	No.of Registered factory
1.	Agriculture production industries	16
2.	Food product	80
3.	Tobacco	05
4.	Wood & wooden product	04
5.	Rubber plastic petrol and coal product	02
6.	Chemical production	10
7.	Non metal mineral product	13

## AGRICULTURE PRODUCT MARKETING COMMITTEE IN PATAN DISTRICT

Sr.No.	Name of Taluka	Functional	Non functional
1.	Patan	01	-
2.	Sidhpur	01	-
3.	Chansma	01	-
4.	Harij	01	-
5.	Radhanpur	01	-
6.	Sami	-	01
7.	Santalpur	-	01

## AGRO – ECOSYSTEM ANALYSIS OF THE FOCUS/TARGET AREA – II

### 1. Name of the Village :-

Mithadharva, Bhatsar, Selavi, Zilwana, Kuvarad, Balisana, Manud, Kamliwada, Danodarda, Khimiyana, Dhummad, Ganeshpura, Dethli, Chandravati, Ganglasana

### 2. Survey methods used :-

-Survey by questionnaire

-PRA

### 3. List of Location specific problems :-

- Salt affected soil.
- In adequate irrigation water
- Average land holding is less
- Calving interval is too long in buffalo.
- Low market price of the farm produce (fruits & vegetable) at the harvesting time.

- No storage facility in nearer area.
- Average productivity of major crops is low.
- Average milk production per animal is low.
- Low income of landless agriculture labourers

#### 4. Matrix ranking of the problem :-

I = Inadequate irrigation water

II = Salt affected soil.

III = Average productivity of major crops is low.

IV = Calving interval is too long in buffalo.

V = Average milk production per animal is low.

VI = No storage facility

VII= Low market price at the time of harvesting.

VIII= Average land holding is low.

IX= Low income of landless agriculture labourers

#### 5. List of location specific thrust area :

Average productivity of the major crops is low.

##### Castor

-IDM

-AlterNet furrow method of irrigation

##### Wheat

-Weed management

-Termite control

-Irrigation at critical stages.

##### Mustard

-Use of sulphatic fertilizer

-Plant protection – powdery mildew & aphid control

-INM

Cotton

-use of Bollworm complex resistant variety i.e. B.T. Cotton

-INM

Green-gram

-Use of high yielding & improved variety GM-4

Salt affected soil

-Use of soil amendments

-Use of organic manures.

Inadequate irrigation water

-Adoption of less water required crops

-Awareness about water saving devices i.e. MIS, Alternate furrow method of irrigation, mulching etc.

Average milk production per animal is low

-Fodder management

-Breed selection

Low market price at the time of harvesting

-Value addition of fruits & vegetables

Deterioration of food grain

-Storage of food grain by scientific method.

## 6. List of location specific technology needs for OFT & FLD

1. Improved & high yielding varieties of major crops

Castor : GCH-7

Mustard : GM-3

Green-gram : GM-4

Wheat : GW-322, GW-366

Cotton : B.t. Cotton

Fennel : GF-2 (Kharif)

GF-11 (Rabi), GF-12 (Rabi)

Cumin : GC-4

Cabbage- Pusa drumhead

Cauliflower – Pusa snowball K-10

2. Use of soil amendments e.g. Gypsum, well decomposed FYM
3. Use of sulphatic fertilizer in oil seed crop i.e. Castor, Mustard
4. Seed treatment by fungicide
  - Chemical fungicide
  - Bio-fungicide
5. Spraying schedule for disease management
6. Integrated nutrient management
7. Protected cultivation for fruits & vegetables

**7. List of location specific training needs :**

- a. Production technology of major crops.
- b. Integrated nutrient management
- c. Importance & method of soil sampling and soil water analysis
- d. Integrated pest & disease management
- e. Management of problematic soil
- f. Importance of water saving devices in crop production
- g. Fodder management & use of concentrate for milch animal
- h. Fruit & vegetable preservation
- i. Storage of food grains
- j. Create awareness & skills about income generation activities.
- k. Protected cultivation

### TECHNOLOGY INVENTORY AND ACTIVITY CHART-III

Sr. No.	Technology	Crop/ Enterprise	Source of technology
1.	GCH-7 -High yielding & wilt resistant variety	Castor	SDAU-S.K.Nagar
2.	G.M.-4 -High yielding variety	Green-gram	
3.	G.H.B.-558, G.H.B.-538	Bajra	J.A.U., Junagadh
4.	Use of sulphar in Mustard GM-3 -High yielding variety	Mustard	SDAU-S.K.Nagar
5.	Guj.Cumin-4 -Wilt resistant spraying of D.M.-45 to control blight disease	Cumin	SDAU-S.K.Nagar
6.	High yielding variety GW-322, GW-366 -Use of pendimethylen weedicide in Wheat	Wheat	SDAU-S.K.Nagar
7.	Seed production technology 1. Wheat-GW-496 & 322 2. Mustard-GM-3	Wheat Mustard	SDAU-S.K.Nagar
8.	Integrated pest management	Chilli Cotton Castor	SDAU-S.K.Nagar
9.	Weed management in Cumin by fluchloraline weedicide	Cumin	SDAU-S.K.Nagar
10.	INM in Cotton	BT Cotton	SDAU-SKNagar



\* **Activity chart**

<b>Crop/ Animal enterprise</b>	<b>Problem</b>	<b>Cause</b>	<b>Solution</b>	<b>Activity</b>	<b>Reference of technolog y</b>
Green-gram	Low productivity of K-851 & local variety Green-gram	Lack of knowledge about new improved variety Green-gram GM-4	To create awareness regarding new improved variety GM-4	-FLD on GM-4 variety -Training -Filed day	SDAU-S.K.Nagar
Castor	Wilt infection	-Poor plant protection measures -No crop rotation -Not using wilt resistant variety	To popularize the wilt & root rot resistant and high yielding variety of GCH-7	-FLD on GCH-7 variety of Castor -Training -Field day	SDAU-S.K.Nagar
Cotton	Low productivity of Cotton	-Sucking pest infestation -Lack of knowledge regarding plant production measures	-To create awareness regarding BT.Cotton cultivation -To provide knowledge regarding plant protection measures	-FLD on BT Cotton -Training regarding production technology & plant Protection measures -OFT	SDAU-S.K.Nagar
Mustard	Low productivity of local variety	-Use of local variety -Not using sulphar fertilizer -Poor knowledge regarding P.P. measures	-To create awareness regarding high yielding variety GM-3 -To provide knowledge regarding production technology & P.P. measures -Sulphar fertilizer	-FLD on GM-3 variety of Mustard -Training regarding production technology	SDAU-S.K.Nagar
Cumin	Low yield of Cumin	-Wilt & blight infection in Cumin -Use of local variety	-To create awareness regarding New improved variety of Cumin & Plant protection technology	-FLD on GM-4 variety of Cumin -Training regarding production technology & P.P. measures -OFT on wilt infection -OFT on poor germination	SDAU-S.K.Nagar
Wheat	Low yield of Wheat	Termite infestation in Wheat -Abiotic stress	-To create awareness regarding termite control measures introduction of high yielding variety	Training regarding P.P. measures in Wheat -Awareness about critical stages of irrigation -OFT on abiotic stress	-SDAU – SKNagar SKRAU-Bikaner

Crop/ Animal enterprise	Problem	Cause	Solution	Activity	Reference of technology
Lime	Low yield of lime & poor quality of fruit	<ul style="list-style-type: none"> <li>-Not using kagadi lime variety</li> <li>-Poor knowledge regarding plant protection &amp; fertilizer management in Lime crop</li> </ul>	<ul style="list-style-type: none"> <li>-To provide seedling of kagadi lime variety</li> <li>-To provide training for fertilizer management in lime</li> <li>-To show the method demonstration for preparation of Bordeaux paste and pl.protection measures</li> </ul>	<ul style="list-style-type: none"> <li>-Training &amp; method demonstration for Bordeaux paste</li> </ul>	-SDAU

## SUMMARY OF ANNUAL PROGRESS OF K.V.K. 2012-13

### STAFF POSITION

KVK	PC			SMS			PA			ADMN			AX			SUPP			TOTAL		
	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V	S	F	V
	1	1	0	6	5	1	3	3	-	2	2	-	2	1	-	2	4	-	16	16	-

### REVOLVING FUND

KVK	Opening Balance on 1.4.12 (Rs.in lakhs)	Revenue Generated (Rs. In lakhs)	Closing Balance on 31.3.13 (Rs. In lakhs)
Krishi Vigyan Kendra Saraswati Gram Vidyapith Samoda-Ganwada Ta.Sidhpur, Dist.Patan	1,54,655=00	4,25,917=00	1,56,792=00

### SCIENTIFIC ADVISORY COMMITTEE (2012-13)

KVK	No.of meetings conducted	Date of meeting
Patan	01	22/03/2013

### ACTIVITIES OF K.V.K.

#### (a) Technologies assessed during 2012-13

Sr. No.	Crop/Enterprise	Name of the technology	Thematic area
1.	Castor	Var. GCH-7	Variential Evaluation
		Use of sulphatic fertilizer	INM
		Use of Trichoderma for wilt control	IPM
2.	Green-gram	Var. G.M.4	Variential evaluation Seed production
3.	Cotton	Use of MgSO <sub>4</sub> , ZnSO <sub>4</sub>	INM
		Use of Neem Oil, Verticillum fungus	IPM
4.	Mustard	Var. GM-3	Variential evaluation
		Use of Sulphatic fertilizer	INM
5.	Wheat	Var. GW-496 & 322 & 366	Variential evaluation
		Use of pendimethalin & 2,4-D weedicide	Weed management
		Use of ZnSO <sub>4</sub>	INM

