

# **ANNUAL PROGRESS REPORT**

**(APRIL-2015 TO MARCH-2016)**

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



**SUMMITTED TO  
KRISHI VIGYAN KENDRA  
SAMODA-GANWADA  
TA.SIDHPUR, DIST.PATAN**

# INDEX

SR.No.	PARTICULARS	PAGE NO.
1.	ANNUAL PROGRESS REPOR SUMMARY	03
2.	GENERAL INFORMATION ABOUT THE KVK	06
3.	DETAIL OF DISTRICT (2015-16)	12
4.	TECHNICAL ACHIEVEMENT	17

# ANNUAL REPORT

(April-2015-March-2016)

## ANNUAL PROGRESS REPORT SUMMARY

### 1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	81	1415	513	1928
Rural youths	07	57	36	93
Extension functionaries	02	18	36	54
Sponsored Training	07	370	41	411
Vocational Training	07	57	36	93
<b>Total</b>	<b>104</b>	<b>1917</b>	<b>662</b>	<b>2579</b>

### 2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	180	45	-
Pulses	120	30	-
Cereals	66	24	-
Vegetables	-	-	-
Other crops	255	70	-
Hybrid crops	45	15	-
<b>Total</b>	<b>666</b>	<b>184</b>	<b>-</b>
Livestock & Fisheries	-	-	-
Other enterprises	-	-	-
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>	<b>666</b>	<b>184</b>	<b>-</b>

### 3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
<b>Technology Assessed</b>			
Crops	04	43	43
Livestock	-	-	-
Various enterprises	01	05	05
<b>Total</b>	<b>05</b>	<b>48</b>	<b>48</b>
<b>Technology Refined</b>			
Crops	02	20	20
Livestock	-	-	-
Various enterprises	-	-	-
<b>Total</b>	<b>02</b>	<b>20</b>	<b>20</b>
<b>Grand Total</b>	<b>07</b>	<b>68</b>	<b>68</b>

#### 4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	83	1774
Other extension activities	03	353
<b>Total</b>	<b>86</b>	<b>2127</b>

#### 5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Patan	Text only	23	-	-	06	-	01	30
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>06</b>	<b>-</b>	<b>01</b>	<b>30</b>
	<b>Total farmers Benefitted</b>	<b>32804</b>	<b>-</b>	<b>-</b>	<b>8347</b>	<b>-</b>	<b>1668</b>	<b>42819</b>

#### 6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	21	69060
Planting material (No.)	23130	38594
Bio-Products (kg)	4650	18600
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

#### 7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	-	-
Water	-	-
Plant	-	-
<b>Total</b>	<b>-</b>	<b>-</b>

#### 8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	07
2	Conferences	01
3	Meetings	01

4	Trainings for KVK officials	06
5	Visits of KVK officials	05
6	Book published	01
7	Training Manual	-
8	Book chapters	-
9	Research papers	-
10	Lead papers	-
11	Seminar papers	-
12	Extension folder	04
13	Proceedings	-
14	Award & recognition	-
15	On going research projects	-

# DETAIL REPORT OF APR-2015-16

## 1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra Saraswati Gram Vidhyapith Samoda-Ganwada Ta.Sidhpur, Di. Patan Gujarat, Pin. 384 151	02767 285528	02767 285528	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 Gujarat, Pin. 384 151 (N.G.)	02767 285199	02767 285528	kvksamoda@yahoo.com

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

Name	Telephone / Contact		
	Residence	Mobile	E-mail
Shri H.P.Patel I/C Senior Scientist and Head Krishi Vigyan Kendra Samoda-Ganwada Ta.Sidhpur, Di.Patan Gujarat Pincode-384151	9426521484	9426521484	kvksamoda@yahoo.com

### 1.4. Year of sanction: Year - 1993

**1.5. Staff Position (as on 30<sup>th</sup> March, 2016)**

Sr. No	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (RS.)	Present Basic (Rs.)	Date of joining	Permanent / Temporary	Category (SC/ST/OBC/ Others)	Mobile No.	Age	E-mail
1.	Programme Coordinator	-	-	-	-	-	-	-	-			
2.	Subject Matter Specialist	Shri H.P.Patel	S.M.S. I./C. P.C.	Extension Education	15600-39100	34860/-	8/5/1993	Permanent	General	9426521484	51	kvksamoda@yahoo.com
3.	Subject Matter Specialist	Shri G.A.Patel	S.M.S.	Plant Protection	15600-39100	34860/-	6/5/1993	Permanent	General	9879924655	51	kvksamoda@yahoo.com
4.	Subject Matter Specialist	Smt. H.B.Patel	S.M.S.	Home Science	15600-39100	29370/-	19/8/2002	Permanent	General	9909497009	39	hinapatelsci@gmail.com
5.	Subject Matter Specialist	Shri S.S. Darji	S.M.S.	Horticulture	15600-39100	22950/-	2/4/2012	Permanent	OBC	9909941995	34	sachinkumar.darji@gmail.com
6.	Subject Matter Specialist	Shri R.P.Chaudhary	S.M.S.	Agronomy	15600-39100	21000/-	16/4/2015	Permanent	OBC	9737391689	26	rp.agri14@gmail.com
7.	Programme Assistant	Shri D.N.Patel	Programme Assistant	-	9300-34800	23820/-	22/2/1996	Permanent	General	9825703608	45	
8.	Programme Assistant	Smt. J.N.Patel	Programme Assistant	-	9300-34800	23370/-	27/7/1996	Permanent	General	9909847367	43	
9.	Computer Programmer	Shri D.R.Patel	Computer Programmer	-	9300-34800	21800/-	01/09/2002	Permanent	General	9979161440	44	
10	Accountant/O. S.	Shri N.B.Patel	Accountant/O. S.	-	9300-34800	24960/-	25/1/1996	Permanent	General	9714325839	51	
11	Steno/ Jr.Clerk	Shri J.K.Patel	Steno/ Jr.Clerk	-	5200-20200	11220/-	01/09/2002	Permanent	General	9909301273	42	
12	Driver	Shri R.A.Patel	Driver	-	5200-20200	9370/-	14/8/2010	Permanent	General	9727016216	39	
13	Supporting Staff	Shri R.H.Desai	Supporting Staff	-	5200-20200	10610/-	14/5/1993	Permanent	OBC	9879536469	50	
14	Supporting Staff	Shri R.D.Thakor	I/C Tractor Driver	-	5200-20200	10610/-	25/1/1996	Permanent	OBC	9586532371	40	
15	Supporting Staff	Shri P.V.Senma	Supporting Staff	-	5200-20200	10610/-	25/1/1996	Permanent	SC	9913298630	45	

**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 (specify)	3.00
	Total :	<b>20.00</b>

**1.7. Infrastructural Development:**

**A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
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)	RKVY	2012-13	4,000	5,45,000=00	-	-	-
5	Fencing	ICAR	2001-02	-	2,99,902=00	-	-	-
6	Rain Water harvesting system	-	-	-	-	-	-	-
7	Threshing floor	ICAR	2006-07	262.89	2,68,039=00	-	-	-
8	Farm godown	ICAR	2006-07	44.89		-	-	-
9.	Implement shed	ICAR	2011-12	-	285640=00	-	-	-
10.	Other	-	-	-	-	-	-	-

**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	148021	OK
Motorcycle	2010-11	49,695=00	44083	OK



**C) Equipments & AV aids**

<b>Name of the equipment</b>	<b>Year of purchase</b>	<b>Cost (Rs.)</b>	<b>Present status</b>
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
Oven	2014	7200=00	OK
Sewing Machine	2014	8700=00	OK

