

**ANNUAL PROGRESS REPORT
(April-2015-March-2016)**

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	83	1794	847	2641
Rural youths	2	28	34	62
Extension functionaries	3	25	59	84
Sponsored Training	13	226	161	387
Vocational Training	2	50	32	82
Total	103	2123	1133	3256

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	30	12	30
Pulses	514	50	514
Cereals	320	97	320
Vegetables	60	20	60
Other crops	110	44	110
Hybrid crops (Cotton)	110	22	110
Total	1144	245	1144
Livestock & Fisheries	60	-	60
Other enterprises	-	-	-
Total	60	-	60
Grand Total	1204	245	1204

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	5	23	23
Livestock	2	20	20
Various enterprises	3	25	25
Total	10	68	68
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	10	68	68

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	230	11309
Other extension activities	-	5288
Total	230	16597

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awar eness	Other enterprise	Total
Surat	Text only	1852	5868	1343	-	6277	-	15340
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
Total Messages		4	1	1	-	4	-	10
Total farmers Benefitted		1852	5868	1343	-	6277	-	15340

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	21.25	57800
Planting material (No.)	-	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	250	-
Water	-	-
Plant	-	-
Total	-	-

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	2
2	Conferences	6
3	Meetings	10
4	Trainings for KVK officials	3
5	Visits of KVK officials	0
6	Book published	2
7	Training Manual	0
8	Book chapters	0

9	Research papers	7
10	Lead papers	--
11	Seminar papers	4
12	Extension folder	3
13	Proceedings	3
14	Award & recognition	1
15	Ongoing research projects	7

DETAIL REPORT OF APR-2015-16

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra Navsari Agricultural University Athwa Farm, Surat Dist. Surat, Gujarat-395007	(0261) 2655565	(0261) 2668045 pp	kvkvsurat@nau.in

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

Address	Telephone		E mail
	Office	FAX	
Director of Extension Education Navsari Agricultural University Navsari	(02637) 282026	(02637) 282706	dee@nau.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. J. J. Pastagia	-	9879038539	aayoj2000@yahoo.com

1.4. Year of sanction: 2011-12

1.5. Staff Position (as on 31th March, 2016)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Grade Pay	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)	Mobile No.	Age	Email id
1	Programme Coordinator	Dr. J. J. Pastagia	PC	Entomology	37400-67000	9000	40240	03/3/2012	Temporary	OBC	9879038539	49	aavoj2000@yahoo.com
2	Subject Matter Specialist	Dr. P. D. Verma	SMS	Extension Education	15600-39100	6000	22220	1/01/2013	Temporary	General	7575011107	54	drverma@nau.in
3	Subject Matter Specialist	Dr. H. C. Parmar	SMS	Veterinary Science	15600-39100	6000	17610	2/4/2012	Temporary	OBC	9727743501	35	drhitesh@nau.in
4	Subject Matter Specialist	Dr. J.V. Suthar	SMS	Agronomy	15600-39100	6000	15600	16/4/2013	Temporary	OBC	757501198	32	jvs2476@gmail.com
5	Subject Matter Specialist	Dr Bhavesh Patel	SMS	Horticulture	15600-39100	6000	15600	12/8/2015	Temporary	General	9727768012	30	bhavu9697@yahoo.co.in
6	Subject Matter Specialist	Smt. Gita J. Bhimani	SMS	Home Science	15600-39100	6000	19050	5/02/2016	Temporary	General	8511178903	41	gj2kvk@yahoo.com
7	Subject Matter Specialist	Dr. Sehul Chavda	SMS	Plant Pathology	15600-39100	6000	15600	2/04/2013	Temporary	SC	998002502	32	sk_pathology@yahoo.com
8	Farm manager	Mr. A. T. Patel	Farm Manager	--	13700 Fix	00	00	12/7/2012	Temporary	OBC	9687614098	30	atp@nau.in
9	Computer Programmer	Mr. C.G.Lad	Comp. Prog.	--	13700 Fix	--	--	1/8/2015--	Temporary	OBC	9979393220	28	cglad@nau.in
10	Prog. Assistant	Mr. Y.D.Patel	Training Assistant	--	13700 Fix	--	--	10/8/2015	Temporary	General	9586383403	28	ydpatel@nau.in
11	Accountant / Superintendent	Mr. K.N.Kothari	Acct. / Super.	--	9300-34800	4200	15140	1/7/2015	Temporary	General	9725018775	55	knkothari@nau.in
12	Stenographer	J.M.Verma	Steno.	--	7800 Fix	--	--	19/8/2015	Temporary	General	9426760841	32	jmverma@nau.in
13	Driver	Vacant	Driver	--	--	--	--	--	--	--			
14	Driver	Vacant	Driver	--	--	--	--	--	--	--			
15	Supporting staff	Vacant	Supp. Staff	--	--	--	--	--	--	--			
16	Supporting staff	Vacant	Supp. Staff	--	--	--	--	--	--	--			

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	-
2.	Under Demonstration Units	-
3.	Under Crops	2.00 ha
4.	Orchard/Agro-forestry	-
5.	Others (specify)	--
		-

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1	Administrative Building	--	--	--	--	--	--	--
2	Farmers Hostel	--	--	--	--	--	--	--
3	Staff Quarters (5)	--	--	--	--	--	--	--
4	Demonstration Units (2)	--	--	--	--	--	--	--
5	Fencing	--	--	--	--	--	--	--
6	Rain Water harvesting system	--	--	--	--	--	--	--
7	Threshing floor	--	--	--	--	--	--	--
8	Farm go-down	--	--	--	--	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Tata)	2012	599999	145568	Working
Tractor	2012	549900	1510.55(h)	Working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Present status
Cultivator	2012-13	22500	Working
Plough	2012-13	22500	Working
Lenovo Computer with printer- 4	2015-16	162816	Working
Canon printer- 4	2015-16	34704	Working
Canon Copier machine	2015-16	47565	Working
Multi- media projector-2	2015-16	103691	Working
DSLR Camera	2015-16	39555	Working
Digital camera	2015-16	10305	Working

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

Proceeding of 4th Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Surat held on 22/02/2016 at 10:00 a.m., KVK, Surat

The Fourth Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Surat was held at KVK, Surat on 22 February, 2016 to review the progress made by KVK during last year (1-4-2015 to 31-01-2016) and discuss the future action plan for the next year (April-2016 to March-2017). The meeting was inaugurated by Dr. C.J. Dangaria, Honorable Vice Chancellor, NAU, Navsari and Chairman of Scientific Advisory Committee, KVK, Surat. Dr. J. J. Pastagia, Member Secretary & Programme Coordinator, Krishi Vigyan Kendra, Surat welcomed the dignitaries, committee members, farmers and other invitees. He also presented the activities and achievements harnessed by the KVK during the last year. The Action Plan for the next year was also presented before the house with due emphasis on mandatory activities with special reference to focus on tribal. Shri Gautam Niak Chief Conservator of Forest, Surat appreciated the technological backup provided by the KVK in tribal areas. Dr. G. R. Patel, Director of Extension Education, NAU, Navsari emphasized to accelerate adoption level of improved technologies through farmers participatory approach. Hon. Vice Chancellor and Chairman of SAC, Dr. C. J. Dangaria gave very positive remarks on convergence made by the KVK with other concern departments. He also focused that it is the high time to create the awareness about the organic farming among the farmers.

4.1	<p>Approval of the minutes of Third Scientific Advisory Committee</p> <p>The action taken report of the minutes of Third SAC meeting (Held on 19-2-2015) was presented before the house and it was approved by the Scientific Advisory Committee.</p>
4.2	<p>Progress made by KVK during April 2015 to January 2016</p>
	<p>Programme Coordinator, KVK, NAU, Surat presented the report on progress made by KVK, for the period of April-2015 to January 2016. The committee was satisfied with the activities and achievements made by the KVK.</p>
4.3	<p>Action plan for the period of April-2016 to March-2017.</p>
	<p>Discussion was made on the Action Plan for the period of April-2016 to March-2017 which was approved by the house. However, few suggestions were made by the house to strengthen the action plan.</p>
	<p>4.3.1 Demonstrations:</p> <ol style="list-style-type: none"> 1) Too old (> ten years old) variety should not be taken in FLDs 2) Varieties/ hybrids released from other State Agricultural Universities should also be considered for FLDs 3) There is need to conduct FLDs on varieties/ hybrids of vegetable crops. <p>4.3.2 Awareness programmes on:</p> <ol style="list-style-type: none"> A) Promotion of Organic farming in tribal area B) Seed availability of improved varieties.

The meeting was ended with vote of thanks by Dr. P. D. Verma, Scientist (Extension Education), KVK, NAU, Surat.

**Sd/
Programme Coordinator
Krishi Vigyan Kendra
Athwa Farm, Surat**

**Sd/
Vice – Chancellor and Chairman SAC
Navsari Agril.
University,
Navsari**

Scientific Advisory Committee		
Date: 22.02.2016		
SN	Particulars of members remained present	Designation
1.	Hon. Vice Chancellor, NAU, Navsari	Chairman
2.	Director of Extension, NAU, Navsari	Member
3.	Head, CSSRI (ICAR), RRS, Bharuch	Member
4.	Professor and Head, Department of Agronomy, NMCA, NAU, Navsari	Member
5.	Professor (Horticulture), GABI, NAU, Surat,	Member
6.	Project Director ATMA, and Deputy Director (Agriculture) Surat	Member
7.	District officer of the line department – Agricultural, Surat	Member
8.	District officer of the line department – Horticulture, Surat	Member
9.	District officer of the line department – Irrigation Dept. (WALMI), Surat	Member
10.	District officer of the line department – Animal Husbandry, Surat	Member
11.	Progressive farmer, Village: Moritha, Taluka: Mandvi ,	Member
12.	Progressive woman farmer, Village: Mandroi, Taluka: Olpad,	Member
13.	Agri-entrepreneur, Village: Bhatgam, Surat,	Member
14.	Chief Conservator of Forest, Surat	Member
15.	DDM, NABARD, Surat	Member
16.	Professor (LPM) Vanbandhu Veterinary College, NAU, Navsari	Member
17.	Programme Coordinator, KVK, Surat	Member Secretary
18.	Representative Research Scientist (Sorghum), Main Research Station Sorghum, Surat	Special Invitee
19.	Research Scientist (Cotton), Main Research Station Cotton, Surat	Special Invitee
20.	Director and Managing Trustee, Suruchi Sikshan Vasahat, Bardoli	Special Invitee
21.	Project Director, Ambuja Foundation, Surat	Special Invitee
22.	Chairman Rice Co-operative society, Mandvai	Special Invitee
23.	All SMS, KVK, Surat	
List of Absent members		
1.	Director, ATRI,, CAZARI, Jodhpur	Member
2.	Assistant Deputy Director Fisheries, Surat	Member
3.	Smt. Sharmilaben Chaudhri Chairperson of women SHG Village: Gamtalav, Taluka: Mandvi	Member

2. DETAILS OF DISTRICT (2015-16)

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

Sr. No	Farming system/enterprise
1.	Crop production
2.	Crop production and Horticulture
3.	Crop production and Livestock
4.	Crop production, Horticulture and Livestock

2.2 Description of Agro-climatic Zone & major agro ecological situations (based on soil and topography) Basic Information of the District: (AES I –IV)

Taluka (AES)	Soil texture	Rainfall (mm)	Crops	Features
(AES-1) Mandvi (30%), Mangrol (40%), Umarpada	Hilly and highly undulating fine texture, highly erosive	< 1100	Paddy, Maize, Cotton, Sorghum, Pulses	Highly erosive Shallow to medium in depth Poor permeability Low to medium N & P content
(AES-2) Bardoli, Choryasi (75%), Kamrej, Palasana, Surat and Mahuva	Leveled, deep, fine textured	> 1450	Sugarcane, Paddy, Sorghum, Pulses, Orchards	Poor drainage Water logging Very poor permeability Poor soil physical condition Low to medium in N & P content
(AES-3) Mandvi (70%), Mangrol (60%), Olpad (70%)	Deep to medium black	1000 – 1250	Sorghum, Pulses, Paddy, Cotton, Oil Seeds	Moderate to severe erosive Poor soil fertility Poor irrigation facility
(AES-4) Choryasi (25%), Olpad (30%)	Coastal plain, deep, fine texture, salt affected	900-1000	Paddy - Cotton, Sorghum, Pulses, Wheat	High salt accumulation Poor soil physical condition High water table Water logging condition