Sr. No.	Crop/Enterprise	Name of the technology	Thematic area
6.	Cumin	Var.GC-4	Varietal evaluation
		Spraying schedule of D.M.-45 in Cumin to control blight disease & Use of Trichoderma	IPM
7.	Brinjal	Use of Pheroman trap	IPM
8.	Potato	Use of MIS	Resource conservation technology
8.	Aonla	Preparation of various Aonla product (Aonla Candy and Aonla Pickles)	Value addition

### (b) Technologies Refined

Sr. No.	Crop/Enterprise	Name of the technology	Thematic area
1.	Castor	Var. GCH-7	Varietal Evaluation
		Use of sulphatic fertilizer	INM
		Use of Trichoderma for wilt control	IPM
2.	Green-gram	Var. G.M.4	Varietal evaluation Seed production
3.	Cotton	Use of MgSO <sub>4</sub> , ZnSO <sub>4</sub>	INM
		Use of Neem Oil, Verticillium fungus	IPM
4.	Mustard	Var. GM-3	Varietal evaluation
		Use of Sulphatic fertilizer	INM
5.	Wheat	Var. GW-496 & 366	Varietal evaluation
		Use of pendimethalin & 2,4-D weedicide	Weed management
		Use of ZnSO <sub>4</sub>	INM
6.	Cumin	Var.GC-4	Varietal evaluation
		Spraying schedule of D.M.-45 in Cumin to control blight disease & Trichoderma	IPM
7.	Brinjal	Use of Pheroman trap	IPM
8.	Potato	Use of MIS	Resource conservation technology
8.	Aonla	Preparation of various Aonla product (Aonla Candy and Aonla Pickles)	Value addition

**ABSTRACT OF THE NUMBER OF TECHNOLOGY ASSESSED\* IN RESPECT OF  
CROPS/ ENTERPRISES**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial crops	Vegetable	Fruits	Spices	Plantation crops	Tuber crops	Total
Varietals Evaluation	-	-	-	-	-	-	-	-	-	-
Seed/ Plant production	-	-	-	-	-	-	-	-	-	-
Weed management	-	-	-	-	-	-	-	-	-	-
Integrated crop management	-	-	-	√	-	-	-	-	-	01
Integrated Nutrient management	√	-	-	-	-	-	√	-	-	02
Integrated farming systems	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-	-	-	-	-	-
Farm Machineries	-	-	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-	-	-
Integrated Pest management	-	-	-	-	-	-	-	-	-	-
Integrated Disease management	-	-	-	-	-	-	√	-	-	01
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
<b>TOTAL :</b>	<b>01</b>	<b>-</b>	<b>-</b>	<b>01</b>	<b>-</b>	<b>-</b>	<b>02</b>	<b>-</b>	<b>-</b>	<b>04</b>

**ABSTRACT OF THE NUMBER OF TECHNOLOGIES REFINED\* IN RESPECT OF CROPS/ ENTERPRISES**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial crops	Fruits	Spices	Tuber crops	Total
Varietals Evaluation	-	-	-	-	-	-	-	-
Seed/ Plant production	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-
Integrated crop management	-	-	-	Cotton + Castor intercrop	-	-	-	1
Integrated Nutrient management	Use of thiourea	-	-	-	-	Use of growth hormone	-	2
Integrated farming systems	-	-	-	-	-	-	-	-
Mushroom cultivation	-	--	-	-	-	-	-	-
Drudgery Reduction	-	-	-	-	-	--	-	-
Farm Machineries	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Integrated Pest management	-	-	-	-	-	-	-	-
Integrated Disease management	-	-	-	-	Bioagent-Trichoderma	-	-	1
Resource conservation technology	-	-	-	-	-	-	--	-
Small scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL :</b>	<b>01</b>	<b>-</b>	<b>-</b>	<b>01</b>	<b>02</b>	<b>-</b>	<b>-</b>	<b>4</b>

## PERFORMANCE OF IMPORTANT TECHNOLOGIES

### A. Technology Assessment :-

#### (I) Trial – 1 (Crop : Cotton) Year : 2011-12

1. Title : Lower income from Cotton monocrop
2. Problem diagnose/ : Not sown intercrop in Cotton  
Defined
3. Details of technology selected for assessment / Refinement & source of  
Technology

Category	Source of technology	Technology details
T1 : Farmer practices	Farmers	-No intercrop 120 x 60 cms.
T2 : SAU's Recommendation	State Agril. University	-No intercrop -Sowing distance 120 x 45 cms.
T3 : Refine technology	KVK	-Intercropping with Castor -Sowing distance 150 x 60 cms

4. Production system : Integrated Farming systems
5. Thematic area : Integrated cropping system
6. Performance of the technology with performance indicators

(Result of 1 year)

Treatment	Av. Yield (qt./ha.)	Gross Income Rs./ha.
T1	Cotton : 22.9	91,600
T2	Cotton : 24.8	99,200
T3	Cotton : 21.6 Castor : 14.4	86,400 43,200

**(II) Trial – 2 (Crop : Cumin) Year :-2011-12**

1. Title : Low yield of Cumin
2. Problem diagnose/ : Incidence of wilt disease  
Defined
3. Details of technology selected for assessment / Refinement & source of Technology

Category	Source of technology	Technology details
T1 : Farmer practices	Farmers	-No seed treatment
T2 : SAU's Recommendation	State Agril. University	-Seed treatment with Carbendazim 50wp @ 3g./1 kg Seed
T3 : Refine technology	KVK	-Soil application of Trichoderma @ 3kg./ha. & seed treatment by Trichoderma spp. @ 20gm./1 kg. seed

4. Production system : Integrated Farming systems
5. Thematic area : Integrated disease management
6. Performance of the technology with performance indicators

(Result of 1 year)

Treatment	% wilt infection	Av.yield (qt./ha.)
T1	12.7	7.4
T2	9.3	8.7
T3	7.5	9.2

**(III) Trial – 3 (Crop : Wheat) Year-2012-13**

(2) Crop Production

(a) Low yield of wheat

Title :- Low yield of wheat

Location :- Dhummad

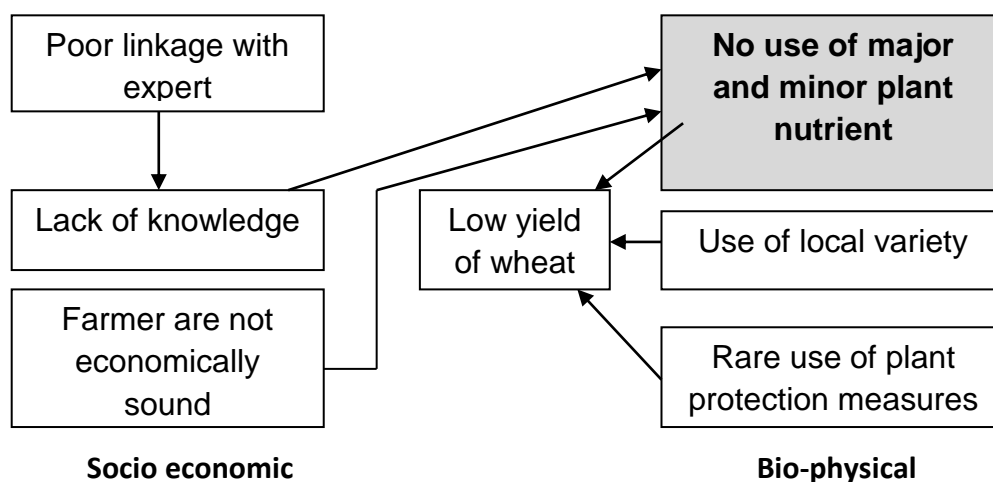


**Problem :-**

Abiotic stress and deficiency of sulphur diagnosed, Wheat is the main crop of Patan district. The yield of wheat could be optimized through proper fertilization. In later stage crop face some abiotic stress. Like hot wind and water scarcity, which mitigate through spray of thiourea. It supplies N and S.

**Reason :-**

- Use of local variety
- Rare use of plant protection measures
- Insufficient use of major & minor plant nutrient
- Abiotic stress (Hot wind & water stress at later stage of the season)

**PROBLEM CAUSE DIAGRAM****Treatment :-**

- T1 = Farmers practices  
Use of local variety  
No use of proper nutrient management
- T2 = SAU recommendation  
Recommended N+P and use of variety GW-496
- T3 = Refined technology  
Recommended N+P and use of variety GW-496 + two foliar spray of Thiourea (0.1%) at tillering and spike initiation stage.

**Replication :- 10**

**Inputs :-**

Area 2.5 ha.                      Seed – GW-496                      Thiourea – 2.5kg.