**1.8. A). Details SAC meeting\* conducted in the year**

Sl. No.	Date	Name & Designation of Participants	Salient Recommendations Of SAC (Dt.04/03/2016)	Action taken of SAC Dt. 23/3/2015
1.	04/03/2016	<p>Shri M.L.Patel Director, Krishi Vigyan Kendra, Samoda, Ta.Sidhpur Di.Patan,Gujarat</p> <hr/> <p>Shri A.K.Patel Campus Director, Krishi Vigyan Kendra, Samoda, Ta.Sidhpur Di.Patan,Gujarat</p> <hr/> <p>Dr.K.A.Thakkar DEE, SDAU, S.K.Nagar</p> <hr/> <p>Dr. A.U.Amin Res. Sci. Spices Res.Station SDAU, Jagudan</p> <hr/> <p>Shri Anilkumar Nair DDM, NABARD, Patan</p> <hr/> <p>Dr. M.V.Patel Senior Scientist &amp; Head, KVK, Mehsana</p> <hr/> <p>Smt. Lataben K. Thakar CDPO, Sidhpur</p> <hr/> <p>Shri N.V.Patel Horti. Officer, Patan</p> <hr/> <p>Shri R.I.Patel F.S. (S.C.) Sidhpur GSLDC</p> <hr/> <p>Dr.B.C.Chaudhary Veterinary Officer Sidhpur</p> <hr/> <p>Shri N.P.Chaudhary Agri. Officer Sidhpur</p> <hr/> <p>Shri J.K.Patel GSFC Depo.Incharge Sidhpur</p> <hr/> <p>Shri S.R.Chaudhary BTM, ATMA, Patan</p> <hr/> <p>Dr.Sharad M. Soni SMS (AH) KVK, Kherva</p>	<ul style="list-style-type: none"> <li>➤ Fill up the vacant posts of the KVK i.e. Senior Scientist and Head and Scientist (LPM)</li> <li>➤ Increase the vocational training progress for women empowerment.</li> <li>➤ Prepared the project proposal along with routine extension activities of the KVK</li> <li>➤ Arranged the FLD's on chickpea with GJC-3 variety.</li> <li>➤ To organize the more training organic farming &amp; MIS to mitigate the water stress condition.</li> <li>➤ To organize the more number of training with a view to increase the area under horticultural crops.</li> <li>➤ In KVK nursery raise the more number of seedlings &amp; sapling of fruits vegetable crops and other ornamental as well as commercial crops.</li> <li>➤ To organize the training programme for anganwadi worker about Health &amp; hygiene of children &amp; pregnant women.</li> <li>➤ To increase the awareness about organic farming to impart the training about integrated nutrient management &amp; Integrated insect pest –disease</li> </ul>	<ul style="list-style-type: none"> <li>➤ During the reporting year two OFTs arranged for each discipline i.e. Agronomy, Plant Protection &amp; Horticulture as per the requirement of the area</li> <li>➤ Four training programme about kitchen gardening were organized for 76 farm women and 20 FLD of kitchen garden were arranged.</li> <li>➤ Strong linkages were developed with line departments with a view to impart training to the extension personnel's as well as practicing farmers &amp; farm women along with rural youth for the implementation of the sponsored programmes of the different projects.</li> <li>➤ During the reporting year, KVK have increased the convergence with ATMA for various activities like demonstration, F.F.S. , Training and Diagnostic visit</li> <li>➤ With a view to increase the area under Horticultural crops vocational training programme (two) about Nursery raising were organized for 35 beneficiary as well as FLDs of cowpea &amp; carrot were arranged for 23 beneficiaries of the district.</li> <li>➤ During the reporting year owing to vacant post of SMS (LPM) in our KVK with the help of veterinary experts of Animal Husbandry dept. Guj. State &amp; SMS (LPM) of</li> </ul>

		<p>Patel Vinubhai Naranbhai Progressive Farmer Gangalasan</p> <hr/> <p>Prajapati Sonalben Rameshchandrabhai Progressive Farm women Nagvasan</p> <hr/> <p>Thakor Taraben Progressive Farm women</p> <hr/> <p>Shri H.P.Patel I/C Senior Scientist &amp; Head Scientist (Ext.Edu.) KVK,Patan</p> <hr/> <p>Shri G.A.Patel Scientist (Pl.Protection) KVK,Patan</p> <hr/> <p>Shri S.S.Darji Scientist (Horti.) KVK,Patan</p> <hr/> <p>Smt. H.B.Patel Scientist (Home Sci.) KVK,Patan</p> <hr/> <p>Shri R.P.Chaudhary Scientist (Agronomy) KVK,Patan</p>	<p>management of major crops</p>	<p>nearer KVK, six training programmes were conducted for 154 beneficiaries of the district.</p> <ul style="list-style-type: none"> <li>➤ During thr reporting year the Dept. of Home Science has organized the In-service training programme for 34 anganwadi workers about child care &amp; nutrition</li> <li>➤ During the reporting year KVK Patan has raised the different seedling &amp; saplings viz. Lime (kagzi lime), Papaya (Madhubindu), Pomegranate (Sinduri) and other crops like Tobacco (GCT-4) and provide to the farmers on “no profit no loss” base.</li> <li>➤ During the reporting year organized the training progmmes on INM &amp; IPM for awareness of organic farming</li> </ul>
--	--	---	--------------------------------------	---



**SAC MEETING Dt.04/03/2016**

## 2. DETAILS OF DISTRICT (2015-16)

### 2.1 Major farming systems/enterprises (based on the analysis made by the KVK)

S. No	Farming system/enterprise
1.	Crop production with livestock raising (Mixed Farming)
2.	Livestock raising only
3.	Cropping system predominant in district - Mono cropping                      - Mix cropping - Inter cropping                      - Relay cropping
4.	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. - Major 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. - MajorCrops - Rainfed Cotton, Wheat, Gram, Dillseed, Mustard & Cumin.

### Description of taluka based on agro ecological situations of North Gujarat and North, west Gujarat agro climatic zone

Sr. No.	Agro ecological	Soil texture	Rainfall mm	Special features	Principal crops	Taluka cover
1.	Alluvial sandy soil with low rainfall	Loamy sand to sandy loam	500-700	Low rainfall dry climate	Castor, Mustard, Bajra, Cotton, Sorghum	Sidhpur :89.56% Patan :79.9%
2.	Saline soil with low rainfall	Sandy loam saline soil	500-700	Low rainfall, dry climate, and absence of vegetative cover	Cotton, Castor, Bajra, Pulses	Chanasma : 78.64%
3.	Salt affected soil	Medium black saline soil	400-500	Low rainfall dry climate and absence of vegetative cover	Bajra, Sorghum, Cumin, Gram, Cotton	Harij : 65.45% Sami :84.32% Radhanpur :81.54% Santalpur ; 90.98%

### 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 crops cultivated in the district

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
1	Bajra-Kharif	23000	12466	5.42
2	Bajra-Summer	10500	26911.5	25.63
3	Cotton-Desi	27500	3107.5	1.13
4	Cotton-Hybrid	34900	31375.1	8.99
5	Castor	111800	180668.8	16.16
6	Mustard	29900	45388.2	15.18
7	Wheat	40700	139112.6	34.18
8	Gram	20800	10712	5.15
9	Green-gram	8100	3685.5	4.55
10	Black-gram	16500	13398	8.12
11	Cluster bean (Seed)	13200	6626.4	5.02
12	Moth bean	7500	3660	4.88
13	Lime	827	8766	105.99
14	Pomegranate	454	5039	111.00
15	Ber	367	3861	105.20
16	Cumin	35500	31950	9.00
17	Fennel	3100	7130	23.00
18.	Dilseed	3300	4785	14.50
19.	Potato	900	19989	222.1
20.	Cluster bean (Veg.)	820	9143	111.5
21.	Cow pea	600	6012	100.2

Source: District agriculture department

## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April-15	-	37.81'	26.49'	-
May-15	-	40.96'	27.92'	-
June-15	45mm	39.57'	27.56'	-
July-15	573 mm	34.37'	27.04'	-
August-15	24 mm	31.54'	23.43'	-
September-15	20 mm	33.64'	27.25'	-
Oct.- 15	-	34.76'	25.39'	-
Nov.- 15	-	30.41'	20.97'	-
Dec.- 15	-	27.12'	14.01'	-
Jan.-16	-	25.83'	15.47'	-
Feb.-16	-	28.40'	19.34'	-
March-16	-	33.49'	24.39'	-

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	131023	1104	3.68 kg./day
<i>Indigenous</i>	7650	2520	8.40 kg./day
<b>Buffalo</b>	363514	1350	4.50 kg./day
<b>Sheep</b>			
<i>Crossbred</i>	53750	-	-
<i>Indigenous</i>	-	-	-
<b>Goats</b>	103333	-	-
<b>Pigs</b>	-	-	-
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
<b>Rabbits</b>	-	-	-
<b>Poultry</b>			
Hens	26210	7207750 egg./yr.	275 egg./bird/yr.
<i>Desi</i>	-	-	-
<i>Improved</i>	-	-	-
Ducks	-	-	-
Turkey and others	-	-	-
<b>Category</b>	<b>Area</b>	<b>Production</b>	<b>Productivity</b>
Fish	-	-	-
<i>Marine</i>	-	-	-
<i>Inland</i>	-	-	-
Prawn	-	-	-
Scampi	-	-	-
Shrimp	-	-	-

