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# **ANNUAL REPORT – 2013-14.**

**(01.04.2013 TO 31.03.2014)**

## **1. GENERAL INFORMATION ABOUT THE KVK**

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

<b>Address</b>	<b>Telephone</b>		<b>E mail</b>	<b>Web Address</b>
<b>Krishi Vigyan Kendra,</b> Ganpat University, Mehsana District Education Foundation, Mehsana- Gozaria Highway, Ganpat Vidyanagar-384012, Gujarat.	Office: (02762) 289189	FAX: (02762) 289189	kvkmehsana@ yahoo.co.in	www.kvkmehsana.org

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

<b>Address</b>	<b>Telephone</b>		<b>E mail</b>	<b>Web Address</b>
	<b>Office</b>	<b>FAX</b>		
Mehsana District Education Foundation, Mehsana-Gozaria Highway, Ganpat Vidyanagar - 384012, Gujarat	Office: (02762) 286080, 286924, 286895, 289207	FAX: (02762) 286924	info@ganpatuniversity.ac.in	www.ganpatuniversity.ac.in

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

<b>Name</b>	<b>Telephone / Contact</b>		
	<b>Residence</b>	<b>Mobile</b>	<b>Email</b>
Dr. M.V. Patel	09426235924	09925279714	manishvpatel76@yahoo.com

1.4. Year of sanction: 2005

1.5. Staff Position (as on 31<sup>th</sup> March 2014)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale with (Grade pay) (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Programme Coordinator	Dr. M. V. Patel	Programme Coordinator	Horticulture	15600-39100 (8000)	31230	19-03-12	Temp	Other
2	Subject Matter Specialist	Dr. S.M. Soni	SMS	Animal Husbandry	15600-39100 (5400)	25840	23-01-06	Temp	Other
3	Subject Matter Specialist	Shri. B.K. Patel	SMS	Agronomy	15600-39100 (5400)	26870	17-02-06	Temp	Other
4	Subject Matter Specialist	Dr. R. A. Patel	SMS	Plant Protection	15600-39100 (5400)	23640	29-08-09	Temp	Other
5	Subject Matter Specialist	Shri. M. R. Patel	SMS	Ext. Edu	15600-39100 (5400)	21630	09-04-12	Temp	OBC
6	Subject Matter Specialist	Vacant	SMS	Horticulture	-	-	-	-	-
7	Subject Matter Specialist	Vacant	SMS	Agricultural Engg.	-	-	-	-	-
8	Programme Assistant	Ku. R. R. Patel	Programme Assistant	Home Science	9300-34800 (4200)	16260	29-08-09	Temp	Other
9	Computer Programmer	Shri. A. D. Patel	Computer Programmer	B.Sc (Ind.Chem) , P.G.D.C.A	9300-34800 (4200)	17780	29-05-06	Temp	Other
10	Farm Manager	Shri. A. R. Patel	Farm Manager	B.Sc. (Agri.)	9300-34800 (4200)	17780	01-04-06	Temp	Other
11	Accountant / Superintendent	Shri. J. M. Patel	O.S Cum Accountant	M.Com, PGDCA	9300-34800 (4200)	16260	01-09-09	Temp	PH
12	Stenographer	Shri. G. C. Rathod	Stenographer	B.Com	5200-20200 (2400)	12150	01-06-06	Temp	SEBC
13	Driver cum mechanic	Shri. G. S. Patel	Driver Cum Mechanic	6th Pass	5200-20200 (2000)	9950	01-04-06	Temp	Other
14	Driver cum mechanic	Shri K. G. Patel	Driver Cum Mechanic	H.S.C	5200-20200 (2000)	9950	25-09-06	Temp	Other
15	Supporting staff	Shri. S. M. Patel	Supporting Staff	I.T.I.	5200-20200 (1800)	8640	18-05-06	Temp	Other
16	Supporting staff	Shri. M. H. Patel	Supporting Staff	I.T.I.	5200-20200 (1800)	8640	18-05-06	Temp	Other

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

S. No.	Item	Area (ha)
1	Under Buildings	4.17
2.	Under Demonstration Units	1.00
3.	Under Crops	3.00
4.	Orchard/Agro-forestry	11.00
5.	Others – Pond	0.95
	Total	20.12

**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	Admin. Building	ICAR	31/03/2008	550	4017138			
2	Farmers Hostel	ICAR	17/04/2008	305.00	5657018			
3	Staff Quarters (6)	ICAR	17/04/2008	397.50	4719570			
4	Demonstration Units – Vermi Compost	ICAR	31/03/2008	80	319000			
5	Threshing floor	ICAR	01/03/2007	225	122270			
6	Farm godown	ICAR	31/03/2008	60	410000			
7	Implement Shed	ICAR	31/01/2012	80	300000			

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Mahindra Bolero	05/10/2005	5,00,000.00	110219	Moderate
Messy tractor with trolley	23/06/2004	3,50,000.00	7005 hrs	Poor
Motor cycle	13/10/2011	50,000.00	4494	Good

**C) Equipments & AV aids: NIL**

Name of the equipment	Year of purchase	Cost (Rs.)	Present status

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

<b>Sl. No.</b>	<b>Date</b>	<b>Name and Designation of Participants</b>	<b>Salient Recommendations</b>	<b>Action taken</b>
1	11/03/2014	<ol style="list-style-type: none"> <li>1. Shri A. T. Patel, President, Ganpat University</li> <li>2. Prof. P. I. Patel, Director, KVK and MDEF</li> <li>3. Dr. K. A. Thakkar, Director of Extension education, SDAU</li> <li>4. Mrs. Anita Mayekar-Bhalekar, DDM, NABARD, Mehsana</li> <li>5. Mrs. Mayuri Chaudhary, Director, Dena RSETI, Mehsana</li> <li>6. Shri. J.R. Patel, RO, Dena Bank, Mehsana</li> <li>7. Dr. D. L. Patel, Dy. Director of Agriculture, Mehsana</li> <li>8. Shri.K.M.Patel, Project Director, ATMA Mehsana</li> <li>9. Shri S.M Patel, GSFC, Mehsana</li> <li>10. Shri N. N. Patel, Trustee, MDEF</li> <li>11. Shri. K. K. Patel, Trustee, MDEF</li> <li>12. Shri. V.T. Patel, Trustee, MDEF</li> <li>13. Dr. D.N.Patel, Dy. Director of Animal Husbandry, Mehsana</li> <li>14. Dr.B. P. Rathod, Dy. Director Horticulture,</li> </ol>	<ul style="list-style-type: none"> <li>• Mention the number of animals treated in the Animal camps.</li> <li>• Increase the database of farmers up to 25000 under Kissan SMS portal service and send the SMS.</li> <li>• Prepare the list of farmers those who are not cultivating their lands and keep their land vacant. Organize seminar for these farmers, if they agreed to cultivate their land by preparing trust or co-operative society.</li> <li>• Organize Exposure tour of farmers on the field of those farmers who had conducted successful experiment.</li> <li>• If farmers of Fatehpura village of Vijapur taluka are agree to adopt MIS in whole village, prepare the model of it, so they can get maximum subsidy. We will request the Government to provide maximum subsidy.</li> <li>• If any farmers have prepared a new innovation in field of Agriculture Engineering shows this innovation to the students of Engineering, for further modification.</li> <li>• To establish a greenhouse on KVK farm with financial assistance of Dept of Agri.</li> <li>• To aware the maximum farmers about use of "Zatka Machine" to protect the farm from wild animal.</li> <li>• To provide information about Medicinal crops to the farmers.</li> <li>• Arrange monthly review meeting of KVKs under SDAU Jurisdiction at KVK.</li> <li>• There is a provision of 1,00,000/- Rs. for</li> </ul>	In progress

	<p>Mehsana</p> <p>15. Shri.B.N.Patel, Asst. Director of Agriculture, Mehsana</p> <p>16. Shri. H.P.Patel, I/C Programme Co-ordinator, KVK, Patan</p> <p>17. Shri. P.P.Lakhani, PEX (F&amp;H), All India Radio, Vadodara</p> <p>18. Shri. Mahendrabhai Mistry, Technical</p> <p>19. Shri. A. K. Patel, Seed Officer, Mehsana</p> <p>20. Shri. H.A.Patel, Extension Officer, Animal Husbandry, Mehsana</p> <p>21. Mr. J.M. Khokar, Progressive Farmer, Savala</p> <p>22. Mr. Dahyabhai Patel, Progressive Farmer, Hasanpur</p> <p>23. Mrs. Bhikhiben Patel, Progressive Farm Woman, Susi</p> <p>24. Mrs. Sangitaben Patel, Progressive Farm Woman, Mathasur</p>	<p>conducting OFT under ATMA project there for send proposal to conduct the OFT.</p> <ul style="list-style-type: none"> <li>• Prepare IPM module in collaboration with Department of Horticulture, ATMA Project &amp; KVK.</li> <li>• Arrange a demonstration on drip irrigation and organize field day on it.</li> <li>• To organize demonstration on Integrated Farming system.</li> <li>• To give more emphasis on preparation and use of bio-pesticides.</li> <li>• Increase the production of seeds so that large number of farmers may be benefited.</li> <li>• Mehsana Districts have large area under lime cultivation. Therefore, do more effort to save the lime crops from the Nematode infestation.</li> <li>• Increase number of programmes for sustainable development of Vermicompost.</li> <li>• To prepare a DVD of a successful farmers and give it to other farmers for early adoption his technologies.</li> <li>• There is a scarcity of labour in agriculture therefore more focus on use of improved implements.</li> <li>• Prepare a success story of farmers and send to Doordarshan Vadodara for wider publicity.</li> <li>• Send the list of SMS of KVK to arrange a Radio Talk on Doordarshan Programme.</li> </ul>	
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*\* Attach a copy of SAC proceedings along with list of participants*

## **2. DETAILS OF DISTRICT (2013-14)**

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

<b>S. No</b>	<b>Farming system/enterprise</b>
1	Groundnut-Potato-Summer Pearl millet
2	Cotton – Wheat
3	Castor-Summer Pearl millet
4	Fennel
5	Green gram/Sesamum –Cumin
6	Pulses-Mustard-Summer Pearl millet
7	Pulses-Fennel

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

<b>S. No</b>	<b>Agro-climatic Zone</b>	<b>Characteristics</b>
1	VI	Semi arid and Subtropical

#### Major agro ecological situations

<b>Sr. No</b>	<b>Agro-ecological situation</b>	<b>Soil texture</b>	<b>Rain fall (mm)</b>	<b>Altitude</b>	<b>Principal crop</b>	<b>Special Features</b>	<b>Approximate area ('000 ha)</b>	<b>Taluka</b>
1	Alluvial sandy soils with medium rain fall	Sandy and loamy sand	700-850	150-300	Pearl millet , Sorghum	Pearl millet best cropping system	134.8 (5.83 %)	Kheralu
2	Alluvial sandy soils with low rain fall	Sandy loam	500-700	150-300	Pearl millet , Mustard	Pearl millet best cropping system	48.8 (2.11%)	Visnagar
3	Alluvial sandy loam soils with medium rain fall	Sandy loam	700-850	150-300	Pearl millet , Sorghum	Flat topography with 5 % slope	377.8 (16.34%)	Vijapur, Major(80 %) part of Kadi and Mehsana
4	Medium black ill-drained soils with medium rainfall	Sandy, Clay loam and clay	700-850	25-75	Rice, Cotton	Area has impeded drainage with saline sub-soil water	48.6 (2.1 %)	Parts (20 %) of Kadi

### 2.3 Soil type/s

S. No	Soil type	Characteristics	Area in ha
1	Medium black	<ul style="list-style-type: none"><li>• Medium water holding capacity,</li><li>• Medium permeability</li></ul>	64500
2	Sandy loam	<ul style="list-style-type: none"><li>• Retain more water and nutrient than sandy soil and black soil</li></ul>	259700
3	Sandy	<ul style="list-style-type: none"><li>• Low water holding capacity</li><li>• High permeability</li></ul>	28900
4	Saline / salt affected	<ul style="list-style-type: none"><li>• Salt accumulate on soil surface,</li><li>• Water logging condition,</li><li>• Crack formation during summer season</li><li>• It contain excess neutral soluble salts chiefly chlorides and sulphate of Na, Mg and Ca</li></ul>	81900
<b>Total</b>			<b>435000</b>



**2.4 (A) Area, Production and Productivity of major crops cultivated in the district ( 2010-11)**

Srno	Crop	Area (00' ha)	Production (00'M.T)	Productivity (kg/ha)
1.1	Rice	82	174	2122
1.2	Bajara – Kharif	367	362	988
1.3	Jowar – Kharif	27	29	1070
1.4	Maize – Kharif	6	10	1638
1.5	Cereals – Kharif	6	4	609
<b>1</b>	<b>Cereals – Kharif Total</b>	<b>488</b>	<b>579</b>	<b>1186</b>
2.1	Moong – Kharif	125	59	469
2.2	Moth – Kharif	18	11	599
2.3	Urd Kharif	76	57	745
2.4	Tur – Kharif	2	2	985
2.5	Pulses- Kharif	40	20	496
<b>2</b>	<b>Pulse – Total Kharif</b>	<b>261</b>	<b>149</b>	<b>571</b>
<b>3</b>	<b>Food grains Total Kharif</b>	<b>749</b>	<b>728</b>	<b>972</b>
4.1	Wheat	753	2299	3053
4.2	Cereals – other rabi	8	9	1157
<b>4</b>	<b>Cereals – Total Rabi</b>	<b>776</b>	<b>2338</b>	<b>3013</b>
5.1	Gram	3	5	1380
5.2	Pulses – other rabi	3	2	627
<b>5</b>	<b>Pulse – Total Rabi</b>	<b>6</b>	<b>7</b>	<b>1167</b>
<b>6</b>	<b>Food grains Total Rabi</b>	<b>782</b>	<b>2345</b>	<b>2999</b>
7.1	Bajara- Summer	347	897	2589
<b>7</b>	<b>Bajara – Total</b>	<b>714</b>	<b>1259</b>	<b>1763</b>
8.1	Groundnut – Kharif	34	64	1864
8.2	Groundnut – Summer	4	6	1777
8.3	Groundnut – Total	38	70	1842
8.4	Sesamum – Kharif	82	29	349
8.5	Castor	604	1191	1970
8.6	Mustard	348	550	1582
<b>8</b>	<b>Oilseed Total</b>	<b>1080</b>	<b>1843</b>	<b>1707</b>
9.1	Cotton irrigated	490	2138	741
9.2	Cotton unirrigated	82	105	219
<b>9</b>	<b>Cotton total</b>	<b>572</b>	<b>2243</b>	<b>667</b>
10	Tobacco – Kharif	5	9	1746
11	Cumin	66	30	454
12	Fennel	82	116	1412
13	Isabgol	9	4	472
14	Onion rabi	2	61	27396
15	Garlic	1	3	5709
16	Potato	51	1223	24137
17	Chilly	1	1	1001
18	Guar seed	60	35	586
19	Banana	0	0	0

Source : Krushi bhavan, Gandhinagar

**(B) Area, Production and Productivity of horticulture crops cultivated in the district (2012-13)**

Sr. No	Category	Crop	Area	Prod	Pvty.
1	Flower	Rose	35	218	6.23
2		Marigold	42	223	5.30
3		Others	15	108	7.20
4	Fruits	Mango	966	5989	6.20
5		Sapota	1121	9248	8.25
6		Citrus	10431	97008	9.30
7		Ber	1895	15350	8.10
8		Guava	743	6858	9.23
9		Pomegranate	484	2130	4.40
10		Papaya	779	29602	38
11		Custard apple	73	82	1.12
12		Aonla	1970	13987	7.10
13		Others	35	000	0000
14		Spices	Cumin	11400	8550
15	Fennel		13945	25380	1.82
16	Garlic		110	627	5.70
17	Coriander		298	402	1.35
18	Fenugreek		571	1308	2.29
19	Isabgol		561	438	0.78
20	Ajawan		578	457	0.79
21	Dill seed		2030	2152	1.06
22	Chilly –Dry			1604	1.15
23	Chilly- green		1395	4464	3.20
24	Vegetable	Potato	7430	179063	24.10
25		Onion	273	5514.6	20.20
26		Brinjal	1992	29481.6	14.80
27		Cabbage	830	13778	16.60
28		Okra	1865	22566.5	12.10
29		Tomato	3310	97016.1	29.31
30		Cauliflower	836	13668.6	16.35
31		Cluster bean	2498	18485.2	7.40
32		Cowpea	868	7638.4	8.80
33		Cucurbits	1540	15554	10.10

*Area in Hectares, Production in M.T., Productivity M.T./Ha., Source : Krushi Bhavan, Department of Horticulture, Mehsana*

## 2.5. Weather data

Month	Rainfall (mm)	Temperature ° C		Relative Humidity (%)
		Maximum	Minimum	
April-2013	7.4	37.38	20.83	70.83
May-2013	-	42.07	24.47	79.70
June-2013	86.2	35.40	25.60	86.40
July -2013	570	32.00	21.80	92.00
August -2013	216.4	31.61	23.36	96.00
September-2013	148.4	33.80	24.72	93.50
October-2013	64.2	33.96	22.69	88.12
November-2013	-	31.30	18.00	77.20
December-2014	-	26.60	13.70	81.10
January-2014	-	25.10	9.30	82.10
February-2014	-	29.70	12.17	81.90
March-2014	-	34.35	16.13	70.97

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

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	99324	165920 ton	8.24 kg
<i>Indigenous</i>	94300	58429 ton	2.97 kg
<b>Buffalo</b>	561900	474390 ton	4.16 kg
<b>Sheep</b>			
<i>Crossbred</i>	18900	21 ton	1.1 kg
<i>Indigenous</i>			
<b>Goats</b>	91700	6246 ton	0.31
<b>Pigs</b>			
<i>Crossbred</i>			
<i>Indigenous</i>			
<b>Rabbits</b>			
<b>Poultry</b>			
Hens			
<i>Desi</i>	10200	1193400 no egg	117
<i>Improved</i>	23000	6624000 no egg	288
Ducks			
Turkey and others			

Category	Area	Production	Productivity
Fish			
<i>Marine</i>			
<i>Inland</i>			
Prawn			
Scampi			
Shrimp			

## 2.6 Details of Operational area / Villages (2013-14)

Sl.No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Visnagar	Visnagar	Denap, Kansarakui, Valam, Hasanpur, Ghaghret, Kansa, Sunki, Savala, Ganeshpura	Castor, Cotton, Tobacco, Wheat, Pearl millet , Sorghum, Mustard, Lucerne, Fennel, Cumin, Chilly, Tomato, Sapota, Aonla, Green gram, livestock, farm implements and home science	<ul style="list-style-type: none"> <li>• Less land holding</li> <li>• No use of high yielding and resistant varieties</li> <li>• No use of micronutrients</li> <li>• Acute shortage of irrigation water</li> <li>• Unawareness about pest identification and disease diagnosis</li> <li>• Shortage of organic manures</li> <li>• Poor quality of manures</li> <li>• Imbalance chemical fertilizers application</li> <li>• Poor physical characteristic of soils</li> <li>• Low availability of green fodder</li> <li>• Crop damaged by wild animals</li> <li>• Low market price of crop produced</li> <li>• Unhealthy raising of vegetables seedling</li> <li>• Low productivity of livestock</li> <li>• Not follow post harvest</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated Crop Management</li> <li>• Integrated Nutrient Management</li> <li>• Integrated Pest Management</li> <li>• Integrated Disease Management</li> <li>• Micro Irrigation System</li> <li>• Disease Management in dairy animal</li> <li>• Feed Management in dairy animals</li> <li>• Dairy Management</li> <li>• Breeding management in dairy animals</li> <li>• Soil fertility management</li> <li>• Nursery Management</li> </ul>
2	Mehsana	Mehsana	Khadalpur, Ambasan, Bhesana, Boriyavi, Maguna, Jotana, Laxmipura, Deloli			
3	Kadi	Kadi	Dharampur, Fuletra, Lhor, Yasvantpura			
4	Vijapur	Vijapur	Mahadevpura, Vasai, Fudeda, Ganeshpura, Bhimpura, Dhanpura			
5	Satlasana	Satlasana	Kubda, Vasda, Bhalunani, Navavas			
6	Bechraji	Bechraji	Ranela, Jetpur, Akba, Rantej,			
7	Vadnagar	Vadnagar	Dabu, Karbatiya, Khatoda, Unad			

8	Kheralu	Kheralu	Malarpura, Thangna, Vaghvadi, Vithoda, Dabhad		<p>managment</p> <ul style="list-style-type: none"> <li>• Found health weakness in Girls and women</li> <li>• Heavy mortality rates in chicks</li> <li>• Improper Orchard management</li> <li>• High cost of cultivation</li> <li>• Labour scarcity</li> <li>• High cost of animal feeds</li> <li>• Unawareness about animal feed management</li> <li>• Found storage loss in grain</li> <li>• Poor socio economic conditions</li> <li>• Lack awareness about balance diet in BPL families</li> <li>• Indiscriminate use of pesticides</li> <li>• Less shelf life of fruits and</li> </ul>	<ul style="list-style-type: none"> <li>• Fodder Production</li> <li>• Production of Organics Inputs</li> <li>• Micro nutrients application in crops</li> <li>• Production and Management technology of horticultural crops</li> <li>• Value Addition</li> <li>• Income Generating activities</li> <li>• Low Cost Higher Nutrient Diet</li> <li>• Storage loss Minimisation</li> </ul>
9	Unjha	Unjha	Amudh, Hajipur, Jetalvasna, Karli, Mahervada, Laxmipura (Aithor)			

					<p>vegetables</p> <ul style="list-style-type: none"> <li>• Anemia in adolscent girls and farm women</li> <li>• Lack of knowledge about secondary agriculture</li> <li>• Use of improved farm implements are not affordable</li> <li>• Heavy infestation of nemotodes in fruits and vegetable crops</li> </ul>	<p>Technology</p> <ul style="list-style-type: none"> <li>• Women and Child Care</li> <li>• Household Food Security</li> <li>• Protected cultivation</li> <li>• Farm Mechanisation</li> <li>• Group Dynamics</li> <li>• Enterprenuership Development</li> <li>• Local specific Drudgery Reduction Technology</li> </ul>
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## 2.7 Priority/thrust areas

Crop/Enterprise	Thrust area
Cotton,Castor	Integrated Crop Management Integrated Nutrient Management Integrated Disease Management Integrated Pest Management Micro Irrigation System
Sesamum, Blackgram , Clusterbean	Integrated Crop Management Integrated Nutrient Management Integrated Disease Management Seed Production
Kharif Pearlmillet	Integrated Crop Management Integrated Nutrient Management Storage Loss Minimisation Technique
Kharif Groundnut	Integrated Crop Management Integrated Nutrient Management Integrated Disease Management Micro Irrigation System Seed Production
Chilly	Integrated Disease Management Integrated Pest Management Integrated Crop Management Integrated Nutrient Management Micro Irrigation System Value Addition Nursery Management Production Technology
Mustard	Integrated Crop Management Integrated Nutrient Management Integrated Pest Management
Wheat	Integrated Crop Management Integrated Nutrient Management Integrated Pest Management Storage Loss Minimisation Technique Soil Moisture conservation
Fennel	Integrated Crop Management Integrated Nutrient Management Integrated Disease Management Integrated Pest Management Micro Irrigation System Value Addition
Lucerne	Fodder Production Seed Production
Cumin	Integrated Crop Management Integrated Nutrient Management Integrated Disease Management Integrated Pest Management Value Addition
Tomato	Production Technology

	<p>Micro Nutrient Application  Integrated Disease Management  Integrated Pest Management  Value Addition  Nursery Management  Micro Irrigation System  Protected Cultivation</p>
Acid Lime,Pomogranate	<p>Production Technology  Micro Nutrient Application  Integrated Disease Management  Integrated Pest Management  Value Addition  Micro Irrigation System</p>
Kitchen Garden	Household Food Security
Potato	<p>Integrated Crop Management  Integrated Nutrient Management  Integrated Disease Management  Integrated Pest Management  Micro Irrigation System  Value Addition</p>
Sorghum	<p>Fodder Production  Seed Production  Integrated Nutrient Management</p>
Farm Implements	<p>Local Specific Drudgery Reduction Technology  Farm Mechanisation</p>
Cattle	<p>Dairy Management  Feed Management  Disease Management  Breeding Management</p>
Soil Health	<p>Production of Organic Inputs  Soil Fertility Management</p>
Women Empowerment & Home Science	<p>Income Generating Activities  Women and child care  Value Addition  Low Cost High Nutrient Diet</p>
Capacity Building	<p>Group Dynamics  Enterprenuership Development</p>



### **3. TECHNICAL ACHIEVEMENTS**

#### **3.A. Details of target and achievements of mandatory activities by KVK during (2013-14)**

<b>OFT (Technology Assessment and Refinement)</b>				<b>FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)</b>			
<b>1</b>				<b>2</b>			
<b>Number of OFTs</b>		<b>Number of Farmers</b>		<b>Number of FLDs</b>		<b>Number of Farmers</b>	
<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>	<b>Targets</b>	<b>Achievement</b>
6	6	57	57	23	24	400	398

