GUJARAT VIDYAPITH

KRISHI VIGYAN KENDRA

AMBHETI-VALSAD

GUJARAT

Annual Progress Report

April 2018-March-2019

SUBMITTED TO

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

NEW DELHI – 110 012

INDEX

ANNUAL PROGRESS REPORT

(1st April 2018 to 31st March 2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website & No. of visitors (hits)
Krishi Vigyan Kendra, **AMBHETI** Ta. Kaparada Di. Valsad Via. Vapi **Gujarat Pin. 396 191**	Office (1) 02633 260055	FAX 02633 260055	**kvkvalsad@gmail.com**	www.kvkvalsad.org 3418

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

Address	Telephone		E mail	Website address
	Office	**FAX**		
Gujarat Vidyapith Ashram road AHMEDABAD Pin. 380 014	(1) 079 2754 5044 (2) 079 2754 1148	079 2754 25 47	registrar @ gujaratvidyapith.org	www.gujaratvidyapith.org

1.3. Name of the Senior Scientist and Head with phone & mobile no.

Name	Telephone / Contact		
	Office	**Mobile**	**Email**
Dr. R.F.Thakor	02633 260055	**94271 29451**	**rthakor1965@yahoo.co.in**

1.4. Year of sanction : Sanction letter F. No. 5 (108) / 90 - KVK 28th March 1991

Year of Establishment : 21th Sept. 1992

1.5. Staff Position (as on March 31, 2019)

				If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
Sl. No.	**Sanctioned post**	**Name of the incumbent**	**Discipline**	**Current Pay Band**	**Current Grade Pay**	**Date of joining**	
1.	Senior Scientist and Head	Dr. R.F.Thakor	Ext . Edu.	37400-67000	10000	19/05/01	
2.	Subject Matter Specialist	Sh. K.A.Patel	Pl. Prot.	15600-39100	7600	28/02/94	
3.	Subject Matter Specialist	Sh. A.R.Patel	Ext . Edu.	15600-39100	7600	23/01/96	
4.	Subject Matter Specialist	Sh. L.T.Kapur	Soil Science	15600-39100	6600	16/12/06	
5.	Subject Matter Specialist	Sh. M.M.Gajjar	Agronomy	15600-39100	5400	17/09/13	
6.	Subject Matter Specialist	--	Horti.	--		--	
7.	Subject Matter Specialist	Smt. P.R.Ahir	Home Sci.	9300-34800	5400	01/05/01	
8.	Programme Assistant	Sh. B.M.Patel	Ani .Sci.	9300-34800	4600	02/12/02	
9.	Computer Programmer	Sh. P.J.Joshi	Agri. Engg.	9300-34800	4600	23/12/02	
10.	Farm Manager	Sh. P.R.Patel	Farm manager	9300-34800	4600	01/05/01	
11.	Accountant/Superintendent	Sh. C.D.Patel	O.S	9300-34800	4200	27/09/13	
12.	Stenographer	Sh.V.B.Patel	Accountant	5200-20200	2800	01/11/99	
13.	Driver 1	Sh. R.D.Rohit	Driver	5200-20200	2400	16/06/08	
14.	Driver 2	Sh. H.G.Valand	Driver	5200-20200	2400	01/08/09	
15.	Supporting staff 1	Sh. A.R.Patel	Office attendant	5200-20200	1900	01/11/99	
16.	Supporting staff 2	--	Farm attendant	5200-20200	--	--	

1.6. Total land with KVK (in ha) : 20 ha

S. No.	**Item**	**Area (ha)**
1	Under Buildings	2.0 ha.
2.	Under Demonstration Units	1.0 ha
3.	Under Crops	8.0 ha
4.	Horticulture	6.0 ha
5.	Pond	--
6.	Others if any	3.0 ha.

1.7. Infrastructural Development:

A) Buildings

Sr. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	ICAR /GVP	1998	720 Sq.mt	2874422	--	--	--
2.	Farmers Hostel	ICAR		138 Sq.mt		--	--	--
3.	Staff Quarter	ICAR	1999	154 Sq.mt	1585055	--	--	--
4.	Demonstration Units -- Dairy Demo. Unit	ICAR , TSP ,Valsad	2006	100 Sq.mt	204312	--	--	--
5	Fencing	--		--		--	--	--
6	Bore well	ICAR	2012	300 ft	497095	--	--	--
7	Threshing floor	ICAR	2006	100 Sq.mt	123818	--	--	--
8	Farm godown	ICAR	2010	100 Sq.mt	373168	--	--	--
9	Implement shed	ICAR	2011	140 Sq.mt	300000	--	--	--
10	Soil-water testing lab.	ICAR	2007	--	612387	--	--	--
11	Plant Health Clinic	ICAR	2012	--	999953	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	1993	1,94,850	--	Condemned
Tractor Trolley	1995	61,500	--	Replacement requires.
Jeep (Bolero)	2010	477058	202120	Working condition.
Power tiller	2010	1,55,500	--	Working condition.
Motor Cycle	2011	49995	12870	Working condition.

C) Equipments& AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer -2	2007 & 2010	1,02,270 +50,000	Working condition.
L C D	2007	75,400	Working condition.
Lap Top -2	2007 & 2012	51,750	Working condition.

P A S system	2009	28057	Working condition.
Handicam	2009	12990	Working condition.
Generator set	2009	37972	Working condition.
LED –Sony TV	2015	52000	Working condition.