2.3 Types of soils in Surat district: (according to AES)

Taluka (AES)	Soil texture
(AES-1) Mandvi (30%), Mangrol (40%), Umarpada	Hilly and highly undulating fine texture, highly erosive
(AES-2) Bardoli, Choryasi (75%), Kamrej, Palasana,,Surat and Mahuva	Leveled, deep, fine textured
(AES-3) Mandvi (70%), Mangrol (60%), Olpad(70%)	Deep to medium black
(AES-4) Choryasi (25%), Olpad (30%)	Coastal plain, deep, fine texture, salt affected

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

Sr. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
Kharif crops				
1	Paddy Irrigated	32907	113858	3460
2	Paddy rainfed	5701	9349	1640
3	Kh. Sorghum	11052	14091	1275
4	Kh. Maize	1245	1942	1560
5	Pigeon pea irrigated	916	1032	1127
	Pigeon pea- rainfed	9506	7224	760
6	Green gram	944	690	651
7	Urid	1587	415	658
8	Other pulses	347	183	530
9	Ground nut	530	816	1540
10	Sesame	26	11	435
11	Castor	30	50	1667
12	Cotton	2352	4515	1920
13	Soybean	9830	8620	877
14	Vegetables	31991	0	--
15	Fodder	7164	0	--
16	Green manuring	7616	0	--
	Total	123796	0	--
Rabi-summer crops				
1	Paddy (Summer)	2732	12594	4610
2	Wheat	6305	24570	3942
3	Sorghum	6305	10863	1723
4	Maize	862	1873	2174
5	Bean	824	717	871
6	Pigeonpea	1085	1334	1230
7	Greengram summer	2041	1353	663
8	Gram	1453	1275	878
9	Groundnut Summer	409	889	2176
10	Sugarcane	84464	7816298	92540
11	Castor	43	78	1823
12	Mustard	79	93	1186
13	Fodder	2675	--	-
14	vegetables	9368	-	-
	Total	118911		

Source: DAO, Surat

2.4.2 Area, Production and Productivity of major fruit crops cultivated in the district

Crop	Area (Ha.)	Production (MT)	Productivity (MT)
Mango	8975	76288	8.50
Sapota	2122	22387	10.55
Lemon	75	592	7.89
Banana	7497	509796	68.00
Guava	52	598	11.50
Pomegranate	35	333	9.50
Papaya	615	35055	57.00

Custard Apple	24	144	6
Coconut	224	18.8	8.40
Cashew	30	30	2.59

2.4.3 Area and Production of Vegetable Crops in the district

Crop	Area (Ha.)	Production (MT)	Productivity(MT)
Brinjal	4915	93385	19.00
Onion	825	196365	23.80
Okra	10840	135500	12.50
Tomato	1645	37835	23.00
Cauliflower	1340	26800	20.00
Cabbage	820	15170	18.50
Others	11325	162442	14.34

2.4.4 Area and Production of Flower Crops in the district

Crop	Area(Ha.)	Production (MT)	Productivity(MT)
Rose	122	1205	9.8
Marigold	456	4553	9.90
Lily	122	1568	9.50
Other	184	1626	8.84

2.4.5 Area, Production and productivity of Spices Crops in the district

Crop	Area (Ha.)	Production (MT)	Productivity (MT)
Ginger	192	3298	17.00
Turmeric	180	3060	17.00
Fenugreek	82	123	1.50
Coriander	38	68	1.80
Others	26	24.7	0.95
Total:-	2358	20824.26	8.83

Source: DDH,Surat

2.5. Weather data (2015-16)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April 2015	19.4	35.8	27.3	83	60
May 2015	0	38	29.9	79	62
June 2015	270	33.5	28.7	77	72
July 2015	135.2	32.5	29.2	84	79
August 2015	27	32	28.6	88	75
September 2015	174.4	32	27.4	90	77
October 2015	0	36.4	26.6	79	62
November 2015	0	34.9	23.7	82	69
December 2015	0	32.8	18	70	61
January 2016	0	32.1	18.4	71	62
February 2016	0	33.1	21.4	70	48
March 2016	0.7	35.1	23.8	72	58

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

Cattle	213107
Buffaloes	219243
Indigenous/ Cross bred cows	213107
Sheep	1086
Goat	106237
Pigs	2589
Poultry	707205
Milk production per animal (Kg/lactation)	1104
Indigenous cow @ 3.68 kg/day	2520
Cross breed cow @8.4 kg/day Buffalo @ 4.5 kg/day	1350

Source: DAO, Surat

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

Sr. No.	Name of Cluster	No. and Name of villages in the Cluster	Identified Thrust areas	Identified Problems	Specific activities
1	Mahuva	1. Tarkanai 2. Lasanpore 3. Wagaldhara 4. Kosh	1. Increase productivity of major crops e.g. Paddy, sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3. Management of natural resource, including salinity management 4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM. 6. Increasing milk production by dissemination of latest technologies. 7. Imparting skill oriented training to the tribal women for sustaining their livelihood.	1. The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2. Okra, brinjal and creepers are important crops but the productivity is very low, problem of insect pests and disease No technical knowhow regarding green house net house technology and crops Lack of technical knowhow about mango orchards plantation and management. 3. High use of water in canal command area and water scarcity in hilly area -Lack of knowledge about Insect pests and diseases and their management and nutrient management in	Training and demonstrations on new variety of rice and sugarcane. Demonstration on intercropping in sugarcane Training programmers on package of practices of these vegetable crops. And precision farming. Awareness programmes on protected cultivation on net house and green house. Training on drip irrigation to rural youth. Promotion of drip irrigation through awareness programmes Training and demonstrations on INM and IPDM in different crops Training and demonstrations on scientific calf rearing, feeding

			<p>8. Promotion of small scale farm mechanization in tribal area.</p>	<p>crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides -High incidence of wilt and parval vine borer in pointed gourd.</p> <p>Low milk productivity -High calf mortality -Problem of anoestrus -Lack of awareness about Feeds and fodder management</p> <p>Lack of knowleged of small scale agricultural base enterprises, value addition etc.</p> <p>Drudgery reduction through improved hand tools.</p>	<p>mineral mixture and Popularize Fodder crops and feeds and fodder management</p> <p>Training on value addition and income generating activity</p> <p>Demonstrations on use of improved sickles and other hand tools.</p>
2	Mandvi	<p>1. Rakaskhadi 2. Latgam 3. Katkuva</p>	<p>1. Increase productivity of major crops e.g. Paddy, sugarcane, Soybean 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Brinjal and okra are important crops but the productivity is very low, problem of insect pests and disease</p>	<p>Training and demonstrations on new variety of rice and sugarcane. Demonstration on intercropping in sugarcane</p> <p>A Awareness programmes on protected cultivation on low cost net house and green house.</p>

		<p>farming.</p> <p>3.Management of natural resource, including salinity management</p> <p>4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM.</p> <p>6. Increasing milk production by dissemination of latest technologies.</p> <p>7 .Imparting skill oriented training to the tribal women for sustaining their livelihood.</p> <p>8. Promotion of small scale farm mechanization in tribal area.</p>	<p>No technical know how regarding green house net house technology and crops</p> <p>Lack of technical know how about mango orchards plantation and management.</p> <p>3.High use of water in canal command area and water scarcity in hilly area</p> <p>-Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides</p> <p>-High incidence of wilt and fruit and shoot borer in brinjal</p> <p>Low milk productivity</p> <p>-High calf mortality</p> <p>-Problem of anoestrus</p> <p>-Lack of awareness about Feeds and fodder management</p>	<p>Training on drip irrigation to rural youth.</p> <p>Promotion of drip irrigation through awareness programmes</p> <p>Training and demonstrations on INM and IPDM in different crops</p> <p>Training and demonstrations on scientific calf rearing, feeding mineral mixture and Popularize Fodder crops and feeds and fodder management</p> <p>Training on value addition and income generating activity</p> <p>Demonstrations on use of improved sickles and other hand tools.</p>
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				<p>Lack of knowleged of small scale agricultural base enterprises, value addition etc.</p> <p>Drudgery reduction through improved hand tools.</p>	
3	Umarpada	<ol style="list-style-type: none"> 1. Kadvali 2. Venjali 3. Umargot 	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, cotton, sorghum, pigeon pea 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3. Management of natural resource, including salinity management 4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM. 6. Increasing milk production by dissemination of latest technologies. 	<ol style="list-style-type: none"> 1. The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2. Indian bean is an important crops but the productivity is very low, problem of insect pests and disease <p>Lack of technical knowhow about orchards plantation and management.</p> <ol style="list-style-type: none"> 3. Water scarcity in rabi / summer due hilly area 	<p>Training and demonstrations on new variety of Paddy, cotton, sorghum, pegion pea, increasing seed replacement ratio</p> <p>Training programmers on package of practices of these vegetable crops. And precision farming.</p> <p>Awareness programmes on protected cultivation on Low cost net house.</p> <p>Training on drip irrigation to rural youth.</p> <p>Promotion of drip irrigation through awareness programmes</p> <p>Promotion of water conservation technologies</p>

			<p>7 .Imparting skill oriented training to the tribal women for sustaining their livelihood.</p> <p>8. Promotion of small scale farm mechanization in tribal area.</p>	<p>-Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy vegetables etc, No use of bio fertilizers -</p> <p>Low milk productivity -High calf mortality -Problem of anoestrus -Lack of awareness about Feeds and fodder management Large no of non descript animals</p> <p>Lack of knowledge of small scale agricultural base enterprises, value addition etc.</p> <p>Drudgery reduction through improved hand tools.</p>	<p>Training and demonstrations on INM and IPDM in different crops</p> <p>Training and demonstrations on scientific calf rearing, feeding mineral mixture and Popularize Fodder crops and feeds and fodder management</p> <p>Training on value addition and income generating activity</p> <p>Demonstrations on use of improved sickles and other hand tools.</p>
4	Mangrol	<p>1. Pataldevi 2. Mandan 3. Godbar</p>	<p>1. Increase productivity of major crops e.g. Paddy, cotton, sorghum</p> <p>2.Dissemination of production technology of fruits and</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Okra, brinjal and creepers</p>	<p>Training and demonstrations on new variety of rice, pigeon pea, sorghum and cotton. Increase seed replacement ratio of these crops.</p> <p>Training programmers on package of practices of these vegetable crops. And precision farming.</p>