<b>Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)</b>					<b>Extension Activities</b>			
<b>3</b>					<b>4</b>			
<b>Number of Courses</b>			<b>Number of Participants</b>		<b>Number of activities</b>		<b>Number of participants</b>	
<b>Clientele</b>	<b>Target s</b>	<b>Achievement</b>	<b>Target s</b>	<b>Achievement</b>	<b>Target s</b>	<b>Achievement</b>	<b>Target s</b>	<b>Achievement</b>
Farmers	77	99	1570	2825	485	2536	-	48217
Rural youth	19	18	380	421				
Extn. Functionaries	5	2	130	52				

<b>Seed Production (Qtl.)</b>			<b>Planting material (Nos.)</b>	
<b>5</b>			<b>6</b>	
<b>Target</b>	<b>Achievement</b>		<b>Target</b>	<b>Achievement</b>
20	60.29		1,00,000	52,116

### 3.B. Abstract of interventions undertaken

S. No	Thrust area	Crop/ Enterprise	Identified Problem	Interventions					
				Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	Extension activities	Supply of seeds, planting materials etc.
1	Integrated Crop Management and nursery management	Cotton, Castor, Sesamum, Blackgram, Clusterbean, Pearlmillet, Groundnut, Mustard, Wheat, Fennel, Cumin, Potato and Chilly	<ul style="list-style-type: none"> <li>• Low productivity of the major crops,</li> <li>• No use of high yielding variety</li> <li>• Unhealthy raising of vegetable seedling</li> <li>• Improper orchard management</li> </ul>	Hasta bahar management in Acid Lime	Component Demonstration on, Fennel, Castor, Mustard, Chilly, Cotton, Sorghum, Wheat, Groundnut, Sesamum, Blackgram and Cluster bean	<ul style="list-style-type: none"> <li>• Scientific cultivation of major crops</li> <li>• seed production</li> <li>• weed management</li> <li>• Production technology of horticultural crops</li> </ul>	Production technology of kharif crops, Agro forestry, horticultural, floricultural, medicinal and aromatic crops	<ul style="list-style-type: none"> <li>-Field day</li> <li>-Field visit</li> <li>-SHG</li> <li>-News Paper coverage</li> <li>-FLDs</li> <li>-Telephonic guidance</li> <li>- Group discussion</li> </ul>	Supply of seeds of high yielding varieties of Fennel, Castor, Mustard, Cotton, Sorghum, Wheat, Ground nut, Sesamum, Blackgram and Cluster bean and seedling of Chilly through FLDs

2	Integrated Pest Management	Cotton, Castor, Acid lime, Pomgranate, Mustard, Wheat, Fennel, Cumin, Potato and Chilly	-Indiscriminate use of pesticides -Unawareness about pest identification - Heavy infestation of nematode in fruits and vegetable crops - Found stroge loss in grains		Demonstration on Tomato	-IPM in major crops - Bio control of pests and diseases	--	-Field visit -diagnostic service -Method demonstration -Telephonic guidance -Group discussion -News paper coverage	- Supply NPV and Trichograma through FLD
3	Integrated Disease Management	Cotton, Castor, Sesamum, Blackgram, Clusterbean, Acid lime , Pomgranate, Groundnut, Tomato, Fennel, Cumin, Potato and Chilly	Unawareness about disease diagnosis	Canker management in Acid lime	Demonstration on Cumin and Ground nut	-IDM in major crops - Bio control of diseases	--	- Field visit -diagnostic service -Method demonstration -Telephonic guidance -Group discussion -News paper coverage	Supply Trichoderma through FLD

4	Integrated Nutrient Management	Cotton, Castor, Sesamum, Blackgram, Clusterbean, Pearlmillet, Groundnut, Mustard, Wheat, Fennel, Tomato, Pomgranate, Acid lime, Sorghum, Potato and Chilly	- Imbalance chemical fertilizer application - No use of micro nutrients - Shortage of organic manures - Poor quality of manures	- Fertilizer requirement in summer - Pearl millet	Demonstration on pearl millet, Pomegranate	Integrated Nutrient Management in Major crops - Nutrient use efficiency	-	-Field visit - Field day -Diagnostic service -Telephonic guidance -News paper coverage	-Supply of ZnSO <sub>4</sub> in Pearl millet - Application of G-4 micronutrient in Pomegranate
5	Micro Irrigation System	Cotton, Castor, Tomato, Pomgranate, Acid lime, Groundnut, Fennel, Potato and Chilly	- Acute shortage of irrigation water - Improper orchard management	-	-	-Drip irrigation in cash crops -Repair & - Maintenance of MIS	-	-Fields visit -Diagnostic service	-
6	Fodder Production	Lucerne, Sorghum.	- Low availability of green fodder - Low productivity of live stock - Unawareness about feed management - High cost of animal feed		Demonstration on Lucerne and Sorghum	Scientific cultivation of fodder crops	-	-Field day -Field visit -SHG -News Paper coverage -FLDs -Telephonic guidance - Group discussion	Supply seed of Lucerne and Sorghum through FLD

7	Soil fertility management and Soil moisture conservation	Major oilseeds, cash crops, food grains, pulses and Horticultural crops	<ul style="list-style-type: none"> <li>- Shortage of organic manures</li> <li>- Poor quality of manures</li> <li>- Poor physical characteristics of soil</li> </ul>	To assess the effect of hydrogel for conserving soil moisture in Wheat	Demonstration of dhaincha for green manuring	<ul style="list-style-type: none"> <li>-Training on organic farming</li> <li>-Vermi compost production</li> <li>- Training on green manuring</li> </ul>	-	<ul style="list-style-type: none"> <li>-News Paper coverage</li> <li>-Field visit</li> <li>-Film show</li> <li>-Method demonstration</li> </ul>	-Supply seeds of dhaincha through FLD
8	Dairy management	Cattle	<ul style="list-style-type: none"> <li>- Low productivity of live stock</li> <li>- Lack of knowledge about secondary agricultural business</li> </ul>		-	Trainings on Scientific dairy management	-	<ul style="list-style-type: none"> <li>-Diagnostic service</li> <li>-News Paper coverage</li> <li>-Field visit</li> <li>-Film show</li> <li>-Method demonstration</li> <li>-Animal Health Camp</li> </ul>	--

9	Feed management	Cattle	<ul style="list-style-type: none"> <li>- Low availability of green fodder</li> <li>- Low productivity of live stock</li> <li>- Unawareness about feed management</li> <li>- High cost of animal feed</li> </ul>	<ul style="list-style-type: none"> <li>- To assess the effect of By pass fat to improve the fat percent in high yielding crossbred cow</li> </ul>	Demonstration on Urea treatment in wheat straw	Trainings on feeding	-	<ul style="list-style-type: none"> <li>-Diagnostic service</li> <li>-News Paper coverage</li> <li>-Field visit</li> <li>-Film show</li> <li>-Method demonstration</li> <li>-Animal Health Camp</li> </ul>	-Supply of Urea and plastic sheet through FLD
10	Disease management	Cattle, Poultry	<ul style="list-style-type: none"> <li>- Low productivity of live stock</li> <li>- Heavy mortality rate in chicks</li> <li>- Lack of knowledge about secondary agricultural business</li> </ul>	-	Demonstration on Fenbendazole and Saaf kit	Training on disease management in cattle and poultry management		<ul style="list-style-type: none"> <li>-Diagnostic service</li> <li>-News Paper coverage</li> <li>-Field visit</li> <li>-Film show</li> <li>-Method demonstration</li> <li>-Animal Health Camp</li> </ul>	-Supply of Fenbendazole and Saaf kit through FLD

11	Value Addition	Chilly, Cumin, Tomato, Acid lime, Pomogranate and Potato	-Low market price of crop produce - Not follow post harvest techniques -Lack of awareness about balance diet in BPL families - Less self life of fruits and vegetables - Found stroge loss in grains	-		-Trainings on value added products of Chilly, Cumin, Tomato, Acid lime and Potato	-	- Method demonstration -Group meetings -Group discussion -Popular articles -Exposure visit	-
12	Group dynamics	--	-Less land holding -Crop damage by wild animals -Labour scarcity - High cost of cultivation	-	-	- Enterprenurship development, -Formation, management and sustainability of farmer clubs, SHGs and formal groups exists in village	-	-Group meetings -Group discussion -Exposure tour -Telephonic guidance	-

13	House hold food security and Women and child care	--	-Lack of awareness about balance diet in BPL families - Less shelf life of fruits and vegetables -Anemia in adolcent girls and farm women -Poor Socio Economic condition - Found health weakness in girls and farm women	Hemoglobin maintain in adolsant girl	Demonstration on Kitchen garden	-Importance of balanced diet -Health care of pregnant women -Training on income generating activities -Kitchen gardening - Women and childcare	-	-Group meetings - Film show -Method demonstration - Popular articles	-Seeds and seedlings of seasonal vegetables distribution for kitchen gardening through FLD
14	Location specific drudgery reduction technology	Major oilseeds, cash crops, food grains, pulses and Horticultural crops and improved agricultural implements	-Less land holding -Labour scarcity - High cost of cultivation - Use of improved farm implements are not affordable	-	Demonstration on Wheel hoe	Importance of improved agril. Machinery - Drudgery reduction in agriculture	-	Demonstration of improved machineries -Film show -Method demonstration of improved agricultural implements	- Supply wheel hoe through FLD



### 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	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management						1				1
Integrated Nutrient Management	1									1
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Value addition										
Integrated Pest Management										
Integrated Disease Management						1				1
Resource conservation technology	1									1
Small Scale income generating enterprises										
<b>TOTAL</b>	<b>2</b>					<b>2</b>				<b>4</b>

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management										
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
<b>TOTAL</b>										

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	1							1
Disease of Management								
Value Addition								
Production and Management	1							1
Feed and Fodder								
Small Scale income generating enterprises								
<b>TOTAL</b>	<b>2</b>							<b>2</b>

**A.4. Abstract on the number of technologies refined in respect of livestock / enterprises**

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management	1							1
Feed and Fodder								
Small Scale income generating enterprises								
<b>TOTAL</b>	<b>1</b>							<b>1</b>

**A.5. Abstract of the number of technologies assessed in respect of Home Science**

Thematic areas	Women	TOTAL
Household food security by kitchen gardening and nutrition gardening		
Design and development of low/minimum cost diet		
Designing and development for high nutrient efficiency diet		
Minimization of nutrient loss in processing		
Gender mainstreaming through SHGs		
Storage loss minimization techniques		
Value addition		
Income generation activities for empowerment of rural Women		
Location specific drudgery reduction technologies		
Rural Crafts		
Women and child care	1	1
<b>TOTAL</b>	<b>1</b>	<b>1</b>

**A.6. Abstract on the number of technologies refined in respect of Home Science**

Thematic areas	Women	TOTAL
Household food security by kitchen gardening and nutrition gardening		
Design and development of low/minimum cost diet		
Designing and development for high nutrient efficiency diet		
Minimization of nutrient loss in processing		
Gender mainstreaming through SHGs		
Storage loss minimization techniques		
Value addition		
Income generation activities for empowerment of rural Women		
Location specific drudgery reduction technologies		
Rural Crafts		
Women and child care		
<b>TOTAL</b>		

\* There is no table for Home Science discipline, therefor addition table i.e A-5 & A-6 are prepared for sowing technology assess.

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

**A Technology Assessment**

**Trial - 1**

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1. Title	:	Reduction of calving interval in Mehsani Buffaloes
2. Problem diagnose/defined	:	Longer calving interval in Mehsani Buffaloes due to deficiency of nutrients
3. Details of technologies selected for assessment /refinement	:	<hr/> <b>T<sub>1</sub></b> : First group of seven recently calving buffaloes treated as routine farmer practices <b>T<sub>2</sub></b> : Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day for 90 days <b>T<sub>3</sub></b> : Third group of seven recently calving buffaloes gives mineral mixture @ 30 gm /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days <hr/>
4. Source of technology	:	SAU's
5. Production system	:	--
6. Thematic area	:	Livestock Production Management
7. Performance of the Technology with performance indicators	:	Observation : Reduction in calving interval Third year result showed 15 month interval in T <sub>3</sub> where as 16,19 month in T <sub>2</sub> and T <sub>1</sub> , respectively
8. Final recommendation for micro level situation	:	T <sub>3</sub> treatment is very effective for reduction of calving interval in Mehsani Buffaloes
9. Constraints identified and feedback for research	:	--
10. Process of farmers participation and their reaction	:	Group meetings and Field visits --

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## 11. Result of On Farm Trial

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11
Live stock	--	Longer calving interval in Mehsani Buffaloes due to deficiency of nutrient	Reduction of calving interval in Mehsani Buffaloes	10	: First group of seven recently calving buffaloes treated as routine farmer practices	Reduction in calving interval	19 Months	T <sub>3</sub> was found superior		
					Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days		16 months			
					Third groups of seven recently calving buffaloes give mineral mixture @ 30 gm for 90 days and Cap. Prajana (Hormonal Catalyst) 3 / days for three days		15 months		Mineral mixture and Prajana (Hormo nal Catalys t) reduce the calving interval	Application of mineral mixture @ 30 gm for 90 days and Cap. Prajana (Hormonal Catalyst) 3 / days for three days to recently calved buffalo reduce the calving interval.

Third year result

<b>Technology Refined</b>	<b>*Production per unit</b>	<b>Net Return (Profit) in Rs. / unit</b>	<b>BC Ratio</b>
<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
T <sub>1</sub> : First group of seven recently calving buffaloes treated as routine farmer practices	19	-	-
T <sub>2</sub> : Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days	16	-	-
T <sub>3</sub> : Third group of seven recently calving buffaloes gives mineral mixture @ 30 gm	15	-	-

**\*\* Give details of the technology assessed or refined and farmer's practice**

## Trial 2

1. Title	:	Management of Hasta bahar in acid lime		
2. Problem diagnose/defined	:	Low yield in summer season		
3. Details of technologies selected for assessment /refinement	:			
		<b>Source</b>	<b>Technology</b>	<b>Justification</b>
		T <sub>1</sub> Farmer practices	Digging of upper soils in Sept. and withholding of irrigation for 20 days	This practice is harmful to lime tree in long term and Low yield
		T <sub>2</sub> Recommended by SAU's	Digging of upper soils in Sept. and withholding of irrigation for 20 days and apply two spray of 500 ppm Cycocel at 15 days intervals in Sept-Oct	Fruit mature only 20 days earlier and no higher fruit setting in summer
		T <sub>3</sub> to be assessed by KVK	Application of 50 ppm GA <sub>3</sub> in June + 1000 ppm Cycocel in Sept. + 1 per cent KNO <sub>3</sub> in Oct.	Regulated the flowering in mrig and ambia bahar and manage the maximum yield from hasta bahar (i.e. summer season)
4. Source of technology	:	SAU		
5. Production system	:	Irrigated		
6. Thematic area	:	Integrated Crop Management		
7. Performance of the Technology with performance indicators	:	No. of fruits per plant (T <sub>1</sub> :1225, T <sub>2</sub> : 1314, T <sub>3</sub> : 1528), Fruit yield kg/plant (T <sub>1</sub> :44.12, T <sub>2</sub> : 48.77, T <sub>3</sub> : 59.25)		
8. Final recommendation for micro level situation	:	Third year experiment, Result awaited		
9. Constraints identified and feedback for research	:	-		
10. Process of farmers participation and their reaction	:	Group meetings and Field visits		

## 11. Result of On Farm Trial

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11
Acid Lime	Irrigation	Low yield in summer season	Management of Hasta bahar in acid lime	10	T <sub>1</sub> : Digging of upper soils in Sept. and withholding of irrigation for 20 days	No. of fruit per plant, Fruit yield kg/plant	No. of fruits per plant ( 1225), Fruit yield kg/plant (44.12)			
					T <sub>2</sub> : Digging of upper soils in Sept. and withholding of irrigation for 20 days and apply two spray of 500 ppm Cycocel at 15 days intervals in Sept-Oct		No. of fruits per plant (1314), Fruit yield kg/plant (48.77)			
					T <sub>3</sub> : Application of 50 ppm GA <sub>3</sub> in June + 1000 ppm Cycocel in Sept. + 1 % KNO <sub>3</sub> in Oct.		No. of fruits per plant (1528), Fruit yield kg/plant (59.25)	T <sub>3</sub> found to be superior	Treatment T <sub>3</sub> gave higher yield in summer season	



<b>Technology Refined</b>	<b>*No of fruits per plant</b>	<b>Fruit yield kg per plant</b>	<b>BC Ratio</b>
<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
T <sub>1</sub> : Digging of upper soil in Sept. and withholding of irrigation for 20 days	1225	44.12	-
T <sub>2</sub> : Digging of upper soil in Sept. and withholding of irrigation for 20 days and apply two spray of 500 ppm Cycocel at 15 days intervals in Sept-Oct	1314	48.77	-
T <sub>3</sub> : Application of 50 ppm GA <sub>3</sub> in June + 1000 ppm Cycocel in Sept. + 1 % KNO <sub>3</sub> in Oct.	1528	59.25	-

*Third year result is awaited.*

### Trial: 3

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1. Title	:	To assess the effect of By pass fat to improve the fat percent in high yielding crossbred cow
2. Problem diagnose/define	:	In high yielding crossbred cows, there is high incidence of low fat percent.
3. Details of technologies selected for assessment	:	<hr/> $T_1$ - <i>Farmers practice</i> - Use of concentrate feed and cotton seed cake. $T_2$ - <i>Assessment</i> - Use of concentrate feed with 150 gm by pass fat for 60 days
4. Source of technology	:	<hr/> G.B. Pant university - Punjab, Bombay Vet. College - Parel, SAU, Gujarat
5. Production system	:	-
6. Thematic area	:	Nutrient Management in crossbred cow
7. Performance of the Technology with performance indicators	:	1. Fat percentage ( $T_1$ : 4.0 , $T_2$ : 4.3 ) 2. Milk production in lit/day/animal ( $T_1$ : 12.3 , $T_2$ : 12.9)
8. Final recommendation for micro level situation	:	Third year experiment, result awaited
9. Constraints identified and feedback for research	:	-
10. Process of farmers participation and their reaction		Group meetings and field visits

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## 11. Result of On Farm Trial

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11
Live stock	--	In high yielding crossbred cows, there is high incidence of low fat percent.	To assess the by pass fat to improve the fat percent in high yielding crossbred cow	10	T <sub>1</sub> - <i>Farmers practice</i> - Use of concentrate feed and cotton seed cake.	1. Fat percentage 2. Milk production per lit/day/animal	1. Fat percentage : 4.0 2. Milk production per : 12.3 lit / day / animal			
					T <sub>2</sub> - <i>Assessment</i> - Use of concentrate feed with 150 gm by pass fat		1. Fat percentage : 4.3 2. Milk production per : 12.9 lit / day / animal	T <sub>2</sub> was found superior	Treatment T <sub>2</sub> gives higher fat and milk production	

Technology Refined	*Fat percentage	Milk production lit/day/animal	BC Ratio
12	13	14	15
T <sub>1</sub> - <i>Farmers practice</i> - Use of concentrate feed and cotton seed cake.	4.0	12.3	-
T <sub>2</sub> - <i>Assessment</i> - Use of concentrate feed with 150 gm by pass fat	4.3	12.9	-

*Second year result, Third year result is awaited.*

**\*\* Give details of the technology assessed or refined and farmer's practice**

**Trial: 4**

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1. Title	:	Fertilizer requirement in summer Pearl millet												
2. Problem diagnose/defined	:	Higher cost of cultivation due to high dose of fertilizer												
3. Details of technologies selected for assessment /refinement	:	<table><thead><tr><th></th><th><b>Source</b></th><th><b>Technology</b></th></tr></thead><tbody><tr><td>T<sub>1</sub></td><td>Farmer practices</td><td>37.5 : 100: 00 kg/ha NPK as basal and 96 kg N/ha in two split as top dressing</td></tr><tr><td>T<sub>2</sub></td><td>Recommended by SAU's</td><td>80 : 60: 00 kg/ha NPK as basal and 80 kg N/ha in one split at 30 DAS as top dressing</td></tr><tr><td>T<sub>3</sub></td><td>To be assessed by KVK</td><td>23.5 : 60 : 00 NPK kg/ha as basal and 80 kg/ha N in to splits as top dressing</td></tr></tbody></table>		<b>Source</b>	<b>Technology</b>	T <sub>1</sub>	Farmer practices	37.5 : 100: 00 kg/ha NPK as basal and 96 kg N/ha in two split as top dressing	T <sub>2</sub>	Recommended by SAU's	80 : 60: 00 kg/ha NPK as basal and 80 kg N/ha in one split at 30 DAS as top dressing	T <sub>3</sub>	To be assessed by KVK	23.5 : 60 : 00 NPK kg/ha as basal and 80 kg/ha N in to splits as top dressing
	<b>Source</b>	<b>Technology</b>												
T <sub>1</sub>	Farmer practices	37.5 : 100: 00 kg/ha NPK as basal and 96 kg N/ha in two split as top dressing												
T <sub>2</sub>	Recommended by SAU's	80 : 60: 00 kg/ha NPK as basal and 80 kg N/ha in one split at 30 DAS as top dressing												
T <sub>3</sub>	To be assessed by KVK	23.5 : 60 : 00 NPK kg/ha as basal and 80 kg/ha N in to splits as top dressing												
4. Source of technology	:	SAU												
5. Production system	:	Irrigated												
6. Thematic area	:	Integrated Nutrient Management												
7. Performance of the Technology with performance indicators	:	Result showed that T <sub>2</sub> gave higher grains (4620 kg/ha) and fodders yield (6760 kg/ha) as compared to T <sub>3</sub> and T <sub>1</sub> treatment												
8. Final recommendation for micro level situation	:	Second year experiment, resulted awaited												
9. Constraints identified and feedback for research	:	-												
10. Process of farmers participation and their reaction	:	Group meetings and Field visits												

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## 11. Result of On Farm Trial

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11
Summer Pearl millet	Irrigation	Higher cost of cultivation due to high dose of fertilizer	Fertilizer requirement in summer Bajara	10	T <sub>1</sub> : 37.5 : 100: 00 kg/ha NPK as basal and 96 kg N/ha in two split as top dressing	Grains and fodder yields	Grains: 4210 kg/ha and fodder : yields : 6410 kg/ha			
					T <sub>2</sub> : 80 : 60: 00 kg/ha NPK as basal and 80 kg N/ha in one split at 30 DAS as top dressing		Grains: 4620 kg/ha and fodder : yields : 6760 kg/ha	T <sub>2</sub> found to be superior	Treatment T <sub>2</sub> gave higher yield	
					T <sub>3</sub> : 23.5 : 60 : 00 NPK kg/ha as basal and 80 kg/ha N in to splits as top dressing		Grains: 4370 kg/ha and fodder : yields : 6380 kg/ha			

Technology Refined	Grain yield (kg/ha)	Fodder yield (kg/ha)	BC Ratio
12	13	14	15
T <sub>1</sub> : 37.5 : 100: 00 kg/ha NPK as basal and 96 kg N/ha in two split as top dressing	4210	6410	-
T <sub>2</sub> : 80 : 60: 00 kg/ha NPK as basal and 80 kg N/ha in one split at 30 DAS as top dressing	4620	6760	-
T <sub>3</sub> : 23.5 : 60 : 00 NPK kg/ha as basal and 80 kg/ha N in to splits as top dressing	4370	6380	-

*First year result, Second year result is awaited.*

**Trial : 5**

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1. Title	:	Assessment of technology for Canker Management in acid lime									
2. Problem diagnose/defined	:	Low market price due to inferior fruits quality									
3. Details of technologies selected for assessment /refinement	:	<table><thead><tr><th></th><th><b>Source</b></th><th><b>Technology</b></th></tr></thead><tbody><tr><td>T<sub>1</sub></td><td>Recommended by SAU's</td><td>Spraying of Streptomycin sulphate 1 gm and COC 40 gm / 10 lit water (3 spray in June, August and December )</td></tr><tr><td>T<sub>2</sub></td><td>To be assessed by KVK</td><td>Spraying of <i>Pseudomonas fluorescense</i> @ 100 ml / 10 lit water (3 spray in June, August and December )</td></tr></tbody></table>		<b>Source</b>	<b>Technology</b>	T <sub>1</sub>	Recommended by SAU's	Spraying of Streptomycin sulphate 1 gm and COC 40 gm / 10 lit water (3 spray in June, August and December )	T <sub>2</sub>	To be assessed by KVK	Spraying of <i>Pseudomonas fluorescense</i> @ 100 ml / 10 lit water (3 spray in June, August and December )
	<b>Source</b>	<b>Technology</b>									
T <sub>1</sub>	Recommended by SAU's	Spraying of Streptomycin sulphate 1 gm and COC 40 gm / 10 lit water (3 spray in June, August and December )									
T <sub>2</sub>	To be assessed by KVK	Spraying of <i>Pseudomonas fluorescense</i> @ 100 ml / 10 lit water (3 spray in June, August and December )									
4. Source of technology	:	NRC on Citrus, Nagpur									
5. Production system	:	Irrigated									
6. Thematic area	:	Integrated Disease Management									
7. Performance of the Technology with performance indicators	:	Percent disease infestation and yield									
8. Final recommendation for micro level situation	:	First year experiment									
9. Constraints identified and feedback for research	:	-									
10. Process of farmers participation and their reaction	:	Group meetings and Field visits									
11. Result of On Farm Trial	:	Frist Year , Result awaited									