1.8. Details SAC meeting conducted in the year. –Not conducted .

2. DETAILS OF DISTRICT

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

Sr. No.	Farming systems / enterprises
1	Agri - Horti Farming systems
2	Agri – Silviculture farming systems
3	Agri - forestry farming systems

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

a) **Soil type**

Sl. No.	Agro-climatic Zone	Characteristics
1	South Gujarat Heavy Rainfall Zone -I	Annual Average rainfall 2000-2200 mm
		Black to medium black soil.
		Sticky and Heavy soil.
		Stip slopes cause heavy runoff of rain water resulting into soil erosion.

b) Topography

S. No.	Agro ecological situation	Characteristics
1	Agro-ecological situation – I & II	- Costal belt - Western part
		- Medium black to black soil
		- Hilly ,Shallow ,Undulating land – Eastern part

2.3 Soil Types

Sr. No.	Soil type	Characteristics	Area in ha.
1	Shallow soil	- Poor fertility & water holding capacity.	--
2	Medium black to black soil	- Sticky and Heavy in nature .	--
3	Hilly ,Shallow ,Undulating land	- Non fertile and mostly non agril land	--
			2,94,412 ha.

2.4. Area, Production and Productivity of major crops cultivated in the district (2017-18)

Sr. No.	Crops	Area (,000 ha.)	Production (,000 tones.)	Productivity (Kgs / ha.)
1	**Food grains**			
	Paddy (irrigated)	21.184	55.523	2621
	Paddy (Unirrigated)	51.572	97.625	1893
	Total Paddy	**72.756**	**153.148**	**2105**
	Ragi (Finger millet)	4.304	4.304	1000
	Jowar	0.059	0.068	1156
	Pigeon Pea	7.640	5.424	710
	Urid	5.827	3.787	650
	Mung	0.065	0.034	532
	Val	2.808	2.017	718
	Gram	3.510	4.141	1180
	Groundnut	0.217	0.3276	1510
	Niger	3.588	1.5966	440
	Sugarcane	7.280	540.72	74275
2	**Fruit crops**			
	Mango	29.998	277.389	9246
	Chiku	2.907	30.146	10370
	Banana	0.886	48.842	55126
	Cashewnut	6.195	20.444	3300
	Coconut	3.289	26970000 no.	8200 no
	Total	**43.275**		
3	**Vegetables**			
	Brinjal	2.613	48.863	18609
	Okra	1.835	17.598	9590
	Tomato	1.955	48.580	24849
	Cucurbits	3.661	64.434	17600
	Chilly	0.118	0.224	18983
	Total	**10.182**	**179.699**	

Source: District agriculture department.

2.5. Weather data (2017-18)

Month	Rainfall (mm)	No. of rainy days	Temperature C		Relative Humidity (%)	
			Maximum	Minimum	Maximum	Minimum
January	0.2	0	32.69	16.90	83.28	40.26
February	0.0	0	35.52	16.64	84.47	38.77
March	0.0	0	36.84	21.38	80.17	35.45
April	0.0	0	37.32	27.13	74.38	34.68
May	0.0	0	37.25	29.52	77.12	33.68
June	171.0	4	35.42	28.47	81.76	35.93
July	936.5	21	29.55	25.29	86.55	82.57
August	325.1	19	30.71	25.56	90.92	85.97
September	18.8	3	32.90	24.91	84.96	66.50
October	0.0	0	38.05	22.95	71.20	46.41
November	0.0	0	37.24	18.09	67.22	46.97
December	0.0	0	32.85	14.76	70.01	43.87
Total	**1451.6**	**47**				

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

Category	Population (no)	Production(,000 lit)	Productivity (litre/day)
Crossbred cow	39206	240.6	6.137
Indigenous cow	170037	320.3	1.884
Buffalo	74409	224.2	3.014
Sheep	3433	--	--
Goats	105094	--	--
Pigs	1825	--	--
Poultry	773599	--	--

2.7. Details of Operational area / Villages

Name of block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Area
Kaparada	Mendha, Singartati, Khutali, Amdha, ,Dhodhadkuva, Kakadkopar, Dabkhal, Arnai,Khadakval	Paddy, Fingermillet, Pulses, Vegetables, Micro irrigation & Dairy.	Low productivity in all crops. Water scarcity Poor milk production	ICM ,INM, IPM, IWM Feed & fodder mgt. Integrated livestock mgt.
Dharampur	Chinchozar, Panva,Sadadvera Kilvani,Nani vahiyal,Arnala , Pangarbari, Samarsingi,	Paddy , Pulses, Vegetables & Dairy .	Low productivity in all crops. Poor milk production	ICM ,INM, IPM, IWM Feed & fodder mgt. Integrated livestock mgt.
Pardi	Ambach, Pati,Chival,Arnala Lakhmapore, Panchalai, Kherlav	Paddy, Sugarcane, Pulses, Vegetables , Mango & Dairy.	Low productivity in all crops. Poor milk production	ICM ,INM, IPM, IWM Feed & fodder mgt. Integrated livestock mgt.
Umargam	Saronda, Aklara, Borigam	Paddy & Vegetable.	Low productivity in all crops.	ICM ,INM, IPM, IWM
Valsad	Ozar	Paddy, Pulses & Vegetable.	Low productivity in all crops.	ICM ,INM, IPM, IWM

2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Paddy	Varietal evaluation ,ICM, IWM, INM, IPM
Fingermillet	Varietal evaluation ,ICM, IWM, INM, IPM
Sweetpotato	Varietal evaluation ,ICM, IWM, INM, IPM
Greengram, Gram, Indianbean	Varietal evaluation ,ICM, IWM, INM, IPM
Cucurbits	Integrated Pest & Disease Management, INM.
Sugarcane	Varietal evaluation ,ICM, IWM, INM, IPM
Chilli	Varietal evaluation ,ICM, IWM, INM, IPM
Livestock	Feed & fodder mgt., Integrated livestock mgt.
Income generation	Vocational training