## 2.7 Details of Operational area / Villages (2015-16)

Sr. No.	Taluka	Name of the block	Name of the Village	Major crops & enterprises	Major problem identified	Identified thrust area
1.	Sidhpur	Patan	Mamvada, Gangalasan, Vagrol, Ganwada, Kalyana, Varsila, Lukhasan, Nagvasan, Sedrana, Ganeshpura, Biliya, Ramnagar, Kholwada	Cotton Green-gram Castor Fennel Mustard Cumin Wheat	<ul style="list-style-type: none"> <li>➤ Average productivity is low in major crop</li> <li>➤ Low ground water table</li> <li>➤ Soil productivity status is low</li> <li>➤ Pest &amp; diseases intensity high para wilt in cotton, termite in wheat, Blight in cumin, mealybug in cotton, semi looper &amp; prodenia in castor, leaf curl in chilli etc.</li> <li>➤ Less adoption of horticultural crops</li> <li>➤ Loss of food grains due to poor knowledge and storage facility.</li> <li>➤ Average milk production per animal is low</li> </ul>	<ul style="list-style-type: none"> <li>➤ Average productivity of major crops is low</li> <li>➤ Inadequate irrigation water</li> <li>➤ Reclamation of problematic soil</li> <li>➤ Area under fruit &amp; vegetable crops is very low</li> <li>➤ Scope &amp; importance of secondary agriculture</li> <li>➤ Average milk production per animal is low</li> <li>➤ Farm mechanization</li> <li>➤ Women empowerment through income generation activities</li> </ul>
	Patan		Matpur, Ruvavi, Der, Raviyana, Aghar, Kamliwada, Hajipur, Gaja, Visalvasana, Norta, Golapur, Dharpur			
	Chanasma		Chaveli, Kharadharva, Islampura, Brahmanwada, Pindharpura, Danodharda			
	Sami	Radhanpur	Kokta, Dudkha, Memna, Kuvarad, Ruppur			
	Harij					
	Radhanpur		Dev, Sultanpura, Subapura			
	Santalpur		Charada, Joravargadh			

## 2.8 Priority/thrust areas

Crop/ Enterprise	Thrust area
Castor	-Integrated pest management -Integrated Disease management
Cotton	-Integrated crop management -Integrated Nutrient management
Mustard	Integrated crop management
Wheat	-Integrated pest management -Weed management
Cumin/ Fennel	-Integrated Disease management -Production & management technology
Carrot	Post Harvest technology
Live-stock	-Fodder management -Improvement of local breed
Pomegranate and Lime	-Integrated nutrient management -Integrated pest & disease management
Home Science	-Use of solar cooker -Fruits & veg. preservation -Farm women empowerments through income generation activity -Drudgery reduction -Household food security



### 3. TECHNICAL ACHIEVEMENTS

#### 3.A. Details of target and achievements of mandatory activities by KVK during 2015-16

OFT				FLD			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
08	07	80	68	210	184	550	666

Training					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of Participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers/F.W.	93	88	2325	2339	80	86	1686	2127
Rural youth	05	14	75	186	-	-	-	-
Extn. Functionaries	06	02	120	54	-	-	-	-
Total	104	104	2520	2579	80	86	1686	2127

Seed Production (Qtl.)			Planting material (No.)		
5			6		
Targets	Achievement	Distributed to no.of farmers	Targets	Achievement	Distributed to no.of farmers
26	21	228	132000	23130	73
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

## I.A TECHNOLOGY ASSESSMENT

### Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management	Cotton	RDF + Foliar spray of KNO <sub>3</sub> @ 3%	10	10
	-	-	-	-
Varietal Evaluation	Carrot	Use of Pusa Rudhira	10	10
	-	-	-	-
Integrated Pest Management	-	-	-	-
	-	-	-	-
Integrated Crop Management	Acid lime	Two sprays of 500 ppm cycocel at 15 days interval in sept-oct.	08	08
	Cotton +Castor	Relay cropping with castor	09	09
Integrated Disease Management	-	-	-	-
	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
	-	-	-	-
Weed Management	-	-	-	-
	-	-	-	-
Resource Conservation Technology	-	-	-	-
	-	-	-	-
Farm Machineries	-	-	-	-
	-	-	-	-
Integrated Farming System	-	-	-	-
	-	-	-	-
Seed / Plant production	-	-	-	-
	-	-	-	-
Post Harvest Technology / Value addition	-	-	-	-
	-	-	-	-
Drudgery Reduction	-	-	-	-
	-	-	-	-
Storage Technique	-	-	-	-
	-	-	-	-
Others (Pl. specify)	-	-	-	-
	-	-	-	-
<b>Total</b>			<b>37</b>	<b>37</b>

**Summary of technologies assessed under livestock by KVKs**

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management	-	-	-	-
Evaluation of Breeds	-	-	-	-
Feed and Fodder management	-	-	-	-
Nutrition Management	-	-	-	-
Production and Management	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>			-	-

**Summary of technologies assessed under various enterprises by KVKs**

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-

## I.B. TECHNOLOGY REFINEMENT

### Summary of technologies refined under various crops by KVKs

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers
Integrated Nutrient Management	-	-	-	-
	-	-	-	-
Varietal Evaluation	-	-	-	-
	-	-	-	-
Integrated Pest Management	-	-	-	-
	-	-	-	-
Integrated Crop Management	Wheat	Line sowing method with seed rate 125kg./ha. & seed treatment by Bio-fertilizer	07	07
	-	-	-	-
Integrated Disease Management	Cumin	Seed treatment by Trichoderma @ 20g./kg + soil application of trichoderma @ 3kg./ha in 500kg vermi compost	10	10
	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
	-	-	-	-
Weed Management	-	-	-	-
	-	-	-	-
Resource Conservation Technology	-	-	-	-
	-	-	-	-
Farm Machineries	-	-	-	-
	-	-	-	-
Integrated Farming System	-	-	-	-
	-	-	-	-
Seed / Plant production	-	-	-	-
	-	-	-	-
Value addition	-	-	-	-
	-	-	-	-
Drudgery Reduction	-	-	-	-
	-	-	-	-
Storage Technique	-	-	-	-
	-	-	-	-
Others (Pl. specify)	-	-	-	-
	-	-	-	-
<b>Total</b>			<b>17</b>	<b>17</b>

**Summary of technologies refined under various livestock by KVKs**

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials	No. of farmers
Disease Management	-	-	-	-
Evaluation of Breeds	-	-	-	-
Feed and Fodder management	-	-	-	-
Nutrition Management	-	-	-	-
Production and Management	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>			-	-

**Summary of technologies refined under various enterprises by KVKs**

Thematic areas	Enterprise	Name of the technology assessed	No. of trials	No. of farmers
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-
-	-	-	-	-
	-	-	-	-

## I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

### (a) Technology Assessment :-

#### (1) Carrot :

**Problem definition** : Low yield of carrot due to use of local varieties

**Technology Assessed** : Use of pusa rudhira variety for sowing

**Thematic area** : Integrated crop management

**Table** : Performance of the Pusa rudharia variety

Technology Option	No.of trials	Yield (qt/ha)	Net Return (Rs. /ha)
T1 : Use of Patan local varieties	10	283	68405
T2 : Use of GDC -1 variety		288	69900
T3 : Use of Pusa rudhira variety		297	74075

On farm trials conducted to assess the performance of the yield of the Pusa rudhira variety as compare to GDC-1 & local varieties. The Pusa rudhira variety had realized the net return Rs. 74075/ha. as compared to the GDC-1 & local variety Rs.69900/ha. & Rs. 68405/ha. respectively. The yield of Pusa rudhira variety was 297 qt./ha. whereas 288qt./ha. and 283 qt./ha. of GDC-1 & local variety respectively. Yield of Pusa rudhira variety of carrot found 3.13% and 4.95% more as compare GDC-1 and local variety respectively.

Net return of Pusa Rudhira variety of carrot found 5.97% and 8.29% more as compare to GDC-1 and local variety of carrot respectively.



**GDC-1**

**Pusa Rudhira**

**Patan Local var.**

**(2) Cotton :-**

**Problem definition** : Lower productivity in BT Cotton cultivation due to imbalance application & availability of potassic fertilizer.

**Technology Assessed** : Nutrient management in BT Cotton

On farm trail was conducted to find out the appropriate nutrient management practice to enhance the productivity of BT Cotton. The assessed practice of RDF (240+40+0 NPK kg/ha) + Three sprays of KNO<sub>3</sub> @ 3% at flowering stage, Ball formation stage and Ball development stage was found better with 7.05% & 1.24% increase in yield as compare to T1 & T2 respectively

**Thematic area** : Integrated Nutrient management

**Table** : Performance of the KNO<sub>3</sub> @ 3% on yield of BY Cotton

Technology Option	No.of trials	Yield (qt/ha)	Increase yield (%)	BCRatio
T1 : Fertilizer dose 160-200 N <sub>2</sub> + 100kg P <sub>2</sub> O <sub>5</sub> /ha.	<b>10</b>	24.1	-	2.50
T2 : RDF 240kg.N <sub>2</sub> +40kg P <sub>2</sub> O <sub>5</sub> /ha.		24.4	1.24	2.65
T3: T2+foliar spray of KNO <sub>3</sub> @ 3% at flowering stage, Ball formation & ball development stage		25.8	7.05	2.77



**BT Cotton**

**(3) Cotton + Castor:-**

**Problem definition** : Lower income from cotton monocrop cultivation

**Technology Assessed** : Relay cropping with Castor & sowing distance 5' x 2'

On farm trail was conducted to assess the effect of relay cropping of Castor in Cotton on net return. The relay cropping of Castor in Cotton had realized the net return Rs.104050/ha. as compared to monocropping of Cotton Rs.78190 only. Increase in net return 33% was found in the relay cropping (Cotton + Castor)

**Thematic area** : Integrated Crop management

**Table** : Performance of the relay cropping

Technology Option	No.of trials	Yield (qt/ha)	Net return Rs./ha.	BCRatio
T1 ; Cotton-monocropping sowing distance : 4' x 2'	10	24.8	78190/-	3.46
T2 : Cotton + Castor -Relay cropping sowing distance (5' x 2')		Cotton : 20.0 Castor : 14.4	104050/-	3.86



**Cotton + Castor**



**(4) Acid Lime :**

**Problem definition :** Low yield of fruits in summer season

**Technology Assessed :** Digging of upper surface of soil of orchard in Sept. and with holding of irrigation for 20 days + two sprays of 500 PPM Cycocel at 15 days interval in Sept.-Oct.