		<p>vegetables and their post harvest management as well promotion of precision farming.</p> <p>3. Management of natural resource, including salinity management</p> <p>4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM.</p> <p>6. Increasing milk production by dissemination of latest technologies.</p> <p>7 .Imparting skill oriented training to the tribal women for sustaining their livelihood.</p> <p>8. Promotion of small scale farm mechanization in tribal area.</p>	<p>are crops but the productivity is very low, problem of insect pests and disease</p> <p>No technical knowhow regarding net house technology and crops</p> <p>Lack of technical knowhow about plantation and management.</p> <p>3. Water scarcity in hilly area and rain fed farming</p> <p>-Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides</p> <p>-High incidence of wilt and parval vine borer in pointed gourd.</p> <p>Low milk productivity</p> <p>-High calf mortality</p> <p>-Problem of anoestrus</p> <p>-Lack of awareness about</p>	<p>Awareness programmes on protected cultivation on low cost net house.</p> <p>Promotion of farm forestry through training and demonstrations</p> <p>Training on drip irrigation to rural youth.</p> <p>Promotion of drip irrigation through awareness programmes</p> <p>Popularizing water conservation technologies for rain fed farming</p> <p>Training and demonstrations on INM and IPDM in different crops</p> <p>Training and demonstrations on scientific calf rearing, feeding mineral mixture and Popularize Fodder crops and feeds and fodder management</p> <p>Training on value addition and income generating activity</p>
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				<p>Feeds and fodder management</p> <p>Lack of knowledge of small scale agricultural base enterprises, value addition etc.</p> <p>Drudgery reduction through improved hand tools.</p>	<p>Demonstrations on use of improved sickles and other hand tools.</p>
5	Olpad	<p>1. Mandroi</p> <p>2. Bhatgam</p>	<p>1. Increase productivity of major crops e.g. Paddy, sugarcane</p> <p>2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming.</p> <p>3. Management of natural resource, including salinity management</p> <p>4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM.</p> <p>6. Increasing milk production</p>	<p>1. The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Okra and creepers are important crops but the productivity is very low, problem of insect pests and disease</p> <p>No technical knowhow regarding green house net house technology and crops</p> <p>Lack of technical knowhow about fruit crops cultivation.</p> <p>3. High use of water in canal command area and salinity problem in coastal area</p>	<p>Training and demonstrations on new variety of rice and sugarcane. Demonstration on intercropping in sugarcane</p> <p>Training programmers on package of practices of these vegetable crops. And precision farming. Awareness programmes on protected cultivation on net house and green house.</p> <p>Training on drip irrigation to rural youth.</p> <p>Promotion of drip irrigation through awareness programmes</p> <p>Training and demonstration on drainage system to reduce salinity and salinity tolerant crops</p>

			<p>by dissemination of latest technologies.</p> <p>7 .Imparting skill oriented training to the tribal women for sustaining their livelihood.</p>	<p>-Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides</p> <p>-High incidence of wilt and parval vine borer in pointed gourd.</p> <p>Low milk productivity</p> <p>-High calf mortality</p> <p>-Problem of anoestrus</p> <p>-Lack of awareness about Feeds and fodder management</p> <p>Lack of knowleged of small scale agricultural base enterprises, value addition etc.</p>	<p>Training and demonstrations on INM and IPDM in different crops</p> <p>Training and demonstrations on scientific calf rearing, feeding mineral mixture and Popularize Fodder crops and feeds and fodder management</p> <p>Training on value addition and income generating activity</p>
6	Kamrej	<p>1. Dhoranpardi</p> <p>2. Choryasi</p>	<p>1. Increase productivity of major crops e.g. sugarcane</p> <p>2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Banana is an important crop but the problem of insect pests and disease</p>	<p>Training and demonstrations on new variety of sugarcane. Demonstration on intercropping in sugarcane</p> <p>Training programmers on package of practices of banana cultivation Demonstration on quality improvement in banana.</p> <p>.</p>

			farming. 3.Management of natural resource, including salinity management 4. 5. Popularize eco-friendly crop production with special reference to IPDM & INM.	No technical knowhow regarding green house net house technology and crops 3.High use of water in canal command area problem of water logging -Lack of knowledge about Insect pests and diseases and their management and nutrient management in banana	Awareness programmes on protected cultivation on net house and green house. Training on drip irrigation to rural youth. Promotion of drip irrigation through awareness programmes Training on drainage system Training and demonstrations on INM and IPDM in different crops
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2.8 Priority/thrust areas

Crop/Enterprise	Thrust area
Paddy, Sorghum, Vegetables, Sugarcane, Cotton & pulses	Crop production management (ICM)
Vegetables,	Eco friendly production
Paddy, Sugarcane, Cotton, Pigeon pea, Banana Vegetables	Integrated pest & disease management
Paddy, Sugarcane, Vegetables, ,Banana	Integrated nutrient management
Use of Bio-fertilizers	Eco-practice and to minimize the use of chemicals
Green house technology,	High tech horticulture
Salinity management & Micro irrigation	Soil and Water conservation
Formation of Self Help Groups	Women empowerment
Value addition in Fruits, Vegetables & pulses	Self employment to rural youth
Dairy management	Management of milch animals and calf rearing
Health & Nutrition	Health & nutrition for vulnerable groups.
Farm mechanization	Small scale farm mechanization
Information transfer , Marketing and credit availability	Value addition, market linkage, and Schemes

Major thrust areas

1. Increase productivity of major crops e.g. Paddy, Cotton, Sorghum, sugarcane.
2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming.
3. Management of natural resource, including salinity management
4. Popularizing of location specific farming system
5. Popularize eco-friendly crop production with special reference to IPDM & INM.
6. Increasing milk production by dissemination of latest technologies.
7. Imparting skill oriented training to the tribal women for sustaining their livelihood.
8. Promotion of small scale farm mechanization in tribal area.

3. TECHNICAL ACHIEVEMENTS

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

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs (ha)		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
10	10	30	30	120	245	446	1204

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	63	98	1575	3110	75	230	3750	16597
Rural youth	2	2	50	62				
Extn. Functionaries	3	3	75	84				
Total	68	103	1700	3256	75	230	3750	16597

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
20.00	21.25	00	00

B. Abstract of interventions undertaken

Sr. 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	Increase productivity of major crops	Paddy, Soybean, Pigeon pea Sorghum Cotton, Sugarcane	Use of local variety High seed rate, Imbalance use of fertilizers No use of bio fertilizer lack of knowledge about SIRA & SRI technology	--	Varietal demonstrations Nutrient management Use of bio-fertilizers Demonstration on SIRA technology.	Scientific Cultivation of major crops	-----	Field days, khedut shibirs, News paper coverage, film show Exhibitions etc.	Seed of improved variety
2.	Dissemination of production technology of fruits and vegetables and their post harvest management as well as promotion of precision farming	Banana Brinjal Pointed gourd Okra Mango Gerbera Green house/net house technology High value crops	Use of local variety in brinjal Imbalance use of fertilizers in crops No use of bio-fertilizers No knowledge about post harvest management and processing Low technical know house regarding green house/ net	--	INM in brinjal	Value addition in Papaya Scientific cultivation of various crops Value addition in Palas and Bixa Scientific cultivation of crops Training on protected cultivation and precision farming	--	Khedut shibirs, News paper coverage, film show Exhibitions etc. Awareness programmes on net house/ green house	Demonstration on INM, IPDM

Sr. 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.
			house and production technology						
3.	Popularize eco-friendly crop production with special reference to IPDM	Cotton, Pigeon pea Brinjal, Paddy, Sugarcane	Lack of knowledge about disease and insect pest management. Injudicious use of pesticides Lack of knowledge about Bio-fungicides	--	GM technology in cotton IPDM in brinjal	IPM in cotton IPDM in Pigeon pea Management of brinjal diseases	--	Khedut shibirs, News paper coverage, film show Exhibitions etc.	Seed of Cotton and trichoderma
4	Popularize eco-friendly crop production with special reference to INM.	Brinjal Okra, Banana Paddy	Imbalance use of fertilizers lack of awareness about use of bio-fertilizers	--	SIRA technology in Paddy INM in brinjal	INM in Paddy and pigeon pea	--	Field days, khedut shibirs, News paper coverage, film show , etc.	Bio Fertilizers,
5.	Management of natural resource, including salinity management	Paddy, Sugarcane, Soybean, Vegetables	In hilly area problem of water conservation In middle canal command area due to excess irrigation	--	Demonstration on salinity tolerant paddy variety GNR2 in coastal area.	Training on micro irrigation system Training on drainage management in water logged area	--	Field days, khedut shibirs, News paper coverage, film show Exhibitions etc.	--

Sr. 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.
			problems of water logging and salinity In coastal area salinity problem						
6.	Increasing milk production by dissemination of latest technologies.	Animal husbandry	Poor dairy management Large number of non-descript animals with low milk production Poor availability of fodder in hilly area. Poor cultivation of fodder crops High calf mortality due to poor management	--	Use of mineral mixture Urea treatment to paddy straw Teat dip treatment with KMNO ₄ Scientific calf rearing	Animal health and care Dairy management Animal diseases and their management Scientific calf rearing	--	Pashu palan shibirs Animal health camps, awareness programmes, Literature publication etc	Mineral Mineral mixture Urea Plastic sheets Medicines etc.
7.	Imparting skill oriented training to the tribal women for sustaining their livelihood.	Value addition Small scale agricultural based entrepreneurship development	Lack of knowledge about value addition of locally available materials Lack of	--	--	Value addition in papaya by preparing jam and other products Preparation of	--	khedut shibirs, News paper coverage, film show Exhibitions etc	--

Sr. 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.
			knowledge, skills regarding various small scale agricultural based enterprises			<p>Mari- masala</p> <p>Preparation of syrup from <i>Hibiscus</i></p> <p>Training on mushroom cultivation</p> <p>Preparation of various recipes from mushroom,</p> <p>Preparation on herbal Gulal from palas flowers</p> <p>As well as bixa seeds</p>			
9	Popularizing of location specific farming system	Sugarcane, Paddy, wheat, Vegetables etc.	No proper farming system adopted by farmers according to AES	--	--	--	--	khedut shibirs, News paper coverage, film show, Mahila Shibir,	--

IA TECHNOLOGY ASSESSMENT

Thematic areas	Crop	Name of the technology assessed	No. of trials	Name of KVK
Crop Assessment				
Varietal Evaluation				
Seed / Plant production				
Weed Management				
Integrated Crop Management	Sugarcane	Effect of trimming operation in sugarcane yield	3	KVK Surat
Integrated Crop Management	Paddy	Assessment of aerobic rice in Olpad block of Surat District	5	KVK Surat
Integrated Nutrient Management	-	Validation of kitchen garden model developed by NAU	5	KVK Surat
Integrated Nutrient Management	Brinjal	Assessment of enrich banana sap for yield and quality of brinjal	5	KVK Surat
Integrated Farming System				
Mushroom cultivation				
Drudgery reduction				
Farm machineries				
Value addition				
Integrated Pest Management	Banana	Assessment of effective methodology for the management of Banana Pseudo stem weevil	5	KVK Surat
Integrated Pest Management	Okra	Assessment of stem application method of insecticide for management of sucking pest in okra	5	KVK Surat
Integrated Disease Management				
Resource conservation				

Small Scale income generating enterprises				
Crop Refinement				
Varietal Evaluation				
Seed / Plant production				
Weed Management				
Integrated Crop Management				
Integrated Nutrient Management				
Integrated Farming System				
Mushroom cultivation				
Integrated Pest Management				
Integrated Disease Management				
Resource conservation technology				
Small Scale income generating enterprises				
Livestock Assessment				
Evaluation of Breeds				
Nutrition Management		Use of chelated minerals in the diet of cross bred HF cows	10	KVK Surat

Nutrition Management		Nutritional enrichment in local "grass Fatedu"	10	KVK Surat
Disease of Management				
Value Addition				
Production and Management				
Feed and Fodder				
Small Scale income generating enterprises				
Livestock Refinement				
Nutrition Management				
Disease of Management				
Value Addition				
Production and Management				
Small Scale income generating enterprises				
Women & Children				
Nutrition Management		Response of adolescent girls to iron rich feed in relation to Hemoglobin level	10	KVK Surat
Nutrition Management		Evaluation of Low cost high calorie diets made from locally available food materials for Pre-school children	10	KVK Surat

Crop Production:**1. Assessment of aerobic rice in Olpad block of Surat District**

Crop	Variety	Farming situation	Title	No. of Farmers	Technology Assessed	Yield (Kg/ha)	% increase
Paddy	GNR - 3	Irrigated	Assessment of aerobic rice in Olpad block of Surat District	5	T ₁ - Farmers method Broadcasting method of sowing	4126	-
					T ₂ - Transplanting	5470	32.57
					T ₃ - Aerobic method of rice cultivation	4760	15.37

2. Effect of trimming operation in sugarcane yield

Crop	Variety	Farming situation	Title	No. of Farmers	Technology Assessed	Yield (t/ha)	% increase
Sugarcane	-	Irrigated	Effect of trimming operation in sugarcane yield	3	T ₁ - Farmers method (No trimming with Higher doses of fertilizer 350-200-200)	92.60	-
					T ₂ - Recommended practice (No trimming with recommended dose 250-125-125)	98.20	6.05
					T ₃ - Trimming of first shoot at 45 days after planting with recommended dose	125.00	34.99