**Note :- Result awaited**

**(b) OFT Castor Cotton Intercropping Year : 2012-13**

**Title :- Lower income of Cotton cultivation**

**Location :- Balisana**

**Problem :-**

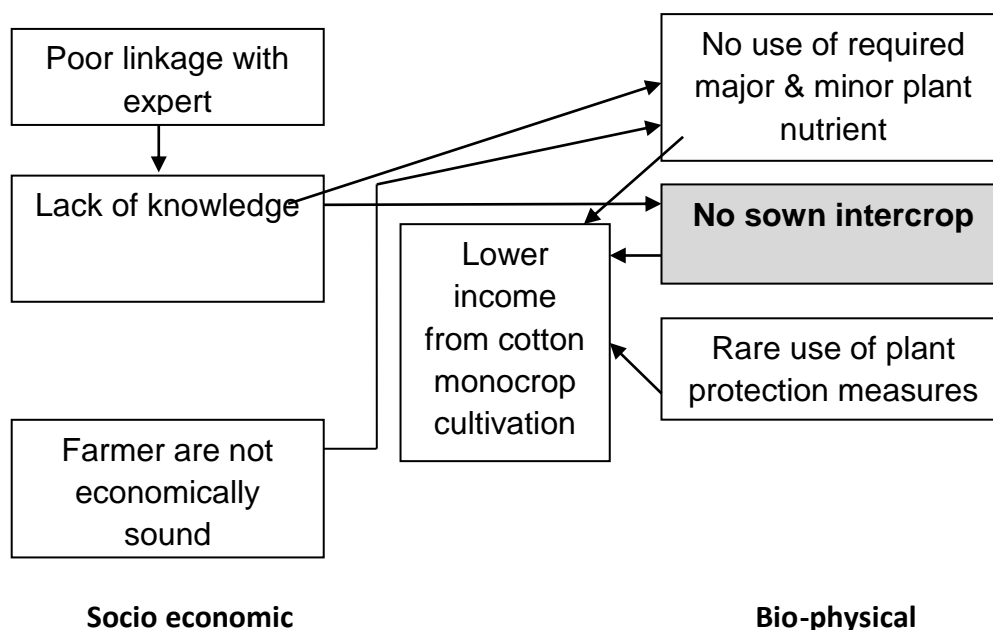
Cotton becomes a main crop so far as cultivation area of the cash crop North Gujarat. As per cash the crop canopy of the BT Cotton. Sowing distance of the crop is 150cms. between two rows. In the part of this practice intercropping of castor in cotton is possible. Intercrop of castor gives additional income.

**Reason :-**

- Not sown intercrop in cotton
- Rare use of plant protection measures
- Insufficient use of major & minor plant nutrient

**Intervening point :- Not sown intercrops**

**PROBLEM CAUSE DIAGRAM**



**Treatment :-**

- T1 = Farmers practices  
No intercrop  
Spacing 120 x 60 cms
- T2 = SAU recommendation  
No intercrop  
Spacing 120 x 45 cms
- T3 = Refined technology  
Intercropping with castor  
Spacing 150 x 60 cms

Note :- Sowing time : Cotton : 1<sup>st</sup> fortnight of June  
Castor : Last week of August

**Replication :- 10**

**Inputs :-**

Area 2.5 ha.                  Seed – Castor

**Note :- Result awaited**

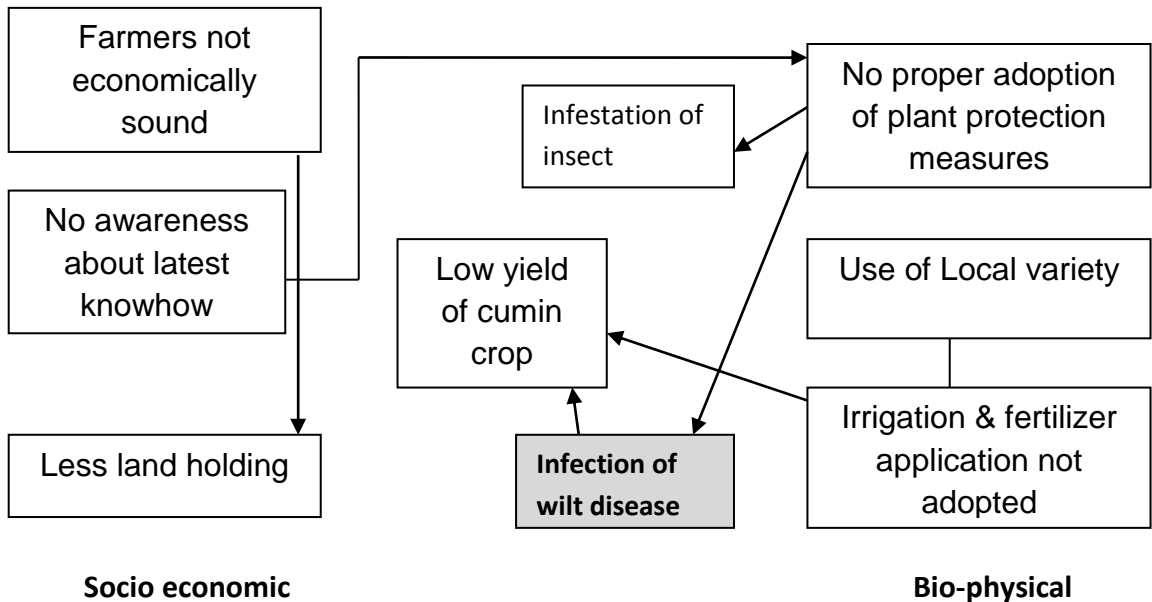
**(2) Plant Protection Year : 2012-13**

**Title :- Low yield of Cumin**

**Location :- Kuvarad, Pindharpura, Palasar**

**Intervening point :- Infection of wilt disease**

**PROBLEM CAUSE DIAGRAM**

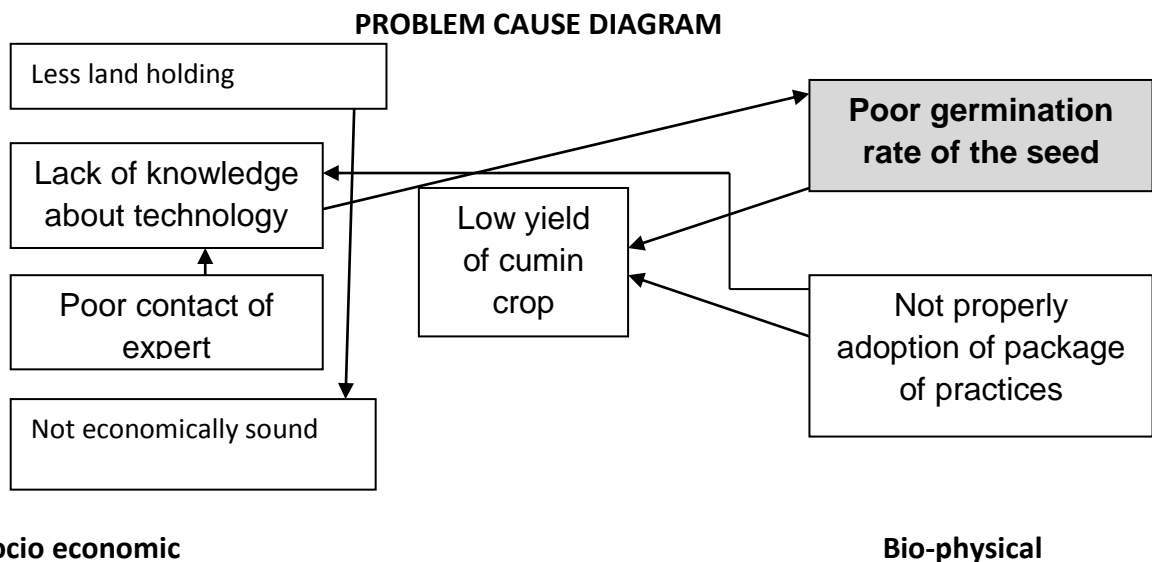


**Treatment :-**

- T1 = Farmers practices  
Use of local variety without seed treatments
- T2 = SAU recommendation  
Use of GC-4 variety with seed treatment by carbendazim 50 wp @ 1g./1kg seed
- T3 = Refined /Assessed technology  
Use of GC-4 variety with seed treatment by bio-fungicide i.e. Trichoderma @ 20g./1 kg seed and soil application of trichoderma @ 3kg./ha Along with vermi compost before sowing.

**Replication :- 10****Inputs :-**

Area 2.5 ha.                      Seed – 40kg                      Trichoderma :- 10kg (Bio fungicide)  
Vermi compost : 500 kg

**Note :- Result awaited****(3) Horticulture****Title :- Low yield of Cumin****Location :- Selavi, Palasar****Problem Diagnosis :- Poor germination of the crops**

**Treatment :-**

- T1 = Farmers practices  
Use of local variety  
No seed treatment
- T2 = SAU recommendation  
Seed treatment by Azospirillum and PSB culture
- T3 = Refined /Assessed technology  
Use of plant humic acid for seed treatment @ 5 ml./ 1kg seed & spraying the crop @ 0.5 ml./1 lit water 30, 45 & 60 DAS

**Replication :- 10****Inputs :-**

Area 2.5 ha.            Seed – 40kg    Sulphar – 50kg  
Humico :- 2 lit.