**Thematic area :** Integrated Crop management

**Table :** Performance of the assessed technology

Technology Option	No.of trials	Yield (qt/ha)	Net return Rs./ha.	% increase in yield
T1 : Digging of upper surface of the soil of orchard in Sept. and with holding of irrigation for 20 days	<b>10</b>	115.00	67668/-	-
T2 : T1 + Two sprays of 500 PPM Cycocel at 15 days interval in Sept.-Oct.		129.00	76170/-	12.17

On farm trails conducted to assess the technology i.e. effect of Cycocel on yield of the fruits of Acid Lime.

Cycocel treated orchard realized the net return 76170Rs./ha. which was 12.56% higher as compare to T1. While the fruit yield 129qt./ha. was found in Cycocel treated orchard which was 12.17% higher as compare to T1.



**Acid Lime**

**(b) Technology Refinement :-**

**(1) Wheat :**

**Problem definition** : Practiced more seed rate in wheat cultivation

**Technology Refinement** : Refinement of seed rate of wheat

**Thematic area** : Integrated crop management

**Table** : Performance of the seed rate

Technology option	No.of trails	Yield qt./ha.	Net return (rs./ha.)	% increase in net return
T1 : Broadcasting method of sowing with seed rate 160 kg./ha.	07	44.32	64140/-	-
T2 : Technology for refinement -Line sowing method with seed rate 125 kg./ha. and seed treatment by Bio fertilizer		45.68	67528/-	5.28

On farm trial conducted for the refined technology i.e. performance of Line sowing method with seed rate 125kg./ha. and seed treatment by Phosphoric Bio fertilizer as compare to T1. Net return found Rs.67528/ha. in refined technology which was 5.28% higher as compare to farmer practices.

**(2) Cumin :**

**Problem definition** : Incidence of wilt disease in Cumin

**Technology Refinement** : Management of wilt disease by IDM

Cumin is an important spice crop of the Sami, Harij, Radhanpur & Santalpur tehsils of the Patan district. There is an incidence of wilt disease resulting in yield loss.

On farm trial was conducted to refine the technology of seed treatment by Bio-fungicide Trichoderma @ 20g./1 kg. seed and soil application @ 3kg./ha along with 500 kg. vermin compost.

**Thematic area** : -

**Table** :

Technology option	No. of trails	Incidence of wilt (%)	Yield kg./ha.	% increase in yield
T1 : Farmers practices -No seed treatment	10	12.5	840/-	-
T2 : SAU recommended practices -Seed treatment by Carbendazim 50 wp @ 3g./1kg. seed.		8.5	1060/-	26.1
T3 : Refined technology -Seed treatment by Trichoderma @ 20g./1kg. seed and soil application of Trichoderma @ 3kg./ha along with 500kg. vermi compost		7.9	1128/-	34.2

In refined technology (T3) wilt disease incidence was found 7.9%, while it was 12.5% and 8.5% in treatment T1 & T2 respectively



T1



T2



T3

**II. FRONTLINE DEMONSTRATION****a. Follow-up for results of FLDs implemented during previous years**

List of technologies demonstrated during previous year and popularized during 2014-15 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
A.	Green-gram	Varietal evaluation	G.M.-4	Demonstration, Field day	18	110	85
B.	Castor	Varietal evaluation	GCH-7	Demonstration, Field day	35	1100	650
C.	Cotton	INM	-Micronutrient -Potastic fertilizer	Demonstration, Field day	13	90	75
D.	Cumin	Varietal evaluation	GC-4	Demonstration, Field day	28	670	400
E.	Cumin	Bio-agent	Trichoderma	Demonstration, Field day	18	90	95
F.	Wheat	Varietal evaluation	GW-366	Demonstration, Field day	14	125	40
G.	Fennel	Varietal evaluation	GF-12	Demonstration, Field day	20	300	150
H.	Mustard	INM	Sulphar fertilizer	Demonstration, Field day	07	35	25

- b. Details of FLDs implemented during 2015-16 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Cereals										
1.	Wheat	Varietal evaluation	GW-366	Rabi-2015-16	15	15	03	45	48	-
2.	Wheat	IPM	Fipronil 5 SC (Regent)	Rabi-2015-16	10	09	02	16	18	-
Horticultural crops										
1.	Lemon	INM	ZnSO4 FeSO4	Rabi-2015-16	05	05	-	28	28	-
2.	Cumin	Varietal evaluation	GC-4	Rabi-2015-16	15	15	04	41	45	-
3.	Cumin	IDM	Mancozeb 75 wp	Rabi-2015-16	10	10	04	36	40	-
4.	Fennel	Varietal evaluation	GF-12	Rabi-2015-16	15	15	-	60	60	-
5.	Fennel	IDM	Mancozeb 75wp	Rabi-2015-16	10	10	05	25	30	-
Oilseeds Crops										
1.	Castor	Varietal evaluation	GCH-7	Kharif-2015-16	15	15	05	40	45	-
2.	Mustard	Varietal evaluation +INM	GDM-4 +Sulphar (Granules)	Rabi-2015-16	15	15	-	60	60	-
3.	Mustard (NMO OP)	Varietal evaluation + INM + IPM + IDM	-GDM-4 -Neem Oil -Bio-fertilizer -Sulphar Dust -Sardar Amin -Yellow sticky trap -Sulphar Granular	Rabi-2015-16	30	30	11	109	120	-

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
Pulses										
1.	Green-gram	Varietal evaluation	GM-4	Kharif-2015-16	10	10	-	40	40	-
2.	Green-gram (NFSM)	Varietal evaluation + INM + IPM	-GM-4 -Bio fertilizer -Sardar Amin -Sulphar Granular -Neem Oil -Pheroman Trap	Summer-2015-16	20	20	02	78	80	-
Cotton										
3.	Cotton	INM	Sardar AMin	Kharif 2015-16	15	15	-	38	38	-

**Details of farming situation**

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Wheat (Variety)	Rabi-2015-16	Irrigated	Loamy Sand	L	L	M	Cotton, Green-gram	15/11/2015 to 25/11/2015	-	-	-
Wheat (IPM)	Rabi-2015-16	Irrigated	Loamy sand	L	L	M	Cotton, Green-gram	24/11/2015 to 27/11/2015	-	-	-
Lemon	Rabi-2015-16	Irrigated	Sandy to sandy loam	L	L	M	-	-	-	-	-
Cumin (Variety)	Rabi-2015-16	Irrigated	Medium Black	L	L	M	Fallow	12/11/2015 to 20/11/2015	-	-	-
Cumin (IDM)	Rabi-2015-16	Irrigated	Medium Black	L	L	M	Fallow	12/11/2015 to 20/11/2015	-	-	-
Fennel (Variety)	Rabi-2015-16	Irrigated	Medium Black, Loamy sand	L	L	M	Pulses crop, Fallow	13/10/2015 to 23/10/2015	-	-	-
Fennel (IDM)	Rabi-2015-16	Irrigated	Medium Black, Loamy sand	L	L	M	Pulses crop, Fallow	15/10/2015 to 24/10/2015	-	-	-
Castor (Variety)	Kharif-2015-16	Irrigated	Sandy	L	L	M	Fallow	15/8/2015 to 25/8/2015	-	617mm	12
Mustard (Variety +INM)	Rabi-2015-16	Irrigated	Sandy loam, Loamy sand	L	L	M	Pulses	15/10/2015 to 26/10/2015	-	-	-
Mustard (NMOOP)	Rabi-2015-16	Irrigated	Sandy, Loamy sand	L	L	M	Pulses	16/10/2015 to 6/11/2015	-	-	-
Green-gram (Variety)	Kharif-2015-16	Rainfed	Sandy loam	L	L	M	Fallow	6/8/2015 to 15/8/2015	-	662mm	16
Green-gram (NFSM)	Summer-2015-16	Irrigated	Medium Black	L	L	M	Jower, Fallow	19/2/2016 to 7/3/2016	-	-	-

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Cotton (INM)	Kharif-2015-16	Irrigated	Medium black sandy loam	L	L	M	Fallow	1/7/2015 to 10/7/2015	-	-	-