3. TECHNICAL ACHIEVEMENTS

3.1. A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
07	06	75	55	108 ha	133.35	500	820

Training					Extension Programmes				
3					4				
Number of Courses			No. of Participants		Name of activities	Number of activities		No. of participants	
Clientele	Targets	Achievement	Targets	Achievement		Target	Achievement	Target	Achievement
Farmers	45	88	1110	3063	Field day	08	11	570	963
Rural youth	03	04	65	89	Kisan mela	01	00	1015	00
Extension Functionaries	05	07	125	236	Kisan gosthi	05	11	460	273
Farmers (Sponsored)	05	05	150	308	Exhibition	02	05	2514	2719
					Farmers Seminar	05	13	760	1338

Seed Production (Qt.)			Planting material (Nos.)		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
Paddy – 100.00	95.72	570	Sugarcane - 700.00 qt.	470 qt.	13
Pigeon pea - 1.00	1.07	13	Veg. seedlings – 1,70,000 nos	85000 no.	150
			Fodder Toussecks - 50,000 nos.	50000 nos.	221
			Sweetpotato - 65000 cuttings	60000 nos.	17

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
Target	Achievement	Target	Achievement
--	--	Fruitfly trap (Mango) - 1500 no	1227 no.
		Vermicompost - 10000 kg	10000 kg.

3.1. B. Operational areas details during 2018-19

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	**Agronomy**				
	Pigeon pea	Low productivity in all crops. Non availability of improved seeds. Shortage of labour. Heavy infestation of weeds	--	Arnala, Pati,Dhodhadkuva, Sadadvera ,Asma, Khuntli,Panas,Amdha	FLD, OFT, Training
	Paddy	Low productivity Non availability of improved seeds. Shortage of labour. Infestation of stem borer	--	Kakadkopar, Ozar, Amdha, Panas, Dhodhadkuva, Pati , Asma Sadadvera	FLD, OFT, Training
	Chickpea, Greengram, Indianbean	Low productivity Non availability of improved seeds. Shortage of labour. Heavy infestation of weeds	--	Arnala, Pati,Dhodhadkuva, Sadadvera Khuntli,Panas,Amdha	FLD, Training
	Fingermillet	Low productivity Non availability of improved seeds.	--	Mendha,Panva,Samarsingi	FLD,Training
	Sugarcane	Low productivity Non availability of improved seeds. Shortage of labour	--	Kakadkuva, Bhensdhara, Motivahiyal	FLD,Training
2	**Horticulture**				
	Mango	Low productivity Heavy infestation of fruitfly	--	Ambach,Kherlav,Dumlav,Lakhmapore	FLD, ,Training
	Bittergourd, Sweetpotato	Low productivity High cost of Hybrid seeds Shortage of labour.		Gorakhada, Rajpuri jungle,	FLD, ,Training
3	**LPM**				
	Livestock production	Low milk yield Mustitis disease Shortage of fodder	--	Ambach, Sukhala, Khuntli, Amdha , Panas, Chival, Dhodhadkuva	FLD,OFT,Training,

3.2. Technology Assessment and Refinement

A1. Abstract on the number of technologies assessed in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation			01						01
Integrated Nutrient Management	01		01						02
Integrated Pest Management						01			01
Integrated Disease Management	01								01
Integrated Crop Management	01								01
TOTAL	**03**		**02**			**01**			**06**

A.2. Abstract on the number of technologies to be assessed in respect of livestock / enterprises : Nil

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Vermi culture	Fisheries	TOTAL
--	--	--	-	-	-	-	-	-
TOTAL	-	-	-	-	--	-	-	-

B. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers	Area in ha
Integrated Nutrient Management	Paddy	Assessment of Nutrient mgt. in transplanted paddy	10	10	1.00
	Pigeon pea	Assessment of Nutrient mgt. in Pigeon pea	05	05	1.00
Varietal Evaluation	Pigeon pea	Assessment of Pigeon pea variety for Kharif cultivation	10	10	1.00
Integrated Pest Management	Mango	Assessment of diff. pesticides for mgt. of hoppers in Mango	15	15	3.00
Integrated Crop Management	Paddy	Assessment of method of raising of paddy seedlings	05	05	1.00
Integrated Disease Management	Paddy	Assessment of fungicide for mgt. of grain discolouration in paddy	10	10	2.00
Total			**55**	**55**	**9.00**

B.1. Technologies assessed under Livestock and other enterprises -Nil

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
--	--	--	--	--
Total				

C1. Results of Technologies Assessed

Technology Assessment - Assessment of Pigeon pea variety for Kharif cultivation .

Results of On Farm Trial – 01

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology assessed	Parameters of assessed	Data on the parameter	Results of assessed	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Pigeonpea	Rainfed	Low yield of Kharif Pigeon pea.	Assessment of Pigeon pea variety for Kharif cultivation.	10	T_1 - Farmers Practices (Use of local variety with local practices) T_2 - Recommendation (Use of GNP-2 Variety with improved practices)	1. Plant height at harvest (cm.) 2. Days of 50 % flowering 3. Grain yield (q/ha) 4. B:C ratio. 1. Plant height at harvest (cm.) 2. Days of 50 % flowering 3. Grain yield (q/ha) 4. B:C ratio.	121.7 97.8 6.19 1.61 192.2 122.2 9.09 2.15	The results of the trial indicated that new improved variety of pigeonpea GNP-2 earned the maximum net returns (Rs 26688/- yielding 9.09 q/ha with B:C ratio 2.15) as compare to T1 (Rs 12838/- yielding 6.19 q/ha with B:C ratio 1.61).	- Good germination - Bold seeded - More branches - More no. of pods per plant - Less problem of pest and disease - Mid late variety - Good cooking quality - Good yield 46.8% higher than local check. - Tolerant to wilt and sterility mosaic disease - Heavy rain at early stage and early withdrawal of rain effect the crop.