**Note :- Result awaited**

### FRONT LINE DEMONSTRATION

Crop/enterprise	No.of demonstrations	Area (ha)
Oilseeds – Castor	-	-
Mustard	-	-
Pulses –Green-gram	53	12.5
Cereals –Wheat	47	15.0
Milletts –Bajara	-	-
Cash crops-Cotton	50	12.5
Fodder crops	-	-
Fruit crops	-	-
Vegetable crops	-	-
Plantation crops	-	-
Spices and condiments –		
Cumin	30	15.0
Fennel	30	15.0
Flowers and ornamental crops	-	-
Medicinal and aromatic plants	-	-
Bio-agent Trichoderma	10	2.5
<b>Total</b>	<b>200</b>	<b>72.5</b>
		<b>Units (No.)</b>
Dairy		
Sheep and goat		
Poultry		
Piggery		
Rabbitary		
Apiculture		
Mushroom units		
Total		
<b>Grand total</b>		

**(1) Fennel**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Fennel (GF-11)	2011-12	Varietal evaluation	50	20

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
28500	26700	85800	72600	57300	45900	18.2

**(2) Wheat**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Wheat-GW-366	2011-12	Varietal evaluation	51	20

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
24800	23600	68400	57600	43600	34000	18.8

**(3) Cumin**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Cumin-GC-11	2011-12	Varietal evaluation	24	06

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
28200	26500	105600	85200	77400	58700	23.9

**(4) Cumin (Bio agent)**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Cumin-GC-4	Rabi 2011-12	Trichoderma	14	05

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
29400	28600	124800	106800	95400	78200	16.6

**(5) Bajara (INSIMP)**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Bajara GHB-538	Summer 2011-12	Varietal evaluation	12	04

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
18950	16100	33800	27500	14850	11400	22.9

**(6) Bajra**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
GHB-538	Summer 2011-12	Varietal evaluation	52	20

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demonstration	Local check	Demonstration	Local check	Demonstration	Local check	
18000	15800	31300	26400	14300	10600	22.3



**(7) Green-gram**

Crop and Variety	Season	Name of technology	No.of farmers	Area (ha.)
Green-gram GM-4	Kharif 2012-13	Varietal evaluation	53	12.5

Performance of technology on different parameters						Increase yield in (%)
Av. Cost of cultivation		Av. Gross return (Rs./ha.)		Av. Nets return (Rs./ha.)		
Demon- stration	Local check	Demon- stration	Local check	Demon- stration	Local check	
Crop failure due to scanty rainfall						



Thematic area	No. of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
<b>c) Spices</b>										
Production and management technology	08	174	-	174	25	-	25	199	-	199
Processing and value addition										
<b>d) Medicinal and Aromatic plants</b>										
Nursery management										
Production management technology	01	25	-	25	-	-	-	25	-	25
Post harvest technology and value addition										
<b>III. Soil and Health and Fertility management</b>										
Soil fertility management										
Soil and water conservation										
Integrated nutrient management	01	14	-	14	02	-	02	16	-	16
Production & use of organic inputs	01	27	06	33	03	-	03	30	06	36
Management of problematic soils										
Micro nutrient deficiency in crops										
Nutrient use efficiency										
Soil & water testing										
<b>IV. Livestock production and management</b>										
Dairy management	03	-	76	76	-	26	26	102	-	102
Fodder management	02	-	58	58	-	-	-	58	-	58
<b>V. Home Science/Women empowerment</b>										
House hold food security by kitchen gardening and nutrition gardening	02	-	39	39	-	10	10	-	49	49
Design and development of low/mini. Cost .diet	01	-	21	21	-	-	-	-	21	21
Designing and development for high nutrient efficiency diet.										
Minimization of nutrient loss in processing	02	-	51	51	-	12	12	-	63	63
Gender mainstreaming through SHGs	02	-	49	49	-	-	-	-	49	49





Thematic area	No.of courses	Participants								
		Other			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
House hold food security	01	-	25	25	-	07	07	-	32	32
Women and child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
Soil and water conservation practiced	01	32	-	32	02	01	03	34	01	35
Training need assessment and PRA techniques	02	24	37	61	06	05	11	30	42	72
<b>TOTAL :</b>	<b>08</b>	<b>141</b>	<b>96</b>	<b>237</b>	<b>11</b>	<b>21</b>	<b>32</b>	<b>152</b>	<b>111</b>	<b>269</b>

### SPONSORED TRAINING PROGRAMME

Sr. No.	Date	Title	Discipline	Duration (Days)
1	2	3	4	5
1.	25/4/12	Irrigation management in Rainfed crop	Agriculture	01
2.	27/4/12	Vermi compost and Nursery raising	Agriculture	01
3.	30/4/12	Importance and use of organic matter in rainfed cotton	Agriculture	01
4.	22/5/12	Preparation and preservation of mango products	Home Science	01
5.	4/6/12	Production technology of rainfed cotton	Agriculture	01
6.	8/6/12	Fruit and vegetable preservation	Home Science	01
7.	29/8/12	Scientific cultivation of castor	Agriculture	01
8.	30/8/12 to 31/8/12	Post harvest technology of food grain	Agriculture	02
9.	13/9/12	Preparation and preservation of lemon pickle	Home Science	01
10.	28/9/12	Production technology of Rabi crops cumin and wheat	Agriculture	01
11.	19/11/12 to 23/11/12	Preparation of value added products from fruit and vegetables	Home Science	05
12.	9/1/13	Use of solar cooker as alternate sources of energy	Home Science	01

No. of courses	No. of participants									Sponsoring Agency
	Other			SC/ST			Total			
	M	F	T	M	F	T	M	F	T	
<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
01	34	-	34	01	-	01	35	-	35	ATMA Patan
01	-	34	34	-	-	-	-	34	34	IWMP Patan
01	14	-	14	01	-	01	15	-	15	ATMA Patan
01	-	44	44	-	-	-	-	44	44	ATMA Patan
01	34	-	34	-	-	-	34	-	34	ATMA Patan
01	-	58	58	-	-	-	-	58	58	ATMA Patan
01	32	-	32	03	-	03	35	-	35	ATMA B.K.
01	38	-	38	07	-	07	45	-	45	Central Ware Housing corporation Ahmedabad
01	-	58	58	-	02	02	-	60	60	FTC Patan
01	23	-	23	02	-	02	25	-	25	ATMA Surandranagar
01	-	33	33	-	01	01	-	34	34	FTC Patan
01	-	24	24	-	06	06	-	30	30	FTC Patan

## EXTENSION ACTIVITIES

S. N.	Nature of Extension Activity	Purpose/Topic and date	No. of activities	Participants											
				Farmers & Farm women			SC/ST			Extension officers			Total		
				M	F	T	M	F	T	M	F	T	M	F	T
1.	Field day	S.Bajara 25/5/12	1	41	-	41	-	-	-	-	-	-	41	-	41
		Green-gram 15/9/12	1	38	-	38	3	-	3	-	-	-	41	-	41
		Cotton 26/9/12	1	28	-	28	2	-	2	-	-	-	30	-	30
		Fennel 12/2/13	1	41	-	41	3	-	3	-	-	-	44	-	44
		Cumin 7/3/13	1	19	-	19	8	-	8	-	-	-	29	-	29
		Wheat 8/3/13	1	18	-	18	-	-	-	-	-	-	18	-	18
2.	Method demonstration	Sandasary 23/5/12	1	11	-	11	3	-	3	-	-	-	14	-	14
		Matpur 26/6/12	1	12	-	12	2	-	2	2	-	2	16	-	16
		Samoda, Nagvasana 5/7/12	1	18	-	18	-	-	-	-	-	-	18	-	18
		Samoda 29/1/12	1	05	-	05	6	-	6	-	-	-	11	-	11
3.	Ex-trainee meeting	Samoda	1	-	10	10	-	6	6	-	-	-	-	16	16
4.	Self Help Group formation	Pindharpura 22/2/13	2	-	13	13	-	3	16	-	-	-	-	16	16
				-	19	19	-	-	-	-	-	-	19	19	
5.	Night meeting	Ganwada 21/5/12	1	18	5	23	1	1	2	-	-	-	19	6	25
6.	Farm Science club	Madhupura 28/6/12	1	24	10	34	-	-	-	2	-	2	36	-	36
		Palasar 8/1/13	1	19	-	19	-	-	-	-	-	-	19	-	19
7.	Kisan Gosthi	Nagvasana 3/5/12	1	36	-	36	9	-	9	-	-	-	45	-	45
8.	World food day	Khimiyana 16/10/12	1	-	62	62	-	-	-	-	-	-	62	-	62
9.	Women in agril day	Kahoda 4/12/12	1	-	31	31	-	-	-	-	-	-	31	-	31
10	Farmer day	Palasar Selavi 23/12/12	1	20	31	51	-	-	-	-	-	-	20	31	51