Crop Protection

Title: Assessment of effective methodology for the management of Banana Pseudo stem weevil

Crop	Variety	Farming situation	No. of Farmers	Technology Assessed	% Infestation	%Decrease over control	%Decrease over Farmers method	Yield (Kg/ha)	% increase
Banana	Gran naine	Irrigated	5	T ₁ - Stem injection with Triazophos (NRC on Banana)	0.95	65.18	36.73	709.59	-
				T ₂ - Longitudinal Split stem traps (25 traps/0.2 ha) swabbed with <i>Beauveria</i> (20 gm/trap)	1.73			688.39	25.18
				T ₃ - Farmers method (Control)	2.73			566.84	21.44

Title: Assessment of stem application method of insecticide for management of sucking pest in okra

Treatments: T₁. Stem application of Acetamaprid (4:1 Water: Insecticide) T₂. Spraying of recommended insecticides
T₃. Control (farmers method)

No. of OFT	Area	Whitefly population/3 leaves			%Decrease over control	%Decrease over Farmers method	Jassid population/3 leaves			%Decrease over control	%Decrease over Farmers method
		Treated	Farmers method	Control			Treated	Farmers method	Control		
5	0.5	0.70	1.61	1.65	57.37	56.46	0.67	1.60	2.09	68.13	58.41

Average yield (q/ha)			% Increase	Average Cost			Average Gross Income			BCR		
D	FM	L		D	FM	L	D	FM	L	D	FM	L
157.705	144.82	127.968	23.24	46130	50700	45180	208170.6	191162.4	168917.8	4.51	3.77	3.74

Horticulture:**Title: Assessment of enrich banana sap for yield and quality of brinjal**

Crop	Variety	Farming situation	Title	No. of Farmers	Technology Assessed	Yield (t/ha)	% increase
Brinjal	-	Irrigated	Assessment of enrich banana sap for yield and quality of brinjal	5	T ₁ : Farmers method	112.5	-
					T ₂ : Drenching of banana sap @1.0 % at one month interval	121.3	7.82
					T ₃ : Spraying of banana sap @1.0 % twice at peak flowering stage (15 days interval)	126.42	12.37
					T ₄ : T ₂ + T ₃	158.34	31.85

Title: Validation of kitchen garden model developed by NAU

Crop	Variety	Farming situation	Title	No. of Farmers	Technology Assessed	Yield (Kg/ha)	% increase
Kitchen Garden	-	-	Validation of kitchen garden model developed by NAU	5	T ₁ - NAU kitchen garden model	245.00	36.81
					T ₂ - Control (farmers method)	180.00	-

Animal Husbandry

Title: Nutritional enrichment in local "grass Fatedu"

T1: Farmers Practice - without treated dry local grass (Batedu / Full grass) ad lib. First 15 days after that 4% UTLG 6-8 kg daily up to 2 months

T2: Farmers Practice - without treated paddy straw ad lib. First 15 days after that 4% UTPS 6-8 kg daily up to 2 months

Parameters	Paddy straw	UTPS	Local grass	UTLG
Daily milk yield (L)	8.605±3.04	9.420±3.10	8.739±2.71	9.635±2.82
Milk Fat %	3.5±0.29	4.4±0.37	3.7±0.20	4.5±0.27
4% FCM	8.00±2.65	9.883±3.04	8.33±2.56	10.29±2.76
Body wt. (Kg)	302.6±86	299.6±76	300.6±71	304.2±82
Post partum estrus (D)	78.1		80.2	

UTLG- Urea Treated Local Grass, UTPS – urea Treated Paddy Straws

Home Science

1. Title : Response of adolescent girls to iron rich feed in relation to Hemoglobin level T1:Control T2: Recommended Iron supplement capsules

T3**:100gm roasted Bengal gram + 100gm roasted Rice flakes/day + iron tablet/day with existing dietary pattern

Parameters	Data on the parameter						Results of assess-ment	Feedback
	Hb level (gm%)			Body weight (Kg.)				
	Before	After	increase in Hb level	Before	After	Wt. gain		
6	7						8	9
Hb level & Body weight for three months period	9.36	10.02	0.66	29.040	29.800	0.760	Daily use of 100gm roasted Bengal gram + 100gm roasted Rice flakes + one iron tablet with existing dietary pattern gave better result to prevent Anemia	Hb level & body wt. of rural tribal adolescent girls increased by using iron rich diet and iron tablet daily with existing dietary pattern
	9.22	11.00	1.78	29.780	30.840	1.060		
	8.82	12.04	3.22	31.540	34.500	2.960		

*No. of tribal adolescent girls (12 to 18 yrs)** 100 gm Bengal gram contains 9.5 mg iron. 100 gm Rice flakes contains 20.0 mg iron.

2. Title: Evaluation of Low cost high calorie diets made from locally available food materials for Pre-school children.

Demonstration period: July-2014 to October-2014 (4 months)

Village: Rakhalnagar **Taluka:** Choryasi

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of Children	Technology Assessed	Parameters of assessment	Average Gain in Body weight as compared to before treatment (gm)	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Home Science	Rain fed	Evaluation of Low cost high calorie diets made from locally available food materials for Pre-school children.	Evaluation of Low cost high calorie diets made from locally available food materials for Pre-school children	10	T1- Control	Gain in Body wt at 1 st , 2 nd , 3 rd and 4 th month of treatment	1st : 260 2nd :160 3rd :190 4th: 180 Total- 790	-	-
				10	T2- Low cost high calorie diet prepared from locally available food materials		1st : 290 2nd :260 3rd :280 4th: 270 Total-1100	39.24% increase in total body weight than T1	Increase in body weight

II. FRONTLINE DEMONSTRATION

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

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

Sr. 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
FLDs of KVK							
1	Paddy (NAUR – 1)	ICM	New variety	FLDs	3	29	9
2	Paddy (GNR – 3)	ICM	New variety	FLDs	3	35	10
3	Paddy (GAR – 13)	ICM	New Variety	FLDs	4	10	4
4	Paddy	ICM	SIRA technology	FLDs	3	10	4
5	Paddy	IPM	IPDM	FLDs	3	20	8
6	Bt Cotton (G. Cot. Hy. – 6)	ICM	New Variety	FLDs	5	20	5
7	Bt Cotton (G. Cot. Hy. – 8)	ICM	New Variety	FLDs	5	20	5
8	Sugarcane	ICM	Intercrop	FLDs	3	10	4
9	Sugarcane	IPDM	IPDM	FLDs	3	10	4
10	Soybean (JS – 335)	ICM	New Variety	FLDs	4	37	9
11	Sorghum (GJ – 42)	ICM	New Variety	FLDs	5	20	8
12	Sorghum (Fodder) (CSV 21 F)	ICM	New variety	FLDs	4	10	4
13	Okra	IPDM and INM	IPDM and INM	FLDs	3	10	2
14	Brinjal	IPDM and INM	I IPDM and INM	FLDs	3	10	2
15	Parvar	IPDM and INM	IPDM and INM	FLDs	4	20	8
16	Banana	IPDM and INM	IPDM and INM	FLDs	2	20	8

17	Bitter gourd	IPDM	Fruitfly traps	FLDs	3	10	4
18	Mango	IPM	Fruitfly traps	FLDs	5	20	8
19	Pigeon pea	IDM	IDM	FLDs	2	10	4
20	Groundnut	IDM	IDM	FLDs	2	10	4
FLDs of Other Agency							
AICCIP – TSP							
1	Cotton	INM	-	FLDs	7	50	20
NFSM – Commercial crops							
1	Cotton (NFSM)	ICM	-	FLDs	3	25	10
Adaptive Trials							
1	Sugarcane (GNS – 8)	ICM	New variety	FLDs	4	10	4

b. **Details of FLDs implemented during 2015-16**

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	
FLDs of KVK										
Cereal crops										
1	Paddy (NAUR – 1)	ICM	New variety	Kharif -15	8	8	20	0	20	--
2	Paddy (GNR – 3)	ICM	New variety	Kharif -15	8	8	20	0	20	--
3	Paddy (GAR –13)	ICM	New variety	Kharif -15	4	4	0	10	10	--
Pulses and oilseeds										
1	Soybean (JS – 335)	ICM	New variety	Kharif-15	8	8	20	0	20	--
2	Green gram (Meha)	ICM	New variety	Summer - 16	4	4	10	0	10	--
3	Pigeonpea	IDM	IDM	Kharif-15	4	4	10	0	10	
4	Ground nut	IDM	IDM	Rabi 15	4	4	10	0	10	
Cash crops										

1	Sugarcane	IPDM	Biofertilizers and Biopesticides, Tricho.	Rabi-15	4	4	10	0	10	
Horticulture crops										
1	Okra	IPDM and INM	IPDM and INM	Rabi-15	2	2	10	0	10	
2	Brinjal	IPDM and INM	IPDM and INM	Rabi-15	4	4	20	0	20	
3	Parvar	IPDM and INM	IPDM and INM	Kharif-14	8	8	20	0	20	
4	Banana	IPDM and INM	IPDM and INM	Kharif-15	8	8	0	20	20	
5	Mango	IPM	Fruitfly traps	Rabi-15	8	8	20	0	20	
6	Bittergourd	IPM	IPM	Rabi- 15	8	8	20	0	20	
FLDs of Other Agency										
Crop production										
1	AICCIP - TSP									
2	Cotton	INM	-	Kharif-15	12	30	30	0	30	-
3	Cotton	IPM	-	Kharif-15	12	30	30	0	30	-
4	Cotton	Intercrop	Intercrop	Kharif-15	14	35	35	0	35	-
5	Cotton	HDPS	HDPS	Kharif-15	2	5	5	0	5	-
Rabi – Cluster Front Line Demonstrations on Pulses										
1	Green gram	Variety and INM	Meha	Summer - 16	30	75	75	0	75	-
NARP, Navsari										
1	Paddy	Variety & INM	Variety & INM	Kharif-15	4	30	30	0	30	-
IARI varietal demonstrations										
1	Pigeon pea	Variety	Variety	Kharif-15	1	4	4	0	4	-
2	Wheat	Variety	Variety	Rabi – 15	0.8	2	0	2	2	-
3	Chick pea	Variety	Variety	Rabi - 15	0.2	2	2	0	2	-
TSP – ICAR Maize										
1	Maize	Variety	Variety	Rabi - 15	6	15	15	0	15	-