Cont…

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha,)	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16
T_1 - Farmers Practices (Use of local variety with local practices)	-	Grain Yield– 6.19	q/ha	12838	1.61
T_2 - Recommendation (Use of GNP-2 Variety with improved practices)	NAU, Navsari	Grain Yield – 9.04	q/ha	26688	2.15

C2. Details of On Farm Trial for assessment –

<table>
<tr><td>1</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of Pigeon pea variety for Kharif cultivation .</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>:</td><td>Low yield of Kharif Pigeon pea.</td></tr>
<tr><td>3</td><td>Details of technologies selected for assessment</td><td>:</td><td>T_1 - Farmers Practices (Use of local variety with local practices)
T_2 - Recommendation (Use of GNP-2 Variety with improved practices)</td></tr>
<tr><td>4</td><td>Source of technology</td><td>:</td><td>NAU, Navsari.</td></tr>
<tr><td>5</td><td>Production system</td><td>:</td><td>Rain fed cereal based system (paddy-pulse cropping system)</td></tr>
<tr><td>6</td><td>Thematic area</td><td>:</td><td>Varietal evolution</td></tr>
<tr><td>7</td><td>Performance of the Technology with performance indicators</td><td>:</td><td>
<table>
<tr><th>Treatment</th><th>Plant height at harvest (cm)</th><th>Days of 50 % flowering</th><th>Grain Yield (q/ha)</th><th>Expenditure (Rs/ha)</th><th>Gross Income (Rs/ha)</th><th>Net Profit (Rs/ha)</th><th>B:C Ratio</th></tr>
<tr><td>T_1 - Use of local variety with local practices</td><td>121.7</td><td>97.8</td><td>6.19</td><td>21180</td><td>34018</td><td>12838</td><td>1.61</td></tr>
<tr><td>T_2 - Use of GNP-2 Var. with improved practices</td><td>192.2</td><td>122.2</td><td>9.09</td><td>23307</td><td>49995</td><td>26688</td><td>2.15</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>:</td><td>- Increase in yield due to Good germination, More branches, Bold size, Tolerant to wilt and sterility mosaic disease, less problem of pest .</td></tr>
<tr><td>9</td><td>Final recommendation for micro level situation</td><td>:</td><td>Farmer of Valsad district advise to grow Pigeonpea use Mid late, white colored bold seeded and high yielding variety GNP - 2 released for rainfed Kharif cultivation</td></tr>
<tr><td>10</td><td>Constraints identified and feedback for research</td><td>:</td><td>- Availability of seed
- Peacock our national bird damaged crop at early stage
- Heavy rain at early stage and early withdrawal of rain effect the crop.</td></tr>
<tr><td>11</td><td>Process of farmers participation and their reaction</td><td>:</td><td>Farmers were involved and actively participated at every level i.e. PRA and Group discussion ,planning, execution, monitoring, evaluation of the trial. Farmers evaluated that Pigeon pea variety GNP - 2 have good germination, very less problem of pest and disease, Midlate maturity, white colour, bold size, good cooking quality and more yield.</td></tr>
</table>

Results of On Farm Trial - 02

A. Technology Assessment - Assessment of Nutrient management in transplanted hybrid paddy.

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Paddy	Rainfed	Low yield of kharif hybrid paddy	Assessment of Nutrient management in transplanted hybrid paddy.	10	T1 - Farmer's practices (100-30-30 NPK kg/ha) T2 - NAU Rec. 100-30-00 NPK kg/ha + 2.5 li potash culture/ha	1. Productive tillers/hill 2. Days of 50 % flowering 3. Grain yield (kg/ha) 4. Straw yield (kg/ha) 1. Productive tillers/hill 2. Days of 50 % flowering 3. Grain yield (kg/ha) 4. Straw yield (kg/ha)	9.20 92 3437 3918 10.90 81.50 4152 5065	KVK-Valsad conducted on farm testing to assess the nutrient management in Paddy (Hybrid) crop. The result of trials revealed that application of 100-30-00 NPK kg/ha with 2.5 li potash culture/ha gave 4152 kg/ha yield as compare to 3437 kg/ha of local check. B:C ratio also found higher(2.15 - **T_2**) as compare to local check (1.60 - **T_1**).	- Good germination - More tillering - Less problem of pest and disease - Mid late (100-110 days) - 10 – 14 days early than check variety. - Good cooking quality

Technology Assessed	Source of Technology	Production (kg/ha)	Please give the unit (kg/ha, t/ha, lit/animal,)	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16
T1 - Farmer's practices (100-30-30 NPK kg/ha)	Private co.	Grain Yield– 3437 Straw Yield - 3918	Kg/ha	22361	1.60
T2 - NAU Rec. 100-30-00 NPK kg/ha + 2.5 li potash culture/ha	N.A.U., Navsari	Grain Yield– 4152 Straw Yield - 5065	Kg/ha	38766	2.15