S. N.	Nature of Extension Activity	Purpose/Topic and date	No. of activities	Participants											
				Farmers & Farm women			SC/ST			Extension officers			Total		
				M	F	T	M	F	T	M	F	T	M	F	T
11	Celebration of ICAR establishment day	Kamliwada 16/7/12	1	22	-	22	1	-	1	-	-	-	23	-	23
12	Lecture delivered to other programme	BRS Stu. 31/8/12	1	-	23	23	-	12	12	-	-	-	35	-	35
		BRS Stu. 12/9/12	1	-	30	30	-	7	7	-	-	-	37	-	37
		BRS Stu. 10/11/12	1	12	8	20	5	2	7	-	-	-	17	10	27
		BRS Stu. 16/1/13 to 31/1/13	16	-	39	39	-	23	23	-	-	-	-	62	62
		BRS Stu. 4/2/13	1	9	12	21	5	7	12	-	-	-	14	19	33
13	Radio talk	17/12/12	1												

## PRODUCTION AND SUPPLY OF QUALITY SEED AND PLANTING MATERIAL

### PLANTING MATERIALS

Sr.No.	Crop	Variety	Quantity (no.)	Value (Rs.)	Provided to No. of farmer
FRUITS	Lime	Kagzi lime	703	10545	38
SPICES	-	-	-	-	-
VEGETABLES	-	-	-	-	-
FOREST SPECIES	-	-	-	-	-
ORNAMENTAL CROPS	-	-	240	2670	53
OTHERS	Tobacco	GCT-4	210500	21050	39
	Vermi compost	-	1450kg	4350	4

**SUMMARY**

<b>Sr.No.</b>	<b>Crop</b>	<b>Quantity (no.)</b>	<b>Value (Rs.)</b>	<b>Provided to No. of farmer</b>
1.	FRUITS	703	10545	38
2.	SPICES	-	-	-
3.	VEGETABLES	-	-	-
4.	FOREST SPECIES	-	-	-
5.	ORNAMENTAL CROPS	240	2670	53
6.	PLANTATION CROPS	-	-	-
7.	OTHERS	210500	21050	39
8.	Vermi Compost	1450 kg	4350	04

## PUBLICATIONS

Item	Title	Authors name	Name of Journal	Number
Research papers	Effect of paddy straw and paper mill effluent on the physico chemical properties of wheat rhizosphere	S.K.Sharma Y.K.Sharma Shayamdas	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
	Effect of paddy straw and paper mill effluent on physico chemical properties of soil	S.K.Sharma Y.K.Sharma Shayamdas	Journal of Green agricultural science, Vol.1, Issue 1	
	Weed management Study in gram (cicer aritinum L) + mustard (Brassica Juncea) intercropping system in north western Rajasthan	S.R.Dhikwal S.M.Kumawat Shayam Das Abdul Amin	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
	Response of different methods of potassium application on growth and yield of barley (Hordeum vulgare L.) in western Rajasthan		International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	

Item	Title	Authors name	Name of Journal	Number
	Response of phosphoru on growth yield and quality of chickpea (Cicer arietinum L.) in North western Rajasthan	Shayam Das B.L.Paseek S.R. Dhikwal Abdul Amin	International conference on Education in the prospective of advances in "natural resource management in agriculture" (NaRMA-IV) 19-21 Dec.2012	
News letters	-	-	-	-
Technical bulletins	-	-	-	-
Popular articles	Jaivik Kheti : Tikau Kheti ka ek aavshyak aadhar	Dr.Sushil Kumar Sharma	Kisan International July – Dec.12	
Books	Jaivik Kheti evam Vermi composting	Dr.S.K.Sharma Dr. R.K.Gangwar		500
	Samanya Krishi Vigyan	Dr.S.K.Sharma Dr. R.K.Gangwar		500
Extension literature	<ol style="list-style-type: none"> <li>1. Scientific cultivation of Castor</li> <li>2. Scientific cultivation of Cotton</li> <li>3. Scientific cultivation of Potato</li> <li>4. Scientific cultivation of Wheat</li> <li>5. Scientific cultivation of Cumin</li> <li>6. Scientific cultivation of Chiku &amp; mango</li> <li>7. Scientific cultivation of Lime</li> <li>8. Preparation &amp; preservation of lemon products</li> <li>9. Preparation &amp; preservation of Aonla products</li> <li>10. Preparation &amp; preservation of Mango products</li> </ol>			500 each

**SOIL AND WATER TESTING (Year : 2012-13)**

<b>Details</b>	<b>No.of Samples</b>	<b>No.of Farmers</b>	<b>No.of villages</b>	<b>Amount realized</b>
Soil Samples				
Water Samples				
Plant Samples				
<b>Total</b>				

**RAINWATER HARVESTING**----- **NIL**-----



# ANNUAL ACTION PLAN



1<sup>st</sup> APRIL-2013 TO 31<sup>ST</sup> MARCH-2014

**SUBMITTED TO**  
**ZONAL PROJECT DIRECTORATE**  
**ZONE-VI, JODHPUR**



**SUBMITTED BY**  
**KRISHI VIGYAN KENDRA**  
**SAMODA-GANWADA**  
**TA.: SIDHPUR, DIST.:PATAN (N.G.)**

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# ANNUAL ACTION PLAN



**GUJARAT STATE**



**PATAN DISTRICT**

**(1<sup>ST</sup> APRIL-2013 TO 31<sup>ST</sup> MARCH-2014)**

## MAJOR THRUST AREA

**Thrust area identified through PRA or any other method.**

- 1. Average productivity of major crops (Castor, Mustard, Cotton, Cumin, Wheat & Green-gram, Carrot) is low**

**It can be increased by**

- ✓ Adoption of improved and high yielding variety.
- ✓ Adoption of Plant Protection measures and I.P.M.
- ✓ Use of organic manures and chemical fertilizer management.

- 2. In adequate irrigation water**

**It can be solved by**

- ✓ Adoption of drip irrigation.
- ✓ Irrigation in alternate furrow method.
- ✓ Adoption of less water required crops

- 3. Reclamation of Alkaline soil.**

- ✓ It can be solved by using soil amendment.

- 4. Area under fruits and vegetable crops is very low.**

**It can be solved by**

- ✓ Introduction of fruits and vegetables crops.



**5. Unavailability of Agril. labour****It can be solved by**

- ✓ Farm mechanization

**6. Post harvest technology in fruit and vegetable crops is highly required.**

- ✓ Training regarding, Grading, packing, Transportation and marketing techniques.

**7. Average milk production per animal is low****It can be increased by**

- ✓ Fodder management
- ✓ Selection of breed.
- ✓ Health care management

**8. Requirement of value addition of fruits and vegetable.**

- ✓ Preparation & Preservation of pickles, Jam, Jelly, Squash, Candy.

**9. Low income of landless agril. labour**

- ✓ Income generation activities through agro. base gruh udyog.
- ✓ Women empowerment through income generation activities.

**10. Scope & importance of solar energy- Solar Coker**

**QUARTER WISE SUMMARY OF ANNUAL ACTION PLAN OF KVK - PATAN FOR THE  
YEAR: 2013-14  
(1<sup>ST</sup> April.-2013 TO 31<sup>ST</sup> March. -2014)**

**1. TRAINING PROGRAMME: -**

S. N.	Subject	ON CAMPUS															
		PF				FW				RY				EF			
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
1.	Crop Production	3	3	2	2	-	-	-	-	1	-	-	1	1	-	-	-
2.	Horticulture	3	3	-	-	-	-	-	-	1	-	1	-	-	-	-	-
3.	Plant Protection	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	1
4.	Animal Science	-	-	-	-	1	2	1	1	-	-	-	-	-	1	-	-
5.	Home Science	-	-	-	-	2	3	3	3	1	-	1	-	1	-	-	-
6.	Agril. Engg.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.	Multi. Discipline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
8.	Plant Breeding	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.	Rural Craft	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total :-</b>	<b>9</b>	<b>9</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>-</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>

S. N.	Subject	Sponsored				On Campus				Off Campus				Grand Total
		I	II	III	IV	I	II	III	IV	I	II	III	IV	
1.	Crop Production	1	-	-	-	5	3	2	3	3	3	3	4	27
2.	Horticulture	-	-	1	-	4	3	1	-	3	3	3	5	23
3.	Plant Protection	1	-	-	-	3	3	3	3	3	3	3	3	25
4.	Animal Science	-	-	-	-	1	3	1	1	1	-	1	1	09
5.	Home Science	1	1	-	-	3	3	4	3	3	3	3	3	27
6.	Agril. Engg.	-	-	-	-	-	-	-	-	-	-	-	-	-
7.	Multi. Discipline	-	-	-	1	-	-	1	-	-	-	-	-	2
8.	Plant Breeding	-	-	-	-	-	-	-	-	-	-	-	-	-
9.	Rural Craft	-	-	-	-	-	-	-	-	-	-	-	-	-
	<b>Total :-</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>16</b>	<b>15</b>	<b>12</b>	<b>10</b>	<b>13</b>	<b>12</b>	<b>13</b>	<b>16</b>	<b>113</b>