Adaptive Trials										
Cereal crops										
1	Paddy (NAUR – 1)	Variety	Variety	Kharif-15	8	80	80	0	80	-
2	Paddy (GNR – 3)	Variety & SIRA	Variety & SIRA	Kharif-15	20	60	0	60	60	-
3	Paddy (GAR – 13)	Variety	Variety	Kharif-15	20	50	50	0	50	-
4	Paddy (Purna)	Variety	Variety	Kharif-15	2	10	10	0	10	-
5	Sorghum (GJ – 42)	Variety	Variety	Rabi - 15	15	20	20	0	20	-
Pulses and oilseeds										
1	Pigeonpea	Variety	Variety	Kharif-15	45	500	500	0	500	-
2	Green gram (Meha)	Variety	Variety	Summer - 16	57	380	380	0	380	-
3	Sesame (GT – 2)	Variety	Variety	Summer - 16	20	50	50	0	50	-
Cash crops										
1	Cotton (G.Cot.Hy. – 6)	Variety	Variety	Kharif-15	10	50	50	0	50	-
2	Cotton (G.Cot.Hy. – 8)	Variety	Variety	Kharif-15	10	50	50	0	50	-
3	Cotton (NHH - 49)	Variety	Variety	Kharif-15	2	10	10	0	10	-
4	Castor (GCH - 7)	Variety	Variety	Rabi - 15	18	45	10	35	45	-
5	Sugarcane (GNS - 8)	Variety	Variety	Rabi - 15	2	10	0	10	10	-
Fodder crops										
1	Fodder Maize (African Tall)	Variety	Variety	Rabi - 15	10	50	50	0	50	-

c. 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					
Cereal Crops											
Paddy – NAUR-1	Kharif-15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015	606	25
Paddy –GNR-3	Kharif-15	Irrigated	Medium Black	L	M	H	Sugarcane Summer Paddy	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015		
Paddy –GAR-13	Kharif-15	Irrigated	Medium Black	L	M	H	Sugarcane Summer Paddy	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015		
Paddy-IPDM	Kharif-15	Irrigated	Medium black	L	M	H	Sugarcane Summer paddy	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015		
Pulses and oilseed											
Soybean	Kharif -15	Irrigated/ rainfed	Medium black	L	M	H	Fallow /Rabi vegetables	First week of July, 2015	15 th Oct. to 15 th Nov. 2015		
Green gram	Summer -16	Irrigated/ rainfed	Medium black	L	M	H	Cotton Rabi vegetables	First week of Feb, 2016	15 th April to 30 th April, 2016		
Pigeonpea	Kharif -14	Rainfed	Medium black	L	M	H	Brinjal	July to Aug-15	-		
Groundnut	Summer-14	Rainfed	Medium black	L	M	H	Sorghum	Dec to Jan 15	May- June 14		
Horticultural crops											
Okra (IPDM and INM)	Rabi -14	Irrigated	Medium black	L	M	H	Paddy	Feb. to March. -14	Sept. to Oct -13		
Brinjal (IPDM and INM)	Rabi -14	Irrigated	Medium black	L	M	H	Groundnut	Feb. to March. -14	Oct. to Nov. -13	606	25

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					
Parvar (IPDM & INM)	Kharif - 14	Irrigated	Medium black	L	M	H	Parvar	July to Aug.-14	-	606	25
Banana (IPDM and INM)	Kharif - 14	Irrigated	Loamy	L	M	H	Banana	June to July -14	Aug- Sept. - 14	606	25
Bitter gourd (F. fly traps)	Rabi -14	Irrigated	Medium black	L	M	H	Pointed gourd	Sept. to Oct -14	-	606	25
Mango (F. fly traps)	Rabi -14	Irrigated	Medium black	L	M	H	-	-	-	606	25
FLDs of Other Agency											
Crop production											
AICCIP - TSP											
Cotton INM	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec. 15 to Feb. 2016		
Cotton IPM	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec.15 to Feb. 2016		
Cotton Intercrop	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec.15 to Jan. 2016		
Cotton HDPS	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec.15 Feb. 2016		
Rabi – Cluster Front Line Demonstrations on Pulses											
Green gram Meha and INM	Summer - 16	Irrigated/ rainfed	Medium black	L	M	H	Cotton Sugarcane	First week of Feb., 2016	Up to April 2016		
NARP, Navsari											
Paddy – NAUR-1	Kharif- 15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015	606	25
IARI varietal demonstrations											

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					
Pigeon pea P - 991	Kharif-15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th Aug., 2015	Up to 15 th Feb. 2016	606	25
Wheat HD - 2932	Rabi - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy Sugarcane	15 th Nov. to 15 th Dec., 2015	Up to 30 th March. 2016	606	25
Chick pea BG - 1103	Rabi - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy	15 th Nov. to 30 th Dec., 2015	Up to 15 th March. 2016	606	25
TSP – ICAR Maize											
Maize GAYMH – 1 HQPM - 1	Rabi - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy	15 th Nov. to 15 th Dec., 2015	Up to 15 th March. 2016	606	25
Adaptive Trials											
Cereal crops											
Paddy (NAUR – 1)	Kharif-15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015	606	25
Paddy (GNR – 3)	Kharif-15	Irrigated	Medium Black	L	M	H	Sugarcane Summer Paddy	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015	606	25
Paddy (GAR – 13)	Kharif-15	Irrigated	Medium Black	L	M	H	Sugarcane Summer Paddy	15 th June to 15 th July, 2015	1 st Nov. to 15 th Dec. 2015	606	25
Paddy (Purna)	Kharif-15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th July, 2015	1 st Nov. to 30 th Nov. 2015	606	25
Sorghum (GJ – 42)	Rabi - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy	15 th Oct. to 15 th Dec., 2015	Up to 15 th March. 2016	606	25
Pulses and oilseeds											
Pigeonpea Vaishali	Kharif-15	Irrigated/Rainfed	Medium Black	L	M	H	Fallow /Rabi vegetables	15 th June to 15 th Aug., 2015	Up to 15 th Feb. 2016	606	25

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					
Green gram (Meha)	Summer - 16	Irrigated/ rainfed	Medium black	L	M	H	Cotton Sugarcane	First week of Feb., 2016	Up to April 2016	606	25
Sesame (GT - 2)	Summer - 16	Irrigated/ rainfed	Medium black	L	M	H	Cotton Sugarcane	First week of Feb., 2016	Up to April 2016	606	25
Cash crops											
Cotton (G.Cot.Hy. - 6)	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec. 15 to Feb. 2016	606	25
Cotton (G.Cot.Hy. - 8)	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec. 15 to Jan. 2016	606	25
Cotton (NHH - 49)	Kharif - 15	Irrigated/ rainfed	Medium black	L	M	H	Cotton	First week of July, 2015	Dec. 15 to Feb. 2016	606	25
Castor (GCH - 7)	Late kharif - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy Fallow	15 th Aug. to 15 th Oct., 2015	Up to 15 th March. 2016	606	25
Sugarcane (GNS - 8)	Rabi - 15	Irrigated	Medium Black	L	M	H	Paddy Fallow	1 st Oct. to 31 st Dec., 15	Up to Dec., 16	606	25
Fodder crops											
Fodder Maize (African Tall)	Rabi - 15	Irrigated/Rainfed	Medium Black	L	M	H	Paddy Fallow	1 st Oct. to 31 st Dec., 15	Up to Feb., 16	606	25

Technical Feedback on the demonstrated technologies

S.N.	Crop	Technology demonstrated	Feed back
1	Paddy	NAUR-1	1. High yielding 2. Early maturity as compared to hybrid 3. Good taste in rice plate/roti making as compare to hybrid
2	Paddy	GNR-3	1. High yielder and preferred by the farmers 2. Good quality 3. Low incidence of insect pest

3	Paddy	GAR - 13	1. Good performance as compare to GR-11 2. Good rice quality
4	Paddy	SIRA	1. Fertilizer saving 2. Labour problems compel to adopt the technology 3. Preferred by the farmers
5	Soybean	JS – 335	1. Good performance as compare to local varieties. 2. Low incidence of pest and diseases
6	Cotton	INM Cotton	1. Reduced the cost of cultivation due to use of biofertilizers 2. Low incidence of pest and diseases
7	Cotton	IPM Cotton	1. Reduced the cost of cultivation due to reduced the use of pesticides
8	Cotton	Intercropping with Soybean	1. Reduced the cost of cultivation due to reduced the use of chemical fertilizers weed management, irrigation etc.
9	Pigeon pea	P 991	1. Good performance in yield 2. Due to red colour not preferred by farmers 3. Low market value
10	Sorghum	GJ - 42	1. Higher grain production 2. Bold and white grain 3. Good performance in irrigated conditions only.
11	Okra	IPDM & INM	1. Reduced number of pesticidal sprays 2. Less incidence of disease, fruit borer and increase in yield 3. Quality of okra improved.
12	Brinjal	IPDM & INM	1. Reduced number of pesticidal sprays 2. Less incidence of wilt and other diseases 3. Less incidence of fruit and shoot borer
13	Parvar	IPDM & INM	1. Less incidence of wilt
14	Bitter gourd	Fruit fly trap	1. Less infestation of fruit fly
15	Mango	Fruit fly trap	1. Less infestation of fruit fly
16	Banana	IPDM & INM	1. Less incidence of wilt 2. Less infestation of weevil in the field
17	Pigeon pea	IDM	1. Increase in yield and less incidence of wilt 2. Reduce the cost of cultivation by lowering the use of pesticide
18	Groundnut	IDM	1. Increase in yield and less incidence of wilt
19	Sugarcane	IPDM	1. Reduced the cost of cultivation 2. Less incidence of disease and pest

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days				
	Rice	1	21-10-2015	21	
	Cotton	4	11-09-2015, 15-09-2015, 20-10-2015, 27-01-2016	189	
	Sorghum	1	16-10-2015	59	
2	Farmers Training				
	Plant Protection	9	17/07/2015, 14/08/2015, 20/08/2015, 12/10/2015, 06/11/2015 11/12/2015, 16/12/2015, 06/01/2016, 15/01/2016	277	
	Horticulture	5	29/10/2015, 07/11/2015, 11/12/2015, 15/01/2016, 22/01/2016	111	
	Agronomy	4	14-05-2015, 9-06-15, 5-08-15, 11-09-15	62	
	Animal Science	4	08-06-2015,04-09-2015, 21-09-2015,30-10-2015	86	
	Home Science	2	23/06/15, 7/07/15	46	
3	Media coverage	--	--	--	--
4	Training for extension functionaries	--	--	--	--

Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	IDM	Bio control (<i>Trichoderma</i>)	GG2	10	4	16.17	9.5	12.183	11.008	10.67	15200	31675.8	16475.8	2.08	17900	28620.8	10720.8	1.60
Soybean	ICM	New Variety	JS – 335	20	8	1126	680	823	710	15.92	15000	24690	9690	1.65	15000	21300	6300	1.42

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

** BCR= GROSS RETURN/GROSS COST

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeon pea	IDM	Bio control (<i>Trichoderma</i>)	Vaishali	10	4	14.12	7.45	10.133	8.958	13.12	10500	35465.5	24965.5	3.38	12600	31353	18753	2.49
Pigeon pea	ICM	New Variety	P – 991	4	1	1250	960	1109	980	13.16	16000	66540	50540	4.16	16000	68600	52600	4.29
Pigeon pea	ICM	New Variety	Vaishali	500	45	1530	857	1218	960	26.88	15000	54810	39810	3.65	16000	43200	27200	2.70

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

** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Change in Yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Cereals																		
Paddy	IPDM	Paddy IPDM	-	20	8	3932	3846	3890	3486	11.59	23500	62138	38638	2.64	25000	58475	33475	2.34
Paddy	ICM	New Variety	NAUR – 1	20	8	5642	3310	4130	3640	13.46	24000	55755	31755	2.32	25000	49140	24140	1.97
Paddy	ICM	New Variety	GNR – 3	20	8	5839	3895	4890	4518	8.23	28000	66015	38015	2.36	28000	60993	32993	2.18
Paddy	ICM	New Variety	GAR – 13	10	4	5754	4287	4760	4155	14.56	28000	64260	36260	2.30	28000	56093	28093	2.00
Paddy	ICM	Variety & INM	NAUR – 1	30	4	5730	2060	2836	2560	10.78	28000	38286	10286	1.37	29000	34560	5560	1.19
Paddy	ICM	New Variety	NAUR – 1	80	8	4560	1847	3125	2865	9.08	28000	42188	14188	1.51	29000	38678	9678	1.33
Paddy	ICM	Variety & SIRA	GNR – 3	60	20	6450	4170	5530	4720	17.16	27000	74655	47655	2.77	28000	63720	35720	2.28
Paddy	ICM	New Variety	GAR – 13	50	20	5680	4210	4820	4278	12.67	28000	65070	37070	2.32	28000	57753	29753	2.06
Paddy	ICM	New Variety	Purna	10	2	2674	1620	2240	1870	19.79	18000	29120	11120	1.62	18000	24310	6310	1.35