C2. Details of On Farm Trial for assessment –

<table>
<tr><td>1</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of Nutrient management in transplanted hybrid paddy.</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>:</td><td>Low yield of kharif hybrid paddy</td></tr>
<tr><td>3</td><td>Details of technologies selected for assessment</td><td>:</td><td>T1 - Farmer's practices (100-30-30 NPK kg/ha)
T2 - NAU Recommendation (100-30-00 NPK kg/ha + 2.5 li potash culture/ha)</td></tr>
<tr><td>4</td><td>Source of technology</td><td>:</td><td>NAU, Navsari.</td></tr>
<tr><td>5</td><td>Production system</td><td>:</td><td>Rain fed cereal based system (paddy based cropping system)</td></tr>
<tr><td>6</td><td>Thematic area</td><td>:</td><td>Varietal evolution</td></tr>
<tr><td>7</td><td>Performance of the Technology with performance indicators</td><td>:</td><td>
<table>
<tr><th>Treatment</th><th>Productive tillers/hill</th><th>Days of 50% flowering</th><th>Grain Yield (kg/ha)</th><th>Straw Yield (kg/ha)</th><th>Income Grain (Rs./ha)</th><th>Income Straw (Rs./ha)</th><th>Expenditure (Rs/ha)</th><th>Gross Income (Rs/ha)</th><th>Net Profit (Rs/ha)</th><th>B:C Ratio</th></tr>
<tr><td>T_1 - Farmer's practices (100-30-30 NPK kg/ha)</td><td>9.20</td><td>92</td><td>3437</td><td>3918</td><td>51555</td><td>7836</td><td>37030</td><td>59391</td><td>22361</td><td>1.60</td></tr>
<tr><td>T_2 - 100-30-00 NPK kg/ha + 2.5 li potash culture/ha</td><td>10.90</td><td>81.50</td><td>4152</td><td>5065</td><td>62274</td><td>10130</td><td>33638</td><td>72404</td><td>38766</td><td>2.15</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>:</td><td>Cost of fertilizer reduced and Yield of hybrid Paddy crop was increased by using potash culture results increase in B:C ratio.</td></tr>
<tr><td>9</td><td>Final recommendation for
micro level situation</td><td>:</td><td>Farmer of Valsad district advise to grow paddy crop use the mid late(100-110 days) hybrid variety GNRH-1 released by N.A.U., Navsari for Kharif Rainfed condition.</td></tr>
<tr><td>10</td><td>Constraints identified and
feedback for research</td><td>:</td><td>- Availability of potash culture
- Lack of awareness</td></tr>
<tr><td>11</td><td>Process of farmers participation and their reaction</td><td>:</td><td>Farmers were involved and actively participated at every level i.e. Group discussion, planning, execution, monitoring, evaluation of the trial. Farmers evaluated that paddy variety GNRH – 1 with potash culture reduces fertilizer cost, mature early (10-14 days than check) ,lodging resistant with good cooking quality and more yield.</td></tr>
</table>

Results of On Farm Trial – 3

Technology Assessment - Assessment of Nutrient management in Pigeon pea.

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology assessed	Parameters of assessed	Data on the parameter	Results of assessed	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Pigeonpea	Rainfed	Low yield of Kharif Pigeon pea.	Assessment of Nutrient management in Pigeon pea.	05	T_1 - Farmer practices (No use of " S")	1. Plant height at harvest (cm.) 2. Days of 50 % flowering 3. Grain yield (q/ha) 4. B:C ratio.	119.8 103 6.25 1.62	KVK Valsad assess nutrient management in pigeon pea with Farmer practices (T1- No use of " S") and T2- Recommendation (25-50-20 NPS kg/ha). The result shown that the T2- Recommendation gave 9.48 q/ha yield with B : C ratio of 2.22 as compare to local check(6.25 q/ha) with B : C ratio of 1.62	- Good germination - Less mortality in heavy rain - More branches - More no. of pods per plant - Less problem of pest and disease - Good cooking quality - Good yield 51.68% higher than local check. - Heavy rain at early stage and early withdrawal of rain effect the crop.
					T_2 - Recommendation **(**25-50-20 NPS kg/ha**)**	1. Plant height at harvest (cm.) 2. Days of 50 % flowering 3. Grain yield (q/ha) 4. B:C ratio.	198 125.8 9.48 2.22		

Cont…

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha,)	Net Return (Profit) in Rs. / unit	BC Ratio
11	12	13	14	15	16
T_1 - Farmer practices (No use of " S")	-	Grain Yield– 6.25	q/ha	13195	1.62
T_2 - Recommendation **(**25-50-20 NPS kg/ha**)**	NAU, Navsari	Grain Yield – 9.48	q/ha	28621	2.22

C2. Details of On Farm Trial for assessment –

<table>
<tr><td>1</td><td>Title of Technology Assessed</td><td>:</td><td>Assessment of Nutrient management in Pigeon pea.</td></tr>
<tr><td>2</td><td>Problem Definition</td><td>:</td><td>Low yield of Kharif Pigeon pea.</td></tr>
<tr><td>3</td><td>Details of technologies selected for assessment</td><td>:</td><td>T_1 - Farmer practices (No use of “ S”)
T_2 - Recommendation (25-50-20 NPS kg/ha)</td></tr>
<tr><td>4</td><td>Source of technology</td><td>:</td><td>NAU, Navsari.</td></tr>
<tr><td>5</td><td>Production system</td><td>:</td><td>Rain fed cereal based system</td></tr>
<tr><td>6</td><td>Thematic area</td><td>:</td><td>Integrated Nutrient management</td></tr>
<tr><td>7</td><td>Performance of the Technology with performance indicators</td><td>:</td><td>
<table>
<tr><th>Treatment</th><th>Plant height at harvest (cm)</th><th>Days of 50 % flowering</th><th>Grain Yield (q/ha)</th><th>Expenditure (Rs/ha)</th><th>Gross Income (Rs/ha)</th><th>Net Profit (Rs/ha)</th><th>B:C Ratio</th></tr>
<tr><td>T_1 - Farmer practices (No use of “ S”)</td><td>119.8</td><td>103</td><td>6.25</td><td>21180</td><td>34375</td><td>13195</td><td>1.62</td></tr>
<tr><td>T_2 - Recommendation (25-50-20 NPS kg/ha)</td><td>198</td><td>125.8</td><td>9.48</td><td>23519</td><td>52140</td><td>28621</td><td>2.22</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques</td><td>:</td><td>- Increase in yield due to Good germination, less mortality, More branches, Bold size, less problem of pest and disease.</td></tr>
<tr><td>9</td><td>Final recommendation for micro level situation</td><td>:</td><td>Farmer of Valsad district advise to grow Pigeonpea use Mid late, white colored bold seeded and high yielding improved variety Vaishali with 20 kg/ha sulphur for more yield in rainfed Kharif cultivation</td></tr>
<tr><td>10</td><td>Constraints identified and feedback for research</td><td>:</td><td>- Availability of seed
- Peacock our national bird damaged crop at early stage
- Heavy rain at early stage and early withdrawal of rain effect the crop.</td></tr>
<tr><td>11</td><td>Process of farmers participation and their reaction</td><td>:</td><td>Farmers were involved and actively participated at every level i.e. PRA and Group discussion ,planning, execution, monitoring, evaluation of the trial. Farmers evaluated that Pigeon pea variety GNP - 2 have good germination, very less problem of pest and disease, Midlate maturity, white colour, bold size, good cooking quality and more yield.</td></tr>
</table>