**Technical Feedback on the demonstrated technologies**

S. No	Feed Back
1	Fennel : Required sugary disease (physiological disorder) resistant variety
2	Cumin : Required high yielding as well as blight disease resistant variety
3.	Carrot : Required dark red coloured variety
4.	Wheat : Required lodging resistant variety
5.	Castor : Required variety having compact capsules in the spikelet
6.	Mustard : Required sucking pest (Aphid) resistant variety

**Farmers' reactions on specific technologies**

S. No	Feed Back
1	Fennel :- GF-11 variety is high yielding spraying of Mancozeb 75 wp effective against disease.
2	GC-4 variety have less incidence of blight disease & also high yielding
3.	Carrot : Market price is comparatively less of pusa rudhira variety
4.	Wheat : GW-366 is high yielding variety
5.	Castor : GCH-7 variety is high yielding, but capsule in the spikelet are not compact
6.	Mustard : GDM-4 variety is bold seeded
7.	Green-gram : Pod bearing habit –Bench type pod maturity uniform
8.	Cotton : Crop found comparatively healthy throughout the season in sardar amin granules treated plots

### Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days-Castor,	01	21/11/2014	36	-
	Carrot	01	13/01/2015	47	
	Fennel	01	14/02/2015	31	
	Mustard	01	04/02/2015	34	
	Cumin	01	25/02/2015	40	
	Wheat	01	04/03/2015	31	
	Cotton	01	14/10/2015	20	
	2	Farmers Training- Castor	01	04/08/2014	
Carrot		01	23/09/2014	20	
Fennel		01	04/10/2014	54	
Mustard		01	17/10/2014	47	
Cumin		02	01/11/2014	62	
			05/11/2014		
Wheat		01	13/11/2014	45	
Cotton		02	04/08/2015	40	
			08/08/2015		
Green-gram		02	30/06/2015	38	
			02/07/2015		
3	Media coverage	-	-	-	-
4	Training for extension functionaries	-	-	-	-

## Performance of Frontline demonstrations

### Frontline demonstrations on oilseed crops

Crop/Year	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Castor Kharif - 2014-15	Varietal evaluation	GCH-7	GCH-7	43	15	36.0	28.8	31.2	27.5	13.5	28200/-	109200/-	81000/-	3.87	27350/-	96250/-	68900/-	3.52
Sesamum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-
Mustard Rabi- 2014-15	Varietal evaluation/INM	GDM-4 & Sulphar element	GDM-4	48	15	25.2	18.8	20.6	17.5	17.7	22400/-	70040/-	47640/-	3.12	20900/-	59500/-	38600/-	2.84
Toria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-
Linseed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-
Sunflower	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-
Soybean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

**Frontline demonstration on pulse crops**

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blackgram	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Green gram Kharif-2015-16	Varietal evaluation	High yielding variety	GM-4	40	10	9.20	4.80	8.5	7.7	10.39	12000	42500	30500	3.54	11340	38500	27160	3.40
Chickpea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fieldpea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lentil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horsegram	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

## FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)					
					Demo		High			Low	Average	Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low															
<b>Cereals</b>																					
<b>Paddy</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		
<b>Waterlogged Situation</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		
<b>Coarse Rice</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		
<b>Scented Rice</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		
<b>Wheat Rabi-2014-15</b>	Varietal evaluation /INM	GW-366 & Zinc sulphar	31	11.2	46.4	33.6	39.4	33.8	16.5	-	-	28950/-	64025/-	35075/-	2.21	26600/-	54925/-	28325/-	2.06		
<b>Wheat Timely sown</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		
<b>Wheat Late Sown</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-		

<b>Mandua</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Barley</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Maize</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Amarant h</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Millets</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Jowar</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Bajra</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Barnyard millet</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Finger millet</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Vegetable</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Carrot Rabi-2014-15</b>	<b>Varietal evaluation</b>	<b>Pusa Rudhira</b>	16	05	310	296	303	285	6.32	-	-	49670/-	151500	101830	3.05	49400	142500	93100	2.88

<b>Bittergourd</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Cowpea</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Spongegourd</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Petha</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Tomato</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Frenchbean</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Capsicum</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Chilli</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Brinjal</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Vegetable pea</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-

<b>Softgourd</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Okra</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Colocasia (Arvi)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Broccoli</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Cucumber</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Onion</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Coriender</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Lettuce</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Cabbage</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Cauliflower</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Elephant fruit</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-



<b>Flower crops</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Marigold</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Bela</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Tuberose</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Gladiolus</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Fruit crops</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Mango</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Strawberry</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Guava</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Banana</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Papaya</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Muskmelon</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-



<b>Kalmegh</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Ashwagan dha</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Fodder Crops</b>																				
<b>Sorghum (F)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Cowpea (F)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Maize (F)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Lucern</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Berseem</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-
<b>Oat (F)</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	--	-	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST

## FRONT LINE DEMONSTRATION



**F.L.D.- CASTOR (Variety-GCH-7)**



**F.L.D.- MUSTARD (Variety-GDM-4)**

## FRONT LINE DEMONSTRATION



**F.L.D.- WHEAT (Variety-GW-366)**



**F.L.D.- FENNEL (Variety-GF-12)**

## **FRONT LINE DEMONSTRATION**



**F.L.D.- CUMIN (Variety-GC-4)**



**F.L.D. -CARROT (PUSA RUDHIRA)**

## FRONT LINE DEMONSTRATION



**F.L.D.- GRAM (Variety-GM-4)**



**F.L.D.- SARDAR AMIN (GRANUAL)**

**FLD on Livestock**

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
<b>Cattle</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Buffalo</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Buffalo Calf</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Dairy</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Poultry</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sheep &amp; Goat</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Vaccination</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST



## FLD on Fisheries

Category	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demonstration	Check		Demonstration	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Common Carps	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Composite fish culture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Feed Management	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Economics to be worked out based total cost of production per unit area and not on critical inputs alone.

\*\* BCR= GROSS RETURN/GROSS COST





**FLD on Demonstration details on crop hybrids** (*Details of Hybrid FLDs implemented during 2015-16*)

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					High	Demo Low	Average	Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
Oilseed crop	-	-	-	-	-	-	-	-	-	-	-	-	-
Pulse crop	-	-	-	-	-	-	-	-	-	-	-	-	-
Cereal crop	-	-	-	-	-	-	-	-	-	-	-	-	-
Vegetable crop	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruit crop	-	-	-	-	-	-	-	-	-	-	-	-	-
Other (specify)	-	-	-	-	-	-	-	-	-	-	-	-	-

**Note :** Remove the Enterprises/crops which have not been shown

## NMOOP & NFSM

### Results of Oilseed & Pulses demonstration organized during – Year 2015-16

#### 1. NMOOP : Year – 2015-16

- a. Name of crop : Mustard  
 Area : 30 ha.  
 No.of demonstration : 120
- b. Technology used for :  
 Demonstration -Variety : GDM-4  
 -IDM  
 -IPM  
 -INM
- Technological packages : -Variety-GDM-4  
 -Sardar Amin (Granules)  
 -Bio-fertilizer liquid (NPL)  
 -Neem Oil  
 -Granulated sulphur  
 -Sulphar dust  
 -Yellow sticky trap

#### Performance of the Demonstration (NMOOP) :

##### (a) Technical Parameter :-

Name of the crop	Variety		Av.yield (qt./ha.)		Increase in yield qt./ha. (%)
	Existing	Demonstration	Farmers	Demonstration	
Mustard	-GM-3 -GM-2 -Research varieties	GDM-4	14.1	16.2	2.06 (14.6%)

##### (b) Economic Parameter :-

Variety Demonstration	Farming existing plot				Demonstration plot			
	Gross cost (qt./ha.)	Gross return (Rs./ha.)	Net Return (Rs./ha.)	B.C.ration	Gross cost (qt./ha.)	Gross return (Rs./ha.)	Net Return (Rs./ha.)	B.C.ration
Mustard GDM-4	14900	47588	32688	3.19	16400	54540	38140	3.32

#### Extension Activities under F.L.D. Oilseed (NMOOP) :-

Sr.No.	Name of Ext.Activity	No.of activities	No.of beneficiaries
1.	Training	04	120
2.	Field days	03	96
3.	Field visits	08	56

**Cluster Front line demonstration of Rabi /Summer Pulses 2015-16 under NFSM :-**

Name of crop	:	Green-gram
Area	:	20 ha.
No.of demonstration	:	80
No.of villages	:	10
Objective	:	INM, IPDM
Technical packages	:	
		(i) Seed (Variety) : GM-4
		(ii) Liquid Bio fertilizer : NPK
		(iii) Sardar granules
		(iv) Granulated sulphar
		(v) Neem Oil
		(vi) Sex pharoman trap