Millets																		
Sorghum	ICM	New Variety	GJ – 42	20	15	1680	1230	1460	1280	14.06	15000	26280	11280	1.75	15000	23040	8040	1.54
Vegetables																		
Okra	IPM, INM	Okra IPM and INM	Hybrid	10	2	171.2	132.46	153.61	131.77	16.58	53730	205069	151339	3.82	57255	177056	119801	3.09
Brinjal	IPM, INM	Brinjal IPM and INM	Surti ravaia	10	2	175	142.1	163.73	127.88	28.04	45345	163720	118375	3.61	49552	151890	102338	3.07
Parvar	IPDM, INM	Parvar IPDM and INM	Local	20	8	198	142.2	164.06	141.65	15.82	145000	311705	166705	2.15	147500	269126	121626	1.82
Bitter gourd	IPM	Pheromone trap	F1	20	8	167.5	149.5	163.72	151.89	7.79	56700	261952	205252	4.62	62400	243024	180624	3.89
Flower crops																		
Fruit crops																		
Mango	IPM	Pheromone trap	-	20	8	79.2	49.2	64.5	58.74	9.80	21210	96750	75540	4.56	22000	88113	66113	4.01
Banana	IPDM, INM	Banana IPDM and INM	G9	20	8	758.44	594.44	693.115	562.34	23.26	95700	415869	320169	4.35	97600	337404	239804	3.46
Spices & condiments																		
Commercial Crops																		
Sugarcane	IPDM	Sugarcane IPDM	-	10	4	1000	920	949	879	7.96	109045	161330	52285	1.48	107620	149430	41810	1.39
Cotton	ICM	INM	-	30	12	2400	1850	2097	1962	6.88	30800	94365	63565	3.06	32200	88290	56090	2.74
Cotton	ICM	IPM	-	30	12	2450	1760	2013	1864	7.99	30760	90585	59825	2.94	32160	83880	51720	2.61
Cotton	ICM	Intercrop	G.Cot.Hy. 8	35	14	1820	1480	1668	1502	11.05	31430	84435	53005	2.69	33020	67590	34570	2.05
Cotton	ICM	HDPS	Suraj	5	2	1800	1650	1723	1632	5.58	27200	77535	50335	2.85	32000	73440	41440	2.30
Cotton	ICM	New Variety	G.Cot.Hy. – 6	50	10	2360	1740	1984	1820	9.01	33000	75392	42392	2.28	35000	69160	34160	1.98
Cotton	ICM	New Variety	G.Cot.Hy. – 8	50	10	1940	1542	1732	1570	10.32	33000	65816	32816	1.99	35000	59660	24660	1.70
Cotton	ICM	New Variety	NHH – 49	10	2	2341	1648	1920	1750	9.71	33000	72960	39960	2.21	35000	66500	31500	1.90
Medicinal & aromatic plants																		
Fodder Crops																		

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

** BCR= GROSS RETURN/GROSS COST

FLD on Livestock**Use of mineral mixture + De-worming:**

Category	Thematic area	Name of the Technology Demonstrated	No. of Farmer	No. of Units	Major Parameters		% change in major parameter
					Demo.	Check	
Cow	Nutrition Management	Mineral Mixture 40 mg per Day and De-worming 3 g Tablet	20	20	Avg. milk yield (L/Day)	Avg. milk yield (L/Day)	12.5
					8.78 (20)	7.80 (10)	
					Service Period (Days)	Service Period (Days)	30
					105 (19)	150 (9)	

Feed back: Use of mineral mixture increase milk production and reduced service periods and sometimes resolved reproductive problems also.

Prevention of mastitis by teat Spray:

Category	Thematic area	Name of the Technology Demonstrated	No. of Farmer	No. of Units	Major Parameters	% change in major parameter
					Demonstration	Check
Cow	Preventive Measures	Mastitis prevention by Teat Spray Visprayk [®]	20	20	No. of Incidence	No. of Incidence
					1 (20)	3(10)

Scientific calf rearing:

Parameters	De-worming + calf Dan up to six months		Farmers method	
	3 Month	6 Month	3 Month	6 Month
Calf No.	20		10	
Av. Body Wt. (Kg)	60.43	88.84	54.62	76.46
% Increase	10.6	16.2	-	-

Feed back

Sr. No.	Technology	Animals	Feedback reported
1	Mineral Mixture	Cow	<ul style="list-style-type: none"> ➤ Increase the milk yield ➤ Reduce service period
2	Teat spray	Cow	<ul style="list-style-type: none"> ➤ Reduce mastitis cases
3	De-worming and Dan to calf	Calf	<ul style="list-style-type: none"> ➤ Increase the growth rate ➤ Reduced the parasitic problems ➤ Improve health condition

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
NIL	NIL	NIL	NIL	NIL	NIL

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farmer	Area (ha)	Major parameters	Filed observation (output/man hour)		% change in major parameter	Labor reduction (man days)				Cost reduction (Rs./ha or Rs./Unit etc.)				
						Demo	Check		Land preparation	Sowing	Weeding	Total	Land preparation	Labour	Irrigation	Total	
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

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

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Cotton	Variety	G.Cot.Hy. – 6	50	10	2360	1740	1984	1820	9.01	33000	75392	42392	2.28
Cotton	Variety	G.Cot.Hy. – 8	50	10	1940	1542	1732	1570	10.32	33000	65816	32816	1.99
Cotton	Variety	NHH – 49	10	2	2341	1648	1920	1750	9.71	33000	72960	39960	2.21

III. Training Programme

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management				0			0	0	0	0
Resource Conservation Technologies				0			0	0	0	0
Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Micro Irrigation/irrigation				0			0	0	0	0
Seed production				0			0	0	0	0
Nursery management	1	0	40	40	0	0	0	0	40	40
Integrated Crop Management	3	0	0	0	80	8	88	80	8	88
Soil & water conservatioin				0			0	0	0	0
Integrated nutrient management				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	4	0	40	40	80	8	88	80	48	128
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops				0			0	0	0	0
Off-season vegetables	1	5	30	35	0	0	0	5	30	35
Nursery raising	2	15	49	64	0	0	0	15	49	64
Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0

Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	5	44	97	141	0	0	0	44	97	141
III Soil Health and Fertility Management										
Soil fertility management				0			0	0	0	0
Integrated water management	1	0	0	0	50	0	50	50	0	50
Integrated Nutrient Management				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0
Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing				0			0	0	0	0
Others (pl specify)				0			0	0	0	0

Total	1	0	0	0	50	0	50	50	0	50
IV Livestock Production and Management										
Dairy Management	2			0	81	33	114	81	33	114
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management	1			0	31	4	35	31	4	35
Disease Management	1			0	55	6	61	55	6	61
Feed & fodder technology				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	4	0	0	0	167	43	210	167	43	210
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	4	21	25			0	4	21	25
Design and development of low/minimum cost diet				0			0	0	0	0
Designing and development for high nutrient efficiency diet	1	0	24	24			0	0	24	24
Minimization of nutrient loss in processing				0			0	0	0	0
Processing and cooking				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques				0			0	0	0	0
Value addition				0			0	0	0	0
Women empowerment	1	1	38	39			0	1	38	39
Location specific				0			0	0	0	0

drudgery reduction technologies										
Rural Crafts				0			0	0	0	0
Women and child care	1	0	24	24			0	0	24	24
Others (pl specify)				0			0	0	0	0
Total	4	5	107	112	0	0	0	5	107	112
VI Agril. Engineering										
Farm Machinery and its maintenance				0			0	0	0	0
Installation and maintenance of micro irrigation systems				0			0	0	0	0
Use of Plastics in farming practices				0			0	0	0	0
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Small scale processing and value addition				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Pest Management	1	10	15	25	0	0	0	10	15	25
Integrated Disease Management	1	8	17	25	0	0	0	8	17	25
Bio-control of pests and diseases	2	130	9	139	0	0	0	130	9	139
Production of bio control agents and bio pesticides				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	4	148	41	189	0	0	0	148	41	189
VIII Fisheries										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery				0			0	0	0	0

management										
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0
Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production				0			0	0	0	0
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0

Production of Fish feed				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Apiculture				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development				0			0	0	0	0
Group dynamics	4			0	114	2	116	114	2	116
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital				0			0	0	0	0
Entrepreneurial development of farmers/youths	3			0	59	35	94	59	35	94
WTO and IPR issues				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	7	0	0	0	173	37	210	173	37	210
XI Agro-forestry										
Production technologies				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	29	197	285	482	470	88	558	667	373	1040

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	0	0	0	41	0	41	41	0	41
Resource Conservation Technologies				0			0	0	0	0

Cropping Systems				0			0	0	0	0
Crop Diversification				0			0	0	0	0
Integrated Farming				0			0	0	0	0
Micro Irrigation/irrigation				0			0	0	0	0
Seed production				0			0	0	0	0
Nursery management				0			0	0	0	0
Integrated Crop Management	4	0	0	0	77	125	202	77	125	202
Soil & water conservatioin				0			0	0	0	0
Integrated nutrient management				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	5	0	0	0	118	125	243	118	125	243
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops				0			0	0	0	0
Off-season vegetables	1	0	0	0	14	7	21	14	7	21
Nursery raising	1	0	0	0	9	9	18	9	9	18
Exotic vegetables				0			0	0	0	0
Export potential vegetables				0			0	0	0	0
Grading and standardization				0			0	0	0	0
Protective cultivation	1	0	0	0	36	1	37	36	1	37
Others (pl specify)				0			0	0	0	0
Total (a)	3	0	0	0	59	17	76	59	17	76
b) Fruits										
Training and Pruning				0			0	0	0	0

Production and Management technology	1	0	0	0	15	0	15	15	0	15
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (e)	1	0	0	0	15	0	15	15	0	15
f) Spices										
Production and Management technology				0			0	0	0	0
Processing and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management				0			0	0	0	0
Production and management technology				0			0	0	0	0
Post harvest technology and value addition				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	6	0	0	0	116	20	136	116	20	136
III Soil Health and Fertility Management										
Soil fertility management				0			0	0	0	0
Integrated water management	1	0	0	0	29	10	39	29	10	39
Integrated Nutrient Management	2	31	16	47	35	0	35	66	16	82
Production and use of organic inputs				0			0	0	0	0
Management of Problematic soils				0			0	0	0	0
Micro nutrient deficiency in crops				0			0	0	0	0
Nutrient Use Efficiency				0			0	0	0	0

Balance use of fertilizers				0			0	0	0	0
Soil and Water Testing				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	3	31	16	47	64	10	74	95	26	121
IV Livestock Production and Management										
Dairy Management	3			0	44	3	47	44	3	47
Poultry Management				0			0	0	0	0
Piggery Management				0			0	0	0	0
Rabbit Management				0			0	0	0	0
Animal Nutrition Management	4			0	54	21	75	54	21	75
Disease Management	4			0	77	13	90	77	13	90
Feed & fodder technology	3			0	118	13	131	118	13	131
Production of quality animal products				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	14	0	0	0	293	50	343	293	50	343
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	21	21			0	0	21	21
Design and development of low/minimum cost diet	3	0	40	40			0	0	40	40
Designing and development for high nutrient efficiency diet	1	0	33	33			0	0	33	33
Minimization of nutrient loss in processing	1	0	20	20			0	0	20	20
Processing and cooking				0			0	0	0	0

Gender mainstreaming through SHGs				0			0	0	0	0
Storage loss minimization techniques				0			0	0	0	0
Value addition				0			0	0	0	0
Women empowerment				0			0	0	0	0
Location specific drudgery reduction technologies				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Women and child care	1	0	0	0	0	14	14	0	14	14
Others (pl specify)				0			0	0	0	0
Total	7	0	114	114	0	14	14	0	128	128
VI Agril. Engineering										
Farm Machinery and its maintenance				0			0	0	0	0
Installation and maintenance of micro irrigation systems				0			0	0	0	0
Use of Plastics in farming practices				0			0	0	0	0
Production of small tools and implements				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Small scale processing and value addition				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Pest Management	6	60	31	91	47	38	85	107	69	176