Results of On Farm Trials - 04

A. Technology Assessment- Assessment of method of raising of paddy seedlings

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology assessed	Parameters of assessed	Data on the parameter		Results of assessed	Feedback from the farmer	Any refinement needed	Justification for refinement
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**		**9**	**10**	11	12
Paddy	Rainfed	Poor growth seedlings and deterioration in soil health by rabbing practice.	Assessment of method of raising of paddy seedlings	05	Dapog method of raising paddy seedling without rabbing		T1	T2	Dapog method gave 11.33% seed yield and 34.21% net profit than traditional flat bed system without deterioration in soil fertility and environment	Seedlings produced with Dapog are much healthier, though number of seedlings per hill reduced the cost. Paddy plot with rabbing practice shown lodging in heavy rain.	--	--
						Yield(kg/ha)	3364	3645				
						Cost of nursery(Rs./ha)	8690	7418				
						Total cost of cultivation(Rs./ha)	34497.3	32825.5				
						Net profit (Rs./ha)	22762.7	29049.5				
						BCR	1.66	1.88				

Technology Assessed	Source of Technology	Production	Unit (kg/ha, t/ha, lit/animal,)	Net Return (Profit) in Rs. / ha	BC Ratio
13	14	15	16	17	18
T_1– Farmer practice - Flat bed with Rabbing.	--	3364	kg/ha	22762.7	1.66
T_2 – Dapog method	N.A.U., Navsari	3645	kg/ha	29049.5	1.88

C2. Details of On Farm Trial for assessment –

<table>
<tr><td>1</td><td>Title</td><td>:</td><td>Assessment of method of raising of paddy seedlings</td></tr>
<tr><td>2</td><td>Problem diagnose/defined</td><td>:</td><td>Poor growth seedlings and deterioration in soil health by rabbing practice.</td></tr>
<tr><td>3</td><td>Details of technologies selected for assessment</td><td>:</td><td>T₁ : Farmers practice (flat bed seedling nursery with rabbing practice)
T2 : Dapog seedling nursery method (SAU recommendation)</td></tr>
<tr><td>4</td><td>Source of technology</td><td>:</td><td>NAU, Navsari / Progressive farmer</td></tr>
<tr><td>5</td><td>Production system</td><td></td><td>Rainfed cereal based system (paddy-pulse-Paddy)</td></tr>
<tr><td>6</td><td>Thematic area</td><td>:</td><td>Integrated crop Management</td></tr>
<tr><td>7</td><td>Performance of the Technology with performance indicators</td><td>:</td><td>
<table>
<tr><th>Treatment</th><th>Seed yield (kg/ha)</th><th>Straw yield (kg/ha)</th><th>Gross Income (Rs./ha)</th><th>Total cost of Cultivation (Rs./ha)</th><th>Net profit (Rs./ha)</th><th>Increase in net profit (%)</th><th>Increase in seed yield (%)</th><th>BCR</th></tr>
<tr><td>T_1</td><td>3364</td><td>4250</td><td>57260.0</td><td>34497.3</td><td>22762.7</td><td>27.62</td><td>8.35</td><td>1.66</td></tr>
<tr><td>T_2</td><td>3645</td><td>4500</td><td>61875.0</td><td>32825.5</td><td>29049.5</td><td></td><td></td><td>1.88</td></tr>
</table>
</td></tr>
<tr><td>8</td><td>Final recommendation for micro level situation</td><td>:</td><td>Need to continue for next year</td></tr>
<tr><td>9</td><td>Constraints identified and feedback for research</td><td>:</td><td>• Seedlings produced with Dapog are much healthier, though number of seedlings per hill reduced the cost.
• Paddy plot with rabbing practice shown lodging in heavy rain
• Birds and Rat damage in bed</td></tr>
<tr><td>10</td><td>Process of farmers participation and their reaction</td><td>:</td><td>Rabbing practice to raise the paddy seedling is common in Valsad district. Burning of farm waste and FYM directly affects microorganisms by either killing them directly or altering their reproductive capabilities. Soil fertility status degrades due volatilization loss of some nutrients, such as N, P, and S and organic matter at high temperature of soil during burning. Micronutrient deficiency mainly, chlorosis in seedlings at nursery stage is major problem of area. KVK-Valsad conducted on farm testing to assess the method of raising of paddy seedlings i.e T_1 : Farmers practice (flat bed seedling nursery with rabbing practice) and T_2 : Dapog seedling nursery method.</td></tr>
</table>

Results of On Farm Trial – 05

A. Technology Assessment- Assessment of pesticides for management of hoppers in mango

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Mango	Irrigated	low yield in Mango due to infestation of hoppers	Assessment of pesticides for management of hoppers in mango	15	First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 3 g / 10 lit after fruit set	Infestation of Mango hoppers (%)	T1 : 17% T2 : 6%	Damage of hoppers reduced from 17 to 6% and increased yield by 19.87 % .	Proper pesticide with recommended dose and time of spraying reduced hoppers in mango.