Note :- -Crop is in standing position farmers field  
- Result awaited

**ACTION PLAN – 2016-17**  
**Cluster Demonstration under NMOOP**

Sr.No.	Name of crop	Season	Area (ha.)	Technological package
1.	Groundnut	Kharif	20	-Variety- GG-20 -Pesticide : Quinalphos 25EC -Bio-fertilizer –NPK -Neem Oil -Granulated sulphar
2.	Castor	Kharif	20	-Variety : GCH-7 -Bio-fertilizer : Trichoderma -Neem Oil -Fungicide – Thiram -Granulated sulphar
3.	Mustard	Rabi	20	-Variety- GDM-4 -Fungicide – Apron 35 SD -Neem oil -Granulated sulphar -Sulphar dust fungicide -Sardar amin

**ACTION PLAN – 2016-17**  
**Cluster Demonstration under NFSM**

Sr.No.	Name of crop	Season	Area (ha.)	Technological package
1.	Green-gram	Kharif	20	-Variety- GM-4 -Bio-fertilizer –NPK (Liquid) -Sardar Amin (Granulate) -Neem Oil -Sex pheroman trap -Granulated sulphar
2.	Chickpea	Rabi	20	-Variety-GJC-3 -Bio-fungicide : Trichoderma -Bio-fertilizer – NPK (liquid) -Sardar Amin (Granulate) -Sed pheroman trap -Neem oil -Granulated sulphar







Processing and value addition										
Others (pl specify)										
<b>Total (e)</b>										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
<b>Total (f)</b>										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
<b>Total (g)</b>										
<b>GT (a-g)</b>	<b>08</b>	<b>213</b>	<b>0</b>	<b>213</b>	<b>06</b>	<b>0</b>	<b>06</b>	<b>219</b>	<b>0</b>	<b>219</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	01	19	-	19	01	-	01	20	-	20
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	01	20	-	20	-	-	-	20	-	20







Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>41</b>	<b>753</b>	<b>152</b>	<b>905</b>	<b>38</b>	<b>13</b>	<b>51</b>	<b>791</b>	<b>165</b>	<b>956</b>









development of low/minimum cost diet										
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing	01	-	21	21	-	13	13	-	34	34
Processing and cooking										
Gender mainstreaming through SHGs	01	-	41	41	-	-	-	-	41	41
Storage loss minimization techniques										
Value addition										
Women empowerment										
Location specific drudgery reduction technologies										
Rural Crafts	02	-	66	66	-	16	16	-	82	82
Women and child care	01	-	-	-	-	22	22	-	22	22
Others (pl specify)										
<b>Total</b>	<b>08</b>	<b>-</b>	<b>166</b>	<b>166</b>	<b>-</b>	<b>71</b>	<b>71</b>	<b>-</b>	<b>237</b>	<b>237</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
<b>Total</b>										
<b>VII Plant Protection</b>										
Integrated Pest Management	07	157	-	157	05	-	05	162	-	162
Integrated Disease Management	01	22	-	22	-	-	-	22	-	22
Bio-control of pests and diseases	01	29	-	29	-	-	-	29	-	29



feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>40</b>	<b>587</b>	<b>274</b>	<b>861</b>	<b>37</b>	<b>74</b>	<b>111</b>	<b>624</b>	<b>348</b>	<b>972</b>





technology										
Post harvest technology and value addition										
Others (pl specify)										
<b>Total (g)</b>										
<b>GT (a-g)</b>	<b>19</b>	<b>434</b>	<b>-</b>	<b>434</b>	<b>20</b>	<b>-</b>	<b>20</b>	<b>454</b>	<b>-</b>	<b>454</b>
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	02	37	-	37	01	-	01	38	-	38
Integrated water management	01	22	-	22	-	-	-	22	-	22
Integrated Nutrient Management	01	36	-	36	-	-	-	36	-	36
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing	02	44	-	44	-	-	-	44	-	44
Others (pl specify)										
<b>Total</b>	<b>06</b>	<b>139</b>	<b>-</b>	<b>139</b>	<b>01</b>	<b>-</b>	<b>01</b>	<b>140</b>	<b>-</b>	<b>140</b>
<b>IV Livestock Production and Management</b>										
Dairy Management	02	23	16	39	02	-	02	25	16	41
Poultry Management										
Piggery Management										
Rabbit Management										
Animal Nutrition Management										
Disease Management										
Feed & fodder technology	04	-	112	112	-	03	03	-	115	115
Production of quality animal products										
Others (pl specify)										
<b>Total</b>	<b>06</b>	<b>23</b>	<b>128</b>	<b>151</b>	<b>02</b>	<b>03</b>	<b>05</b>	<b>25</b>	<b>131</b>	<b>156</b>
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	03	-	38	38	-	20	20	-	58	58

Design and development of low/minimum cost diet	02	-	27	27	-	02	02	-	29	29
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing	02	03	26	29	-	13	13	03	39	42
Processing and cooking										
Gender mainstreaming through SHGs	01	-	41	41	-	-	-	-	41	41
Storage loss minimization techniques										
Value addition	04	-	92	92	-	4	4	-	96	96
Women empowerment	01	-	8	8	-	7	7	-	15	15
Location specific drudgery reduction technologies										
Rural Crafts	02	-	66	66	-	16	16	-	82	82
Women and child care	01	-	-	-	-	22	22	-	22	22
Others (pl specify)										
<b>Total</b>	<b>16</b>	<b>03</b>	<b>298</b>	<b>301</b>	<b>-</b>	<b>84</b>	<b>84</b>	<b>03</b>	<b>382</b>	<b>385</b>
<b>VI Agril. Engineering</b>										
Farm Machinery and its maintenance										
Installation and maintenance of micro irrigation systems										
Use of Plastics in farming practices										
Production of small tools and implements										
Repair and maintenance of farm machinery and implements										
Small scale processing and value addition										
Post Harvest Technology										
Others (pl specify)										
<b>Total</b>										
<b>VII Plant Protection</b>										
Integrated Pest Management	12	262	-	262	09	-	09	271	-	271
Integrated Disease Management	05	116	-	116	8	-	8	124	-	124
Bio-control of pests	03	57	-	57	-	-	-	57	-	57





Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
<b>Total</b>										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
<b>Total</b>										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
<b>Total</b>										
<b>GRAND TOTAL</b>	<b>81</b>	<b>1340</b>	<b>426</b>	<b>1766</b>	<b>75</b>	<b>87</b>	<b>162</b>	<b>1415</b>	<b>513</b>	<b>1928</b>

## ON CAMPUS TRAINING PROGRAMME FARMERS



**Scientific cultivation of Cotton**



**Scientific cultivation of Cotton + Castor**



**P.P Measures to control the insect pest in Chilli**



**Integrated pest & disease management in Castor**



**Plant Protection measures of pest & disease**



**Production & management technology Of cumin**

## ON CAMPUS TRAINING PROGRAMME FARM WOMEN



**Breeding and feeding management in milch animal**



**Preparation and preservation of aonla product**



**Tailoring course in women and children Garments**



**Detergent Powder**



**Bakery product**



**Preparation of doormat and rope swing**

## OFF CAMPUS TRAINING PROGRAMME FARMERS



**Importance of liquid fertilizer  
in micro irrigation system**



**Preventive measures to Control the  
sucking pest pera wilt and BT Cotton**



**Integrated weed management in Cotton  
crop**



**Identification of predator an  
parasite and there role in insect pest  
management**

## OFF CAMPUS TRAINING PROGRAMME FARM WOMEN



**Preparation of detergent powder**



**Preparation of detergent powder & Agarbatti making**



**Nutrient less while cooking of pulse food**



**Minimization Formation of and management of SHG**









Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching	03	-	27	27	-	01	01	-	28	28
Rural Crafts	01	-	08	08	-	-	-	-	08	08
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other (pl.specify)										
<b>TOTAL</b>	<b>07</b>	<b>40</b>	<b>35</b>	<b>75</b>	<b>17</b>	<b>01</b>	<b>18</b>	<b>57</b>	<b>36</b>	<b>93</b>

### Training programmes for Extension Personnel including sponsored training programmes (on campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing	01	-	19	19	-	15	15	-	34	34
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>TOTAL</b>	<b>01</b>	<b>-</b>	<b>19</b>	<b>19</b>	<b>-</b>	<b>15</b>	<b>15</b>	<b>-</b>	<b>34</b>	<b>34</b>

### Training programmes for Extension Personnel including sponsored training programmes (off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	01	14	02	16	04	-	04	18	02	20
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>TOTAL</b>	<b>01</b>	<b>14</b>	<b>02</b>	<b>16</b>	<b>04</b>	<b>-</b>	<b>04</b>	<b>18</b>	<b>02</b>	<b>20</b>

**Training programmes for Extension Personnel including sponsored training programmes  
– CONSOLIDATED (On + Off campus)**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management	01	14	02	16	04	-	04	18	02	20
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing	01	-	19	19	-	15	15	-	34	34
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
<b>TOTAL</b>	<b>02</b>	<b>14</b>	<b>21</b>	<b>35</b>	<b>04</b>	<b>15</b>	<b>19</b>	<b>18</b>	<b>36</b>	<b>54</b>