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## Trial 6

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1. Title	:	To assess the effect of hydrogel for conserving soil moisture in Wheat										
2. Problem diagnose/defined	:	Low yield due to moisture stress condition at critical stage in wheat										
3. Details of technologies selected for assessment /refinement	:	<hr/> <table><thead><tr><th></th><th><b>Source</b></th><th><b>Technology</b></th></tr></thead><tbody><tr><td>T<sub>1</sub></td><td>Farmer practices</td><td>As per availability (5-6 irrigation)</td></tr><tr><td>T<sub>2</sub></td><td>To be assessed by KVK</td><td>Soil application of Pusa Hydrogel as a soil conditioner @ 5 kg/ha</td></tr></tbody></table> <hr/>			<b>Source</b>	<b>Technology</b>	T <sub>1</sub>	Farmer practices	As per availability (5-6 irrigation)	T <sub>2</sub>	To be assessed by KVK	Soil application of Pusa Hydrogel as a soil conditioner @ 5 kg/ha
	<b>Source</b>	<b>Technology</b>										
T <sub>1</sub>	Farmer practices	As per availability (5-6 irrigation)										
T <sub>2</sub>	To be assessed by KVK	Soil application of Pusa Hydrogel as a soil conditioner @ 5 kg/ha										
4. Source of technology	:	IARI, New Delhi										
5. Production system	:	Irrigated										
6. Thematic area	:	Resource conservation Technology										
7. Performance of the Technology with performance indicators	:	Moisture percentage and yield										
8. Final recommendation for micro level situation	:	First year experiment										
9. Constraints identified and feedback for research	:	-										
10. Process of farmers participation and their reaction	:	Group meetings and Field visits										
11. Result of On Farm Trial	:	Frist Year , Result awaited										

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## Trial 7

1. Title	:	Assessment of technology for Haemoglobin maintain in adolescent girls									
2. Problem diagnose/defined	:	Low level of Haemoglobin in adolescent girls									
3. Details of technologies selected for assessment /refinement	:	<table border="1"> <thead> <tr> <th></th> <th>Source</th> <th>Technology</th> </tr> </thead> <tbody> <tr> <td>T<sub>1</sub></td> <td>Recommended</td> <td>Iron supplement capsules</td> </tr> <tr> <td>T<sub>2</sub></td> <td>To be assessed by KVK</td> <td>Kuler (Bajara flour + Ghee + Jeggary Mix) 40 gm + Date palm-40 gm/day for 3 months</td> </tr> </tbody> </table>		Source	Technology	T <sub>1</sub>	Recommended	Iron supplement capsules	T <sub>2</sub>	To be assessed by KVK	Kuler (Bajara flour + Ghee + Jeggary Mix) 40 gm + Date palm-40 gm/day for 3 months
	Source	Technology									
T <sub>1</sub>	Recommended	Iron supplement capsules									
T <sub>2</sub>	To be assessed by KVK	Kuler (Bajara flour + Ghee + Jeggary Mix) 40 gm + Date palm-40 gm/day for 3 months									
4. Source of technology	:	Dept. of Health, Govt. of Gujarat.									
5. Production system	:										
6. Thematic area	:	Woman and child care.									
7. Performance of the Technology with performance indicators	:	Hb percentage in blood									
8. Final recommendation for micro level situation	:	First year experiment									
9. Constraints identified and feedback for research	:	-									
10. Process of farmers participation and their reaction	:	Group meetings and Field visits									
11. Result of On Farm Trial	:	Frist Year , Result awaited									



**B. Technology Refinement :**

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1. Title	:	Reduction of calving interval in Mehsani Buffaloes
2. Problem diagnose/defined	:	Longer calving interval in Mehsani Buffaloes due to deficiency of nutrient
3. Details of technologies selected for assessment /refinement	:	<hr/> <p><b>T<sub>1</sub>:</b> First group of seven recently calving buffaloes treated as routine farmer practices</p> <p><b>T<sub>2</sub>:</b> Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day for 90 days</p> <p><b>T<sub>3</sub>:</b> Third group of seven recently calving buffaloes gives mineral mixture @ 30 gm /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days</p> <hr/>
4. Source of technology	:	SAU's
5. Production system	:	--
6. Thematic area	:	Livestock Production Management
7. Performance of the Technology with performance indicators	:	The refined technology for reduction in calving interval has found superior in treatment T <sub>3</sub> as compare to other treatment
8. Final recommendation for micro level situation	:	Mineral mixture @ 30 gm /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days may be recommended for reduction in calving interval in recently calving Mehsani buffalo.
9. Constraints identified and feedback for research	:	--
10. Process of farmers participation and their reaction	:	Group meetings and Field visits --

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### 11. Result of On Farm Trial (Three Experiments pooled result)

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology refined	Parameters	Data on the parameter	Results of refinement	Feedback from the farmer	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11
Live stock	--	Longer calving interval in Mehsani Buffaloes due to deficiency of nutrient	Reduction of calving interval in Mehsani Buffaloes	10	: First group of seven recently calving buffaloes treated as routine farmer practices	Reduction in calving interval	18.33 Months	T <sub>3</sub> was found superior		
					Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days		16 months			
					Third groups of seven recently calving buffaloes give mineral mixture @ 30 gm for 90 days and Cap. Prajana (Hormonal Catalyst) 3 / days for three days		14.67 months		Mineral mixture and Prajana (Hormo nal Catalys t) reduce the calving interval	Application of mineral mixture @ 30 gm for 90 days and Cap. Prajana (Hormonal Catalyst) 3 / days for three days to recently calved buffalo reduce the calving interval.

Technology Refined	*Production per unit (Inter calving period in month)	Net Return (Profit) in Rs. / unit	BC Ratio
12	13	14	15
T <sub>1</sub> : First group of seven recently calving buffaloes treated as routine farmer practices	18.33	-	-
T <sub>2</sub> : Second group of seven recently calving buffaloes gives mineral mixture @ 30 gm/ day /day for 90 days and Prajana (Hormonal catalyst) 3 cap./day for 3 days	16.00	-	-
T <sub>3</sub> : Third group of seven recently calving buffaloes gives mineral mixture @ 30 gm	14.67	-	-

### 3.2 Achievements of Frontline Demonstrations

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

List of technologies demonstrated during previous year and popularized during 2012-13 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
<b>1. Other</b>							
1.1	Castor	Varietal Evaluation	GCH-7	FLD	17	218	106
1.2	Green gram	Integrated Nutrient Management	Sulphur	FLD	12	73	18
1.3	Cotton	Integrated Nutrient Management	MgSO <sub>4</sub>	FLD	7	62	46
1.4	Wheat	Integrated Nutrient Management	Zinc Sulphate	FLD	12	73	32
1.5	Fennel	Varietal Evaluation	High yielding variety - GF-12	FLD	18	78	23
1.6	Mustard	Varietal Evaluation	High yielding variety - GDM-4	FLD	16	115	57
1.7	Lucerne	Varietal Evaluation	High fodder yielding variety - Anand Lucerne-2	FLD	8	27	10
1.8	Cumin	Varietal Evaluation	GC-4	FLD	11	62	38
1.9	Tomato	Integrated Pest Management	NPV, Trichocard	FLD	4	27	18
1.10	Tomato	Integrated Nutrient Management	Micronutrient G-4	FLD	4	32	22
1.11	Groundnut	Integrated Nutrient Management	Sulphur	FLD	5	39	24
1.12	Livestock	Value addition	Urea treatment in wheat straw	FLD	6	55	-
1.13	Livestock	Nutrient Management	By pass fat	FLD	5	46	-
1.14	Livestock	Disease Management	Saff kit	FLD	7	62	-
1.15	Home Science	Household food security by kitchen garden	Kitchen garden	FLD	6	26	-
1.16	Home Science	Minimization of nutrient loss in processing	Solar cooker	FLD	6	13	-

1.17	Bio fertilizer	Production and use of organic input	Vermi compost	FLD	10	22	-
1.18	Farm implement	Drudgery reduction	Wheel hoe	FLD	13	29	-
<b>2. Cash crops</b>							

**Details of FLDs implemented during 2013-14**  
**Demonstration on Cereals crops – Not allocated**

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	
NIL										

**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					
NIL											

**Performance of FLD**

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
NIL												

**Economic Impact (continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
NIL						

**Demonstration on Horticultural crops: Not Allocated**

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	
NIL										

**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					
NIL											

**Performance of FLD**

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
NIL												

**Economic Impact (continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
NIL						

*NB: Attach few good action photographs with title at the back with pencil*

**Demonstration on oilseeds: NOT ALLOCATED**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (acre)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
NIL										

**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					
NIL											

**Performance of FLD**

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
NIL												

**Economic Impact (continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
NIL						



**Demonstration on pulses: NOT ALLOCATED**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (acre)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
NIL										

**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					
NIL											

**Performance of FLD**

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
NIL												

**Economic Impact (continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
NIL						

**Demonstration on cotton and commercial crops: NOT ALLOCATED**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (acre)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
NIL										

**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					
NIL											

**Performance of FLD**

Sl.No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl./ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
NIL												

**Economic Impact (continuation of previous table)**

Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio (Gross Return / Gross Cost)
Demonstration	Local Check	Demonstration	Local Check	Demonstration	Local Check	
14	15	16	17	18	19	20
NIL						

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

**Kharif -2012**

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Castor	Kharif	GCH-7	Irrigated	33.28	30.15	10.38
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
Tomato	Kharif	Micro nutrient G-4	Irrigated	975.70	902.40	8.12
		<b>4. Plant Protection</b>				
Tomato	Kharif	NPV, Tricho card	Irrigated	915.20	810.00	12.99

**Rabi – 2012**

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Mustard	Rabi	GDM-4	Irrigated	15.42	14.23	8.36
Fennel	Rabi	GF-12	Irrigated	18.30	16.26	12.55
Dill seed	Rabi	GD-3	Irrigated	11.24	10.18	10.41
Cumin	Rabi	GC-4	Irrigated	7.58	6.84	10.82
Lucerne	Rabi	AL-2	Irrigated	735	680	8.09
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
Wheat	Rabi	Zinc Sulphate	Irrigated	40.15	36.80	9.10
		<b>4. Plant Protection</b>				
		<b>5. Combination of components</b>				

**Summer – 2013**

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
		<b>4. Plant Protection</b>				
		<b>5. Combination of components</b>				

## Kharif 2013

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Castor	Kharif	GCH-7	Rainfed			Result Awaited
Sesamum	Kharif	GT-3	Rainfed	7.10	6.60	7.58
Black gram	Kharif	GU-1	Rainfed	7.60	7.05	7.80
Cluster bean	Kharif	GG-2	Rainfed	10.15	9.25	9.73
Cotton	Kharif	Bt.Hy.Cotton-6	Irrigated			Result Awaited
Cotton	Kharif	Bt.Hy.Cotton-8	Irrigated			Result Awaited
Chilly	Kharif	GC-3	Irrigated			Result Awaited
Tomato-IPM	Kharif	NPV and Trichocard	Irrigated			Result Awaited
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
Pearl millet	Kharif	<b>Zinc sulphate</b>	Rainfed	18.20	16.90	7.69
Dhaincha	Kharif	Seed	Rainfed			Result Awaited
		<b>4. Plant Protection</b>				
Ground nut	Kharif	Trichoderma	Rainfed	20.90	18.70	11.76

## Rabi – 2013

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Mustard	Rabi	GDM-4	Irrigated			Result Awaited
Fennel	Rabi	GF-12	Irrigated			Result Awaited
Lucerne	Rabi	AL-2	Irrigated			Result Awaited
Wheat	Rabi	GW-366	Irrigated			Result Awaited
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
Pomegranate	Rabi	Micromix G-4	Irrigated			Result Awaited
		<b>4. Plant Protection</b>				
Cumin	Rabi	Trichoderma	Irrigated			Result Awaited
		<b>5. Combination of components</b>				

## Summer – 2014

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Sorghum	Summer	COFS-29	Irrigated			Result Awaited
Groundnut	Summer	TG 37A	Irrigated			Result Awaited
		<b>2. Bio-fertilizer</b>				
		<b>3. Fertilizer management</b>				
		<b>4. Plant Protection</b>				
		<b>5. Combination of components</b>				

## Technical Feedback on the demonstrated technologies

### Fennel (GF-12)

S. No	Feed Back
1	Heavy incidence of sugary disease

### Castor

S. No	Feed Back
1	Percentage of male flower is very high

### Tomato

S. No	Feed Back
1	Indeterminate variety is need to develop

### Mustard

S. No	Feed Back
1	Grain size is small

### Cumin

S. No	Feed Back
1	Blight resistance variety need to be develop

### Cotton

S. No	Feed Back
1	Boll size is medium

## Farmers' reactions on specific technologies

### Fennel (GF-12)

S. No	Feed Back
1	Less lodging
2	More number of umbells
3	Higher yield

### Pearl millet (Zinc Sulphate)

S. No	Feed Back
1	Increase yield and quality of grains

### Mustard (GDM-4)

S. No	Feed Back
1	Grain size is small
2	High yielding

### Sesamum (GT-3)

S. No	Feed Back
1	Higher market price
2	High yielding

**Black gram(GU-1)**

S. No	Feed Back
1	High yielding variety

**Cluster bean(GG-2)**

S. No	Feed Back
1	Colour of grains is good
2	High yielding variety

**Cumin (GC-4)**

S. No	Feed Back
1	Good grain quality
2	High yielding

**Lucerne (Anand Lucerne -2 )**

S. No	Feed Back
1	Broad leaves and higher fodder yield

**Wheat (INM)**

S. No	Feed Back
1	Application of zinc Sulphate increase weight and luster of grains.

**Tomato - IPM**

S. No	Feed Back
1	Reduce use of chemical pesticides
2	Eco friendly concept
3	Tricho cards and HNPV manage the pest without use of chemical pesticides

**Tomato - INM**

S. No	Feed Back
1	Reduce the fruit cracking
2	Improve the quality of fruits

**Castor (GCH-7)**

S. No	Feed Back
1	High yielding variety

**Dill seed (GD-3)**

S. No	Feed Back
1	Higher market price
2	High yielding

**Groundnut (Trichoderma)**

S. No	Feed Back
1	Increase the yield and quality production
2	Reduce the hazardous effect of chemical pesticides

**Dhaincha**

S. No	Feed Back
1	Improved soil health

**Cotton (Bt.Hy.Cot-6 & 8 )**

S. No	Feed Back
1	Low incidence of sucking pest
2	Required more labour for picking

**Extension and Training Activities under FLD**

Extension and Training activities under FLD

Crop / Enterprise: Black gram

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	04/09/2013 23/10/2013	38 13	
2	Farmers Training	1	19/06/2013	36	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Castor

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	10/12/2013 10/12/2013	32 18	
2	Farmers Training	1	25/05/2013	27	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: chilly

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	21/04/2014	22	
2	Farmers Training	1	02/08/2013	10	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Cluster bean

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	23/10/2013 04/09/2013	13 38	
2	Farmers Training	1	17/10/2013	33	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Cotton

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	27/11/2013	49	
2	Farmers Training	1	03/06/2013	26	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Urea treatment on wheat straw

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	3	03/02/2014 03/02/2014 08/02/2014	23 46 23	
2	Farmers Training	1	26/10/2013	15	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Tomato IPM

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	08/02/2014 08/02/2014	22 23	
2	Farmers Training	1	30/10/2013	19	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Cumin-IDM

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	13/02/2014 08/02/2013	22 22	
2	Farmers Training	1	29/10/2013	17	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Dhaincha

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	19/07/2013 10/08/2013	38 21	
2	Farmers Training	1	14/05/2013	12	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Saaf kit

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	19/03/2014 25/03/2014	29 28	
2	Farmers Training	1	07/12/2013	36	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Fenbendazole

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	28/10/2013	18	
2	Farmers Training	1	25/06/2013	20	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Groundnut (IDM)

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	28/10/2013	24	
2	Farmers Training	1	03/06/2013	16	
3	Media coverage				
4	Training for extension functionaries				



Crop / Enterprise: Groundnut (Variety)

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	1	14/02/2014	24	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Kitchen garden

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	04/10/2013	18	
2	Farmers Training	1	13/07/2013	22	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Lucerne

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	19/03/2014 25/03/2014	19 28	
2	Farmers Training	1	26/10/2013	31	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise : Mustard

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	03/02/2014	28	
2	Farmers Training	1	16/10/2013	26	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise : Solar cooker

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	14/05/2013 28/05/2013	30 25	
2	Farmers Training	1	18/02/2013	12	
3	Media coverage				
4	Training for extension functionaries				

Crop / Enterprise: Non Stick clay tava

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	2	25/04/2013 25/04/2013	14 12	
2	Farmers Training	1	17/01/2013	27	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Pearl millet (Summer)

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	23/10/2013	13	
2	Farmers Training	1	20/06/2013	17	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Vermi compost

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	18/09/2013	23	
2	Farmers Training				
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise : Sesamum

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	04/09/2013	38	
2	Farmers Training	1	18/06/2013	23	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Wheat

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	3	04/03/2014 06/03/2014 22/03/2014	27 34 22	
2	Farmers Training	1	18/11/2013	20	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Wheel hoe

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	1	26/02/2014	10	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Pomegranate

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	1	04/01/2014	18	
3	Media coverage				
4	Training for extension functionaries				

## Crop / Enterprise: Sorghum

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
2	Farmers Training	1	26/02/2014	15	
3	Media coverage				
4	Training for extension functionaries				

**Demonstration on Fodder Crops allocated by Regional Station for Forage Production and Demonstration, Palaj, Gandhinagar(Guj)**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Proposed	Actual	SC/ST	Others	Total
1	Sorghum	Integrated Crop Management	Varietal Evaluation	Kharif-2013	2.5	2.5	2	23	25

Crop	Season	Component	Farming situation	Average yield (q/ha)	Local check (q/ha)	Percentage increase in productivity over local check
		<b>1. Seed/Variety</b>				
Sorghum	Kharif-2013	PC-23	Rainfed	463	-	-
		M.P.Chari	Rainfed	399		
		COFS-29	Rainfed	558		

**C. Details of FLD on Enterprises**

**(i) Farm Implements  
Summer 2013**

Name of the implement	crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Wheel hoe	Cluster bean	10	-	labour per ha	17	49	-65.31	

**Summer 2014**

Name of the implement	crop	No. of farmers	Area (ha)	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Wheel hoe	Sesamum	10	-	labour per ha				Result awaited

**Farmers' reactions on specific technologies**

**Wheel hoe**

S. No	Feed Back
1	Fast weeding operation
2	Very easy to operate
3	It reduce drudgery
4	Labour and time saving

**(ii) Livestock Enterprises****Rabi -2012**

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
By pass fat	Cross breed cow	20	20	Fat percentage	4.60	4.00	15.00	
Saaf kit	Mehsani buffalo	30	30	Reduction in disease incidence	86.67	23.33	63.34	
Urea treatment in wheat straw	Mehsani buffalo	30	30	Milk production (lit/day/animal)	7.90	7.10	11.27	

*Milk production, meat production, egg production, reduction in disease incidence etc.*

**Kharif- 2013**

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Fenbendazole	Mehsani buffalo	20	20	Milk production (lit/day/animal)	8.7	8.1	7.41	

**Rabi- 2013**

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Performance parameters / indicators	* Data on parameter in relation to technology demonstrated		% change in the parameter	Remarks
					Demon.	Local check		
Saaf kit	Mehsani buffalo	30	30	Reduction in disease incidence				Result awaited
Urea treatment in wheat straw	Mehsani buffalo	30	30	Milk production (lit/day/animal)				Result awaited

## Farmers' reactions on specific technologies

### By pass fat

S. No	Feed Back
1	Fat percentage and milk production increases

### Urea treatment

S. No	Feed Back
1	Increase nutrient value of wheat straw and there by increase milk production
2	Minimize the cost of concentrate

### Saaf kit

S. No	Feed Back
1	Mastitis disease is prevented

### Fenbendazole

S. No	Feed Back
1	Milk production is increase

**(iii) Other Enterprises****Kharif -2012**

Enterprise	Variety/ breed/Species/other s	No. of farmers	No. of Units	Performan ce parameter s / indicators	Data on parameter in relation to technology demonstrated		% change in the parame ter	Remarks
					Demon.	Local check		
Kitchen Garden	Seeds of Vegetables	10	10	Vegetable production (kg/demo)	86.0	0.0	100	

**Rabi-2012**

Enterprise	Variety/ breed/Species/other s	No. of farmers	No. of Units	Performan ce parameter s / indicators	Data on parameter in relation to technology demonstrated		% change in the parame ter	Remarks
					Demon.	Local check		
Non stick clay pan	-	15	15	kg/unit fire wood	0.97	1.82	- 46.70	

**Summer-2013**

Enterprise	Variety/ breed/Species/other s	No. of farmers	No. of Units	Performan ce parameter s / indicators	Data on parameter in relation to technology demonstrated		% change in the parame ter	Remarks
					Demon.	Local check		
Solar Cooker	Box size : 520 X 520 X 150 mm	5	5	kg/5 month LPG consumptio n	13.20	25.83	-48.90	
Vermi compost	<i>Eudrillus eugeniae</i>	10	10	Fertilizer production (kg/demo)	735.0	0.00	100	

**Kharif -2013**

Enterprise	Variety/ breed/Species/other s	No. of farmers	No. of Units	Performan ce parameter s / indicators	Data on parameter in relation to technology demonstrated		% change in the parame ter	Remarks
					Demon.	Local check		
Kitchen Garden	Seeds/seedling of Vegetables	10	10	Vegetable production (kg/demo)				Result awaited

## Technical Feedback on the demonstrated technologies

### Vermi compost

S. No	Feed Back
1	It required more care in summer
2	Low hatching in winter season

### Farmers' reactions on specific technologies

#### Kitchen Garden

S. No	Feed Back
1	Kitchen garden continuously supplies fresh vegetables at lower cost.
2	Utilization of maximum backyard space and waste water.
3	Utilization of spare time.