PF : Practicing Farmer  
FW: Farm Women

RY : Rural Youth  
EF : Extension Functionaries

## 2. DEMONSTRATION :-

Sr. No.	Type of Demonstration	Crop	Farming situation	No. of Demonstration	Area (ha.)
1.	F.L.D.				
	I. Kharif				
	1. Cotton- Crop production	Cotton	Irrigated	30	15
	2. Castor- Crop production	Castor	Irrigated	30	15
	3. Green-gram-Crop production	Green-gram	Irrigated	30	15
	II. Rabi				
	1. Fennel- Crop production	Fennel	Irrigated	30	15
	2. Cumin- Crop production	Cumin	Irrigated	30	15
	3. Wheat- Crop production	Wheat	Irrigated	30	15
	4. Cauliflower- horticulture	Cauliflower	Irrigated	10	2.5
	5. Cabage-Horticulture	Cabage	Irrigated	10	2.5
	III. Summer				
	1, Bajra - Crop production	Bajra	Irrigated	10	05

## 3. ON FARM TESTING :-

- 3.1. Low income from Cotton crop
- 3.2. Low yield of Cumin
- 3.3. Low yield of Cumin
- 3.4. Low yield of Wheat

**4. EXTENSION ACTIVITIES :-**

<b>Sr.No.</b>	<b>Activity</b>	<b>Total</b>
1.	Field day	08
2.	Method demonstration	04
3.	Ex-trainee meeting	02
4.	Agri. Exhibition	02
5.	Self help group	02
6.	Farm science club	02
7.	Night meeting	<b>01</b>
8.	Group meeting	<b>02</b>
9.	World food day	01
10.	Women in Agril. day	01
11.	Celebration of international women day	01
12.	Farmer day	01
13.	Celebration of establishment of ICAR day	01
14.	Lectures to be delivered in other programme	04
15.	Exposure visit	01
16.	Scientist farmer interaction	01
17.	Diagnostic service -Farmers visit to KVK -Scientist visit to farmers field	-
18.	Soil and water sample analysis	150
19.	Publication -Popular article to be published -Success story -Case study	10 02 02
20.	Communication media -New paper coverage -Subscription for agril magazine	05 150
21.	Distribution of seed/seedling on cost basis	

**5. PROPOSED PLAN OF WORK FOR INSTRUCTIONAL FARM :-**

5.1.	Crop Production	-	9.0 ha.
5.2.	Horticulture	-	5.0 ha.
5.3	Demonstration	-	2.0 ha.
5.4	Land under development	-	3.0 ha.
5.5	Land under Infrastructure facility	-	1.0 ha.

**6. INFRASTRUCTURE DEVELOPMENT :-**

Details is given in report

**7. S.A.C. MEETING PROPOSED :-**

March-2014

## 1. VOCATIONAL TRAINING PROGRAMME :-

### 1.1. On-Campus Programme :-

Sr. No.	Subject	Title of Training	Date	Duration	No.of Partici-pants	Type of partici-pants
<b>I- QUARTER</b>						
1.	Crop Production	Importance of summer ploughing and green manuring	April-13	03	20	Farmer
		Advances in Kharif pulses production technology	May-13	03	20	Farmer
		Integrated nutrient management in Castor and cotton	June-13	03	20	Farmer
		Seed production technology of green gram	June-13	07	15	Rural youth
2.	Horticulture	Rejuvenization of old orchards like lime & pomogranate	April-13	03	20	Farmer
		Training & pruning in pomegranate & lime	May-13	03	20	Farmers
		Nursery raising of vegetable crops	May-13	07	15	Rural youth
		Scientific cultivation of custard apple	June-13	03	20	Farmers
3.	Plant Protection	Identification of sucking pest & their management	April-13	03	20	Farmer
		Identification of Bio-agent & their role in insect pest management	May-13	03	20	Farmer
		Precautionary measures to control the sucking pest & parawilt in BT Cotton.	June-13	03	20	Farmer
4.	Animal Science	Importance of vaccination in Livestock management	May-13	03	20	Farm women
5.	Home Science	Alternate source of energy solar cooker , Bio-gas and smokeless chulha	April-13	03	20	Farm women
		Preparation and preservation of mango products	May-13	03	20	Farm women
		Tailoring course in women and children garments	June-13	15	15	Rural youth

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>II- QUARTER</b>						
1.	Crop Production	Scientific cultivation of Castor	July-13	03	20	Farmer
		Irrigation scheduling in Kharif crops	Aug.-13	03	20	Farmer
		Importance of soil and water analysis in crop production	Sep.-13	03	20	Farmer
2.	Horticulture	Nursery raising of chilli crops	July-13	03	15	Farmer
		Scientific cultivation of tomato	Aug.-13	03	20	Farmer
		Protective cultivation of capsicum green	Sept.-13	03	20	Farmer
3.	Plant Protection	Precautionary measures to control the pest & diseases in Castor	July-13	03	20	Farmer
		Control measures of pest & diseases of vegetables	Aug.13	03	20	Farmer
		Plant protection measures of pest & diseases of citrus	Sept.-13	03	20	Farmer
4.	Animal Science	Importance of green and dry fodder and mineral mixture for milch animal	July-13	03	20	Farm woman
		Importance of colostrums feeding in calf raising	Aug.-13	03	20	Farm women
5.	Home Science	Importance and techniques of kitchen gardening	July-13	03	20	Farm women
		Awareness regarding kitchen appliances (Juicer, Blenderm Chilli and Onion cutter etc.)	Aug.-13	03	20	Farm women
		Value addition in soya products	Sept.-13	03	20	Farm women

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>III- QUARTER</b>						
1.	Crop Production	Advances in chickpea production technology	Oct.-13	03	20	Farmer
		Scientific cultivation of Tobacco	Nov.-13	03	20	Farmer
2.	Horticulture	Plant Propagation tech. in fruit crops	Dec.-13	05	15	Rural Youth
3.	Plant Protection	Plant protection measures of insect pest in Mustard	Oct.-13	03	20	Farmer
		Precautionary measures to control the termite in wheat	Nov.-13	03	20	Farmer
		Identification of lady bird beetle & their role to control the aphids in mustard & Lucerne	Dec.-13	03	20	Farmer
4.	Animal Science	Importance of vaccination in livestock management	Dec.-12	03	20	Farm women
5.	Home Science	Preparation of decorative items from waste materials	Oct.-13	03	20	Farm women
		Income generation activities for empowerment of rural women	Nov.-13	03	20	Farm women
		Preparation and preservation of Aonla products	Dec.-13	03	15	Farm women



Sr. No.	Subject	Title of Training	Date	Duration	No. of Participants	Type of participants
<b>IV- QUARTER</b>						
1.	Crop Production	Efficient use of water for higher Rabi crop production	Jan.-14	03	20	Farmer
		Scientific cultivation of summer bajra	Feb.-14	03	20	Farmer
		Vermi compost production	March-14	07	15	Rural youth
2.	Horticulture	-	-	-	-	-
3.	Plant Protection	Importance & method of preparation & application of Bordeaux mixture & Bordeaux paste.	Feb.-14	03	20	Farmer
		Importance & method of seed treatment by pesticides for pest & disease management	Mar.-14	03	20	Farmer
4.	Animal Science	Importance of artificial insemination in live stock	Jan.-14	03	25	Farm women
5.	Home Science	Preparation of value added product from fruits and vegetables.	Jan.-14	02	20	Farm women
		Designing and development of low/minimum cost diet	Feb.-14	03	20	Farm women
		Income generation activities for empowerment of rural women	Mar.-14	03	15	Farm women

## 1.2. Off Campus Programme :-

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>I- QUARTER</b>						
1.	Crop Production	Reclamation of problematic soil	April-13	03	20	Farmer
		Scientific Cultivation of B.T. cotton	May-13	03	20	Farmer
		Importance and efficient use of biofertilizer and organic manure in Kharif crops.	June-13	03	20	Farmer
2.	Horticulture	Scientific cultivation of papaya	April-13	01	20	Farmer
		Micro irrigation systems in orchards of fruits crop	May-13	01	20	Farmer
		Production technologies of guava	June-13	01	20	Farmer
3.	Plant Protection	Plant Protection measures of insect pest in summer vegetables	April-13	01	20	Farmer
		Safely & effective use of pesticide in insect pest management	May-13	01	20	Farmer
		Plant Protection measures of insect pest in pulse crops i,e Green-gram & Black-gram	June-13	01	20	Farmer
4.	Animal Science	Importance of fodder management & mineral mixture for milch animals	June-13	01	20	Farm women
5.	Home Science	Storage of food grains	April-13	01	20	Farm women
		Minimization of nutrient loss while preparation of pulses food	May-13	01	20	Farm women
		Preparation and preservation of mango pickles	June-13	01	20	Farm women

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>II- QUARTER</b>						
1.	Crop Production	Integrated weed management in cotton.	July-13	03	20	Farmer
		Importance of organic farming in present scenario.	Aug.-13	03	20	Farmer
		Scientific cultivation of fennel.	Sept.-13	03	20	Farmer
2.	Horticulture	Scientific cultivation of bottle gourd and sponge gourd	July-13	01	20	Farmer
		Scientific cultivation of chilli.	Aug.-13	01	20	Farmer
		Improved package of practices of cauliflower	Sept.-13	01	20	Farmer
3.	Plant Protection	Plant Protection measures of insect pest in chilli & tomato	July-13	01	20	Farmer
		Integrated pest & disease management in Castor	Aug.-13	01	20	Farmer
		Control measures of pest & disease of fennel	Sept.-13	01	20	Farmer
4.	Home Science	Preparation and feeding of poshak in children	July-13	01	20	Farm women
		Storage of food grains	Aug.-13	01	20	Farm women
		House hold food security by kitchen gardening and nutritional gardening	Sept.-13	01	20	Farm women