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 : Arbitrary use of pesticides i.e. Monocrotophos @ 10 ml/ 10 lit, Cypermethrin 25 EC @ 3ml/10 lit and Imidachloprid 17.8 SL@ 3 ml/10 lit) (Farmers practices)	--	7800	Kg/ha	100700 Rs/ha	2.82
Technology option 2 : First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 3 g / 10 lit after fruit set	NAU, Paria Recommendation, 2008	9350	Kg/ha	129100 Rs/ha	3.22

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

1	Title of Technology Assessed	:	**Assessment of pesticides for management of hoppers in mango**
2	Problem Definition	:	low yield in Mango due to infestation of hoppers
3	Details of technologies selected for assessment	:	T 1 : Arbitrary use of pesticides i.e. Monocrotophos @ 10 ml/ 10 lit, Cypermethrin 25 EC @ 3ml/10 lit and Imidachloprid 17.8 SL@ 3 ml/10 lit) (Farmers practices) T 2 : First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 3 g / 10 lit after fruit set
4	Source of technology	:	NAU, Paria Recommendation, 2008
5	Production system	:	Rainfed cereal based system (paddy-vegetable system)
6	Thematic area	:	Integrated Pest Management
7	Performance of the Technology with performance indicators	:	Result showed that the technology of First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 3 g / 10 lit after fruit set reduced the percentage of damage of hoppers from 19 to 9% and yield was increased by 22.04 per cent.
8	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Selection of proper pesticide with recommendation dose and time of spraying is important for management of hoppers in mango.
9	Final recommendation for micro level situation	:	First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 3 g / 10 lit after fruit set
10	Constraints identified and feedback for research	:	Nil
11	Process of farmers participation and their reaction	:	Farmers were involved and actively participated at every level i.e. planning, execution, monitoring, evaluation of the trial. PRA and Group Discussion

Results of On Farm Trial -06

A. Technology Assessment- Management of grain discolouration in paddy

Crop/ enterprise	Farming situation	**Problem definition**	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Paddy	Rainfed	low productivity in paddy	Management of grain discolouration in paddy	10	Three spray of Propiconazole 25 EC 0.025% (10 ml/ 10 lit. water). First spray at boot leaf stage and second and third spray after 10 days interval.	Damage due to incidence of disease (%)	T1 : 15% T2 : 7%	Damage due to grain discolouration reduced from 15 to 7% and increased yield by 14.15% .	- Improved quality of grain -Increase in market value	--	--

Contd..

Technology Assessed	Source of Technology	Production	Pl. give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	BC Ratio
13	14	15	16	17	18
Technology option 1 : Farmers practices (No use of fungicide)	--	3180	Kg/ha	17570 Rs/ha	1.51
Technology option 2 : Three spray of Propiconazole 25 EC 0.025% (10 ml/ 10 lit. water). First spray at boot leaf stage and second and third spray after 10 days interval.	Main Rice Research Station, ,NAU, Navsari, Year : 2016	3630	Kg/ha	26680 Rs/ha	1.73

C2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details.

1	Title of Technology Assessed	**:**	Management of grain discolouration problem in paddy
2	Problem Definition	**:**	Low productivity in paddy
3	Details of technologies selected for assessment	**:**	**T1** : Farmers practices (No use of fungicide) **T2** : Three spray of Propiconazole 25 EC 0.025% (10 ml/ 10 lit. water). First spray at boot leaf stage and second and third spray after 10 days interval
4	Source of technology	**:**	Main Rice Research Station, ,NAU, Navsari, Year : 2016
5	Production system	**:**	Rainfed cereal based system (paddy-vegetable system)
6	Thematic area	**:**	Integrated Disease Management
7	Performance of the Technology with performance indicators	**:**	Result showed that the technology of Three spray of Propiconazole 25 EC 0.025% (10 ml/ 10 lit. water). First spray at boot leaf stage and second and third spray after 10 days interval reduced the percentage of damage of hoppers from 19 to 9% and yield was increased by 22.04 per cent.
8	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	**:**	Improved quality of grain resulting in increase in market value
9	Final recommendation for micro level situation	**:**	After completion of third year
10	Constraints identified and feedback for research	**:**	Nil
11	Process of farmers participation and their reaction	**:**	Farmers were involved and actively participated at every level i.e. planning, execution, monitoring, evaluation of the trial. PRA and Group Discussion

3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018-19 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 (ha)
1	Paddy	Varietal Evaluation	HYVs of Paddy, Line sowing, Seed treatment	Demo. of improved variety seeds	25	420	110
2	Fingermillet	Varietal Evaluation	HYVs of Fingermillet, IPM	Demo. of improved variety seeds	06	100	40
3	Sugarcane	Varietal Evaluation	HYVs of Sugarcane,	Demo. of improved variety planting material	05	28	14
4	Brinjal	Varietal Evaluation	HYVs of Brinjal,	Demo. of improved variety seedlings	18	120	40
5	Sweetpotato	Varietal Evaluation	HYVs of Sweetpotato, turning of veins	Demo. of improved variety seeds	04	35	12
6	Greengram	Varietal Evaluation	HYVs of Greengram, line sowing	Demo. of improved variety seeds	08	125	20
7	Green fodder	Varietal Evaluation	HYVs of Perennial grass	Demo. of improved variety planting material	20	150	15

B. Details of FLDs implemented during 2018-19

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall
					Proposed	Actual	SC/ST	Others	Total	
1	Paddy	ICM	HYV, IPM, INM ,line sowing	Kharif	20	24	120	--	120	--
2	Sugarcane	ICM	HYV, LBF	Rabi	01	01	10	--	10	--
3	Finger millet	ICM	HYV,LBF, IPM	Kharif	10	16	80	--	80	--
4	Pigeonpea (NFSM)	ICM	HYV, IPM, LBF	Kharif	20	20	50	--	50	--
5	Bittergourd	ICM	HYV, IPM, LBF	Kharif	2.5	2.5	25	--	25	--
6	Sweetpotato	ICM	HYV, LBF	Kharif	02	01	17	--	17	