#### Vermi compost

S. No	Feed Back
1	Vermi compost is good quality organic fertilizer
2	It give higher income as compared to FYM

#### Solar Cooker

S. No	Feed Back
1	Test of food is good as compared to Gas cooked food
2	To encourage for the use of renewable source of energy
3	It saves fuel and earning carbon credit
4	Minimization of nutrient loss in cooking
5	Spare time utilize for other works
6	Neighbor can also utilize Solor cooker parallel
7	No maintenance cost of Solor cooker

#### Non stick clay pan

S. No	Feed Back
1	Multi purpose best for shallow frying & Roasting
2	Non-stick surface prevent to sticking of food at bottom.
3	Saving of fuel and earning of carbon credit (firewood)
4	Non-stick coating provides low oil cooking facility.
5	Neighbour can also utilize Non stick clay pan parallel
6	No maintenance cost of Non stick clay pan
7	Clay generates a unique taste to the foods.
8	Food grade non-stick gives a healthy food.
9	Life of non stick is equal to conventional coated tawas.
10	Cheaper cost make it affordable
11	Less time spend in air pollution so less lungs / respiratory problems of women.
12	Save fuel (fire wood)

### 3.3 Achievements on Training

(Including the sponsored, vocational, FLD and trainings under Rainwater Harvesting Unit) :

#### A) ON Campus

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management										
Resource Conservation Technologies	1	22	0	22	5	0	5	27	0	27
Cropping Systems	5	154	80	234	0	2	2	154	82	236
Crop Diversification										
Integrated Farming	6	263	47	310	1	1	2	264	48	312
Water management										
Seed production	3	74	0	74	0	0	0	74	0	74
Nursery management										
Integrated Crop Management	5	114	0	114	15	0	15	129	0	129
Fodder production	1	14	0	14	1	0	1	15	0	15
Production of organic inputs										
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops	1	16	0	16	0	0	0	16	0	16
Off-season vegetables	1	9	0	9	1	0	1	10	0	10
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
<b>b) Fruits</b>										
Training and Pruning	1	8	0	8	2	0	2	10	0	10
Layout and Management of Orchards										
Cultivation of Fruit	1	18	0	18	0	0	0	18	0	18
Management of young plants/orchards										
Rejuvenation of old orchards										
Export potential										



fruits										
Micro irrigation systems of orchards										
Plant propagation techniques										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
<b>e) Tuber crops</b>										
Production and Management technology	1	27	0	27	0	0	0	27	0	27
Processing and value addition										
<b>f) Spices</b>										
Production and Management technology	1	25	0	25	0	0	0	25	0	25
Processing and value addition										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	1	30	0	30	0	0	0	30	0	30
Soil and Water Conservation	1	10	0	10	0	0	0	10	0	10
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										

Nutrient Use Efficiency										
Soil and Water Testing										
<b>IV Livestock Production and Management</b>										
Dairy Management	2	42	48	90	0	2	2	42	50	92
Poultry Management	1	20	0	20	0	0	0	20	0	20
Piggery Management										
Rabbit Management										
Disease Management	2	6	40	46	0	0	0	6	40	46
Feed management	1	2	8	10	0	0	0	2	8	10
Production of quality animal products										
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening										
Design and development of low/minimum cost diet	1	0	31	31	0	0	0	0	31	31
Designing and development for high nutrient efficiency diet										
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	1	0	0	0	1	20	21	1	20	21
Income generation activities for empowerment of rural Women	1	0	16	16	0	0	0	0	16	16
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care	1	0	28	28	0	0	0	0	28	28
<b>VI Agril. Engineering</b>										
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	1	10	0	10	0	0	0	10	0	10
Small scale processing and value addition										
Post Harvest Technology										
<b>VII Plant Protection</b>										
Integrated Pest Management	2	19	0	19	47	0	47	66	0	66
Integrated Disease Management	4	100	0	100	0	0	0	100	0	100
Bio-control of pests and diseases	2	22	0	22	4	0	4	26	0	26
Production of bio control agents and bio pesticides										
<b>VIII Fisheries</b>										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
<b>IX Production of Inputs at site</b>										
Seed Production	1	26	0	26	7	0	7	33	0	33
Planting material production										

Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder	2	55	8	63	2	0	2	57	8	65
Production of Fish feed										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development										
Group dynamics										
Formation and Management of SHGs	1	4	36	40	0	0	0	4	36	40
Mobilization of social capital	1	33	0	33	0	0	0	33	0	33
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
<b>TOTAL</b>	<b>53</b>	<b>1123</b>	<b>342</b>	<b>1465</b>	<b>86</b>	<b>25</b>	<b>111</b>	<b>1209</b>	<b>367</b>	<b>1576</b>
<b>(B) RURAL YOUTH</b>										
Mushroom Production										
Bee-keeping										
Integrated farming	1	12	0	12	0	0	0	12	0	12
Seed production	1	18	0	18	0	0	0	18	0	18
Production of organic inputs	1	18	0	18	0	0	0	18	0	18
Integrated Farming	1	24	0	24	0	0	0	24	0	24
Planting material production										

Vermi-culture	1	0	27	27	0	0	0	0	27	27
Sericulture										
Protected cultivation of vegetable crops										
Commercial fruit production	1	26	0	26	0	0	0	26	0	26
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	2	0	0	0	54	0	54	54	0	54
Training and pruning of orchards										
Value addition										
Production of quality animal products										
Dairying	1	0	37	37	0	0	0	0	37	37
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
<b>TOTAL</b>	<b>9</b>	<b>98</b>	<b>64</b>	<b>162</b>	<b>54</b>	<b>0</b>	<b>54</b>	<b>152</b>	<b>64</b>	<b>216</b>
<b>(C) Extension Personnel</b>										
Productivity enhancement in field crops	2	37	12	49	1	2	3	38	14	52
Integrated Nutrient										

management										
Rejuvenation of old orchards										
Protected cultivation technology										
Formation and Management of SHGs										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
<b>TOTAL</b>	<b>2</b>	<b>37</b>	<b>12</b>	<b>49</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>38</b>	<b>14</b>	<b>52</b>

**B) OFF Campus**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management	1	23	0	23	0	0	0	23	0	23
Resource Conservation Technologies										
Cropping Systems	1	53	0	53	0	0	0	53	0	53
Crop Diversification	1	37	0	37	2	0	2	39	0	39
Integrated Farming	1	25	0	25	0	0	0	25	0	25
Water management										
Seed production	1	32	0	32	0	0	0	32	0	32
Nursery management										
Integrated Crop Management	1	31	0	31	0	0	0	31	0	31
Fodder production										
Production of organic inputs										
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops										
Off-season vegetables										
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
<b>b) Fruits</b>										
Training and Pruning	1	22	0	22	0	0	0	22	0	22
Layout and Management of Orchards										
Cultivation of Fruit										
Management of young plants/orchards	1	21	0	21	1	0	1	22	0	22
Rejuvenation of old orchards	1	22	0	22	0	0	0	22	0	22
Export potential fruits										
Micro irrigation systems of orchards										

Plant propagation techniques										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
<b>e) Tuber crops</b>										
Production and Management technology										
Processing and value addition										
<b>f) Spices</b>										
Production and Management technology										
Processing and value addition										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
<b>III Soil Health and Fertility Management</b>										
Soil fertility management										
Soil and Water Conservation										
Integrated Nutrient Management	1	20	0	20	0	0	0	20	0	20
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	23	0	23	0	0	0	23	0	23
Nutrient Use Efficiency	1	21	0	21	0	0	0	21	0	21
Soil and Water										



Testing										
<b>IV Livestock Production and Management</b>										
Dairy Management	2	0	54	54	0	3	3	0	57	57
Piggery Management										
Rabbit Management										
Disease Management	4	1	100	101	0	0	0	1	100	101
Feed management	3	15	48	63	0	1	1	15	49	64
Production of quality animal products	2	22	30	52	0	0	0	22	30	52
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	22	22	0	22	22
Design and development of low/minimum cost diet	1	0	17	17	0	0	0	0	17	17
Designing and development for high nutrient efficiency diet	3	0	80	80	0	23	23	0	103	103
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques	1	0	0	0	0	24	24	0	24	24
Value addition	3	0	86	86	0	0	0	0	86	86
Income generation activities for empowerment of rural Women	1	0	28	28	0	1	1	0	29	29
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care	1	0	0	0	0	46	46	0	46	46
<b>VI Agril. Engineering</b>										
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										
<b>VII Plant Protection</b>										
Integrated Pest Management	3	32	29	61	3	0	3	35	29	64
Integrated Disease Management	3	75	15	90	0	0	0	75	15	90
Bio-control of pests and diseases	1	21	0	21	0	0	0	21	0	21
Production of bio control agents and bio pesticides										
<b>VIII Fisheries</b>										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
<b>IX Production of Inputs at site</b>										
Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer										

production										
Vermi-compost production	1	43	0	43	0	0	0	43	0	43
Organic manures production	1	18	0	18	5	0	5	23	0	23
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder										
Production of Fish feed										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development	1	21	0	21	0	0	0	21	0	21
Group dynamics	1	24	0	24	0	0	0	24	0	24
Formation and Management of SHGs										
Mobilization of social capital	1	0	19	19	0	10	10	0	29	29
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
<b>TOTAL</b>	<b>46</b>	<b>602</b>	<b>506</b>	<b>1108</b>	<b>11</b>	<b>130</b>	<b>141</b>	<b>613</b>	<b>636</b>	<b>1249</b>
<b>(B) RURAL YOUTH</b>										
Mushroom Production										
Bee-keeping										
Integrated farming										
Seed production										
Production of organic inputs	1	18	0	18	0	0	0	18	0	18
Integrated Farming										
Planting material production	2	28	0	28	23	0	23	51	0	51
Vermi-culture										
Sericulture										
Protected cultivation of vegetable crops										

Commercial fruit production										
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	1	19	0	19	0	0	0	19	0	19
Training and pruning of orchards										
Value addition	1	0	16	16	0	5	5	0	21	21
Production of quality animal products										
Dairying	3	18	55	73	0	0	0	18	55	73
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing	1	0	23	23	0	0	0	0	23	23
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
<b>TOTAL</b>	<b>9</b>	<b>83</b>	<b>94</b>	<b>177</b>	<b>23</b>	<b>5</b>	<b>28</b>	<b>106</b>	<b>99</b>	<b>205</b>
<b>(C) Extension Personnel</b>										
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected										

cultivation technology										
Formation and Management of SHGs										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**C. Consolidated table (ON and OFF Campus)**

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Crop Production</b>										
Weed Management	1	23	0	23	0	0	0	23	0	23
Resource Conservation Technologies	1	22	0	22	5	0	5	27	0	27
Cropping Systems	6	207	80	287	0	2	2	207	82	289
Crop Diversification	1	37	0	37	2	0	2	39	0	39
Integrated Farming	7	288	47	335	1	1	2	289	48	337
Water management										
Seed production	4	106	0	106	0	0	0	106	0	106
Nursery management										
Integrated Crop Management	6	145	0	145	15	0	15	160	0	160
Fodder production	1	14	0	14	1	0	1	15	0	15
Production of organic inputs										
<b>II Horticulture</b>										
<b>a) Vegetable Crops</b>										
Production of low volume and high value crops	1	16	0	16	0	0	0	16	0	16
Off-season vegetables	1	9	0	9	1	0	1	10	0	10
Nursery raising										
Exotic vegetables like Broccoli										
Export potential vegetables										
Grading and standardization										
Protective cultivation (Green Houses, Shade Net etc.)										
<b>b) Fruits</b>										
Training and Pruning	2	30	0	30	2	0	2	32	0	32
Layout and Management of Orchards										
Cultivation of Fruit	1	18	0	18	0	0	0	18	0	18
Management of young plants/orchards	1	21	0	21	1	0	1	22	0	22
Rejuvenation of old orchards	1	22	0	22	0	0	0	22	0	22
Export potential fruits										
Micro irrigation systems of orchards										
Plant propagation										

techniques										
<b>c) Ornamental Plants</b>										
Nursery Management										
Management of potted plants										
Export potential of ornamental plants										
Propagation techniques of Ornamental Plants										
<b>d) Plantation crops</b>										
Production and Management technology										
Processing and value addition										
<b>e) Tuber crops</b>										
Production and Management technology	1	27	0	27	0	0	0	27	0	27
Processing and value addition										
<b>f) Spices</b>										
Production and Management technology	1	25	0	25	0	0	0	25	0	25
Processing and value addition										
<b>g) Medicinal and Aromatic Plants</b>										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
<b>III Soil Health and Fertility Management</b>										
Soil fertility management	1	30	0	30	0	0	0	30	0	30
Soil and Water Conservation	1	10	0	10	0	0	0	10	0	10
Integrated Nutrient Management	1	20	0	20	0	0	0	20	0	20
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops	1	23	0	23	0	0	0	23	0	23
Nutrient Use Efficiency	1	21	0	21	0	0	0	21	0	21
Soil and Water Testing										

<b>IV Livestock Production and Management</b>										
Dairy Management	4	42	102	144	0	5	5	42	107	149
Poultry Management	1	20	0	20	0	0	0	20	0	20
Piggery Management										
Rabbit Management										
Disease Management	6	7	140	147	0	0	0	7	140	147
Feed management	4	17	56	73	0	1	1	17	57	74
Production of quality animal products	2	22	30	52	0	0	0	22	30	52
<b>V Home Science/Women empowerment</b>										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	22	22	0	22	22
Design and development of low/minimum cost diet	2	0	48	48	0	0	0	0	48	48
Designing and development for high nutrient efficiency diet	3	0	80	80	0	23	23	0	103	103
Minimization of nutrient loss in processing										
Gender mainstreaming through SHGs										
Storage loss minimization techniques	1	0	0	0	0	24	24	0	24	24
Value addition	4	0	86	86	1	20	21	1	106	107
Income generation activities for empowerment of rural Women	2	0	44	44	0	1	1	0	45	45
Location specific drudgery reduction technologies										
Rural Crafts										
Women and child care	2	0	28	28	0	46	46	0	74	74
<b>VI Agril. Engineering</b>										
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	1	10	0	10	0	0	0	10	0	10
Small scale processing and value addition										
Post Harvest Technology										
<b>VII Plant Protection</b>										
Integrated Pest Management	5	51	29	80	50	0	50	101	29	130
Integrated Disease Management	7	175	15	190	0	0	0	175	15	190
Bio-control of pests and diseases	3	43	0	43	4	0	4	47	0	47
Production of bio control agents and bio pesticides										
<b>VIII Fisheries</b>										
Integrated fish farming										
Carp breeding and hatchery management										
Carp fry and fingerling rearing										
Composite fish culture										
Hatchery management and culture of freshwater prawn										
Breeding and culture of ornamental fishes										
Portable plastic carp hatchery										
Pen culture of fish and prawn										
Shrimp farming										
Edible oyster farming										
Pearl culture										
Fish processing and value addition										
<b>IX Production of Inputs at site</b>										
Seed Production	1	26	0	26	7	0	7	33	0	33
Planting material production										
Bio-agents production										
Bio-pesticides production										

Bio-fertilizer production										
Vermi-compost production	1	43	0	43	0	0	0	43	0	43
Organic manures production	1	18	0	18	5	0	5	23	0	23
Production of fry and fingerlings										
Production of Bee-colonies and wax sheets										
Small tools and implements										
Production of livestock feed and fodder	2	55	8	63	2	0	2	57	8	65
Production of Fish feed										
<b>X Capacity Building and Group Dynamics</b>										
Leadership development	1	21	0	21	0	0	0	21	0	21
Group dynamics	1	24	0	24	0	0	0	24	0	24
Formation and Management of SHGs	1	4	36	40	0	0	0	4	36	40
Mobilization of social capital	2	33	19	52	0	10	10	33	29	62
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
<b>XI Agro-forestry</b>										
Production technologies										
Nursery management										
Integrated Farming Systems										
<b>TOTAL</b>	<b>99</b>	<b>1725</b>	<b>848</b>	<b>2573</b>	<b>97</b>	<b>155</b>	<b>252</b>	<b>1822</b>	<b>1003</b>	<b>2825</b>
<b>(B) RURAL YOUTH</b>										
Mushroom Production										
Bee-keeping										
Integrated farming	1	24	0	24	0	0	0	24	0	24
Seed production	1	18	0	18	0	0	0	18	0	18
Production of organic inputs	2	36	0	36	0	0	0	36	0	36
Integrated Farming	1	12	0	12	0	0	0	12	0	12
Planting material production	2	28	0	28	23	0	23	51	0	51
Vermi-culture	1	0	27	27	0	0	0	0	27	27
Sericulture										
Protected cultivation of										

vegetable crops										
Commercial fruit production	1	26	0	26	0	0	0	26	0	26
Repair and maintenance of farm machinery and implements										
Nursery Management of Horticulture crops	3	19	0	19	54	0	54	73	0	73
Training and pruning of orchards										
Value addition	1	0	16	16	0	5	5	0	21	21
Production of quality animal products										
Dairying	4	18	92	110	0	0	0	18	92	110
Sheep and goat rearing										
Quail farming										
Piggery										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Para vets										
Para extension workers										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Pearl culture										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Small scale processing	1	0	23	23	0	0	0	0	23	23
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
<b>TOTAL</b>	<b>18</b>	<b>181</b>	<b>158</b>	<b>339</b>	<b>77</b>	<b>5</b>	<b>82</b>	<b>258</b>	<b>163</b>	<b>421</b>
<b>(C) Extension Personnel</b>										
Productivity enhancement in field crops	2	37	12	49	1	2	3	38	14	52
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										

Protected cultivation technology										
Formation and Management of SHGs										
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Care and maintenance of farm machinery and implements										
WTO and IPR issues										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Women and Child care										
Low cost and nutrient efficient diet designing										
Production and use of organic inputs										
Gender mainstreaming through SHGs										
<b>TOTAL</b>	<b>2</b>	<b>37</b>	<b>12</b>	<b>49</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>38</b>	<b>14</b>	<b>52</b>

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

Date	Client ele	Title of the training programme	Discipline	Thematic area	Duration in days	Venue (Off / On Campus)	Number of other participants			Number of SC/ST			Total number of participants				
							Male	Female	Total	Male	Female	Total	Male	Female	Total		

Annexure enclosed

**(D) Vocational training programmes for Rural Youth**

Crop / Enterprise	Date	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self employed after training			Number of persons employed else where
					Male	Female	Total	Type of units	Number of units	Number of persons employed	
Animal science	03.01.2014	Profitable management of cattle farm	Dairying	1	0	37	37	Cattle farm	3	7	-
Horticultural	05.07.2013	Improved production technology of pomegranate	Commercial fruit production	1	26	0	26	Orchard	6	15	-
Horticultural	25.10.2013	Seed production in spices	Seed production	1	18	0	18	-	4	5	-
Horticultural	30.05.2013	Nursery raising	Nursery management of horticultural crops	1	19	0	19	Nursery unit	8	19	-
Plant protection	07.02.2014	Preparation of bio pesticides	Production of organic inputs	1	18	0	18	-	3	-	-
Home science	30.01.2014	Preparation method of Balm, Vaseline and washing power	Small scale processing	1	0	23	23	Sakhi mandal	1	8	-
Home science	02.12.2013	Value added products in Aonla	Value addition	1	0	21	21	Sakhi mandal	1	9	-
Plant protection	18.01.2014	Preparation of bio pesticides	Production of organic inputs	1	18	0	18	-	5	-	-

\*training title should specify the major technology /skill transferred

**( E ) Sponsored Training Programmes**

Sl. No	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/R Y/EF)	No. of courses	No. of Participants									Sponsoring Agency	Amount of fund received (Rs.)
								Others			SC/ST			Total				
								M	F	T	M	F	T	M	F	T		
1	04-04-13	Scientific cultivation of Kharif crops and soil fertility management	Crop production	Production and use of organic inputs	1	PF		25	0	25	0	0	0	25	0	25	AMPICS, GNU	
2	30-04-13	Agro forestry and Horticulture, Floriculture, Medicinal and Aromatic plantation	Horticulture	Production and management technology	1	EF		15	11	26	1	2	3	16	13	29	DWDU, Mehsana	
3	14-05-13	Judicious use of chemical fertilizer in cotton	Crop production	Soil fertility management	3	PF		30	0	30	0	0	0	30	0	30	ATMA, Bhavnagar	
4	01-07-13	Improved package of practices of fodder Sorghum	Crop production	Fodder production	1	PF		25	0	25	0	0	0	25	0	25	RSFPD, Palaj, Gandhinagar	
5	23-07-13	Scientific cultivation of Hybrid Napier Grass	Crop production	Fodder production	1	PF		30	8	38	2	0	2	32	8	40	AAU, Anand	
6	25-07-13	Tomato catch up making for starting small industries	Home Science	Value addition	1	FW		0	29	29	0	0	0	0	29	29	DWDU, Mehsana	
7	21-08-13	Scientific rearing of animals	Animal Science	Dairy Management	3	FW		0	48	48	0	2	2	0	50	50	ATMA, Kheda	
8	06-08-13	IPM in Kharif crops	Plant Protection	Integrated Pest Management	3	PF		0	0	0	47	0	47	47	0	47	ATMA, Sabarkantha	
9	13-09-13	Scientific cultivation of rabi and summer	Horticulture	Nursery Management of Horticulture	1	RY		0	0	0	28	0	28	28	0	28	VIKSAT, Satlasan	

		vegetables		crops														
10	14-09-13	Scientific cultivation of rabi and summer vegetables	Horticulture	Nursery Management of Horticulture crops	1	RY		0	0	0	26	0	26	26	0	26	VIKSAT Satlasana	
11	26-09-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		46	4	50	0	0	0	46	4	50	ATMA, Mehsana	
12	27-09-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		44	12	56	0	0	0	44	12	56	ATMA, Mehsana	
13	30-09-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		50	0	50	0	0	0	50	0	50	ATMA, Mehsana	
14	01-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		57	0	57	0	0	0	57	0	57	ATMA, Vadnagar	
15	03-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		59	0	59	0	0	0	59	0	59	ATMA, Kheralu	
16	04-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		29	30	59	0	2	2	29	32	61	ATMA, Kadi	
17	08-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		0	50	50	0	0	0	0	50	50	ATMA, Visnagar	
18	11-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		37	0	37	0	0	0	37	0	37	ATMA, Mehsana	
19	07-10-13	Scientific cultivation of rabi crops	Crop production	Integrated Crop Management	1	PF		31	17	48	0	0	0	31	17	48	ATMA, Vijapur	
20	17-10-13	Scientific dairy farming	Animal Science	Dairy Management	1	PF		42	0	42	0	0	0	42	0	42	ATMA, Patan	
21	29-11-13	Scientific cultivation of Rabi crops	Crop production	Integrated Crop Management	1	PF		35	14	49	1	1	2	36	15	51	ATMA ,Mehsana	

### 3.4 Extension Activities (including activities of FLD programmes)

Sl. No.	Nature of Extension Activity	Purpose/ topic and Date	No. of activities	Participants											
				Farmers (Others) (I)			SC/ST (Farmers) (II)			Extension Officials (III)			Grand Total (I+II+III)		
				M	F	T	M	F	T	M	F	T	M	F	T
1	Field Day	Dill seed- 04-Apr-2013	1	21	0	21	0	0	0				21	0	21
2	Field Day	Non stick clay tava- 25-Apr-2013	1	2	10	12	0	0	0				2	10	12
3	Field Day	Non stick clay tava- 25-Apr-2013	1	0	14	14	0	0	0				0	14	14
4	Field Day	Solar cooker- 14-May-2013	1	0	30	30	0	0	0				0	30	30
5	Field Day	Solar cooker- 28-May-2013	1	1	24	25	0	0	0				1	24	25
6	Field Day	Dhaincha- 19-Jul-2013	1	38	0	38	0	0	0				38	0	38
7	Field Day	Dhaincha- 10-Aug-2013	1	21	0	21	0	0	0				21	0	21
8	Field Day	Blackgram- 04-Sep-2013	1	37	0	37	1	0	1				38	0	38
9	Field Day	Clusterbean- 04-Sep-2013	1	37	0	37	1	0	1				38	0	38
10	Field Day	Sesamum- 04-Sep-2013	1	37	0	37	1	0	1				38	0	38
11	Field Day	Vermi compost- 18-Sep-2013	1	0	23	23	0	0	0				0	23	23
12	Field Day	Kitchen Garden- 04-Oct-2013	1	0	0	0	0	18	18				0	18	18
13	Field Day	Blackgram- 23-Oct-2013	1	13	0	13	0	0	0				13	0	13
14	Field Day	Clusterbean- 23-Oct-2013	1	13	0	13	0	0	0				13	0	13
15	Field Day	Pearlmillet- 23-Oct-2013	1	13	0	13	0	0	0				13	0	13
16	Field Day	Fenbendazole- 28-Oct-2013	1	0	18	18	0	0	0				0	18	18
17	Field Day	Groundnut-Trichoderma- 28-Oct-2013	1	24	0	24	0	0	0				24	0	24
18	Field Day	Cotton- 27-Nov-2013	1	44	5	49	0	0	0				44	5	49
19	Field Day	Castor- 10-Dec-2013	1	16	0	16	2	0	2				18	0	18
20	Field Day	Castor- 10-Dec-2013	1	28	0	28	4	0	4				32	0	32
21	Field Day	Mustard- 03-Feb-2014	1	26	0	26	2	0	2				28	0	28
22	Field Day	Urea Treatment on Wheat	1	23	23	46	0	0	0				23	23	46



		Straw- 03-Feb-2014													
23	Field Day	Urea Treatment on Wheat Straw- 05-Feb-2014	1	0	23	23	0	0	0				0	23	23
24	Field Day	Ipm-tomato- 08-Feb-2014	1	0	0	0	23	0	23				23	0	23
25	Field Day	Urea Treatment On Wheat Straw- 08-Feb-2014	1	0	0	0	23	0	23				23	0	23
26	Field Day	Idm-cumine- 08-Feb-2014	1	22	0	22	0	0	0				22	0	22
27	Field Day	Ipm-tomato- 08-Feb-2014	1	22	0	22	0	0	0				22	0	22
28	Field Day	Cumin Idm- 13-Feb-2014	1	22	0	22	0	0	0				22	0	22
29	Field Day	Lime-canker - Oft- 04-Mar-2014	1	34	0	34	0	0	0				34	0	34
30	Field Day	Lime-oft- 04-Mar-2014	1	34	0	34	0	0	0				34	0	34
31	Field Day	Wheat- 04-Mar-2014	1	34	0	34	0	0	0				34	0	34
32	Field Day	Wheat- 06-Mar-2014	1	27	0	27	0	0	0				27	0	27
33	Field Day	Lucerne- 19-Mar-2014	1	17	0	17	2	0	2				19	0	19
34	Field Day	Fennel- 19-Mar-2014	1	21	0	21	0	0	0				21	0	21
35	Field Day	Saaf Kit- 19-Mar-2014	1	13	16	29	0	0	0				13	16	29
36	Field Day	Chilly- 21-Mar-2014	1	11	0	11	11	0	11				22	0	22
37	Field Day	Lucerne- 22-Mar-2014	1	22	6	28	0	0	0				22	6	28
38	Field Day	Wheat- 22-Mar-2014	1	22	6	28	0	0	0				22	6	28
39	Field Day	Saaf Kit- 25-Mar-2014	1	0	26	26	0	2	2				0	28	28
40	Field Day	Lucerne- 28-Mar-2014	1	29	2	31	0	0	0				29	2	31
	<b>Total</b>		<b>40</b>	<b>724</b>	<b>226</b>	<b>950</b>	<b>70</b>	<b>20</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>794</b>	<b>246</b>	<b>1040</b>
41	Kisan mela		0	0	0	0	0	0	0	0	0	0	0	0	0
42	Kisan Ghosthi	Ranchhodpura-Kadi, 16-Jul-2013	1	133	0	133	0	0	0	0	0	0	133	0	133
43	Kisan Ghosthi	Gundrasan, 17-Dec-2013	1	28	92	120	0	1	1	0	0	0	28	93	121
44	Kisan Ghosthi	Ranchhodpura(Vijapur), 09-Jan-2014	1	188	0	188	12	0	12	0	0	0	200	0	200
	<b>Total</b>		<b>3</b>	<b>349</b>	<b>92</b>	<b>441</b>	<b>12</b>	<b>1</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>361</b>	<b>93</b>	<b>454</b>
45	Exhibition		0	0	0	0	0	0	0	0	0	0	0	0	0
46	Film Show	Animal Science-31/May/2013	2	48	0	48	0	0	0				48	0	48
47	Film Show	Animal Science-03/Jun/2013	1	26	0	26	0	0	0				4	36	40