Integrated Disease Management	3	0	0	0	104	2	106	104	2	106
Bio-control of pests and diseases	2	0	0	0	46	6	52	46	6	52
Production of bio control agents and bio pesticides	1	23	5	28	0	0	0	23	5	28
Others (pl specify)				0			0	0	0	0
Total	12	83	36	119	197	46	243	280	82	362
VIII Fisheries										
Integrated fish farming				0			0	0	0	0
Carp breeding and hatchery management				0			0	0	0	0
Carp fry and fingerling rearing				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Hatchery management and culture of freshwater prawn				0			0	0	0	0
Breeding and culture of ornamental fishes				0			0	0	0	0
Portable plastic carp hatchery				0			0	0	0	0
Pen culture of fish and prawn				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Edible oyster farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Fish processing and value addition				0			0	0	0	0
Others				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production				0			0	0	0	0
Planting material production				0			0	0	0	0

Bio-agents production				0			0	0	0	0
Bio-pesticides production				0			0	0	0	0
Bio-fertilizer production				0			0	0	0	0
Vermi-compost production				0			0	0	0	0
Organic manures production				0			0	0	0	0
Production of fry and fingerlings				0			0	0	0	0
Production of Bee-colonies and wax sheets				0			0	0	0	0
Small tools and implements				0			0	0	0	0
Production of livestock feed and fodder				0			0	0	0	0
Production of Fish feed				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Apiculture				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development	4	42		42	90	30	120	132	30	162
Group dynamics	3			0	93	13	106	93	13	106
Formation and Management of SHGs				0			0	0	0	0
Mobilization of social capital				0			0	0	0	0
Entrepreneurial development of farmers/youths				0			0	0	0	0
WTO and IPR issues				0			0	0	0	0
Others				0			0	0	0	0
Total	7	42	0	42	183	43	226	225	43	268
XI Agro-forestry										
Production technologies				0			0	0	0	0

Nursery management				0			0	0	0	0
Integrated Farming Systems				0			0	0	0	0
Others (pl specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	54	156	166	322	971	308	1279	1127	474	1601

Farmers' Training including sponsored training programmes – CONSOLIDATED (On + Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	1	0	0	0	41	0	41	41	0	41
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	1	0	40	40	0	0	0	0	40	40
Integrated Crop Management	7	0	0	0	157	133	290	157	133	290
Soil & water conservatiion	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0
Total	9	0	40	40	198	133	331	198	173	371

Others	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	11	44	97	141	116	20	136	160	117	277
III Soil Health and Fertility Management										
Soil fertility management	0	0	0	0	0	0	0	0	0	0
Integrated water management	2	0	0	0	79	10	89	79	10	89
Integrated Nutrient Management	2	31	16	47	35	0	35	66	16	82
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	4	31	16	47	114	10	124	145	26	171
IV Livestock Production and Management										
Dairy Management	5	0	0	0	125	36	161	125	36	161
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	5	0	0	0	85	25	110	85	25	110
Disease Management	5	0	0	0	132	19	151	132	19	151
Feed & fodder technology	3	0	0	0	118	13	131	118	13	131
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0
Total	18	0	0	0	460	93	553	460	93	553

X Capacity Building and Group Dynamics										
Leadership development	4	42	0	42	90	30	120	132	30	162
Group dynamics	7	0	0	0	207	15	222	207	15	222
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	3	0	0	0	59	35	94	59	35	94
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	14	42	0	42	356	80	436	398	80	478
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	83	353	451	804	1441	396	1837	1794	847	2641

Training for Rural Youths including sponsored training programmes (On campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	1			0	14	17	31	14	17	31
Training and pruning of orchards				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0

Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermiculture				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Bee-keeping	1			0	14	17	31	14	17	31
Sericulture				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Value addition				0			0	0	0	0
Small scale processing				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Composite fish culture				0			0	0	0	0

Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Any other				0			0	0	0	0
TOTAL	2	0	0	0	28	34	62	28	34	62

Training for Rural Youths including sponsored training programmes (Off campus)

Area of training	No. of Course	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops				0			0	0	0	0
Training and pruning of orchards				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermi-culture				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Bee-keeping				0			0	0	0	0
Sericulture				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Value addition				0			0	0	0	0
Small scale				0			0	0	0	0

processing										
Post Harvest Technology				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

Training for Rural Youths including sponsored training programmes - CONSOLIDATED (On + Off campus)

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops	1			0	14	17	31	14	17	31
Training and pruning of orchards				0			0	0	0	0
Protected cultivation of vegetable crops				0			0	0	0	0
Commercial fruit production				0			0	0	0	0

Integrated farming				0			0	0	0	0
Seed production				0			0	0	0	0
Production of organic inputs				0			0	0	0	0
Planting material production				0			0	0	0	0
Vermi-culture				0			0	0	0	0
Mushroom Production				0			0	0	0	0
Bee-keeping	1			0	14	17	31	14	17	31
Sericulture				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Value addition				0			0	0	0	0
Small scale processing				0			0	0	0	0
Post Harvest Technology				0			0	0	0	0
Tailoring and Stitching				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Production of quality animal products				0			0	0	0	0
Dairying				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Quail farming				0			0	0	0	0
Piggery				0			0	0	0	0
Rabbit farming				0			0	0	0	0
Poultry production				0			0	0	0	0
Ornamental fisheries				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Freshwater prawn culture				0			0	0	0	0
Shrimp farming				0			0	0	0	0
Pearl culture				0			0	0	0	0
Cold water fisheries				0			0	0	0	0
Fish harvest and processing technology				0			0	0	0	0
Fry and fingerling rearing				0			0	0	0	0
Any other (pl. specify)				0			0	0	0	0
TOTAL	2	0	0	0	28	34	62	28	34	62

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field	1	25	0	25	0	0	0	25	0	25

crops										
Integrated Pest Management				0			0	0	0	0
Integrated Nutrient management				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl. specify)				0			0	0	0	0
TOTAL	1	25	0	25	0	0	0	25	0	25

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops				0			0	0	0	0
Integrated Pest Management				0			0	0	0	0
Integrated Nutrient management				0			0	0	0	0

Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0
Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops	1	25	0	25	0	0	0	25	0	25
Integrated Pest Management				0			0	0	0	0
Integrated Nutrient management				0			0	0	0	0
Rejuvenation of old orchards				0			0	0	0	0
Protected cultivation technology				0			0	0	0	0
Production and use of organic inputs				0			0	0	0	0

Care and maintenance of farm machinery and implements				0			0	0	0	0
Gender mainstreaming through SHGs				0			0	0	0	0
Formation and Management of SHGs				0			0	0	0	0
Women and Child care				0			0	0	0	0
Low cost and nutrient efficient diet designing				0			0	0	0	0
Group Dynamics and farmers organization				0			0	0	0	0
Information networking among farmers				0			0	0	0	0
Capacity building for ICT application				0			0	0	0	0
Management in farm animals				0			0	0	0	0
Livestock feed and fodder production				0			0	0	0	0
Household food security				0			0	0	0	0
Any other (pl.specify)				0			0	0	0	0
TOTAL	1	25	0	25	0	0	0	25	0	25

Table. Sponsored training programmes

Area of training	No. of Course	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops				0			0	0	0	0
Commercial production of vegetables	2	36	41	77	0	0	0	36	41	77
Production and value addition										
Fruit Plants				0			0	0	0	0
Ornamental plants				0			0	0	0	0
Spices crops				0			0	0	0	0
Soil health and fertility management				0			0	0	0	0
Production of Inputs at site				0			0	0	0	0
Methods of protective				0			0	0	0	0

cultivation										
Others (pl. specify)				0			0	0	0	0
Total	2	36	41	77	0	0	0	36	41	77
Post harvest technology and value addition										
Processing and value addition				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Farm machinery										
Farm machinery, tools and implements				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Livestock production and management	2			0	41	15	56	41	15	56
Animal Nutrition Management	1			0	11	22	33	11	22	33
Animal Disease Management	3			0	18	53	71	18	53	71
Fisheries Nutrition				0			0	0	0	0
Fisheries Management				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	6	0	0	0	70	90	160	70	90	160
Home Science										
Household nutritional security				0			0	0	0	0
Economic empowerment of women				0			0	0	0	0
Drudgery reduction of women				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Agricultural Extension										
Capacity Building and Group Dynamics				0			0	0	0	0
Income generations	3	0	0	0	105	0	105	105	0	105
Total	3	0	0	0	105	0	105	105	0	105
GRAND TOTAL	11	36	41	77	175	90	265	211	131	342

Name of sponsoring agencies involved: ATMA, Animal Husbandry Department, Agriculture Department, Ambuja Cement Foundation, NABARD, Forest Department, Reliance Foundation

Details of vocational training programmes carried out by KVKs for rural youth

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management				0			0	0	0	0
Commercial floriculture				0			0	0	0	0
Commercial fruit production				0			0	0	0	0
Commercial vegetable production				0			0	0	0	0
Integrated crop management				0			0	0	0	0
Organic farming				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition										
Value addition	1	0	32	32			0	0	32	32
Others (pl. specify)				0			0	0	0	0
Total	1	0	32	32			0	0	32	32
Livestock and fisheries										
Dairy farming				0			0	0	0	0
Composite fish culture				0			0	0	0	0
Sheep and goat rearing				0			0	0	0	0
Piggery				0			0	0	0	0
Poultry farming				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Income generation activities										
Vermi-composting				0			0	0	0	0
Production of bio-agents, bio-pesticides, bio-fertilizers etc.				0			0	0	0	0
Repair and maintenance of farm machinery and implements				0			0	0	0	0
Rural Crafts				0			0	0	0	0
Seed production				0			0	0	0	0
Sericulture				0			0	0	0	0
Mushroom cultivation				0			0	0	0	0
Nursery, grafting etc.	1	0	0	0	50	0	50	50	0	50
Tailoring, stitching, embroidery, dying etc.				0			0	0	0	0
Agril. para-workers, para-vet training				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	1	0	0	0	50	0	50	50	0	50

Agricultural Extension										
Capacity building and group dynamics				0			0	0	0	0
Others (pl. specify)				0			0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	2	0	32	32	50	0	50	50	32	82

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services	1	796	59	855
Diagnostic visits	84	163	6	169
Field Day	6	242	27	269
Group discussions	6	85		85
Kisan Ghosthi	17	1142	117	1259
Film Show	28	763	20	783
Self -help groups	2	36	4	40
Kisan Mela	12	4800	96	4896
Exhibition	1	150	15	165
Scientists' visit to farmers field	54	283		283
Plant/animal health camps	2	276		276
Farm Science Club	1	16	1	17
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop				0
Method Demonstrations	2	150	15	165
Celebration of important days	3	219	172	391
Special day celebration	1	450	43	493
Exposure visits	2	50		50
Pre Kharif Campaign	7	660	53	713
Total	229	10281	628	10909

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	5000
News paper coverage	4
Popular articles	5
Radio Talks	1
TV Talks	2
Animal health amps (Number of animals treated)	276
Others (pl. specify)	
Total	5288

Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awar e-ness	Other enterprise	Total
Surat	Text only	1852	5868	1343	-	6277	-	15340
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
Total Messages		4	1	1	-	4	-	10
Total farmers Benefitted		1852	5868	1343	-	6277	-	15340

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organized Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
one (27-1-2016 to 2.2.2016)	Gosthies	6	810	Rabi crops and animal husbandry
	Lectures organized			
	Exhibition			
	Film show	6	810	
	Fair	0		
	Farm Visit	0		
	Diagnostic Practical	0		
	Distribution of Literature (No.)	5	810	
	Distribution of Seed (q)	0		
	Distribution of Planting materials (No.)	0		
	Bio Product distribution (Kg)	0		
	Bio Fertilizers (q)	0		
	Distribution of fingerlings	0		
	Distribution of Livestock specimen (No.)	0		
	Total number of farmers visited the technology week			810

VI. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS**Production of seeds by the KVKs**

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Paddy	GNR - 3		21.25	57800	80

Oilseeds						
Pulses						
Commercial crops						
Vegetables						
Flower crops						
Spices						
Fodder crop seeds						
Fiber crops						
Forest Species						
Others						
Total						