## IN -SERVICE TRAINING PROGRAMME



**IPM in Kharif crops- FTC Patan  
INM in kharif crops**



**Use of sprouted pulses in preparation  
of low cost nutrition diet**



**Importance of Trichoderma in IDM**



Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
<b>Total</b>										
<b>Home Science</b>										
Household nutritional security										
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify) Value addition	<b>02</b>	-	<b>41</b>	<b>41</b>	-	-	-	-	<b>41</b>	<b>41</b>
<b>Total</b>	<b>02</b>	-	<b>41</b>	<b>41</b>	-	-	-	-	<b>41</b>	<b>41</b>
<b>Agricultural Extension</b>										
Capacity Building and Group Dynamics										
Others (pl. specify) PPV & FRA	<b>01</b>	<b>141</b>	-	<b>141</b>	<b>04</b>	-	<b>04</b>	<b>145</b>	-	<b>145</b>
<b>Total</b>	<b>01</b>	<b>141</b>	-	<b>141</b>	<b>04</b>	-	<b>04</b>	<b>145</b>	-	<b>145</b>
<b>GRAND TOTAL</b>	<b>07</b>	<b>361</b>	<b>41</b>	<b>402</b>	<b>09</b>	-	<b>09</b>	<b>370</b>	<b>41</b>	<b>411</b>

## SPONSORED TRAINING PROGRAMME



**Training programme on NMOOP**



**PPV & FRA Act-2001 Programme**

**Name of sponsoring agencies involved****Details of vocational training programmes carried out by KVKs for rural youth**

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>Crop production and management</b>										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify) Training and pruning technique in pomegranate	01	16	-	16	12	-	12	28	-	28
<b>Total</b>	<b>01</b>	<b>16</b>	<b>-</b>	<b>16</b>	<b>12</b>	<b>-</b>	<b>12</b>	<b>28</b>	<b>-</b>	<b>28</b>
<b>Post harvest technology and value addition</b>										
Value addition										
Others (pl. specify)										
<b>Total</b>										
<b>Livestock and fisheries</b>										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming										
Others (pl. specify)										
<b>Total</b>										
<b>Income generation activities</b>										
Vermi composting	01	12	-	12	03	-	03	15	-	15
Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
Repair and maintenance of farm machinery and implements										
Rural Crafts	01	-	08	08	-	-	-	-	08	08



Seed production	01	12	-	12	02	-	02	14	-	14
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.	03	-	27	27	-	01	01	-	28	28
Agril. para-workers, para-vet training										
Others (pl. specify)										
<b>Total</b>	<b>06</b>	<b>24</b>	<b>35</b>	<b>59</b>	<b>05</b>	<b>01</b>	<b>06</b>	<b>29</b>	<b>36</b>	<b>65</b>
<b>Agricultural Extension</b>										
Capacity building and group dynamics										
Others (pl. specify)										
<b>Total</b>										
<b>Grand Total</b>	<b>07</b>	<b>40</b>	<b>35</b>	<b>75</b>	<b>17</b>	<b>01</b>	<b>18</b>	<b>57</b>	<b>36</b>	<b>93</b>

## VOCATIONAL TRAINING PROGRAMME



Training programme on Rural craft



Tailoring course in women and children Garment

## IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services				
Diagnostic visits				
Field Day	07	234	04	238
Group discussions	05	57	-	57
Kisan Ghosthi	03	169	05	174
Film Show	03	223	-	223
Self -help groups	01	11	-	11
Kisan Mela	01	475	11	486
Exhibition	02	132	-	132
Scientists' visit to farmers field	53	232	-	232
Plant/animal health camps				
Farm Science Club				
Ex-trainees Sammelan				
Farmers' seminar/workshop				
Method Demonstrations	03	79	-	79
Celebration of important days	02	74	01	75
Special day celebration Mahila shasktikaran day	01	48	-	48
Exposure visits	02	40	-	40
Lecture delivered in other programme	03	353	03	356
<b>Total</b>	<b>86</b>	<b>2127</b>	<b>24</b>	<b>2151</b>

### Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	04
News paper coverage	02
Popular articles	03
Radio Talks	
TV Talks	
Animal health amps (Number of animals treated)	
Others (pl. specify)	
<b>Total</b>	<b>09</b>

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Patan	Text only	23	-	-	06	-	01	30
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	<b>Total Messages</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>06</b>	<b>-</b>	<b>01</b>	<b>30</b>
	<b>Total farmers Benefitted</b>	<b>32804</b>	<b>-</b>	<b>-</b>	<b>8347</b>	<b>-</b>	<b>1668</b>	<b>42819</b>

## EXTENSION ACTIVITIES



**Krishi Mela**



**Exposure visit**



**ICAR Day-16/4/2015**



**Field day-Cotton**



**Field day-Mustard**



**Field day-Wheat**

### EXTENSION ACTIVITIES



**Kisan Gosthi**



**Lecture delivered**



**Film Show**



**Kisan Diwas**



**World Soil Health Day**



**PPV & FRA Act-2001 Programme**

## EXTENSION ACTIVITIES



**Women Empowerment Programme**



**Krishi Mahotsav- Village- Dethli**



**Krishi Exhibition**



**Diagnostic visit**



**DEE Visit to Demonstration of Green-gram**



**Director of ATARI visit to Demonstration unit**

## V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organized Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
-	Gosthies	-	-	-
	Lectures organized	-	-	-
	Exhibition	-	-	-
	Film show	-	-	-
	Fair	-	-	-
	Farm Visit	-	-	-
	Diagnostic Practicals	-	-	-
	Distribution of Literature (No.)	-	-	-
	Distribution of Seed (q)	-	-	-
	Distribution of Planting materials (No.)	-	-	-
	Bio Product distribution (Kg)	-	-	-
	Bio Fertilizers (q)	-	-	-
	Distribution of fingerlings	-	-	-
	Distribution of Livestock specimen (No.)	-	-	-
	Total number of farmers visited the technology week	-	-	-



## VI. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

### Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Wheat	GW-366	-	19.20	55200	48
Oilseeds	Mustard	GDM-4	-	1.80	13800	180
Pulses	-	-	-	-	-	-
Commercial crops	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-
Flower crops	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Fodder crop seeds	-	-	-	-	-	-
Fiber crops	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
<b>Total</b>	-	-	-	<b>21</b>	<b>69000</b>	<b>228</b>

### Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial	Tobacco	GCT-4	-	20000	2000	03
Vegetable seedlings	-	-	-	-	-	-
Fruits	Lime	Kagzi Lime	-	1777	26655	56
	Papaya	Madhubindu	-	513	1539	10
Ornamental plants	-	-	-	840	8400	04
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Tuber	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
<b>Total</b>	-	-	-	<b>3130</b>	<b>36594</b>	<b>70</b>

## Production of Bio-Products

Bio Products	Name of the bio-product	Quantity (Kg)	Value (Rs.)	No. of Farmers
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others	Vermi compost	4660	18600	21
<b>Total</b>	-	<b>4660</b>	<b>18600</b>	<b>21</b>

**Table: Production of livestock materials**

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
<b>Dairy animals</b>	-	-	-	-
Cows	-	-	-	-
Buffaloes	-	-	-	-
Calves	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Poultry</b>	-	-	-	-
Broilers	-	-	-	-
Layers	-	-	-	-
Duals (broiler and layer)	-	-	-	-
Japanese Quail	-	-	-	-
Turkey	-	-	-	-
Emu	-	-	-	-
Ducks	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Piggery</b>	-	-	-	-
Piglet	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Fisheries</b>	-	-	-	-
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Others (Pl. specify)	-	-	-	-
<b>Total</b>	-	-	-	-

## VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	-	-	-	-
Water	-	-	-	-
Plant	-	-	-	-
Manure	-	-	-	-
Others (pl.specify)	-	-	-	-
<b>Total</b>	-	-	-	-

## VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK,Patan	01

## IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
KVK News letter Half yearly	150

## X. PUBLICATIONS

Category	Number
Research Paper	-
Technical bulletins	-
Technical reports	-
Others (pl. specify) – Articles	03

## XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM

Activities conducted				
No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

## **XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC**

### **Introduction of alternate crops/varieties**

<b>Crops/cultivars</b>	<b>Area (ha)</b>	<b>Extent of damage</b>	<b>Recovery of damage through KVK initiatives if any</b>
-	-	-	-
<b>Total</b>	-	-	-

### **Major area coverage under alternate crops/varieties**

<b>Crops</b>	<b>Area (ha)</b>	<b>Number of beneficiaries</b>
Oilseeds	-	-
Pulses	-	-
Cereals	-	-
Vegetable crops	-	-
Tuber crops	-	-
<b>Total</b>	-	-

### **Farmers-scientists interaction on livestock management**

<b>Livestock components</b>	<b>Number of interactions</b>	<b>No.of participants</b>
-	-	-
<b>Total</b>	-	-