48	Film Show	Animal Science-25/Jun/2013	1	22	0	22	5	0	5				0	26	26
49	Film Show	Animal Science-23/Jul/2013	1	30	8	38	2	0	2				0	18	18
50	Film Show	Animal Science-25/Jul/2013	1	26	0	26	0	0	0				0	37	37
51	Film Show	Castor-05/Aug/2013	1	4	36	40	0	0	0				27	0	27
52	Film Show	Cotton-14/Aug/2013	1	40	0	40	0	0	0				26	0	26
53	Film Show	Cotton-13/Sep/2013	1	0	0	0	28	0	28				28	0	28
54	Film Show	Horticulture-14/Sep/2013	1	0	0	0	26	0	26				25	0	25
55	Film Show	Hy.Napier Grass-21/Oct/2013	1	0	18	18	0	0	0				32	8	40
56	Film Show	IDM-21/Oct/2013	1	25	0	25	0	0	0				40	0	40
57	Film Show	Pomegranate-18/Nov/2013	1	20	0	20	0	0	0				26	0	26
58	Film Show	Rabi Crops-29/Nov/2013	1	34	14	48	2	1	3				36	15	51
59	Film Show	Vegetables-27/Dec/2013	1	0	26	26	0	0	0				26	0	26
60	Film Show	Wheat-03/Jan/2014	1	0	37	37	0	0	0				20	0	20
	<b>Total</b>		<b>16</b>	<b>275</b>	<b>139</b>	<b>414</b>	<b>63</b>	<b>1</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>338</b>	<b>140</b>	<b>478</b>
61	Method Demonstrations	Composting-21/Jun-2013	1	18	0	18	5	0	5	0	0	0	23	0	23
62	Method Demonstrations	Urea treat on wheat straw-26/Oct/2013	1	15	0	15	0	0	0	0	0	0	15	0	15
	<b>Total</b>		<b>2</b>	<b>33</b>	<b>0</b>	<b>33</b>	<b>5</b>	<b>0</b>	<b>5</b>				<b>38</b>	<b>0</b>	<b>38</b>
63	Farmers Seminar		0	0	0	0	0	0	0	0	0	0	0	0	0
64	Workshop		0	0	0	0	0	0	0	0	0	0	0	0	0
65	Group meetings	Fuletra, 10-Jun-2013	1	7	1	8	0	0	0	0	0	0	7	1	8
66	Group meetings	Yashvantpura,10-Jun-2013	1	9	0	9	0	0	0	0	0	0	9	0	9
67	Group meetings	Kasva, 5-Jun-2013	1	6	0	6	0	0	0	0	0	0	6	0	6
68	Group meetings	Deusana, 5-Jun-2013	1	6	0	6	0	0	0	0	0	0	6	0	6
69	Group meetings	Unjha, 04-Jul-2013	1	7	0	7	1	0	1	0	0	0	8	0	8
	<b>Total</b>		<b>5</b>	<b>35</b>	<b>1</b>	<b>36</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>1</b>	<b>37</b>
70	Lectures delivered as resource persons		<b>230</b>	<b>11,303</b>	<b>4,731</b>	<b>16,034</b>	<b>474</b>	<b>383</b>	<b>857</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11,777</b>	<b>5,114</b>	<b>16,891</b>
71	Newspaper coverage		5	0	0	0	0	0	0	0	0	0	0	0	0
72	Radio talks		0	0	0	0	0	0	0	0	0	0	0	0	0
73	TV talks		0	0	0	0	0	0	0	0	0	0	0	0	0

74	Popular articles		4	0	0	0	0	0	0	0	0	0	0	0	0
75	Extension Literature		1377	19301	6035	25336	1340	315	1655				20641	6350	26991
76	Advisory Services		606	548	28	576	26	4	30	0	0	0	574	32	606
77	Scientific visit to farmers field		0	0	0	0	0	0	0	0	0	0	0	0	0
78	Farmers visit to KVK farm		131	687	90	777	64	8	72	0	0	0	751	98	849
79	Diagnostic visits		99	290	0	290	44	0	44	0	0	0	334	0	334
80	Exposure visits	Cattle Farm(SPIPA) - 09/May/2013	1	14	5	19	3	3	6	0	0	0	17	8	25
81	Exposure visits	DMAPR, Anand- 15/Mar/2014	1	43	0	43	0	0	0	0	0	0	43	0	43
	<b>Total</b>		<b>2</b>	<b>57</b>	<b>5</b>	<b>62</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>8</b>	<b>68</b>
82	Ex-trainees Sannelan	03/Mar/2014	1	0	18	18	0	12	12	0	0	0	0	30	30
83	Ex-trainees Sannelan	05/Mar/2014	1	43	0	43	7	0	7	0	0	0	50	0	50
	Total		2	43	18	61	7	12	19	0	0	0	50	30	80
84	Soil health Camp		0	0	0	0	0	0	0	0	0	0	0	0	0
85	Animal Health Fair /Camp	Denap, 05-Apr-2013	1	6	0	6	1	0	1	0	0	0	7	0	7
86	Animal Health Fair /Camp	Panchot, 02-Sep-2013	1	6	9	15	0	0	0	0	0	0	6	9	15
87	Animal Health Fair /Camp	Panchot, 09-Sep-2013	1	3	5	8	0	0	0	0	0	0	3	5	8
88	Animal Health Fair /Camp	Mahadevpura, 08-Oct-2013	1	22	3	25	0	0	0	0	0	0	22	3	25
89	Animal Health Fair /Camp	Mahadevpura, 15-Oct-2013	1	10	0	10	0	0	0	0	0	0	10	0	10
90	Animal Health Fair /Camp	Vadu - valam, 28-Dec-2013	1	21	0	21	0	0	0	0	0	0	21	0	21
91	Animal Health Fair /Camp	Dediyasan, 06-Jan-2014	1	8	1	9	0	0	0	0	0	0	8	1	9
92	Animal Health Fair /Camp	Navavas, 08-Jan-2014	1	0	0	0	16	0	16	0	0	0	16	0	16

93	Animal Heath Fair /Camp	Ganeshpura, 29-Jan-2014	1	19	0	19	0	0	0	0	0	0	19	0	19
94	Animal Heath Fair /Camp	Saldi, 14-Feb-2014	1	15	0	25	3	0	3	0	0	0	18	0	18
95	Animal Heath Fair /Camp	Savala, 20-Mar-2014	1	12	0	12	11	0	11	0	0	0	23	0	23
96	Animal Heath Fair /Camp	Heduva-rajgar, 21-Mar-2014	1	28	0	28	8	0	8	0	0	0	36	0	36
	<b>Total</b>		<b>12</b>	<b>150</b>	<b>18</b>	<b>168</b>	<b>39</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>189</b>	<b>18</b>	<b>207</b>
97	Agri mobile clinic		0	0	0	0	0	0	0	0	0	0	0	0	0
98	Soil test campaigns		0	0	0	0	0	0	0	0	0	0	0	0	0
99	Farm Science Club Conveners meet		0	0	0	0	0	0	0	0	0	0	0	0	0
101	Self Help Group Conveners meetings		0	0	0	0	0	0	0	0	0	0	0	0	0
102	Mahila Mandals Conveners meetings		0	0	0	0	0	0	0	0	0	0	0	0	0
103	Celebration of important days	World Food Day- 16/Oct/2013	1	0	0	0	26	65	91	0	0	0	26	65	91
104	Celebration of important days	World Women Day - 08/Mar/2014	1	0	49	49	0	4	4	0	0	0	0	53	53
	<b>Total</b>		<b>2</b>	<b>0</b>	<b>49</b>	<b>49</b>	<b>26</b>	<b>69</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>118</b>	<b>144</b>
	<b>Grand Total</b>		<b>2536</b>	<b>33795</b>	<b>11432</b>	<b>45237</b>	<b>2174</b>	<b>816</b>	<b>2990</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>35969</b>	<b>12248</b>	<b>48217</b>

Number of Technology weeks celebrated	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
NIL	Gosthies			
	Lectures organised			
	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			

#### Kisan Mobile Advisory

No. of Farmers registered: 3925

#### Details of SMSs

Content Category	No. of Messages	No. of Farmers	Feed back of farmers if any
Crop Production	4	7785	<ul style="list-style-type: none"> <li>Some mobile instrument not supports local language therefore facing reading of SMS.</li> <li>Some time SMS sent successfully but not delivered to destination.</li> </ul>
Crop Protection	7	15328	
Livestock & Fisheries Advisory	3	7850	
Weather Advisory			
Market Information			
Events Information			
Input availability			
Others (About KVK)	2	3719	
<b>Total</b>	<b>16</b>	<b>34682</b>	

## INTERVENTIONS ON DROUGHT MITIGATION - NIL

Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries

Major area coverage under alternate crops/varieties

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

Farmers-scientists interaction on livestock management

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

Animal health camps organised

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

Seed distribution in drought hit states

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

Large scale adoption of resource conservation technologies

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

Awareness campaign

KVK	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>												

### 3.5 Production and supply of Technological products

#### SEED MATERIALS

Major group/ class	Crop	Variety	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
CEREALS	Wheat	GW-366	10.30	23,175	22
	Wheat	GW-496	34.68	77,511	42
OILSEEDS	Mustard	GDM-4	4.12	15,378	100
	Sesamum	GT-3	0.53	5,950	31
	Groundnut	GG-20	1.60	6,400	4
PULSES	Cluster bean	GG-2	4.97	39,642	32
	Black gram	GU-1	2.82	14,782	39
SPICES	Fennel	GF-12	1.15	5,441	2
	Cumin	GC-4	0.12	889	1
OTHER					

#### SUMMARY

Sl. No.	Major group/class	Quantity (qtl.)	Value (Rs.)	Provided to No. of Farmers
1	CEREALS	44.98	1,00,686	64
2	OILSEEDS	6.25	27,728	135
3	PULSES	7.79	54,424	71
4	OTHERS - SPICES	1.27	6,330	3
	<b>TOTAL</b>	<b>60.29</b>	<b>1,89,168</b>	<b>273</b>

## PLANTING MATERIALS

Major group/class	Crop	Variety	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
FRUITS	Lime	Kagzi lime	126	2370	3
SPICES					
VEGETABLES					
FOREST SPECIES					
ORNAMENTAL CROPS	Ornamental		790	12900	8
PLANTATION CROPS					
Others (TOBACCO)	Tobacco	DCT-4	51200	10700	10

### SUMMARY

Sl. No.	Major group/class	Quantity (Nos.)	Value (Rs.)	Provided to No. of Farmers
1	FRUITS	126	2370	3
2	VEGETABLES			
3	SPICES			
4	FOREST SPECIES			
5	ORNAMENTAL CROPS	790	12900	8
6	PLANTATION CROPS			
7	TOBACCO	51200	10700	10
	<b>TOTAL</b>	<b>52116</b>	<b>25970</b>	<b>21</b>

\* add data of onion

### BIO PRODUCTS

Major group/class	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			No	(kg)		
BIOAGENTS						
BIOFERTILIZERS						
1.	Vermi compost	<i>Eudrillus eugeniae</i>	-	695	2205	5
BIO PESTICIDES						

### SUMMARY

Sl. No.	Product Name	Species	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	(kg)		
1	BIOAGENTS					
2	BIO FERTILIZERS	<i>Eudrillus eugeniae</i>	-	695	2205	5
3	BIO PESTICIDE					
	<b>TOTAL</b>			695	2205	5



**LIVESTOCK: NIL**

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			(Nos)	Kgs		
	Cattle					
	SHEEP AND GOAT					
	POULTRY					
	FISHERIES					
	Others (Specify)					

**SUMMARY: NIL**

Sl. No.	Type	Breed	Quantity		Value (Rs.)	Provided to No. of Farmers
			Nos	Kgs		
1	CATTLE					
2	SHEEP & GOAT					
3	POULTRY					
4	FISHERIES					
5	OTHERS					
	<b>TOTAL</b>					

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

(A). KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.)

Sr.No	Date of Start	Periodicity ( Half yearly)	No. of copy distributed
1	01/07/2013	Half yearly	500
2	01/01/2014	Half yearly	500

**(B) Literature developed/published**

Item	Title	Authors name	Number of copies
Research papers			
<b>Total</b>			
Technical reports			
Popular articles	<i>Sanghrahela anaj ni jivato ane tenu niyantran</i>	Dr. R A Patel, Ku.R R Patel	
	<i>Kitchen Garden - Kutumb nu suraksha chkra</i>	Ku Rina R Ptel, Dr. M V Patel	
	<i>Oxytocin : fayda ane ger fayda</i>	Dr.S M Soni	
	<i>Pashuoma rasikaran karvanu mahtva</i>	Dr.S M Soni	
<b>Total</b>	<b>4</b>		
Leaflets/folders	Scientific Cultivation of Groundnut	Shri. B K Patel	4000
	Scientific Cultivation of Bt-Cotton	Shri. B K Patel	4000
	Scientific Cultivation of Blackgram	Shri. B K Patel	4000
	Scientific Cultivation of Sesamum	Shri. B K Patel	4000
	Scientific Cultivation of Kharif Fennel	Shri. B K Patel	4000

	Scientific Cultivation of Culcutti Tobacco	Shri. B K Patel	4000
	Scientific Cultivation of Acid Lime	Dr. M V Patel	4000
	Importance of feed, water and clean milk production for profitable Animal Husbandry business	Dr.S M Soni	4000
	Urea Treatment as Wheat Straw	Dr.S M Soni	4000
	Integrated Disease Management	Dr. R A Patel	4000
	Activities of Krishi Vigyan Kendra	Shri. M R Patel	4000
	Scientific Cultivation of Castor	Shri. B K Patel	4000
	Acid Lime Products	Ku.R R Patel	4000
	Different Pickles Making	Ku.R R Patel	4000
	Value Added Fruit Products	Ku.R R Patel	4000
<b>Total</b>	<b>15</b>		
News paper Coverage	<i>Under Niyantaran</i>	Dr. R A Patel	
	<i>Shakbhaji Kitchen Garden</i>	Ku Rina R Patel, Dr.M.V Patel	
	<i>Lila chara ma rahela zeri tatvo ne olakho</i>	Dr.S M Soni	
	<i>Sangrah karela anaj ne jivat mukta rakhava na upao</i>	Dr. R A Patel, Ku R R Patel	
	<i>Marchi ma jivat nu sanklit niyantran</i>	Dr. R A Patel, Dr.M.V Patel	
<b>Total</b>	<b>5</b>		
Press release	<i>KVK khate Jamin ane pani chakasani laboratory karyrat</i>	KVK	
	<i>Jepur khate fal shakbhaji pakoma parirakshan shibir yogai</i>	KVK	
	<i>Krushhi Vigyan Kendra dvara vishva anna din ni ujavani karai</i>	KVK	
	<i>Kherva khate Vishva anns din ni ujavani karva ma avi</i>	KVK	
<b>Total</b>	<b>4</b>		
Book	-		
<b>Total</b>	<b>0</b>		
<b>Grand TOTAL</b>	<b>28</b>		

N.B. Please enclose a copy of each. In case of literature prepared in local language please indicate the title in English

**(C) Details of Electronic Media Produced - NIL**

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

### 3.7 Success stories/Case studies

#### *Success story – 1*

##### **Scientific broiler poultry farming - A profitable business**

Name of farmer : Jikaralikhon Mehrabkhan Khokhar  
Village : Savala  
Taluka : Visnagar  
Age : 61 years  
Qualification : S.Y. B.A.  
Land : 3.6 hectore  
Contact no. : 9979315400



Mr. Jikaralikhon Mehrabkhan Khokhar residing at village Savala, Ta.Visnagar, 26 km away from KVK Mehsana. He has started broiler unit named as "Raj Poultry boiler farm" at his own land from 2009. He was running a broiler farm by his own traditional techniques. He was comes in contact with KVK in 2011. He was unsatisfied with earning from his poultry farm. KVK expert gave him detailed information regarding scientific broiler poultry farming. After that he took training at KVK regarding scientific broiler poultry farming. He request to KVK scientist to visit his farm. We had frequently visited his farm and gave valuable suggestion to improve poultry farming. He took part in every training programme organized by KVK on poultry farming.

In traditional method he faces major problems like higher mortality rate and low body weight of birds. After taking training and suggestion he got remarkable profit in his poultry farming by overcome above problems. He got Best Farmers Awards on district level from ATMA on 2011-12 and also got best farmer awards from Gujarat Govt in 2012-13 for scientific poultry farming. Gujarat government had organized agricultural fair in celebration of Vibrant Gujarat- 2013 for motivation of farmers, on this occasion Mr. Khokhar give a chance to make a stall in this fair and he gave valuable and motivated suggestion to farmers. He also made a stall in district level agricultural fair organized by ATMA, Mehsana in 2013 for motivation of farmers for poultry business.

Table:1 Effect on mortality and body weight from 2010 to 2013 .

Year	Total purchase birds	Total mortality (%)	Average body weight gain (kg)
2010-11	6000	25	1.75
2011-12	6000	17	1.90
2012-13	6000	8	2.20

Table:2 Economic of his broiler poultry unit from 2010 to 2013.

Year	Total expense (Rs.)	Total returned (Rs.)	Net profit (Rs.)
2010-11	560000	591500	31500
2011-12	640450	738562	98112
2012-13	603445	822420	218975

He says that "Poultry takes as a secondary farming with agriculture makes farmer rich".

**Photographs**



**3.8 Give details of innovative methodology/technology developed and used for Transfer of Technology during the year**

**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)**

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1	Livestock	Use juice made from 200 gm of cassia fistula's pods (Garmalo ) in 500 ml water	for Tympany and constipation in large animal
2	Livestock	Use of pest made from Jamun leaves	for ulcer on skin
3	Livestock	Use of juice made from 100 gm black cumin (kali jeeri)	For worm infestation
4	Livestock	Use of Juice of 100 gm Desmostachya bipinnate (dabhda)	For cynaid posoining in animal
5	Wheat	Use of Kerosine 100 ml per 20 kg seed	for seed treatment to prevent termite
6	Vegetables and Cotton	Spraying of 10 % cow urine	To control sucking pests

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

- Identification of courses for farmers/farm women : PRA, Group discussion
- Rural Youth : PRA,
- Inservice personnel : Department contact

**3.11 Field activities**

1. Number of villages adopted : 12
2. No. of farm families selected : 140
3. No. of survey/PRA conducted : 1

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

- Status of establishment of Lab : Working
1. Year of establishment : 2011
  2. List of equipments purchased with amount : NIL

Sl. No	Name of the Equipment	Qty.	Cost
<b>Total</b>			

3. Details of samples analyzed so far :

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	416	407	45	24460
Water Samples	43	41	15	930
Plant Samples	21	21	21	0
Petiole Samples				
<b>Total</b>	<b>480</b>	<b>469</b>	<b>81</b>	<b>25390</b>

## 4.0 IMPACT

### 4.1. Impact of KVK activities (Not to be restricted for reporting period).

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./year)	After (Rs./year)
Income generating activities for SHG members	97	43	10500	11700
Value addition	135	35.55	7500	9700
Protected cultivation	83	40.96	82500	85200
Dairying	16	50	28000	30000
VERMICOMPOST	23	52.17	-	3650

NB : Should be based on actual study, questionnaire/group discussion etc. with ex-participants.

### 4.2. Cases of large scale adoption (Please furnish detailed information for each case)

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
1	<b>Oil seed</b>						
1.1	Castor	ICM	High yielding variety GCH-7 & Sulphur	Training & FLD	95	2450	920
1.2	Mustard	ICM	High yielding variety GM-3 & Sulphur	Training & FLD	52	980	200
2	<b>Pulses</b>						
2.1	Green gram	ICM	High yielding variety GM-4 & Sulphur	Training & FLD	40	500	120
3	<b>Other</b>						
3.1	Fennel	Varietal Evaluation	High yielding variety GF-11	Training & FLD	75	1150	300
3.2	Wheat	INM	Zinc Sulphate	Training & FLD	85	2600	1300
3.3	Lucerne	Varietal Evaluation	Higher fodder yielding variety AL-2	Training & FLD	30	270	95
3.4	Sorghum	Varietal Evaluation	Higher fodder yielding variety SSG	Training & FLD	14	90	25
3.5	Cumin	ICM	Higher yielding variety GC-4 and Sulphur	Training	55	800	200
3.7	Horticulture Crops	Protected cultivation	Green House & Net House	Training & Seminar	80	260	-
3.8	Plant protection	IDM	Disease management	Training & FLD	85	2600	1600

			in major crops				
3.9	Major crops	Micro Irrigation system	Drip Irrigation	Training	30	225	150
3.10	Plant protection	IPM	Pest management in major crops	Training & FLD	95	2900	2250
3.11	Plant protection	Bio control	Bio agent, Bio pesticides	Training & FLD	35	1250	425
3.12	Crop production	IWM	Weed management	Training	105	2600	2400
3.13	Bio fertilizer	Production of organic inputs	Vermi compost	Training & FLD	15	75	-
3.14	Farm Implements	Farm mechanization	Rotavator, Auto seed drill, Reeper and wheel hoe	Training & method FLD demonstration	45	120	-
3.15	Livestock	INM	Mineral mixture	Training & FLD	65	800	-
3.16	Livestock	Value addition	Urea treatment on wheat straw	Training & FLD	32	120	-
3.17	Livestock	INM	By pass fat	Training & FLD	10	80	-
3.18	Livestock	Disease Management	Saff kit	Training & FLD	18	150	-
3.19	Home Science	Value addition	Aonla candy & Mango pickle	Method demonstration & training	27	380	-
3.20	Home Science	Household food security	Kitchen garden	Training & FLD	15	55	-
3.21	Home Science	Minimization of nutrient loss	Solar cooker	Training & FLD	13	27	-
<b>4 Cash Crops</b>							
4.1	Cotton	ICM	Production technology	Training & FLD	85	1200	425

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

**Table : 1 Adoption of the latest technologies by the farmers**

(n =50)

<b>Sr. No.</b>	<b>Technology</b>	<b>Frequency</b>	<b>Adoption (%)</b>
1	Scientific cultivation of major crops	39	78
2	Fodder production	29	58
3	Soil fertility management	27	54
4	Seed production technologies	17	34
5	Micro Irrigation System	20	40
6	Weed management	38	76
7	Soil and water conservation	22	44
8	Integrated Nutrients Management	37	74
9	Commercial fruit production	36	72
10	Improved technology in vegetables crops	35	70
11	Improved technology in spice crops	38	76
12	Production technology of Tuber crops	31	62
13	Nursery management	16	32
14	Orchard management	32	64
15	Integrated Pest Management	36	72
16	Integrated Disease Management	38	76
17	Bio control of pests and disease	25	50
18	Poultry farming	16	32
19	Technology of dairy management	37	74
20	Technology of disease management in animal	34	68
21	Technology of feed management in animal	36	72
22	Improved agriculture implements	30	60
23	Organic fertilizer production	15	30
24	Strengthening of farmer club	30	60
<b>Overall adoption</b>		<b>59.5 %</b>	



**Table 2: Adoption of the latest technologies by the farmwomen****(n = 30)**

Sr. No.	Technology	Frequency	Adoption (%)
1	Minimization of nutrient loss in food preparation	16	53.33
2	Income generating activities	12	40.00
3	Value addition	18	60.00
4	Women and child care	13	43.33
5	Adoption of low cost high nutrient diet	9	30.00
6	Kitchen gardening	14	44.66
7	Self help group and its sustainability	18	60.00
8	Storage loss minimization technology	22	73.33
9	Diary management	20	66.66
10	Feed management in animals	21	13.00
11	Organic fertilizer - Vermi compost	14	46.66
<b>Overall adoption</b>		<b>53.33 %</b>	