Production of planting materials by the KVKs - NILL

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial						
Vegetable seedlings						
Fruits						
Ornamental plants						
Medicinal and Aromatic						

Plantation						
Spices						
Tuber						
Fodder crop saplings						
Forest Species						
Others						
Total						

Production of Bio-Products –NILL

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers				
Bio-pesticide				
Bio-fungicide				
Bio Agents				
Others				
Total				

Table: Production of livestock materials – NILL

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Poultry				

Broilers				
Layers				
Duals (broiler and layer)				
Japanese Quail				
Turkey				
Emu				
Ducks				
Others (Pl. specify)				
Piggery				
Piglet				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Total				

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	250	250	10	
Water				
Plant				
Manure				
Others (pl. specify)				
Total				

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK, Surat	Fourth SAC dated 22/02/2016

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution

X. PUBLICATIONS

BOOKS:

1. **J.J Pastagia, L.V. Ghetiya, C.U. Shinde and G.G. Radadia (2015)** Sankalit undar niantran : Publisher Department of Agriculture, District Pancayat, Surat
2. **N.K. Gabani, J.J. Pastagia, N.G. Gamit. and K.V. Patel (2015)** Vividh Pako Ni Khetima Sankalit Rogjivat Niyantaran : Publish by ATMA, Surat

Research papers:

- Chawda S. K., Sabalpara A. N. and Patel H. V. (2015).** " Studies On Biochemical Changes In Healthy And Infected Turmeric Rhizome (*Curcuma Longa* L.). *J. of Bioinnovation*, 269-278.
- V.C. Gadhiya and J.J Pastagia (2015).** Toxicity of some newer insecticide to Stingless bees *Tetragonula laeviceps*, *Pestology* 39(11): 16-18
- V.C Gadhiya and J.J Pastagia (2015)** . Flowers visited by stingless bees *Tetragonula laeviceps* Smith. *AGRES, An international e- journal* 4(4):323-330.
- P.D.Verma(2015)** Women empowerment through agrobased entrepreneurship: National Seminar on “ Understanding Women Empowerment” held during 28-29-10/2015 at Veer Narmad South Gujarat University- Surat
- Patel C. N., Patel H. K., Lakum Y. C., Parmar J. R. and Suthar J. V. (2015).** “Effect of Integrated Nutrient Management and Spacing on Green Cob Yield, Quality Parameter and Economic of Sweet Corn”. *J. of Pure and Applied Microbiology*, 9 (4): 3321-24.
- Patel H. V., Radadia G. G. and Chawda S. K. (2015).** "Seasonal incidence of major insect pests of brinjal crop during summer season, 20 (4) : 149-150.

Suthar J. V., Sadhu A. C., Patel H. K., Patel C. S. and Parmar J. R. (2015). “Response of summer groundnut to irrigations at critical growth stages, gypsum application and evapo-transpiration suppressants under middle Gujarat conditions”. An abstract published in Souvenir of ISPP West Zonal seminar on “Enhancement of crop productivity through physiological interventions” organized by Indian Society for Plant Physiology, New Delhi and and NAU, Navsari on 11th May, 2015.

Popular articles:

J.J Pastagia and M.B. Patel (2015). Bee keeping Potentials in South Gujarat Souvenir State level seminar on Awareness, Motivation and Technology transfer for development of bee keeping in Gujarat organized by National Bee Board at Waghai, Dangs on 18-19 Dec.2015

J.J. Pastagia (2016) Net house / green house ma paragnayan: Ek Prayas Jan-2016

P.D. Verma and J.J.Pastagia (2015) Jamin tandurasti panch supriya karykram krushi jagaran December :47-49

P.D. Verma and J.J. Pastagia (2016) Jamin ni tandurasti mate panch supriya karykram apanavo: Krishi Govidhya 68 (10): 14-16

Suthar J. V., Pastagia J. J., Chawda S. K. (2015). Sustainable Sugarcane Initiative (SSI) – Sherdi ni ek adhunik kheti paddhati: Krishijivan, September, 2015: 13-14.

Paper Presented in Seminars:

P.D.Verma (2015) Presented a paper on Women empowerment through agrobased entrepreneurship: National Seminar on “ Understanding Women Empowerment” held during 28-29-10/2015 at Veer Narmad South Gujarat University- Surat

P.D.Verma (2015) Paper presented on Dissemination Bee Keeping technologies among tribals. District level seminar on “ Bee keeping Potentials in South Gujarat Awareness, Motivation and Technology transfer for development of bee keeping in Gujarat organized by National Bee Board at Waghai, Dangs on 18-19 Dec.2015

P.D.Verma (2015) Paper presented on Socio-economic dimension of Beekeeping in tribal areas. District level seminar on “ Bee keeping Potentials in South Gujarat Awareness, Motivation and Technology transfer for development of bee keeping in Gujarat organized by National Bee Board at Waghai, Dangs on 18-19 Dec.2015

J.J. Pastagia (2015) Paper presented on Beekeeping in South Gujarat. District level seminar on “ Bee keeping Potentials in South Gujarat Awareness, Motivation and Technology transfer for development of bee keeping in Gujarat organized by National Bee Board at Waghai, Dangs on 18-19 Dec.2015

P. D. Verma, Hitesh Parmar and J. J. Pastagia (2016). Knowledge and adoption of dairy husbandry practices in tribal area a paper presented in National Seminar on Contemporary innovations for Quantum Extension in Agricultural Development organized by Junagadh Agricultural University and Society of Extension Education, Gujarat on 18-19 March, 2016

P. D. Verma and J. J. Pastagia (2016). FLDs : A torch Bearer Approach To Disseminate Improved Technology a paper presented in National Seminar on Contemporary innovations for Quantum Extension in Agricultural Development organized by Junagadh Agricultural University and Society of Extension Education, Gujarat on 18-19 March, 2016.

P. D. Verma, Hitesh Parmar and J. J. Pastagia (2016). Factors prone to milk yield of dairy animals in tribal area a paper presented in National Seminar on Contemporary innovations for Quantum Extension in Agricultural Development organized by Junagadh Agricultural University and Society of Extension Education, Gujarat on 18-19 March, 2016.

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

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

XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL / HAILSTORM/COLD WAVES ETC - NIL

Introduction of alternate crops/varieties

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

Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		

Cereals		
Vegetable crops		
Tuber crops		
Total		

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
Total		

Animal health camps organised

Number of camps	No.of animals	No.of farmers
Total		

Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Total			

Large scale adoption of resource conservation technologies

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

Awareness campaign

	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
Total												

XIII. DETAILS ON HRD ACTIVITIES**A. HRD activities organized in identified areas for KVK staff by the Directorate of Extension**

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
NIL				
Total				

No.	Training/ Workshop/Winter School/Seminar attended	Attended by
1.	National seminar on “Enhancement of crop productivity through physiological interventions” organized by Indian Society for Plant Physiology, New Delhi and NAU, Navsari on 11 th May, 2015.	J. V. Suthar
2.	Workshop on “Participatory Programme Planning, Monitoring and Evaluation” held at ATIC, NAU, Navsari during 25 th – 27 th August, 2015	J. J. Pastagia, J. V. Suthar, P. D. Verma
3.	Winter School on “Implications of Climatic Change on Pedagogical Issues of Water Resources Management” held at JAU, Junagadh on 21 st September – 10 th October, 2015.	J. V. Suthar
4.	Women empowerment through agrobased entrepreneurship: National Seminar on “ Understanding Women Empowerment” held during 28-29-10/2015 at Veer Narmad South Gujarat University- Surat	P.D.Verma
5	National Conference on Palmyra Palm organized by ASPEE College of Horticulture and Forestry during 7-8, January 2016 at Dedvasan Mahuva	J.J.pastagia and Bhavesh patel
6.	Workshop on “Farm Business Management for Extension Functionaries” held at EEI, AAU, Anand during 8 th -13 th February, 2016.	J. V. Suthar
7.	National Seminar on Contemporary innovations for Quantum Extension in Agricultural Development organized by Junagadh Agricultural University and Society of Extension Education, Gujarat on 18-19 March, 2016.	J. J. Pastagia, P. D. Verma

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

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
NIL			
Total			

XIV. CASE STUDIES

Case study I:

Title: Spine guard and Cowpea an innovative cropping system for small and marginal farmers in tribal areas

Name of farmers: Shri Rajesh Thakor Patel **Village:** Tarkani

Age :45 **Education:** 12 **Size of Land holding:** 2.40 ha

Area under crop: 0.24 ha **Comparison:** 1 ha.

Year	2013-14	
Crops	Spineguard and Cow pea	
Variety	Gomti in drip irrigation	
Cost items	Physical Unit	Value in Rs.
Preparatory Tillage	Poll and wire structure and tillage ridge and furrow etc	25000 (125000/ha) average life 5 years

Seeds (Kg)	Cutting for Spine guard cowpea	41667 1042
Fertilizers	FYM, Vermi and chemicals	20833
Sowing cost	Cutting for Spine guard cowpea	8333 1000
Plant protection	Pesticides etc	12500
Irrigation	10 days interval	12500
Weed management	Manually	8333
Pollination	Manually in spine guard	25000
Harvesting / Picking	Manually	33333 20853
	Total	210394
Miscellaneous	10%	21039
Total cost		231433
Production:	spine guard 8.33 ton Cow pea (Green)7.28 ton	416500 291666
	Total Income (Rs./ha)	708166
	Total benefit	476733
	BC ratio	1: 3.05

Benefits and limitations of the system:

1. Highly remunerative
2. Improve soil fertility.
3. Gave higher yield as compare paddy
4. Incidence of insect pest is lees.
5. Less labor problem to perform the regular operations.

Case study: II

Title: Pointed guard farming - A boon to Marginal and small farmers

Name of farmers: Shri Vimal Thakor Patel **Village:** Tarkani

Age : 46 **Education:** 8 **Size of Land holding:** 1.0 ha

Area under crop: 0.48 ha **Comparison per ha.**

Year	2013-14	
Crops	Pointed guard in drip irrigation	
Variety	Kalkati and Local	
Cost items	Physical Unit	Value in Rs.
Preparatory Tillage	Poll and wire structure and tillage ridge and furrow etc	25000 (125000/ha) average life 5 years
Seeds (Kg)	Cutting	6250
Fertilizers	FYM, Vermi and chemicals	33333
Sowing cost	Cutting	4000
Plant protection	Pesticides etc	12500
Irrigation	10 days interval	12500
Weed management	Manually	12500
Harvesting / Picking	Manually	70000
Miscellaneous	10% of total cost	17608
	Total cost	193691

Production:	Pointed guard 17.61 ton	
	Total Income (Rs./ha)	616666
	Total benefit	422975
	BC ratio	1: 3.18

Benefits and limitations of the system

1. Highly remunerative
2. Improve soil fertility.
3. Gave higher yield as compare paddy
4. Incidence of insect pest is lees.
5. Less labor problem to perform the regular operations.

Case study III

Title: Meha varieties of green gram: A suitable options for viable return in tribal areas.

No. of Farmers: 5 **Village: Kadvali, Ta. Umarpada**

Area under Crop per farmer: 0.24 ha **Camparison: 1 ha.**

Year	2013-14	
Crops	Green gram	
Variety	Meha	
Cost items	Physical Unit	Value in Rs.
Preparatory Tillage	Ploughing and harrowing	2250
Seeds (kg)	20	2000
Fertilizers	DAP	1600
Sowing cost	Line sowing	840
Plant protection	Pesticides as and when	1050
Irrigation	Four time	5000
Weed Management	Manually	1800
Harvesting	Manually	3600
	Total	18140
Miscellaneous	10%	1814
Total cost		19954
Production	1170 kg/ha	
	Total Income (Rs./ha)	81900
	Total Benefit	61946
	B:C Ratio	1:4.10

Benefits and limitations of the system

1. Highly remunerative.
2. Improve soil fertility.
3. Gave higher yield and net profit as compare paddy.
4. Incidence of insect pest is less.
5. Yellow Vain Mosaic resistant variety.