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>III- QUARTER</b>						
1.	Crop Production	Scientific cultivation of mustard	Oct.-13	01	20	Farmer
		Scientific cultivation of Wheat Integrated weed management in wheat	Nov.-13	01	20	Farmer
		Scientific cultivation of mustard	Dec.-13	01	20	Farmer
2.	Horticulture	Production of low income and high value crops like cumin	Oct.-13	01	20	Farmer
		Scientific cultivation of potato	Nov.13	01	20	Farmer
		Scientific cultivation of muskmelon	Dec.13	01	20	Farmer
3.	Plant Protection	Precautionary measures to control the diseases in Potato	Oct.-13	01	20	Farmer
		Control measures of disease in Cumin by bio agent	Nov.-13	01	20	Farmer
		Control measures of sugary disease in fennel	Dec.-13	01	20	Farmer
4.	Animal Science	Importance of vaccination in livestock management	Oct.-12	01	20	Farm women
5.	Home Science	Importance of self help group	Oct.-13	01	20	Farm women
		Dehydration of green leafy vegetable like palak methi	Nov.13	01	20	Farm women
		Balanced diet for pregnant women	Dec.-13	01	20	Farm women

Sr. No.	Subject	Title of Training	Date	Duration	No.of Participants	Type of participants
<b>IV- QUARTER</b>						
1.	Crop Production	Scientific cultivation of Rabi fodder crop , Lucerne and oat	Jan-14	01	20	Farmer
		Role of micronutrient in Crop production specially in reference to Zn and S	Feb.-14	01	20	Farmer
		Scientific cultivation of fodder bajra and sorghum	Mar.-14	01	20	Farmer
		Production and use of organic manure.	Mar.-14	01	20	Farmer
2.	Horticulture	Scientific cultivation of water melon	Jan.-14	01	20	Farmer
		Production technology of okra	Jan.-14	01	20	Farmer
		Advances production technologies of cucumber	Feb.-14	01	20	Farmer
		Nursery raising of papaya	Feb.-14	01	20	Farmer
		Production technologies of cowpea	Mar.14	01	20	Farmer
3.	Plant Protection	Plant Protection measures of potato	Jan.-14	01	20	Farmer
		Plant protection measures of sucking pest in vegetables	Feb-14	01	20	Farmer
		Integrated pest & disease management for field crops	March-14	01	20	Farmer
4.	Animal Science	Importance of fodder management and mineral mixture for milch animals	Feb.-14	01	25	Farm women
5.	Home Science	Designing and development of low/minimum cost diet	Jan.-14	01	20	Farm women
		Designing and development for high nutrient efficiency diet	Feb.-14	01	20	Farm women
		Use of solar cooker	Mar.-14	01	20	Farm women

### 1.3. Sponsored Training Programme :-

Sr. No.	Title of Training	Month	Duration	No. of participant	Type of participant	Sponsoring Agency
1.	Water use efficiency	May-13	01	25	Farmer & Farm women	IWMP Patan
2.	Production technology of Cumin	Oct.-13	01	25	Farmer & Farm women	IWMP Patan
3.	Fruit & vegetable preservation	April-13	01	25	Farm women	FTC Patan
4.	Fruit & vegetable preservation	Aug.-13	01	25	Farm women	ATMA Patan
5.	Integrated pest & disease management	June-13	01	25	Farmers	FTC
6.	Awareness regarding various scheme of NABARD for agril. Development	Feb.14	01	25	Farmers	NABARD Patan

### 1.4. In-service Training Programme :-

Subject	Title of Training	Month	Duration (Days)	No,of participant	Type of participant
Agriculture	Awareness regarding latest know how about Agriculture	June-13	02	20	VLW & Ext. Officer
	Training need assessment	Dec.-13	02	20	WDT members
	Safely & effective use of pesticide	Feb-14	01	20	Agro input dealer
Home Science	Formation & management of SHG	May-13	02	20	WDT member
Animalscience	Importance of artificial insemination in live stock production	July-13	01	20	Dairy member

## 2. DEMONSTRATION

### Front Line Demonstration

Title of Demonstration	Objective	Variety	Farming situation	Area (ha.)	No. of farmers	Existing Technology	Specific technology intervention	Critical Inputs	Remarks
I. Kharif									
Cotton	Integrated nutrient management	BT. Cotton	Irrigated	15	30	No use of ZnSO <sub>4</sub>	Application of ZnSO <sub>4</sub>	ZnSO <sub>4</sub>	Kharif
Castor	To introduce wilt and root rot resistant and high yielding variety	GCH-7	Irrigated	15	30	GCH-4 & GCH-2 variety  No use of Bio-fertilizer  No use of fungicide  Not giving ferti. As per recommended dose	Wilt resistant & high yielding variety  Use of bio-fertilizer  Seed treatment with fungicide  Recommended dose of fertilizer	Seed of GCH-7 variety  Azatobactor & PSB culture  Carbendenzim & Trichoderma  Urea, DAP, A.S.	Kharif
Green-gram	To introduce high yielding variety	GM-4	Rainfed	15	30	Local variety K-851  No use of bio-fertilizer	Improved variety  Seed treatment with bio-fertilizer	Seed of GM-4 variety  Rhizobium culture & PSB culture	Kharif
II. Rabi									
Fennel	To introduce & popularize high yielding variety	GF-12	Irrigated	15	30	Local variety	Improved variety	Seed of GF-12 variety	Rabi
Cumin	To introduce & popularize high yielding & wilt resistance variety	GC-4	Irrigated	15	30	Local variety	Improved variety	Seed of GC-4 variety	Rabi
Wheat	To introduce & popularize high yielding variety	GW-366	Irrigated	15	30	GW-496 variety Local variety	Improved variety	Seed of GW-366 variety	Rabi

Title of Demonstration	Objective	Variety	Farming situation	Area (ha.)	No. of farmers	Existing Technology	Specific technology intervention	Critical Inputs	Remarks
Cauliflower	To introduce high yielding & early variety	Improved variety	Irrigated	2.5	10	Use of local variety	Early improved variety	Seed	Rabi
Cabbage	To introduce high yielding variety	Pusa drumhead	Irrigated	2.5	10	Local	Improved variety	Seed	Rabi
III. Summer									
Bajara	To introduce & popularize high yielding variety	GHB-558	Irrigated	15	30	Nandi-5	Improved variety	Seed	Summer



### 3. ON FARM TESTING :-

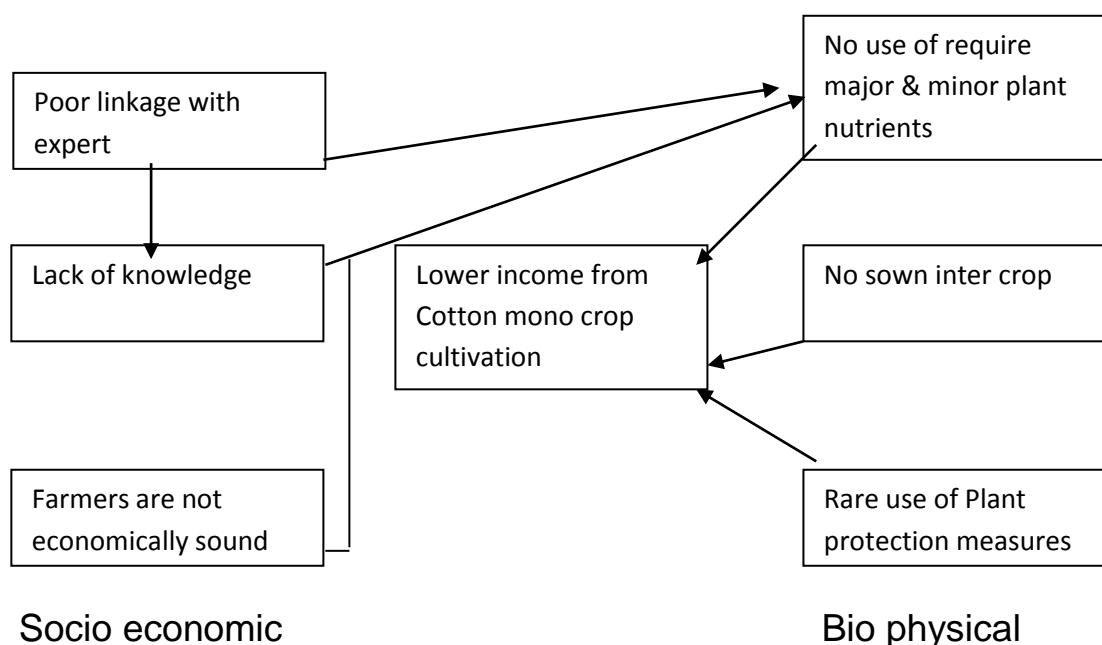
#### (I) Title : Low income from Cotton Crop

Cotton become a main crop so far as cultivation area of the cash crops of the North Gujarat. As per the crop canopy of the BT. Cotton, sowing distance of the crop is 150cm. between two rows. In the part of this practices inter cropping of Castor in Cotton is possible. Inter crop of Castor give additional income.