## 5 LINKAGES

### 5.1 Functional linkage with different organizations

Sr.No	Name of Organization	Nature of Linkage
1	Mehsana District Education Foundation	Financial and Physical Facilities
2	Sardarkrushinagar Dantiwada Agricultural University , Sardarkrushinagar	Technical backstopping
3	Anand Agricultural University , Anand	Technical support
4	District Agriculture Officer, Mehsana	Joint implementation
5	Deputy Director (Horticulture), Mehsana	Joint implementation
6	NABARD, Mehsana	Joint implementation for farmers clubs and Strengthening of SHGs
7	ATMA, Mehsana	Joint implementation
8	Executive Engineer, Mehsana & Dantiwada	Guidance for civil work
9	Dena Bank, Mehsana	Member of S.A.C., For S.H.G. formation
10	G.S.F.C., G.N.F.C. and IFFCO	Joint implementation
11	Center for Research on Seed Spices, Jagudan	Technical support
12	Bank of Baroda, Mehsana	Joint implementation
13	DRDA	Participating in meeting
14	Farmer Training Centre, Mehsana	Joint Implementation
15	Dy. Director (A.H),Mehsana	Member of S.A.C., Various Govt. Scheme
16	Wheat Research Station, Vijapur	FLD
17	Gujarat State Seed Corporation Ltd, Mehsana	Seed production
18	Self Employed Women Association (SEWA), Mehsana	Joint Implementation
19	Dena RSETI, Mehsana	Joint Implementation , Vocational trainings, Member of LAC
20	Development Support Center, Ahmedabad	Joint Implementation
21	National Centre for Integrated Pest Management, New Delhi	Joint implementation
22	VIKSAT, Ahmedabad	Joint implementation
23	District Watershed Development Unit, Mehsana	Joint implementation
24	IVRI, Bareilly, Izatnagar	Vermi cultural Technology
25	Junagadh Agricultural University	Technical backstopping
26	National Institute of Co-Operative Management, Gandhinagar	Joint implementation

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)

**5.3 Details of linkage with ATMA**

a) Is ATMA implemented in your district Yes

S. No.	Programme	Nature of linkage	Remarks
1	Training programme - 14 on campus	Technical	
2	Lecture delivered as resource person - 115	Technical	
3	Kishan gosthi - 3	Technical	

**5.4 Give details of programmes implemented under National Horticultural Mission - NIL**

S. No.	Programme	Nature of linkage	Constraints if any

**5.5 Nature of linkage with National Fisheries Development Board - NIL**

S. No.	Programme	Nature of linkage	Remarks

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of estt.	Area	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty(kg)	Cost of inputs	Gross income	
1	Vermi compost unit	2011-12	0.05	<i>Eudrillus eugeniae</i>	Vermi compost	695	1400	2205	

### 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.)		Remarks
				Variety	Type of Produce	Qty (kg)	Cost of inputs(Seed)	Gross income	
<b>Cereals</b>									
Bajara	15.03.2013	07.06.2013	0.27	86 M 11	Comm	1041	700	14574	
Bajara	07.03.2014	--	0.52	86 M 52	Comm		1050		not sold
Wheat	20.11.2013	18.03.2013	1.0	GW-496	Seed		1125		not sold
Wheat	25.11.2013	20.03.2013	0.54	GW-11	Seed		200		not sold
Wheat	06.12.2016	23.03.2013	0.27	Pusa viswas	Seed		-		not sold
<b>Pulses</b>									
Guar	21.06.2013	21.11.2013	0.60	G.G-2	Seed	551	1575	10634	
Greengram	21.06.2013	24.08.2013	0.23	G.M-4	Seed	6	180	-	not sold
Blackgram	20.06.2013	02.10.2013	0.29	G.U-1	Seed	27	600	743	
<b>Oilseeds</b>									
Sesamum	20.06.2013	24.09.2013	0.22	GT-3	Seed	77	120	10950	
Castor	06.08.2013	--	0.45	GCH-7	Comm		588		not sold
Mustard	17.10.2013	22.02.02013	0.33	GDM-4	Seed	740	150		not sold
Groundnut	24.02.2014	--	0.51	GJG-9	Seed		4290		not sold
<b>Fibers</b>									
<b>Spices &amp; Plantation crops</b>									
Cumin	15.11.2013	19.02.2014	0.23	G.C-4	Seed		140		not sold
Fennel	08.09.2013	--	0.25	GF-12	Seed		1200		not sold
<b>Floriculture</b>									
<b>Fruits</b>									
Lime								2,50,000	Auction
Aonla									
Sapota									
<b>Vegetables</b>									
<b>Others – Cash</b>									
Cotton	12.06.2013	15.02.2014	0.32	Hy.Bt Cotton-6	Comm		250		not sold
Cotton	12.06.2013	15.02.2014	0.32	Hy.Bt Cotton-8	Comm		250		not sold
Tobacco	02.12.2013	--	0.26	GT-4	Comm		720		not sold
<b>Fodder crops</b>									
Lucerne	31.10.2013	--	0.23	AL-2	Seed		1000		not sold
Sorghum	02.12.2013	25.11.2013	0.15	COFS-29	Seed	20	-	700	

**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	
1	Vermi compost	695	1400	2205	

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

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

**6.5 Rainwater Harvesting : NIL**

**Training programmes conducted by using Rainwater Harvesting Demonstration Unit**

Date	Title of the training course	Client (PF/R/EF)	No. of Courses	No. of Participants including SC/ST			No. of SC/ST Participants		
				M	F	T	M	F	T
NIL									

## 6.6 Utilization of hostel facilities

Accommodation available (No. of beds) : 60

Months	Title of the training course / Purpose of stay	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April -2013	Recruitment of Vanpal Sahayak- Department of Forest	50	300	
<b>Total</b>		<b>50</b>	<b>300</b>	
May-2013	Official Work, NHRDF,Rajkot	1	1	
May-2013	Training , ATMA Bhavnagar	47	94	
May-2013	Participant of Workshop at Jagudan	6	12	
<b>Total</b>		<b>54</b>	<b>107</b>	
July-2013	Training , ATMA Kheda	40	40	
July-2013	Official, NHRDF,Rajkot	1	1	
July-2013	Training, ATMA,Amreli	31	62	
July-2013	Official, NHRDF,Rajkot	2	2	
<b>Total</b>		<b>74</b>	<b>105</b>	
August-2013	Training,ATMA Kheda	50	100	
August-2013	Exposure Visit, ATMA Mandvi Kutchh	39	39	
August-2013	Training , ATMA Sabarkantha	49	98	
August-2013	Training, ATMA,Surendranagar	47	47	
<b>Total</b>		<b>185</b>	<b>284</b>	
December-2013	Resident Training, Student of BRS Final year	3	60	
<b>Total</b>		<b>3</b>	<b>60</b>	
January-2014	Exposure visit, Jaisalmer, Rajasthan	38	38	
January-2014	Resident Training, Student of BRS Final year	2	62	
<b>Total</b>		<b>40</b>	<b>100</b>	
February-2014	Exposure visit, DDA Jodhpur, Rajasthan	33	33	
February-2014	Exposure visit, ATMA Amreli	50	50	
<b>Total</b>		<b>83</b>	<b>83</b>	
March-2014	Exposure Visit, KVK Kodinar	11	11	
March-2014	Exposure Visit, COF,NAU Navsari	23	46	
<b>Total</b>		<b>34</b>	<b>57</b>	
<b>Grand Total</b>		<b>523</b>	<b>1096</b>	

## 7. FINANCIAL PERFORMANCE

### 7.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
Krishi Vigyan Kendra	SBI	Mehsana	10354356755
Krishi Vigyan Kendra	SBI	Ganpat Vidyanagar	31519626337

### 7.2 Utilization of funds under FLD on Oilseed (*Rs. In Lakhs*) - Not allocated

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2014
	Kharif 2013-14	Rabi 2013-14	Kharif 2013-14	Rabi 2013-14	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					(+)1,26,429

### 7.3 Utilization of funds under FLD on Pulses (*Rs. In Lakhs*) - Not allocated

Item	Released by ICAR		Expenditure		Unspent balance as on 1 <sup>st</sup> April 2014
	Kharif 2013-14	Rabi 2013-14	Kharif 2013-14	Rabi 2013-14	
Inputs					
Extension activities					
TA/DA/POL etc.					
TOTAL					(-)51,416

### 7.4 Utilization of funds under FLD on Cotton (*Rs. In Lakhs*) - Not allocated

Item	Released by ICAR		Expenditure	Unspent balance as on 1 <sup>st</sup> April 2014
	Kharif 2013-14	Kharif 2013-14	Kharif 2013-14	
Inputs				
Extension activities				
TA/DA/POL etc.				
TOTAL				(+)12,558

**7.5 Utilization of KVK funds during the year 2012-13 and 2013-14 (up to March, 2014)**  
(year wise separately) (current year and previous year)

**Year 2012-13 (Previous year)**

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	64.00	64.00	63.15
2	<b>Traveling allowances</b>	1.00	1.00	0.55
3	<b>Contingencies</b>	9.50	9.50	9.50
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.80	3.80	3.80
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	5.70	5.70	5.70
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>74.50</b>	<b>74.50</b>	<b>73.20</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Two wheeler)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>74.50</b>	<b>74.50</b>	<b>73.20</b>

**Year 2013-14 (Current year)**

S. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	<b>Pay &amp; Allowances</b>	70.50	70.50	68.51
2	<b>Traveling allowances</b>	1.10	1.10	1.10
3	<b>Contingencies</b>			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	4.40	4.40	4.40
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	6.60	6.60	6.60
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
<b>TOTAL (A)</b>		<b>82.60</b>	<b>82.60</b>	<b>80.61</b>
<b>B. Non-Recurring Contingencies</b>				
1	<b>Works</b>			
2	<b>Equipments including SWTL &amp; Furniture</b>			
3	<b>Vehicle</b> (Two wheeler)			
4	<b>Library</b> (Purchase of assets like books & journals)			
<b>TOTAL (B)</b>				
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>82.60</b>	<b>82.60</b>	<b>80.61</b>

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

Year	Opening balance as on 1 <sup>st</sup> April	Income during the year	Expenditure during the year	Net balance in hand as on 1 <sup>st</sup> April of each year
April 2011 to March 2012	4.53	4.18	5.21	3.50
April 2012 to March 2013	3.50	8.49	5.62	6.37
April 2013 to March 2014	6.37	6.61	3.58	9.40



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

## Technology: “Jai Gopal” Vermiculture Technology

Signed a MoU between KVK Mehsana and IVRI, Barelley for transfer of “Jai Gopal” Vermiculture Technology technology on 28 Feb, 2014 at IVRI, Barelley. The Specifications and salient technical features of this technology are as under:

- A new Indian earthworm species “Jai Gopal” (*Perionyx ceylanesis*) is developed through selection and mating plan which is better than exotic earthworm *Eisenea foetida*, *Eudrilus eugeneae* with reference to following characters:
- High fecundity
- Heat and cold tolerance between 0 to 430 C ambient temperatures.
- Harbour on animal and agro-based.
- Voracious feeder
- Very rich in protein (contain 67% protein and all functional amino-acids).
- Breeding throughout the year except in very low temperature.
- Act as Bio-reactor to multiply beneficial soil and decomposition of micro-organisms.
- Superior quality of vermicast and nutriwash.
- Long life span than prevailing exotic earthworm species.
- Smallest period of interval from hatchling to maturity.



**Proceedings of 6<sup>th</sup> Scientific Advisory Committee meeting**

Venue: Krishi Vigyan Kendra, Kherva Date & Time: 11<sup>th</sup> March, 2014, 10:00 A.M..

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The 6th SAC meeting of Krishi Vigyan Kendra, was held at KVK, Kherva in the Chairmanship of Hon. Director, Krishi Vigyan Kendra as well as Mehsana District Education Foundation, Shri P.I. Patel. At the outset, Mr. M. R. Patel, welcomed invited dignitaries and guests of the meeting. Dr.M.V. Patel, Programme Coordinator presented the Annual Progress Report of 2013-14 and action plan for the year 2014-15. The members of SAC had reviewed the suggestions and action taken of 5th SAC meeting. The discussion was held on Annual Progress Report of 2013-14 and action plan for the year 2014-15. The list of members who attended the meeting is attached herewith separately.

The following salient recommendations were made by the SAC members.

- Mention the number of animal treated in the Animal camps.
- Increase the database of farmers up to 25000 under Kissan SMS portal service and send the SMS.
- Prepare the list of farmers those who are not cultivating their lands and keep their land vacant, organize seminar for these farmers, if they agreed to cultivate their land by preparing trust or co-operative society.
- Organize Exposure tour of farmers on the field of those farmers who had conducted successful experiment.
- If farmers of Fatehpura village of Vijapur taluka are agree to adopt MIS in whole village, prepare the model of it, so they can get maximum subsidy. We will request the Government to provide maximum subsidy.
- If any farmers have prepared a new innovation in field of Agriculture Engineering shows this innovation to the students of Engineering, for further modification.
- To establish a greenhouse on KVK farm with financial assistance of Dept of Agri.
- To aware the maximum farmers about use of "Zatka Machine" to protect the farm from wild animal.
- To provide information about Medicinal crops to the farmers.
- Arrange monthly review meeting of KVKs under SDAU Jurisdiction at KVK.
- There is a provision of 1,00,000/- Rs. for conducting OFT under ATMA project there for send proposal to conduct the OFT.
- Prepare IPM module in collaboration with Department of Horticulture, ATMA Project & KVK.

- Arrange a demonstration on drip irrigation and organize field day on it.
- To organize demonstration on Integrated Farming system.
- To give more emphasis on preparation and use of bio-pesticides.
- Increase the production of seeds so that large number of farmers may be benefited.
- Mehsana Districts have large area under lime cultivation. Therefore, do more effort to save the lime crops from the Nematode infestation.
- Increase number of programme for sustainable development of Vermicompost.
- To prepare a DVD of a successful farmers and give it to other farmers for early adoption his technologies.
- There is a scarcity of labour in agriculture therefore more focus on use of improved implements.
- Prepare a success story of farmers and send to Doordarshan Vadodara for wider publicity.
- Send the list of SMS of KVK to arrange a Radio Talk on Doordarshan Programme.

At the end of the meeting Shri B.K. Patel, Subject Matter Specialist (Agronomy) extended the vote of thanks to all the members for their active participation and constructive and valuable suggestions.

(M.V. Patel)  
Programme Coordinator

## **Name and Designation of Participants**

25. Shri A. T. Patel, President, Ganpat University
26. Prof. P. I. Patel, Director, KVK and MDEF
27. Dr. K. A. Thakkar, Director of Extension education, SDAU
28. Mrs. Anita Mayekar-Bhalekar, DDM, NABARD, Mehsana
29. Mrs. Mayuri Chaudhary, Director, Dena RSETI, Mehsana
30. Shri. J.R. Patel, RO, Dena Bank, Mehsana
31. Dr. D. L. Patel, Dy. Director of Agriculture, Mehsana
32. Shri.K.M.Patel, Project Director, ATMA Mehsana
33. Shri S.M Patel, GSFC, Mehsana
34. Shri N. N. Patel, Trustee, MDEF
35. Shri. K. K. Patel, Trustee, MDEF
36. Shri. V.T. Patel, Trustee, MDEF
37. Dr. D.N.Patel, Dy. Director of Animal Husbandry, Mehsana
38. Dr.B. P. Rathod, Dy. Director Horticulture, Mehsana
39. Shri.B.N.Patel, Asst. Director of Agriculture, Mehsana
40. Shri. H.P.Patel, I/C Programme Co-ordinator, KVK, Patan
41. Shri. P.P.Lakhani, PEX (F&H), All India Radio, Vadodara
42. Shri. Mahendrabhai Mistry, Technical
43. Shri. A. K. Patel, Seed Officer, Mehsana
44. Shri. H.A.Patel, Extension Officer, Animal Husbandry, Mehsana
45. Mr. J.M. Khokar, Progressive Farmer, Savala
46. Mr. Dahyabhai Patel, Progressive Farmer, Hasanpur
47. Mrs. Bhikhiben Patel, Progressive Farm Woman, Susi
48. Mrs. Sangitaben Patel, Progressive Farm Woman, Mathasur

## Annexure-II

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
4-04-2013	PF	Scientific cultivation of Kharif crops and soil fertility management	Crop production	Integrated Farming	1	Denap	25	0	25	0	0	0	25	0	25
8-04-2013	PF	IDM in Cotton	Plant Protection	Integrated Disease Management	1	Ambasan	23	0	23	0	0	0	23	0	23
12-04-2013	RY	Selection of Milch Animal	Animal Science	Dairying	1	Jagudan	18	4	22	0	0	0	18	4	22
17-04-2013	PF	Integrated Nutrient Management in Cotton	Crop production	Integrated Nutrient Management	1	Dediyasan	20	0	20	0	0	0	20	0	20
18-04-2013	FW	Fruits preservation techniques	Home Science	Value addition	1	Valam	0	28	28	0	0	0	0	28	28
26-04-2013	PF	Training and Pruning in orchard	Horticulture	Training and Pruning	1	Langhnaj	22	0	22	0	0	0	22	0	22
30-04-2013	EF	Agro forestry and Horticulture, Floriculture, Medicinal and Aromatic plantation	Horticulture	Productivity enhancement in field crops	1	KVK	15	11	26	1	2	3	16	13	29
1-05-2013	RY	Housing of dairy animal	Animal Science	Dairying	1	Valam	0	25	25	0	0	0	0	25	25
7-05-2013	FW	Identification, nature of damage and management of store grains pests	Plant Protection	Integrated Pest Management	1	Denap	0	29	29	0	0	0	0	29	29
7-05-2013	PF	Government subsidy scheme in agriculture	Extension Education	Mobilization of social capital	1	KVK	33	0	33	0	0	0	33	0	33
14-05-2013	PF	Production technology of Bt. Cotton	Crop production	Cropping Systems	1	Karbatiya	29	0	29	0	0	0	29	0	29

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
14-05-2013	RY	Green manuring	Crop production	Integrated Farming	1	KVK	12	0	12	0	0	0	12	0	12
14-05-2013	PF	Judicious use of chemical fertilizer in cotton	Crop production	Soil fertility management	3	KVK	30	0	30	0	0	0	30	0	30
24-05-2013	PF	Role of farm sanitation, deep ploughing and soil solarization in Integrated Pest and Disease Management for field crops	Plant Protection	Integrated Disease Management	1	Fudeda	24	15	39	0	0	0	24	15	39
30-05-2013	RY	Nursery raising	Horticulture	Nursery Management of Horticulture crops	1	Khadalpur	19	0	19	0	0	0	19	0	19
3-06-2013	PF	Scientific cultivation of Bt. Cotton	Crop production	Integrated Crop Management	1	KVK	26	0	26	0	0	0	26	0	26
3-06-2013	PF	IDM in groundnut-Trichoderma	Plant Protection	Bio-control of pests and diseases	1	KVK	14	0	14	2	0	2	16	0	16
4-06-2013	RY	Entrepreneurial Development of farmer youth	Extension Education	Planting material production	1	Ambasan	28	0	28	0	0	0	28	0	28
17-06-2013	PF	Scientific cultivation of Cluster bean	Crop production	Seed Production	1	KVK	26	0	26	7	0	7	33	0	33
18-06-2013	PF	Scientific cultivation of Sesamum	Crop production	Seed production	1	KVK	23	0	23	0	0	0	23	0	23
19-06-2013	PF	Scientific cultivation Black gram	Crop production	Integrated Crop Management	1	KVK	29	0	29	7	0	7	36	0	36
20-06-2013	PF	Scientific cultivation of Pearl millet	Crop production	Integrated Crop Management	1	KVK	12	0	12	5	0	5	17	0	17
20-06-2013	PF	Hasta bahar management in lime	Horticulture	Training and Pruning	1	KVK	8	0	8	2	0	2	10	0	10

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
20-06-2013	PF	Management of citrus canker	Plant Protection	Bio-control of pests and diseases	1	KVK	8	0	8	2	0	2	10	0	10
21-06-2013	FW	Preparation of home care products	Home Science	Income generation activities for empowerment of rural Women	1	Devgadh	0	28	28	0	1	1	0	29	29
21-06-2013	PF	Aerobic 12omposition of organic waste	Crop production	Organic manures production	1	Savala	18	0	18	5	0	5	23	0	23
24-06-2013	PF	Scientific cultivation of Groundnut	Crop production	Crop Diversification	1	Fudeda	37	0	37	2	0	2	39	0	39
24-06-2013	FW	Use of By pass fat for getting higher fat and milk in crossbreed cow	Animal Science	Feed management	1	KVK	2	8	10	0	0	0	2	8	10
25-06-2013	FW	De worming in large animal	Animal Science	Disease Management	1	KVK	6	14	20	0	0	0	6	14	20
25-06-2013	PF	Cultivation of rainfed castor	Crop production	Resource Conservation Technologies	1	KVK	22	0	22	5	0	5	27	0	27
27-06-2013	EF	Production technology of kharif crops	Crop production	Productivity enhancement in field crops	1	KVK	22	1	23	0	0	0	22	1	23
1-07-2013	PF	Improved package of practices of fodder Sorghum	Crop production	Production of livestock feed and fodder	1	KVK	25	0	25	0	0	0	25	0	25
2-07-2013	FW	Income generating activities for Empowerment of rural women	Home Science	Income generation activities for empowerment of rural Women	1	Valam	0	16	16	0	0	0	0	16	16
4-07-2013	PF	Use of bio pesticides in management of sucking pests	Plant Protection	Bio-control of pests and diseases	1	Sunak	21	0	21	0	0	0	21	0	21

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
5-07-2013	RY	Improved production technology of Pomegranate	Horticulture	Commercial fruit production	1	KVK	26	0	26	0	0	0	26	0	26
5-07-2013	FW	Nutrition education to combat malnutrition	Home Science	Women and child care	1	Karbatiya	0	28	28	0	0	0	0	28	28
13-07-2013	FW	Kitchen Gardening	Home Science	Household food security by kitchen gardening and nutrition gardening	1	Tankiya	0	0	0	0	22	22	0	22	22
16-07-2013	PF	Scientific cultivation of cluster bean	Crop production	Integrated Crop Management	1	Virta	31	0	31	0	0	0	31	0	31
23-07-2013	PF	Scientific cultivation of Hybrid Napier Grass	Crop production	Production of livestock feed and fodder	1	KVK	30	8	38	2	0	2	32	8	40
24-07-2013	PF	Planning of kharif crops	Crop production	Cropping Systems	1	Kharod	53	0	53	0	0	0	53	0	53
25-07-2013	FW	Tomato catch up making for starting small industries	Home Science	Value addition	1	Govindpura	0	29	29	0	0	0	0	29	29
27-07-2013	FW	Use of sprouted pulses in preparation of low cost nutrient diet	Home Science	Design and development of low/minimum cost diet	1	Valam	0	17	17	0	0	0	0	17	17
2-08-2013	PF	Scientific cultivation of Chilly	Horticulture	Off-season vegetables	1	KVK	9	0	9	1	0	1	10	0	10
5-08-2013	PF	IDM in Castor	Plant Protection	Integrated Disease Management	1	KVK	40	0	40	0	0	0	40	0	40
6-08-2013	FW	Scientific rearing of animals	Animal Science	Dairy Management	3	KVK	0	48	48	0	2	2	0	50	50
12-08-2013	FW	Importance of fruits and vegetable in our	Home Science	Designing and development for high nutrient	1	Tankiya	0	0	0	0	19	19	0	19	19



Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
		daily diet		efficiency diet											
14-08-2013	FW	Formation and promotion of SHGs	Extension Education	Formation and Management of SHGs	1	KVK	4	36	40	0	0	0	4	36	40
19-08-2013	PF	Disease management in poultry farming	Animal Science	Poultry Management	1	Savala	20	0	20	0	0	0	20	0	20
21-08-2013	PF	IPM in Kharif crops	Plant Protection	Integrated Pest Management	3	KVK	0	0	0	47	0	47	47	0	47
22-08-2013	PF	Common disease of animals and their treatment	Animal Science	Disease Management	1	Valam	0	21	21	0	0	0	0	21	21
22-08-2013	PF	Formation of farm science club	Extension Education	Group dynamics	1	Ganeshpura(Kadi)	24	0	24	0	0	0	24	0	24
27-08-2013	PF	Rejuvenation of old orchard of Lime	Horticulture	Rejuvenation of old orchards	1	Kherva	22	0	22	0	0	0	22	0	22
30-08-2013	RY	Feed and feeding management in dairy animal	Animal Science	Dairying	1	Kasva	0	26	26	0	0	0	0	26	26
10-09-2013	PF	Seed treatment - Low cost technologies for pests and diseases management	Plant Protection	Integrated Disease Management	1	Mahadevpura	30	0	30	0	0	0	30	0	30
10-09-2013	PF	Weed management in rabi crops	Crop production	Weed Management	1	Mahadevpura	23	0	23	0	0	0	23	0	23
13-09-2013	RY	Scientific cultivation of rabi and summer vegetables	Horticulture	Nursery Management of Horticulture crops	1	KVK	0	0	0	28	0	28	28	0	28
14-09-2013	RY	Scientific cultivation of rabi and summer vegetables	Horticulture	Nursery Management of Horticulture crops	1	KVK	0	0	0	26	0	26	26	0	26
18-09-2013	FW	Value addition in fruits and vegetables	Home Science	Value addition	1	Mathasur	0	29	29	0	0	0	0	29	29