### **Animal health camps organized**

<b>Number of camps</b>	<b>No.of animals</b>	<b>No.of farmers</b>
-	-	-
<b>Total</b>	-	-

### **Seed distribution in drought hit states**

<b>Crops</b>	<b>Quantity (qtl)</b>	<b>Coverage of area (ha)</b>	<b>Number of farmers</b>
-	-	-	-
<b>Total</b>	-	-	-

### Large scale adoption of resource conservation technologies

Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
-	-	-
<b>Total</b>	-	-

### Awareness campaign

Sr. No.	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-

## XIII. DETAILS ON HRD ACTIVITIES

### A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
SDAU SKnagar	Pre seasonal work shop-kharif	01	-	-
SDAU SKnagar	Zonal Research Extension advisory committee	03	-	-
SDAU SKnagar	Convergence for agricultural development in the state	01	-	-
SDAU SKnagar	Review meeting of KVKs	01	-	-
AAU Anand	Workshop on contingency plan-2015	01	-	-
SDAU S.K.Nagar	Training on Oil seed crops production technology	01	-	-
SDAU S.K.Nagar	Workshop on APR And AAP for KVK	01	-	-

**B. HRD activities organized in identified areas for KVK staff by ATARI**

<b>Title of the training programmes</b>	<b>No of programmes</b>	<b>No. of Participants</b>	<b>No. of KVKs involved</b>
Training cum workshop on Pulses production technology (NFSM)	01	-	-
Training cum work shop on oilseed production technology (NMOOP)	01	-	-
Zonal workshop for APR & AAP of KVK Zone-VI	01	-	-
PPV & FRA Act-2001	01	-	-
Total	04	-	-

**XIV. CASE STUDIES (CASE STUDIES MAY BE GIVEN IN DETAIL AS PER THE FOLLOWING FORMAT)**

**CAST STUDIES :- 1**

**Name of the KVK** :- Krishi Vigyan Kendra  
Saraswati Gram Vidyapith  
Samoda-Ganwada  
Ta.Sidhpur, Dist.Patan

**Title** :- Production & supply of Bio-products (Vermi compost)

**Introduction** :-  
The intensive agricultural practices boosted the production to feed the growing population in the under developed of countries. Farmers could harvest three crop in a year. But there is no thought about its adverse effect in the long term on the soil condition in general and on the environment by intensive use of different chemical fertilizers.

**Vermi compost** :-  
Vermi composting is basically composting with verms, which generally live in soil eat biomass and excrete it in digested form.

**KVK intervention** :-  
Looking to the bright scope for vermi compost, KVK has organized the vocational training programmes of preparation of vermi compost. KVK technical personnel has imparted training about preparation of the vermi compost with the objective to prepare best quality manure from rotting organic waste & FYM by using vermi composting method.

One of the enthusiastic participant have started vermi composting unit on his farm.

**Name** :- Chaudhary Dineshbhai Lavjibhai  
Village : Nagvasan, Ta.Sidhpur, Dist. Patan

**Age** :- 40 years

**Education** :- 10<sup>th</sup> Std. Pass

**Mobile No.** :- 9712841546

**Main occupation** :- Farming

**Subsidiary Occupation** :- Dairy farming

**Land Holding** :- 02 acre

**Live stock** :- Cattle (10 cows)

**Economic study** :-

**Expenditure (1<sup>st</sup> year)** :-

-Size of the Unit	:	55' x 25'
- Net & frame work	:	35000/-
- Cost of FYM (45 ton x 400Rs.)	:	18000/-
-Cost of vermin culture (100kg x 200Rs.)	:	20000/-
-Labour charge	:	36000/-
-Miscellaneous	:	<u>19000/-</u>
		128000/-



**Income :-**

**(A) 1<sup>st</sup> year**

-Vermi culture @ 200Rs./kg. : 100kg.	20000/-
-Vermi compost @5Rs./kg : 30000kg.	150000/-
-Total income (A)	<u>170000/-</u>

**Expenditure (2<sup>nd</sup> Year) :-**

-Cost of FYM (45 tons x 400Rs.)	: 18000/-
-Labour charge	: 36000/-
-Miscellaneous	: <u>16000/-</u>
	70000/-

**Income :-**

**(B) 2<sup>nd</sup> Year**

-Vermi culture @ 200Rs./kg. : 250kg.	50000/-
-Vermi compost @5Rs./kg : 30000kg.	150000/-
-Total income (B)	<u>200000/-</u>

**Income –Expenditure statement of two year :**

Total income	: 370000 Rs.
Total Expenditure	: <u>198000Rs.</u>
<b>Net income</b>	<b>: 172000 Rs.</b>

**Outcome :**

Shri Dineshbhai Chaudhary inspired the other farmers for the preparation & use of vermi compost with a view to improve the soil fertility and also prevent the crop against the infestation of the termite.

**Impact :-**

Shri Dineshbhai Chaudhary is used vermi compost in his total 2 acres + 7 acres (lease base) throughout the year and earn some amount by selling the vermi compost & vermi culture.

## PHOTOGRAPHS

### Production & supply of Bio-products (Vermi compost)



**Vermi compost Unit**



**Packing of Vermi compost bag**

## CAST STUDIES :- 2

**Name of the KVK** :- Krishi Vigyan Kendra  
Saraswati Gram Vidyapith  
Samoda-Ganwada  
Ta.Sidhpur, Dist.Patan

**Title** :- Women empowerment through Tailoring in women & children garments

### Introduction :-

Now a day human need is increased very intensively. So there is a acute need to earn more income from other occupation by rural youth. With a view to empower & generate income vocational training programme has been organized by KVK for rural youth.

### KVK intervention :-

Looking to the requirements & interest of the 10 rural youth (girls) of the Nagvasan village of the sidhpur taluka. KVK Patan had arranged a long term vocational course from 08/05/2015 to 30/07/2015 on "Tailoring in women & children garments". In this vocational training programme 10 rural youth (girls) had been trained about Drawing of the diagram, method of measurement, cutting & sewing of different garments as well as introduction & function of the different parts of the machine.

### Output & Outcome :-

After completion of the long term vocational training programme seven enthusiastic girls. Viz.

1. Chaudhary Kusumben Kuberbhai
2. Prajapati Bhagyashri Ramanbhai
3. Sipai Rasida Bhikumiya
4. Prajapati Sonal Ramchandbhai
5. Sujar Afsana Valibhai
6. Prajapati Priyanka Babubhai
7. Sipai Maksuda Nasikhan

has started the tailoring at their home. They are preparing the different garments and earn average Rs. 2000 to 2500 per month regularly

### PHOTOGRAPHS



**Women empowerment through Tailoring in women & children garments**

### CAST STUDIES :- 3

**Name of the KVK** :- Krishi Vigyan Kendra  
Saraswati Gram Vidyapith  
Samoda-Ganwada  
Ta.Sidhpur, Dist.Patan

**Title** :- Profitable farming of Drumstick

**Introduction** :-

Cultivation of fruit crops & vegetable crops is comparatively less in the patan district. Looking to the present scenario crop diversification for vegetable cultivation may be possible.

With a view to take consideration about less irrigation water required vegetable crops, S.M.S. (Horticulture) have imparted the training to the enthusiastic farmers about "Scientific cultivation of Drum stick"

Among those trainees three farmers have started the "Drumstick" crop cultivation at their own farm. Among the three farmers case study of one farmers is here.

**Profile** :-

**Name** :- Chaudhary Kamrajbhai Daljibhai  
Village : Lukhasan, Ta.Sidhpur, Dist. Patan

**Age** :- 42 years

**Education** :- S.Y.B.com

**Mobile No. :** :- 9327790271

**Land Holding** :- 12 ha. (MIS : 9.5ha.)

**Main occupation** :- Farming

**Subsidiary Occupation** :- Dairy farming

**Output** :

Evaluation Study : 1<sup>st</sup> year :

(i) Crop : Drumstick

(ii) Variety : Multiplex

(iii) Area : 9.5 ha.

(iv) Av. cost of cultivation : 400000/-

Cost of MIS : 456000/-

**Total Cost** : **856000/- Rs.**

(v) Total production : 72000kg.

Av.Selling price : 25Rs./kg.

**Outcome** :

(vi) Total income : 18,00,000/- Rs.

(vii) Total Cost : 8,56,000/- Rs.

**(viii) Net income** : **9,44,000/- Rs.**

**Impact :-**

Chaudhary Kamrajbhai is a progressive farmer. After completion of the training he has cultivated the Drumstick crop in his own field in 9.5ha. area with Micro Irrigation System. He has also adopted the integrated nutrient management & integrated Pest management for sustainable agriculture development

He has inspired & guided the other farmers about the Drumstick cultivation. As a result of this about 50 ha. area is under Drumstick in Sidhpur taluka of Patan district.

**PHOTOGRAPHS**

**Profitable farming of Drumstick**



**Field of Drumstick**



**Drumstick grading**