#### Reason :-

- Not sown inter crop in Cotton.
- Rare use of plant protection measures.
- Insufficient use of major & minor plant nutrients
- 

#### PROBLEM CAUSE DIA-GRAM



#### Intervening point :

Inter cropping of Castor in BT.Cotton for additional income

**Treatments :**

- T1 : Farmers practices  
 - No inter crop  
 - Sowing distance 120 x 60 cm.
- T2 : SAU recommendation  
 - No inter crop  
 - Sowing distance 120 x 45 cms.
- T3: Refined/assessed technology  
 - Inter cropping with Castor  
 - Sowing distance 150 x 60 cms.

**Note :** Sowing time : Cotton : 1<sup>st</sup> fortnight of June

Castor : Last week of August

**(II) Title : Low yield of Cumin**

Cumin is the main spice crop of the North Gujarat area. Productivity of the crop decrease day by day to the no scope of crop rotation in Cumin growing area.

**Reason :-**

- Rare use of Plant protection measures
- Incidence of wilt disease
- No crop rotation

**Intervening point :**

Incidence of wilt disease

**Treatments :**

- T1 : Farmers practices  
 - No seed treatment
- T2 : SAU recommendation  
 - Seed treatment with Carbendazim 50wp @ 3g./1 kg seed
- T3: Assessed / refined technology  
 Soil application of Trichoderma viridae @ 3kg/ha. & seed treatment by Trichoderma spp @ 20gm./1kg. seed.

**(III) Title : Low yield of Cumin (Horti.)**

1. **Title** : **Low yield of Cumin**
2. **Problem diagnose/** : **Poor germination of the crop**  
**Defined**
3. **Details of technology selected for assessment / Refinement & source of Technology**

<b>Category</b>	<b>Source of technology</b>	<b>Technology details</b>
T1 : Farmer practices	Farmers	-No seed treatment Use of local variety
T2 : SAU's Recommendation	State Agril. University	Seed treatment by Azospirillum and PSB culture
T3 : Refine technology	KVK	Use of plant humic acid for seed treatment @ 5 ml./ 1kg seed & spraying the crop @ 0.5 ml./1 lit water 30, 45 & 60 DAS

4. **Production system** : **Integrated Farming systems**
5. **Thematic area** : **Integrated disease management**

**(IV) Title :- Low yield of Wheat (Crop Production)**

**Title :- Low yield of wheat**

**Reason :-**

- Lack of knowledge
- Less no. of tillers due to higher plant population.
- Rare use of plant protection measures
- Imbalance use of plant nutrients.

**Intervention point : Seed rate****Treatment :-**

T1 = Farmers practices

Use of GW-496 variety, seed rate 160kg/ha

T2 = SAU recommendation

Recommended practices, use of GW-496 variety, seed rate 125 kg/ha.

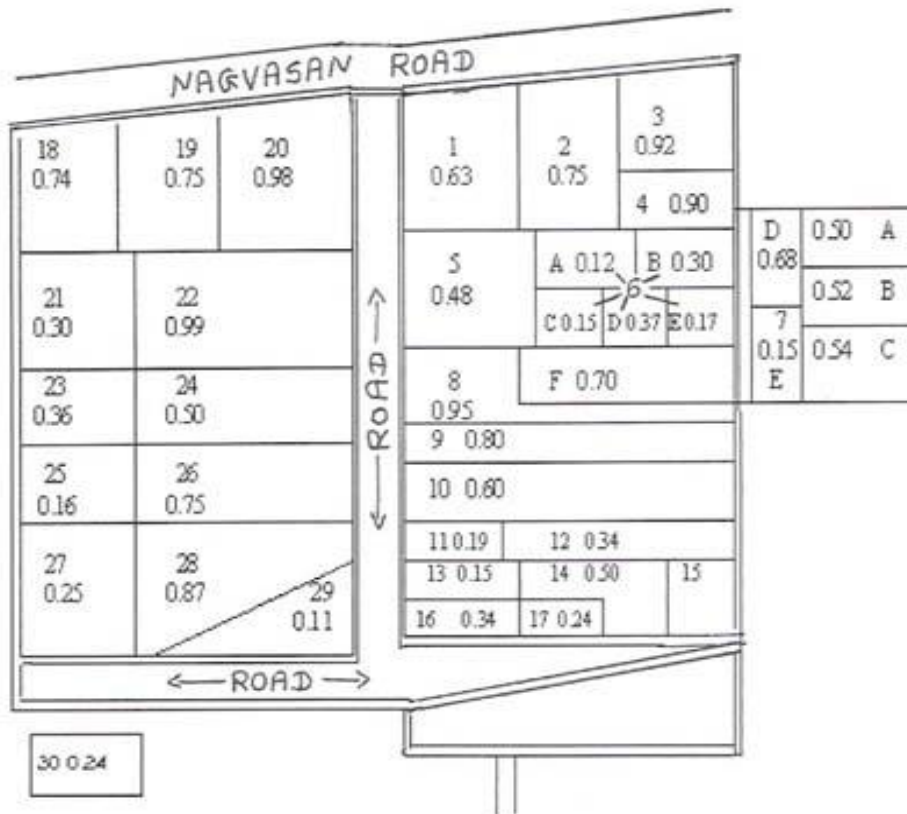
T3 = Refined technology

Recommended practices, use of GW-496 variety, seed rate 140 kg/ha.

**4. EXTENSION ACTIVITY :**

Sr. No.	Activity	I April-June	II July-Sept	III Oct.-Dec	IV Jan.- Mar.	Total
1.	Field day	01	01	01	05	08
2.	Method demonstration	01	01	01	01	04
3.	Ex-trainee meeting	01	-	-	01	02
4.	Agri. Exhibition	-	-	01	01	02
5.	Self Help Group	-	01	01	-	02
6.	Farm Science club	01	-	01	-	02
7.	Night meeting	-	-	01	-	01
8.	Group meeting	01	01	01	01	04
9.	World food day	-	-	01	-	01
10.	Women in Agri. Day	-	-	01	-	01
11.	Celebration of international women	-	-	-	01	01
12.	Farmer day	-	-	01	-	01
13.	Celebration establishment of ICAR day	-	01	-	-	01
14.	Lectures to be delivered in other programme	02	02	02	02	08
15.	Exposure visit	-	-	-	01	01
16.	Scientist farmer interaction	01	-	-	-	01
17.	Diagnostic service ➤ Farmers visit to KVK ➤ Scientist visit to farmers field	-	-	-	-	-
18	Soil and water sample analysis	50	50	50	50	200
19	Publication ➤ Popular article to be published ➤ Success story ➤ Case study	02 - -	02 01 -	02 - 01	02 - -	08 01 01
20.	Communication media ➤ New paper coverage ➤ Subscription for agril magazine	01 50	01 50	01 50	01 50	04 200
21	Distribution of seed/seedling on cast basis Seed- Wheat Seedling- Lemon Tobacco Fennel Chilli	- - - - -	- 20000 - 150000 200000	1500kg - 150000 - -	- - - - -	1500 20000 150000 150000 200000

### 5. PROPOSED PLAN OF WORK FOR INSTRUCTIONAL FARM :



Plot No.	Area (ha.)	Proposed crop		
		Kharif	Rabi	Summer
1	0.63	Green-gram	Mustard	Bajara
2	0.73	Guar	Fennel	
3	0.92	Castor	Continue	
4	0.90	Castor	Continue	
5	0.48	Lemon		
6 A	0.12			
B	0.30		Cumin	
C	0.15			
D	0.37			
E	0.17			
F	0.70			
7 A	0.50	Guar		
B	0.52	Guar		
C	0.54	Guar		
D	0.68	Guar		
E	0.15	Guar		
8	0.95	Mango		
9	0.80	Lemon		
10	0.60	Chiku		

Plot No.	Area (ha.)	Proposed crop		
		Kharif	Rabi	Summer
11	0.18	Lemon		
12	0.34	Lemon		
13	0.15	Lemon		
14	0.50	Lemon		
15	0.29	Lemon		
16	0.34	Tobacco seedling	Wheat	
17	0.24	Lemon		
18	0.74		Mustard	
19	0.75	Cotton		
20	0.98	Cotton		
21	0.30		Tobacco	Bajara
22	0.99	Cotton		
23	0.36			
24	0.50		Tobacco	Bajara
25	0.15	Guava		
26	0.75	Mango		
27	0.25	Mango		
28	0.87		Wheat	
29	0.11			
30	0.24		Wheat	

## 6. INFRASTRUCTURE DEVELOPMENT :

Sr.No.	Particulars	Existing	Proposed during the year 2012-13	Approximate cost
1.	Building 1. Office Building 2. Hostel 3. Residential Quarter	Completed Completed Completed	- - -	- - -
2.	Demonstration Unit 1. Nursery Unit 2. Vermi compost Unit 3. Net House	Completed Completed Completed	- - -	- - -
3.	Farm Development 1. Tube well 2. Threshing yard 3. Fencing 4. Electrification	Completed Completed Completed Completed	- - - -	- - - -
4.	Any other 1. Tractor	-	Proposed for New Tractor	5.0 lakhs