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
23-09-2013	RY	IPM technology used for mustard pest management	Plant Protection	Integrated Farming	1	KVK	24	0	24	0	0	0	24	0	24
26-09-2013	FW	Heat detection techniques in buffaloes	Animal Science	Dairy Management	1	Jepur	0	31	31	0	3	3	0	34	34
26-09-2013	PF	Scientific cultivation of rabi crops	Crop production	Integrated Farming	1	KVK	46	4	50	0	0	0	46	4	50
27-09-2013	PF	Scientific cultivation of rabi crops	Crop production	Integrated Farming	1	KVK	44	12	56	0	0	0	44	12	56
30-09-2013	PF	Scientific cultivation of rabi crops	Crop production	Integrated Farming	1	KVK	50	0	50	0	0	0	50	0	50
1-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Integrated Farming	1	KVK	57	0	57	0	0	0	57	0	57
3-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Cropping Systems	1	KVK	59	0	59	0	0	0	59	0	59
4-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Cropping Systems	1	KVK	29	30	59	0	2	2	29	32	61
7-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Cropping Systems	1	KVK	0	50	50	0	0	0	0	50	50
8-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Cropping Systems	1	KVK	37	0	37	0	0	0	37	0	37
11-10-2013	PF	Scientific cultivation of rabi crops	Crop production	Integrated Farming	1	KVK	31	17	48	0	0	0	31	17	48
16-10-2013	PF	Scientific cultivation of Mustard	Crop production	Integrated Crop Management	1	KVK	24	0	24	2	0	2	26	0	26
17-10-2013	PF	Scientific dairy farming	Animal Science	Dairy Management	1	KVK	42	0	42	0	0	0	42	0	42
21-10-2013	PF	Judicious use of chemical fertilizer	Crop production	Nutrient Use Efficiency	1	Vadpura	21	0	21	0	0	0	21	0	21

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
21-10-2013	FW	Control of external and internal parasite	Animal Science	Disease Management	1	Vadpura	0	18	18	0	0	0	0	18	18
21-10-2013	PF	Scientific cultivation of Fennel	Horticulture	Production and Management technology	1	KVK	25	0	25	0	0	0	25	0	25
23-10-2013	FW	Mobilization of social capital	Extension Education	Mobilization of social capital	1	Navavas	0	19	19	0	10	10	0	29	29
25-10-2013	RY	Seed production in spices	Horticulture	Seed production	1	KVK	18	0	18	0	0	0	18	0	18
26-10-2013	PF	Improved package of practices of Lucerne	Crop production	Seed production	1	KVK	31	0	31	0	0	0	31	0	31
26-10-2013	PF	Urea treatment in wheat straw	Animal Science	Feed management	1	Ranela	15	0	15	0	0	0	15	0	15
29-10-2013	PF	IDM in Cumin	Plant Protection	Integrated Disease Management	1	KVK	17	0	17	0	0	0	17	0	17
29-10-2013	PF	Conservation of soil moisture in Wheat	Crop production	Soil and Water Conservation	1	KVK	10	0	10	0	0	0	10	0	10
30-10-2013	PF	IPM in Tomato	Plant Protection	Integrated Pest Management	1	Lhor	16	0	16	3	0	3	19	0	19
13-11-2013	PF	Scientific cultivation of Potato	Horticulture	Production and Management technology	1	Jepur	27	0	27	0	0	0	27	0	27
14-11-2013	PF	Termite management in Wheat	Plant Protection	Integrated Pest Management	1	Lhor	16	0	16	0	0	0	16	0	16
18-11-2013	PF	Scientific cultivation of Wheat	Crop production	Seed production	1	KVK	20	0	20	0	0	0	20	0	20
19-11-2013	PF	Disease management in Potato	Plant Protection	Integrated Disease Management	1	Gozaria	20	0	20	0	0	0	20	0	20
19-11-2013	FW	Preparation of nutritious food for children's	Home Science	Designing and development for high nutrient efficiency diet	1	Valam	0	31	31	0	0	0	0	31	31

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
22-11-2013	PF	Scientific cultivation of Wheat	Crop production	Seed production	1	Thangna	32	0	32	0	0	0	32	0	32
26-11-2013	FW	Urea treatment in wheat straw	Animal Science	Feed management	1	Malarpur	0	22	22	0	0	0	0	22	22
29-11-2013	PF	Scientific cultivation of Rabi crops	Crop production	Integrated Farming	1	Laxmipura,Author	35	14	49	1	1	2	36	15	51
2-12-2013	PF	Safe handling and use of pesticides	Plant Protection	Integrated Pest Management	1	Dharampur	19	0	19	0	0	0	19	0	19
2-12-2013	RY	Value added products in Aonla	Home Science	Value addition	1	Kherva	0	16	16	0	5	5	0	21	21
7-12-2013	FW	Use and importance of Saaf kit for prevent of mastitis	Animal Science	Disease Management	1	Kansa	1	35	36	0	0	0	1	35	36
9-12-2013	PF	Vermi compost and vermi wash production	Crop production	Vermi-compost production	1	Vadu	43	0	43	0	0	0	43	0	43
9-12-2013	FW	Clean milk production and milking management	Animal Science	Production of quality animal products	1	Vadu	0	30	30	0	0	0	0	30	30
11-12-2013	FW	Value addition in fruits and vegetables	Home Science	Value addition	1	Thalota	0	0	0	1	20	21	1	20	21
12-12-2013	FW	Heat detection technique in buffalo	Animal Science	Dairy Management	1	Ganeshpura(Vijapur)	0	23	23	0	0	0	0	23	23
13-12-2013	RY	Entrepreneurial Development of farm women	Extension Education	Vermi-culture	1	Kansa	0	27	27	0	0	0	0	27	27
18-12-2013	FW	Hemoglobin maintenance in rural girls	Home Science	Women and child care	1	Navavas	0	0	0	0	46	46	0	46	46
27-12-2013	FW	Health and hygiene management of dairy animals	Animal Science	Disease Management	1	KVK	0	26	26	0	0	0	0	26	26

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
3-01-2014	RY	Profitable management of cattle farm	Animal Science	Dairying	1	KVK	0	37	37	0	0	0	0	37	37
4-01-2014	PF	Scientific cultivation of Pomegranate	Horticulture	Cultivation of Fruit	1	KVK	18	0	18	0	0	0	18	0	18
11-01-2014	PF	Symptoms and remedies for micronutrients deficiency	Crop production	Micro nutrient deficiency in crops	1	Vithoda	23	0	23	0	0	0	23	0	23
11-01-2014	PF	Value addition and marketing of milk	Animal Science	Production of quality animal products	1	Vithoda	22	0	22	0	0	0	22	0	22
17-01-2014	FW	Preparation of low cost balanced diet for school children	Home Science	Design and development of low/minimum cost diet	2	KVK	0	31	31	0	0	0	0	31	31
18-01-2014	RY	Preparation of bio pesticides	Plant Protection	Production of organic inputs	1	Falu	18	0	18	0	0	0	18	0	18
20-01-2014	PF	Management of newly established orchard	Horticulture	Management of young plants/orchards	1	Deloli	21	0	21	1	0	1	22	0	22
30-01-2014	RY	Preparation method of Bam, Vaseline and Washing powder	Home Science	Small scale processing	1	Rangakui	0	23	23	0	0	0	0	23	23
7-02-2014	RY	Preparation of Bio pesticides	Plant Protection	Production of organic inputs	1	KVK	18	0	18	0	0	0	18	0	18
8-02-2014	RY	Planting materials production	Horticulture	Planting material production	1	Lhor	0	0	0	23	0	23	23	0	23
13-02-2014	PF	Leadership development for SHGs/Farmers club	Extension Education	Leadership development	1	Saldi	21	0	21	0	0	0	21	0	21
14-02-2014	PF	Scientific cultivation of Summer Groundnut	Crop production	Integrated Crop Management	1	KVK	23	0	23	1	0	1	24	0	24

Date	Cliental	Training Title	Discipline	Thrust Area	Duration	Venue (Off/On Campus)	Other			SC/ST			Total Participants		
							M	F	T	M	F	T	M	F	T
18-02-2014	FW	Vaccination in animal and its economical importance	Animal Science	Disease Management	1	Laxmipura	0	26	26	0	0	0	0	26	26
20-02-2014	FW	Safe food grains storage methods	Home Science	Storage loss minimization techniques	1	Navavas	0	0	0	0	24	24	0	24	24
22-02-2014	PF	Production technology of Summer Vegetables	Horticulture	Production of low volume and high value crops	1	Falu	16	0	16	0	0	0	16	0	16
26-02-2014	PF	Improved farm implements and its use	Agricultural Engineering	Repair and maintenance of farm machinery and implements	1	KVK	10	0	10	0	0	0	10	0	10
26-02-2014	PF	Scientific cultivation of Fodder Sorghum	Crop production	Fodder production	1	KVK	14	0	14	1	0	1	15	0	15
6-03-2014	FW	Importance of mineral mixture and urea treatment on fodder	Animal Science	Feed management	1	Laxmipura	0	26	26	0	1	1	0	27	27
8-03-2014	FW	Nutritious diet for women and children	Home Science	Designing and development for high nutrient efficiency diet	1	Mathasur	0	49	49	0	4	4	0	53	53
22-03-2014	PF	Disease management in Protected cultivation	Plant Protection	Integrated Disease Management	1	Mahadevpura	21	0	21	0	0	0	21	0	21

## District Profile - I

### 1. General census

#### Population and Literacy:

As of 2011 India census, Mehsana had a total population of 2,027,727 out of which Males constitute 1053337 (51%) and females 974390 (49%) of the total population. Mehsana has an average literacy rate of 84.26% with male literacy of 91.88 %, and female literacy of 76.12 %. In Mehsana, 11% of the population is under 6 years of age. Density of district is 462 sq.km and ranked 10<sup>th</sup> among the state India. Sex ratio of the district 925 and position in state is 17.

**Table 1: Details of taluka wise villages and Population details of the district**

Sr.No	Talukla	No. of Village	Population (As per the 2001 Census)				
			Male	Female	Total	SC	ST
1	Satlasna	73	38924	37016	75940	6862	388
2	Kheralu	51	59221	55509	114730	10524	377
3	Unjha	31	90235	84068	174303	13300	420
4	Visnagar	58	131809	121370	253179	18723	971
5	Vadnagar	43	66338	64282	130620	9299	172
6	Vijapur	63	124064	114719	238783	16807	1517
7	Mehsana	115	241115	220205	461320	37608	3925
8	Becharaji	51	47189	44907	92096	8154	79
9	Kadi	119	154947	141974	296921	27320	1257
<b>Total</b>		<b>604</b>	<b>953842</b>	<b>884050</b>	<b>1837892</b>	<b>148597</b>	<b>9106</b>

**Table 2 : Details of Literacy rate of district (2004-05)**

Sr.No	Taluka	Rural			Urban			Total
		Male	Female	Total	Male	Female	Total	
1	Satlasana	25144	13827	38971	0	0	0	38971
2	Kheralu	31715	18882	50597	7927	5676	13603	64200
3	Unjha	47341	35795	83136	22773	18637	41410	124546
4	Visnagar	69651	50717	120368	32396	24717	57113	177481
5	Vadnagar	37151	23845	60996	9515	6703	16218	77214
6	Vijapur	81189	58604	139793	12210	9228	21438	161231
7	Mehsana	119455	81369	200824	64212	50199	114411	315235
8	Bechraji	33382	20710	54092	0	0	0	54092
9	Kadi	88124	56414	144538	24776	20012	44788	189326
<b>Total</b>		<b>533152</b>	<b>360163</b>	<b>893315</b>	<b>173809</b>	<b>135172</b>	<b>308981</b>	<b>1202296</b>

**Educational facility:****Table 3 : Primary, Secondary & Other Educational Institute of the district (2010-11)**

Sr. No	Taluka	Primary Institute	Secondary Institute	Colleges
1	Satlasana	85	10	8
2	Kheralu	101	17	7
3	Unjha	59	24	16
4	Visnagar	111	34	56
5	Vadnagar	98	25	07
6	Vijapur	130	36	54
7	Mehsana	183	62	107
8	Bechraji	74	16	11
9	Kadi	148	40	57
	<b>Total</b>	<b>989</b>	<b>264</b>	<b>323</b>

**Employment status:****Table 4: Information regarding working and non-working people in the district:**

S.No.	Details of workers	Rural	Urban	Total
1	Main workers	544684	119980	664664
2	Marginal workers	150753	12585	163338
	<b>Total</b>	<b>695437</b>	<b>132565</b>	<b>828002</b>
	Non workers	730629	279065	1009694
1	Farmers	188314	6006	194320
2	Agril.labour	198192	4673	202865
3	Gruh Udyog	10148	3556	13704
	Other	298783	118330	417113
	<b>Total</b>	<b>695437</b>	<b>132565</b>	<b>828002</b>

**Health services:****Table 5 : Health service of district**

Sr. No	Hospital / Dispensary	No
1	PHC	71
2	CHC	11
3	General Hospital	3
4	Other Govt. Hospital	0
	<b>Total</b>	<b>85</b>

**Transportation facilities:****Table 6 : Transportation Facilities**

1	No. of Roads	1974
2	Rout K.M	131279
3	Av. Distance (km)	66.50



## **2. Agricultural and allied census**

Agricultural details of the district

### **Climate:**

Maximum temperature : 28 to 41<sup>0</sup>C

Minimum temperature : 11 to 27<sup>0</sup>C

### **Natural resources:**

#### **i) Rivers:**

There are four minor and major rivers are flowing from the district, from which, Sabarmati and *Saraswati* are major and *Khari* and *Rupen* are the minor rivers of the district.

#### **ii) Mountains and hills:**

*Arravalli* and *Tarnga* hills are located in the northern side of the district.

#### **iii) Soils:**

The soils of the district mainly divided in four major groups.

- Black and sandy loam : Kadi
- Sandy loam, Rocky, and sandy : Kheralu, Vadnagar, Satlasana and Unjha
- Sandy loam, Sandy : Visnagar, Vijapur, Mehsana
- Black and Salty : Bechraji

**Table 7 : Details of soil type of the district**

Sr. No	Soil type	Area covered ( ha)
1	Medium black	64500
2	Sandy loam	259700
3	Sandy	28900
4	Saline / salt affected	81900
	Total	435000

#### **iv) Ground water and its quality:**

The ground water level of the district is about 650-800 ft. The quality of the under ground water is poor. The excess irrigation to the crop has badly affected to soil fertility and productivity.

v) Rainfall:

**Table 8 : Details of the rainfall of the district**

Sr. No	Taluka	2004	2005	2006	2007	Taluka Average
1	Satlasna	456	881	1591	957	<b>764</b>
2	Kheralu	608	1317	1510	971	<b>886</b>
3	Unjha	514	983	1300	1091	<b>740</b>
4	Visnagar	629	1273	1711	1118	<b>905</b>
5	Vadnagar	353	989	1574	922	<b>762</b>
6	Vijapur	567	1257	1230	1236	<b>947</b>
7	Mehsana	636	1323	1282	1155	<b>924</b>
8	Becharaji	475	972	993	1163	<b>773</b>
9	Kadi	845	1966	1595	1456	<b>1107</b>
<b>District Average</b>		<b>564</b>	<b>1218</b>	<b>1421</b>	<b>1119</b>	<b>-</b>

vi) Land use pattern:

**Table 9 : Land use pattern of the district (Area in ha.)**

Sr. No	Taluka	Forest Area	Non agri use land	Total Cultivable Land	Waste Land	Permanent pastures	Geogra-Phical Area	% age of Cultivable Land
1	Satlasna	6300	1167	15040	1736	2693	30849	48.75
2	Kheralu	0	3132	26872	308	2310	33438	80.36
3	Unjha	0	2900	26060	505	1547	31668	82.29
4	Visnagar	0	3614	40708	209	2886	47996	84.82
5	Vadnagar	0	2596	24998	430	1472	31132	80.3
6	Vijapur	875	2698	40507	1223	3386	56334	71.91
7	Mehsana	0	6198	71501	70	4845	83265	85.87
8	Becharaji	0	3318	33725	391	2719	41381	81.5
9	Kadi	0	5900	69931	371	5001	83090	84.16
<b>Total</b>		<b>7175</b>	<b>31523</b>	<b>349342</b>	<b>5243</b>	<b>26859</b>	<b>439153</b>	<b>79.55</b>

**Table 10 : Irrigated / Unirrigated Land (ha.)**

Taluka	Cultivable Area	Irrigated Area	% of Irrigated Area	Un Irrigated Area	% of un irrigated Area
Satlasna	18953	16150	85	2803	15
Kheralu	27688	17550	63	10138	37
Unjha	26716	22248	83	4468	17
Visnagar	41287	39252	95	2035	05
Vadnagar	26634	24157	91	2477	9
Vijapur	48152	32373	67	15779	33
Mehsana	72170	54696	76	17474	24
Becharaji	39953	26818	67	13135	33
Kadi	71814	54612	76	17202	24
<b>Total</b>	<b>373367</b>	<b>287856</b>	<b>77</b>	<b>85511</b>	<b>23</b>

**Table 11 : Classification of farmers**

Category	No of farmers
Marginal ( less than 1 ha )	97326
Small ( 1 to 2 ha )	60032
Big ( More than 2 ha )	53310
SC farmers ( from Total farmers)	5353
ST farmers	18

**vii) Irrigation :****Table 12 : Details of irrigation sources**

Source of irrigation	Area ( ha)
By Canal	38000
By well or tube well	178100
By tank	70
Other source	0

**Table 13: Area, Production and Productivity of major crops cultivated in the district ( 2011-12)**

Sr No	Crop	Area (00' ha)	Production (00'M.T)	Productivity (kg/ha)
1.1	Rice	81.71	204.28	2500
1.2	Bajara – Kharif	260.40	322.9	1240
1.3	Jowar – Kharif	20.10	23.02	1145
1.4	Maize – Kharif	5.85	7.02	1200
1.5	Cereals – Kharif	5.06	8.06	1700
<b>1</b>	<b>Cereals – Kharif Total</b>	<b>373.12</b>	<b>565.28</b>	<b>7785</b>
2.1	Green gram – Kharif	117.14	995.69	850
2.2	Mothbean – Kharif	48.74	392.36	805
2.3	Black gram- Kharif	75.75	537.83	710
2.4	Tur – Kharif	112.60	1114.74	990
2.5	Pulses- Kharif	0.46	2.99	650
<b>2</b>	<b>Pulse – Total Kharif</b>	<b>1100.93</b>	<b>4174.17</b>	<b>19575</b>
3.1	Wheat	708.47	1757.01	2480
3.2	Cereals – other Rabi	8	9	1157
<b>3</b>	<b>Cereals – Total Rabi</b>	<b>716.47</b>	<b>1766.01</b>	<b>3637</b>
4.1	Gram	3.47	37.65	1085
4.2	Pulses – other Rabi	3	2	627
<b>4</b>	<b>Pulse – Total Rabi</b>	<b>1439.41</b>	<b>3571.67</b>	<b>8986</b>
5.1	Bajara- Summer	347	897	2589
<b>5</b>	<b>Bajara – Total</b>	<b>347</b>	<b>897</b>	<b>2589</b>
6.1	Groundnut	34.17	505.72	1480
6.2	Sesamum – Kharif	78.84	248.35	315
6.3	Castor	599.65	13222.3	2205
6.4	Mustard	265.82	2777.82	1045
<b>6</b>	<b>Oilseed Total</b>	<b>1672.48</b>	<b>18548.19</b>	<b>10223</b>
<b>7</b>	Cotton	477.43	9453.11	1980
<b>8</b>	Tobacco – Kharif	46.86	735.7	1570
<b>9</b>	Cluster bean	60	35	586

**Source : Krushi bhavan, Gandhinagar**

## **Horticulture in the district**

Main horticultural crops in Mehsana district are Lime, Potato, Fennel and Cumin. Area wise, Fennel is grown over an area of 13945 ha, followed by Cumin and Lime with an area of 11400 ha and 10431 ha, respectively. The coverage of main horticultural crops is shown in subsequent tables.

**Table 14 : Distribution of area under Horticulture in Mehsana District (2012-13)**

Sr. No	Category	Crop	Area	Prod	Pvty.
1	Flower	Rose	35	218	6.23
2		Marigold	42	223	5.30
3		Others	15	108	7.20
4	Fruits	Mango	966	5989	6.20
5		Sapota	1121	9248	8.25
6		Citrus	10431	97008	9.30
7		Ber	1895	15350	8.10
8		Guava	743	6858	9.23
9		Pomegranate	484	2130	4.40
10		Papaya	779	29602	38
11		Custard apple	73	82	1.12
12		Aonla	1970	13987	7.10
13		Others	35	000	0000
14		Spices	Cumin	11400	8550
15	Fennel		13945	25380	1.82
16	Garlic		110	627	5.70
17	Coriander		298	402	1.35
18	Fenugreek		571	1308	2.29
19	Isabgol		561	438	0.78
20	Ajawan		578	457	0.79
21	Dill seed		2030	2152	1.06
22	Chilly -Dry			1604	1.15
23	Chilly- green		1395	4464	3.20
24	Vegetable	Potato	7430	179063	24.10
25		Onion	273	5514.6	20.20
26		Brinjal	1992	29481.6	14.80
27		Cabbage	830	13778	16.60
28		Okra	1865	22566.5	12.10
29		Tomato	3310	97016.1	29.31
30		Cauliflower	836	13668.6	16.35
31		Cluster bean	2498	18485.2	7.40
32		Cowpea	868	7638.4	8.80
33		Cucurbits	1540	15554	10.10

*Area in Hectares, Production in M.T., Productivity M.T./Ha., Year 2012-13, Source : Krushi Bhavan, Department of Horticulture, Mehsana*

## Animal husbandry

Cow and buffalos are the main cattle in the district. Other domestic animals are goats, sheep's and Poultry.

### **Dominant animal of the district: Buffalo**

- ❖ **Breeds:** Mehsana, Banni
- ❖ **Lactation period:** 10-12 months
- ❖ **Total milk production /animal:** 2500-3000/Lactation
- ❖ **Dry period :** 3-4 months

**Table 15 : Production and productivity of livestock, Poultry, Fisheries etc. in the district (2010-11)**

Category	Population	Production	Productivity
<b>Cattle</b>			
<i>Crossbred</i>	99324	165920 ton	8.24 kg
<i>Indigenous</i>	94300	58429 ton	2.97 kg
<b>Buffalo</b>	561900	474390 ton	4.16 kg
<b>Sheep</b>			
<i>Crossbred</i>	18900	21 ton	1.1 kg
<i>Indigenous</i>			
<b>Goats</b>	91700	6246 ton	0.31
<b>Poultry</b>			
Hens			
<i>Desi</i>	10200	1193400 no egg	117
<i>Improved</i>	23000	6624000 no egg	288

**Table 16 : Detail of institutions engaged in animal health services**

Sr. No	Taluka	Main Centre	A.I.	Sub A.I. Center	Animal Dispensary	Animal Hospital
1	Satlasana	2		2	1	1
2	Kheralu	10		20	2	2
3	Unjha	14		15	1	1
4	Visnagar	20		128	2	2
5	Vadnagar	9		16	1	1
6	Vijapur	19		28	4	4
7	Mehsana	16		21	1	1
8	Bechraji	4		9	1	1
9	Kadi	11		11	2	2
<b>Total</b>		<b>105</b>		<b>250</b>	<b>15</b>	<b>15</b>

**Table 17: Taluka wise milk cooperative society and its members (2005-06)**

Sr. No	Taluka	No. of milk cooperative society
1	Satlasana	62
2	Kheralu	66
3	Unjha	36
4	Visnagar	68
5	Vadnagar	41
6	Vijapur	79
7	Mehsana	115
8	Bechraji	40
9	Kadi	116
	<b>Total</b>	<b>623</b>

**Table 18 : Statistic related with fisheries of the district (unit nos)**

Sr. No	Item	2004-05	2005-06
1	Boat for fishing	2	2
	A. mechanized	0	0
	B. traditional	2	2
2	Active fishermen	35	25
3	Fish production	189	43
4	Fishermen primary cooperative society	2	2
5	Member of the primary cooperative society	228	228
6	Paid capital of primary coop society	3880	3380

### **3. Agro-climatic zones**

Mehsana district falls under semi-arid agro climate zone. The average rainfall of the district is 560 mm. The climate of the district is hot and dry. District is mainly famous for the white revolution (milk) in the world. The soils of the district is mostly sandy loam and medium it fertility. Major crops of the district are Bajara, Wheat, Mustard, Cotton, Fennel, Cumin, Castor and Pulses.

#### 4. Agro-ecosystems:

Table: 19

Sr. No	Agro-ecological situation	Soil texture	Rainfall (mm)	Altitude	Principal crop	Special Features	Approximate area ('000 ha)	Taluka
1	Alluvial sandy soils with medium rain fall	Sandy and loamy sand	700-850	150-300	Bajara , Jowar	Bajara best cropping system	134.8 (5.83 %)	Kheralu
2	Alluvial sandy soils with low rain fall	Sandy loam	500-700	150-300	Bajara, Mustard	Bajara best cropping system	48.8 (2.11%)	Visnagar
3	Alluvial sandy loam soils with medium rain fall	Sandy loam	700-850	150-300	Bajara , Jowar	Flat topography with 5 % slope	377.8 (16.34%)	Vijapur, Major(80%) part of Kadi and Mehsana
4	Medium black ill-drained soils with medium rainfall	Sandy, Caly loam and clay	700-850	25-75	Rice, Cotton	Area has impeded drainage with saline sub-soil water	48.6 (2.1 %)	Parts (20%) of Kadi

#### 5. Major and micro-farming systems

S. No	Farming system/enterprise
1	Agriculture
2	Agriculture + Horticulture
3	Agriculture + Horticulture + Animal Husbandry
4	Agriculture + Animal Husbandry

#### 6. Major Production system

S. No	Farming system/enterprise
1	Groundnut-Potato-Summer Pearl millet
2	Cotton – Wheat
3	Castor-Summer Pearl millet
4	Fennel
5	Green gram/Sesamum –Cumin
6	Pulses-Mustard-Summer Pearlmillet
7	Pulses- Fennel



## 7. Major agriculture and allied enterprise :

**Table 20: Different industrial units including agriculture**

<b>S. No.</b>	<b>Industrial unit</b>	<b>Nos.</b>
1	Food products	198
2	Tobacco industry	4
3	Cloth industry	264
4	Wood industry	39
5	Paper and its products	61
6	Leather industry	16
7	Rubber and its products	120
8	Chemical industry	226
9	Glass, Cement and earth work	0
10	Non metal work	96
11	Metal work	173
12	Electrical equipments	37
13	Auto parts	19
14	Other industry	19
15	Other repairing services	31

**Table 21 : Detail of horticulture related unit and infrastructure in district (2006-07)**

<b>Sr. no</b>	<b>Particular</b>	<b>No</b>
1	No. of cold storage	10
2	Processing unit	15
3	Cleaning center	10
4	Coriander dal mill	4
5	Pharmaceutical companies	3
6	Tissue culture lab	2
7	Green house	2
8	Private nursery	28

## **Agro-ecosystem Analysis of the focus/target area - II**

**1. Names of villages :** Ambasan, Kot, Kansarakui, Manipur, Vasda

**2. Survey methods used :** PRA, and observation method

**3. Various techniques used and brief documentation of process involved in applying**

### **the techniques used:**

PRA of the selected villages Ambasan, Kot and Kansarakui and Vasda was carried out to collect the required information of the each village for the implementation of the programmes. The brief information is as under.

### **Methodology:**

- ❖ Entry point
- ❖ Rapport building
- ❖ Environment building
- ❖ Collection of required information
- ❖ Review of the information collected
- ❖ Finalization of the collected information
- ❖ Analysis of data collected and interpretation of the results.

### **Tools used in PRA:**

#### **Social map:**

A social map was prepared by the villagers in the guidance of the KVK experts to know the socio economic characteristics of the village, location within the village, in terms of roads and rivers, characteristics of the households, ownership of dwellings and buildings and land use pattern of the village. In addition to this it also helps in presenting other kinds of information regarding heads of household, ownership of assets, cattle, beneficiaries under any programme, health characteristics etc.

#### **Resource Map:**

A Village resource map can prepare to know the different kinds of natural resources and micro environment. In a resource map, the villagers draw the resource profile of the village, depicting different kinds of soil, rivers, ponds, trees crops grazing lands, irrigation system etc. The problems can be prescribed and discussed on the basis of a resource map along with the opportunities and the constraints.

#### **Seasonality Diagramming:**

Rural livelihoods are integrally connected with seasonality. Each season has its own problems and the rural people have different strategies for their livelihood. The seasons bear

heavily on the physical conditions which in turn influence their lives. Seasons bring about differences in climatic conditions, crops grown, availability of water, food, fuel, fodder, milk feeds for animals etc which in turn influence their living conditions. Seasonal diagramming can lead to comparisons of related aspects of rural livelihoods and their linkages with food, employment, work load, diseases etc.

### **Ranking and Scoring:**

The method of ranking and scoring reveal proportions and preferences. They provide opportunities to rural people to physically rank and re-rank some items or performances or some uses and explain their reasons for a given ranking. They can help in understanding rural people's criteria for ranking as well as the relative position of their priorities, preferences and choice in matters of occupation, food, fuel, fodder energy use etc.

### **Daily Routine Diagrams:**

These reflect the kind of activities which one does on a daily basis. They not only show the time spent in different activities, but also the size of the work involved. For instance, women spend different hours of a day in activities like feeding children, cooking, fetching water, grazing and looking after livestock, collecting firewood etc. It is possible to identify general patterns from daily patterns.

### **Historical Profile:**

A historical transect was done with elderly village persons who have knowledge of their village over number of years and are able to provide a historical account of the village. It can help in knowing the major changes and events occurred in the past, like changes in cropping patterns, animal herd composition, trends in milk production, creation of infrastructure, and to identify the kind of change agents.

### **Farm Map:**

In case of individual household, a villager who owns a farm can be asked to draw a map of his farm in order to show what is grown on the farm and where. The farm map is an ideal tool for knowing the minute details of a farm, its soil conditions. Crops grown, water management, fertilizer use and yields. It can help in sequencing of seasonal analysis or livelihood analysis to know about the livelihood pattern of resource poor farmers.

### **Wealth Ranking:**

It was performed for ranking/grouping of households on the basis of income, wealth and other local measures of well-being. The underlying presumption is that rural people have the necessary knowledge to rank/group households which implies that they have knowledge of kinds and position of household assets, other items and attributes of the households concerned.

**Chapati Diagram:**

This visual method used to represent the role of individual or institutions and the degree of their importance in decision making. In such diagrams, circles of different sizes represent an individual or institution whose size shows degree of its importance in decision making and the distance or closeness to the village that is how easily can be approached. In a village Venn diagram would reflect the kind of communication between the village community and the other government institutions and NGOs. Different aspects can be taken to judge their role in decision making involving village planning, in running of projects, in distribution of services and other assets, and implementation of projects.

**4. Analysis and conclusions**

Analysis of the results of the PRA was carried out and the conclusions were drawn on the basis of the results of the exercise. The major problems of all the three villages were short listed separately from the collected information of the PRA. The problems and their possible solutions were discussed with the progressive farmers, volunteers, sarpanch etc of the respected villages and finally OFT, FLD, training needs, and other extension activities were chalk out.

**5. List of location specific problems and brief description of frequency and extent/ intensity/severity of each problem:**

<b>Sl. No</b>	<b>Problem</b>	<b>Severity</b>
1	No use of micronutrients	***
2	Acute shortage of irrigation water	****
3	Unawareness about pest identification and disease diagnosis	****
4	Shortage of organic manure	****
5	Imbalance chemical fertilizers application	***
6	Poor physical characteristic of soils	*****
7	Crop damaged by wild animals	*****
8	Low market price of crop produced	*****
9	Low productivity of livestock	****
10	Not follow post harvest	***
11	Found health weakness in girls and women	***
12	Improper orchard management	***
13	High cost of cultivation	****
14	Labour scarcity	*****
15	Unawareness about animal feed management	***
16	Lack of BPL families awareness about balance diet	***
17	Indiscriminate use of pesticides	*****
18	Less shelf-life of fruits and vegetables	***
19	Anemia in adolescent girls and farm women	***
20	Use of improved farm implements are not affordable	****
21	Heavy infestation of nematodes in fruits and vegetable crops	*****

\*\*\*\*\* Most severe, \*\*\*\* Severe, \*\*\* less severe

## 6. Matrix ranking of problems

Sl. No.	Problem	Rank
1	No use of micronutrients	XVI
2	Acute shortage of irrigation water	VIII
3	Unawareness about pest identification and disease diagnosis	XI
4	Shortage of organic manure	IX
5	Imbalance chemical fertilizers application	XIII
6	Poor physical characteristic of soils	II
7	Crop damaged by wild animals	I
8	Low market price of crop produced	VI
9	Low productivity of livestock	VII
10	Not follow post harvest	XXI
11	Found health weakness in girls and women	XVII
12	Improper orchard management	XIV
13	High cost of cultivation	XII
14	Labour scarcity	XIII
15	Unawareness about animal feed management	XV
16	Lack of BPL families awareness about balance diet	XVIII
17	Indiscriminate use of pesticides	IV
18	Less shelf-life of fruits and vegetables	XIX
19	Anemia in adolescent girls and farm women	XX
20	Use of improved farm implements are not affordable	X
21	Heavy infestation of nematodes in fruits and vegetable crops	V

## 7. List of location specific thrust areas:

- |                                  |  |
|----------------------------------|--|
| ⇒ Integrated Crop Management     | ⇒ Income Generating Activities         |
| ⇒ Integrated Nutrient Management | ⇒ Low Cost Higher Nutrient Diet        |
| ⇒ Integrated Pest Management     | ⇒ Storage loss Minimization Technology |
| ⇒ Integrated Disease Management  | ⇒ Women and Child Care                 |
| ⇒ Micro Irrigation System        | ⇒ Household Food Security              |
| ⇒ Dairy Management               | ⇒ Farm Mechanization                   |
| ⇒ Soil fertility management      | ⇒ Group Dynamics                       |

- ⇒ Fodder Production
- ⇒ Production and Management Technology of Horticultural Crops
- ⇒ Value Addition
- ⇒ Entrepreneurship Development
- ⇒ Local specific Drudgery Reduction Technology
- ⇒ Resource conservation

### 8. List of location specific technology needs for OFT and FLD

- Integrated Crop management,
- Integrated Nutrient Management,
- Integrated Pest Management,
- Feed Management in Dairy animals
- Disease Management in Dairy animals
- Integrated Disease Management
- Resource conservation
- Women and Child care
- Fodder Production
- Soil Fertility Management
- Household food security
- Location specific drudgery reduction

### 9. Matrix ranking of technologies

Sl.No	Name of technology	Rank
1	Integrated Crop management,	I
2	Integrated Nutrient Management,	II
3	Integrated Pest Management,	I
4	Feed Management in Dairy animals	II
5	Disease Management in Dairy animals	III
6	Integrated Disease Management	II
7	Resource conservation	III
8	Women and Child care	II
9	Fodder Production	III
10	Soil Fertility Management	II
11	Household food security	II
12	Location specific drudgery reduction	III
13	Dairy Management	I
14	Micro Irrigation System	I
15	Value addition	II
16	Group Dynamics	III
17	Integrated Farming	III
18	Nursery Management	II

## 10. List of location specific training needs

On the basis of results of the PRA, interferences drawn and the following training needs in the selected villages were assessed.

Sl.No	Thematic area of the training
1	Cultivation of Fruits and vegetables
2	Dairying
3	Entrepreneurial development of farmers/youths
4	Household food security by kitchen gardening and nutrition gardening
5	Income generation activities for empowerment of rural Women
6	Integrated Crop Management
7	Integrated Nutrient Management
8	Integrated Farming
9	Integrated Pest Management
10	Integrated Disease Management
11	Group Dynamics
12	Location specific drudgery reduction technologies
13	Micro irrigation systems
14	Minimization of nutrient loss in processing
15	Nursery Management
16	Post Harvest Technology
17	Production of organic inputs
18	Seed production
19	Value addition
20	Women and childcare
21	Low cost high nutrient diet



### **Technology Inventory and Activity Chart - III**

Names of research institutes, research stations, regional centres of NARS (SAU and ICAR) and other public and private bodies having relevance to location specific technology needs

Inventory of latest technology available

<b>Sl. No</b>	<b>Technology</b>	<b>Crop/enterprise</b>	<b>Year of release or recommendation of technology</b>	<b>Source of technology</b>	<b>Reference/citation</b>
1	INM	Pearlmillet	-	SAU's	
2	To introduce wilt resistance variety	Castor	2005-06	SAU's	
3	IPM	Tomato	-	SAU's	
4	To introduce high yielding variety	Groundnut	2004	BARS, Trombey	
5	IDM	Groundnut	-	SAU's	
6	To introduce high yielding variety	Cotton	2012	SAU's	
7	To introduce high yielding variety	Sesamum	2009	SAU's	
8	To introduce high yielding variety	Blackgram	2006	SAU's	
9	To introduce high yielding variety	Clusterbean	2005	SAU's	
10	To introduce high Fodder yielding variety	Sorghum	2001	SAU's	
11	To introduce high yielding variety	Mustard	2012	SAU's	
12	To introduce high yielding variety	Fennel	2012	SAU's	
13	IDM	Cumin	--	SAU's	
14	To introduce high yielding variety	Chilly	2010	SAU's	
15	To introduce high fodder yielding variety	Lucerne	1975	SAU's	
16	To introduce high yielding variety	Wheat	2006	SAU's	
17	INM	Pomegranate	-	SAU's	-
18	To introduce improved implements	Wheel hoe	-	CIAE, Bhopal	
19	Milk production	By pass fat	2007	SAU's	GB Pant Uni. Panjab
20	Disease management in Cattle	Saaf kit	2006	NDDDB	Indian Immunology Ltd
21	Disease management in Cattle	Fenbendazole	-	SAU's	
22	IDM	Canker Management in Acid Lime	-	SAU's	
23	Soil health	Dhaincha	-	SAU's	
24	Hydrogel	Wheat	-	IARI	
25	Value addition	Urea treatment on wheat straw	-	SAU's	
26	Household food security	Kitchen Garden	-	SAU's	

27	Integrated Crop Management	Management of hasta bahar in Acid lime		SAU's	
28	Fertilizer requirement	Pearlmillet	--	SAU's	
29	Hb maintain	Home Science	-	Department of Health, Govt. of Guj	

### Activity Chart:

Crop/ Animal/ Enterprise	Problem	Cause	Solution	Activity	Reference of Technology
Acid lime	Low yield in summer season	Less fruiting in summer season	Management of hasta bahar treatment	OFT	SAU's
Pearl millet	Higher cost of cultivation & medium taste of produce	High cost of fertilizer and sown private variety	Management of fertilizer in pearl millet and use of improved variety	OFT	SAU's
Cotton	Low yield	Local variety	Improved Bt. variety	FLD	SAU's
Castor	Low yield	Wilt disease	Wilt resistant variety	FLD	SAU's
Tomato	Low yield	Heavy infestation of heliothis	NPV 450 LE, Trichocard	FLD	SAU's
Groundnut	Low yield	Use of local variety	High yielding variety TG-37A	FLD	SAU's
Mustard	Low yield	Use of local variety	Use of improved varieties GDM-4	FLD	SAUs
Fennel	Low yield	Use of local variety	Use of improved varieties,GF-12	FLD	SAUs
Cumin	Low yield	wilt disease	Trichoderma	FLD	SAUs
Lucerne	Low yield	Use of local variety	Use of higher fodder yielding varieties, Al-2	FLD	SAUs
Wheat	Low yield	Use of local variety	Use of improved varieties, GW-366	FLD	SAUs
Livestock	Low income	Low fat percentage in crossbred cow	Use of by pass fat to Increase the fat percentage	OFT	SAU's
Livestock	Low milk production	Mastitis disease	Use of saaf kit	FLD	SAU's
Livestock	Low milk production	Worm infestation	Use of fenbendazole	FLD	SAU's
Livestock	High cost of milk production	High cost of concent	Use of Urea treatment on wheat straw	FLD	SAU's
Wheel hoe	Higher labour cost	Heavy drudgery	Use of wheel hoe	FLD	SAU's
Kitchen garden	Mal nutrition	Higher cost of vegetable and higher	Use of kitchen garden	FLD	SAU's

		pesticides residues			
Pomegranate	Low yield	Deficiency of micro nutrient	Micromix G-4	FLD	SAU's
Sorghum	Low yield	Use of local variety	Use of high fodder yielding varieties, COFS-29	FLD	SAU's
Sesamum	Low yield	Use of local variety	Use of Improved variety, GT-3	FLD	SAU's
Clusterbean	Low yield	Use of local variety	Use of Improved variety, GG-2	FLD	SAU's
Blackgrame	Low yield	Use of local variety	Use of Improved variety, GU-1	FLD	SAU's
Chilly	Low yield	Use of local variety	Use of Improved variety, GC-3	FLD	SAU's
Pearlmillet	Low yield	Deficiency of micro nutrient	ZnSO <sub>4</sub>	FLD	SAU's
Groundnut	Low yield	Wilt and root rot disease	Trichoderma	FLD	SAU's
Dhaincha	Low yield	Problematic soil	Green manuring-Dhaincha	FLD	SAU's
Acid lime	Low market price	Canker disease	Canker Management	OFT	SAU's
Wheat	Low yield	moisture stress condition at critical stage of crops	Moisture conservation technology - Hydrogel	OFT	IARI
Home Science	Health weakness in adolescent girl	Low level of Hemoglobin	Hemoglobin maintain	OFT	Health Department, GOG

#### 4. Details of each of the technology under Assessment, Refinement and demonstration Characteristics of the Varieties selected for the FLD:

- a. Details of technologies that may include formulation, quantity, time, methods of application of nutrients, pesticides, fungicides etc., for technologies selected under FLD and OFTs
- b. Details of location/area specificity of recommended technology viz., for each of the variety/breed/technology selected for FLD and OFT

##### 1. Characteristics of the Wheat : Variety- GW-366

1	Year of release	:	2006
2	Average Yield (Kg/ha)	:	5170
3	Potential yield (q)	:	78
4	No.of spike per plant	:	12-16
5	No. of spikelets per spike	:	13-15
6	No. of grains per spike	:	32-38
7	1000 grains weight (g.)	:	48-50
8	Days to maturity	:	105-110
9	Other features	:	Bold Seeded

##### 2. Characteristics of the Mustard : Variety- GDM-4

1	Growth habit	:	Tall
2	Leaf characters	:	Simple
2.1	Colour	:	Dark green
2.2	Pubescent/glabrous	:	Pubescent
3	Stem Colour	:	Green
4	Flower Colour	:	Light Yellow
5	Siliqua	:	Medium (4.50 cm with 11-17 seeds)
6	Seed	:	Black
7	Agronomic traits	:	
7.1	Days to 50% Flowering	:	42-47 (Mean:43)
7.2	Days to Maturity	:	104-115 (Mean:112)
7.3	Plant height (cm)	:	157-190 (Mean:168)
7.4	No. of branches	:	15.2-19.6(Mean:18.1)
7.5	Siliqua per plant	:	254-332 (Mean:299)
7.6	No. of Seeds per Siliqua	:	13.0-14.6 (Mean:13.5)
7.7	1000 Seeds Wt. (gm)	:	5.6-5.8 (Mean: 5.70 )
8	Quantitative characters	:	Oil Content: 38.40-39.98 (39.02 %)
9	Special characters	:	• Erect plant type ,

- Tolerant to lodging and shattering
- Suitable for timely sown irrigated condition (Zone-IV)
- Suitable for rainfed condition (Zone-II)
- Non shattering habit
- High oil yielding
- Medium maturity group suitable for Zone-IV and Zone-II in short winter period
- Low water requirement
- Raised well under rainfed area of Zone-II
- Stable performance

### 3 Characteristics of Cotton, Variety : Guj.Hy.- 6 BGII

1	Year of release	:	2012
2	Maturity days	:	190-210
3	Production ( kg/ha)	:	1305
4	Lint (%)	:	33.6
5	Length of lint (mm)	:	27.5
6	Mice of lint (mv)	:	4.2
7	Strength of lint (g/tax)	:	8.7
8	Oil percent (%)	:	21.70

### 4 Cotton, Variety : Guj.Hy.- 8 BGII

1	Year of release	:	2012
2	Maturity days	:	170-190
3	Production ( kg/ha)	:	1824
4	Lint (%)	:	36.5
5	Length of lint (mm)	:	25.8
6	Mice of lint (mv)	:	4.5
7	Strength of lint (g/tax)	:	47.8
8	Oil percent (%)	:	20

### 5 Groundnut , Variety : TG-37 A

1	Year of release	:	2004
2	Days to Maturity	:	110-120
3	Yield (kg/ha)	:	1900

4	Oil content (%)	:	48
5	Specific future	:	Tolerant to collar rot , rust and late leaf spot
6	Height	:	Semi dwarf

#### **6 Sorghum , Variety : COFS-29**

1	Year of release	:	2013
2	No of cut	:	5-6
3	DM content	:	23.6
4	CP Content	:	8.41
5	NDF Content	:	74
6	Oxalate Content	:	0.56
7	IVDMD (%)	:	51
8	Plant height (cm)	:	120-175
9	Avg. no of leaves	:	11
10	Green fodder yield (Q/ha)	:	149.3
11	Dry Matter Yield (Q/ha)	:	122.8

#### **7 Fennel : Variety- GF-12**

1	No. of branches/ plant	:	5.8
2	No. of umbels /plant	:	12.2
3	No. of umbellets/umbell	:	23.9
4	No. of seeds/umbellets	:	24.9
5	Plant height (cm)	:	144.7
6	Days of maturity	:	154
7	1000 Seed weight (gm)	:	6.19
8	Volatile oil (%)	:	2.05
9	Days to 50% flowering	:	99

#### **8 Lucerne Variety : Anand Lucerne-2**

1	Year of release	:	<b>1975</b>
2	Characters	:	<ul style="list-style-type: none"> <li>• Annual type</li> <li>• Toll and erect type</li> <li>• Growth habit</li> <li>• Broad and light green leaves</li> <li>• Hollow stem</li> <li>• Purple color flower</li> </ul>

- Bold seed with yellowish brown seed coat

3	Plant height (cm)	:	70-80
4	Tillers / meter row length	:	100-120
5	Average DM Content	:	18-28
6	Average CP Content	:	20-25 %
7	Other features	:	---
8	Average GFY	:	700-800 in 6 to 7 cuts
9	GFY	:	800 - 1000 in annually
10	Higher GFY than T-9	:	15-20 %
11	Average DMY	:	---
12	Leafiness (%)	:	50-60
13	1000 seeds weight (gm)	:	3.12

#### 9 Micro mix : G-4 Ch

1	Zn	:	6 %
2	Fe	:	4 %
3	Cu	:	0.5 %
4	Mn	:	1 %
5	B	:	0.5 %

#### 10 Castor : Variety- GCH-7

1	Year of release	:	2005-06
2	Height (cm)	:	Medium tall
3	Stem colour	:	Mahogany
4	Leaf shape	:	Semi cup, small leaf, light marun and red vein
5	Bloom	:	Triple
6	Branching	:	Divergent
7	Nature of inter node	:	Normal
8	Spike	:	Medium loose
9	Capsules	:	Semi spiny
10	Node upto primary raceme	:	18-22
11	Days to flowering	:	60
12	100 seed weight (g.)	:	28.5 -29.5
13	Oil (%)	:	48.5-49.5
14	Days to maturity	:	110-120
15	Potential yield (q)	:	300

**11 Sesamum, Variety : GT-3**

1	Notification Date	: 11-02-2009
2	Avg Yield (Kg/ha)	: 697
3	Day to maturity	: 85
4	Plant Height	: The variety having single opposite long capsule
5	Ecology	: except Vallabhipur area of Gujarat State

**12 Blackgram Variety : GU-1**

1	Notification Date	: 25-04-2006
2	Avg Yield (Kg/ha)	: 1177-1277
3	Days to Maturity	: LATE 110-115
4	Test weight (g)	: 4.27
5	Plant height (cm)	: 43
6	Characteristics	: <ul style="list-style-type: none"><li>• Semi erect plant type,</li><li>• light green foliage, Auxiliary setting of pods, recemose bearing habit, Medium in flowering, More number of pods per plant, Greenish black seed colour,</li></ul>
7	Ecology	: Eastern Hilly and Plateau track from Khedbrahma to Bharuch Gujarat.
8	Reaction to pest / Diseases	: Moderately resistant to Powdery mildew and Cercospora leaf spot diseases.

**13 Chilly Variety : GC-3**

1	Year	: 2010
2	Production (kg/ha)	: 3270
3	Days to Maturity	: 118
4	Plant height(cm)	: 71.5
5	Colors of Pod	: Light Green
6	Number of branches	: 6.5
7	Length of fruit (cm)	: 12.7
8	Thickness	: 4.2
9	No. of fruit/plant	: 138
10	Type of plant	: Medium
11	Resistance	: Leaf Curling



#### 14 Clusterbean Variety : GG-2

- |   |                       |   |  |
|---|-----------------------|---|--|
| 1 | Year of release       | : | 2005   |
| 2 | Time of sowing        | : | last week of July  |
| 3 | Average Yield (Kg/ha) | : | 994  |
| 4 | Maturity              | : | Early and Synchronize  |
| 5 | Days to maturity      | : | 95 to 100  |
| 6 | Characteristics       | : | <ul style="list-style-type: none"><li>• Suitable for seed purpose</li><li>• Attractive medium size pink coloured grain</li></ul> |
| 7 | Resistant             | : | <ul style="list-style-type: none"><li>• Resistant to wilt disease</li><li>• Medium resistance to bacterial blight</li></ul>      |