7	Chickpea(NFSM)	ICM	HYV, IPM, LBF	Rabi	30	30	75	--	75	--
8	Indianbean	ICM	HYV, IPM, LBF	Rabi	04	7.4	69	--	69	--
9	Chilli	ICM	HYV, IPM, LBF	Rabi	2.5	2.5	12	--	12	
10	Greengram	ICM	HYV,INM, IPM	Summer-18	05	30	75	--	75	--
11	Fodder sorghum	ICM	HYV	Summer	05	19	200	--	200	--
12	Paddy	INM	Azolla & Azolla bed	Kharif	--	--	19	--	19	--
13	Mushroom	ICM	Improved variety Seed	Rabi	--	--	17	--	17	
14	Bucket irrigation	IWM	Drip irrigation	Rabi	--	--	19	--	19	

Details of farming situation

Sr. no.	Crop	Season	Farming situation	Type of soil	Status of soil			Previous crop	Sowing date	Harvest Date	Seasonal Rainfall	No of Rainy days
					N	P	K					
1	Paddy	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	June-18	Oct-18		
2	Sugarcane	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Nov-17	Jan-18		
3	Finger millet	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	June-18	Oct-18		
4	Pigeonpea	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	July-18	Dec-18		
5	Bittergourd	Kharif	Irrigated	Hilly, Laterite	Low	Medium	High	Paddy	June-2018	Aug. to Nov.18		
6	Sweetpotato	Kharif	Irrigated	Medium black	Low	Medium	High	Paddy	July-18	Oct-18		
7	Greengram	Summer	Irrigated	Medium black	Low	Medium	High	Paddy	Feb-18	May- 18	--	--
8	Chickpea	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Dec-18	March- 19	--	--
9	Fodder Sorghum	Summer	Irrigated	Medium black	Low	Medium	High	Paddy	Jan-18	Mar-May -18	--	--
10	Indianbean	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Nov-18	Feb-19	--	--
11	Sugarcane	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Oct – Nov-18	Dec-2019	--	--
12	Greengram	Summer	Irrigated	Medium black	Low	Medium	High	Paddy	Feb-19	May-19	--	--
13	Chilli	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Nov-2018	Feb to April .19		

Technical feedback on the demonstrated technologies.

Sr. No	Feed Back
1	Fingermillet (Guj Nagli-5) variety gives good response in longer rainy season .
2	Paddy variety GAR-13 have more tillering, non lodging, Mid late and small seeded
3	BDN - 711 variety - mid late (150-160 Days) , bold size with white colour, good for Dal making, good cooking quality, less problem of wilt and sterility mosaic virus.
4	Uniform maturity, Bold size, Good cooking quality found in GAM-5 variety of Greengram .
5	Gram variety GJG-3- Early maturity, Bold size, more number of pod per plant
6	Indianbean variety Guj.Val-2 errect flowering habit , flowering starts from each internode.
7	Sweetpotato variety C-71 having more tubers per plant resulted in higher yield.
8	Production of sugarcane variety Co-N-04131 may be reduced in case of late harvesting.
9	Demonstrated variety gave good yield. The variety also fetched good market price. Mosaic disease incidence was found less in demonstrated variety of bittergourd

Farmers' reactions on specific technologies

Sr. No	Name of Crop/ Commodity	Feed Back
1	Paddy	Mid late variety with small grain size, non lodging, seed rate as well as seedling rate has been reduced to 20-30 %. Grain quality is better for culinary purpose compared to hybrid varieties.
2	Fingermillet	Variety had less incidence of pest- disease compare to local variety.
3	Greengram	GAM-5 variety is found resistant to YMV with bold grain size and uniform maturity. Good yield with attractive shiny grain appearance
4	Gram	Gram variety GJG-3- early maturity, bold size with good attractive yellow colour, more number of pod per plant , good yield in rainfed condition
5	Pigeon pea	BDN - 711 variety - mid late (150-160 Days) , bold size with white colour, good for Dal making, good cooking quality, less problem of wilt and sterility mosaic virus.
6	Bittergourd	Management of fruitfly increased the yield.
7	Indianbean	More number of pods per branch, early pod setting .
8	Sugarcane	Seed rate has been reduced to 50%.
9	Sweetpotato	Good colour and uniform thickness fetches higher market price.
10	Chilli	High yielding variety, Profitable farming due to high market price during season

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	10	13-4-18 19-5-18 02-7-18 24-9-18 04-10-18 12-10-18 20-11-18 10-1-19 29-1-19 06-3-19 11-3-19	60 98 53 122 99 127 78 108 93 62 63	
2	Farmers Training	08	21-24/05/18 24-29/05/18 07-08/06/18 04-05/06/18 22-23/10/18 24-27/10/18 29-30/10/18 16-19/11/18 13-18/02/19	35 38 26 38 49 35 44 12 39	
3	Media coverage	02	20-05-18 25-10-18		
4	Training for extension functionaries	--	--		

C. Performance of Frontline demonstrations

Frontline demonstrations on oilseed crops-Nil

Frontline demonstration on pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						H	L	Av.										
Indian bean	ICM	Improved variety +Seed treatment + Line sowing + IPM	GV-2	69	7.4	11.96	8.39	10.82	8.08	33.91	17547	54100	36553	3.08	15300	40400	25100	2.64
Green Gram	ICM	Improved variety + Line sowing + IPM	GAM-5	40	08	Crop is standing												

FLD on Other crops

Crop	Thematic Area	Name of the technology	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Av.										
Cereals																		
Paddy	ICM	Improved variety + Seed treatment + INM + IPM	GAR-13	120	24	50.93	31.20	39.87	30.04	32.75	31788	69526	37738	2.19	34030	51916	17886	1.53
Finger millet	ICM	Improved variety, Biopesticides LBF	Guj. Nagli - 5	80	16	11.50	9.45	11.05	9.45	16.93	18720	31125	12405	1.66	17480	27125	9645	1.55
Vegetables																		
Sweetpotato	ICM	Improved variety	C-71	17	1.0	165.0	125.0	146.07	120.10	21.56	53253	175200	121947	3.29	46458	132110	85652	2.62

Commercial Crops																		
Sugarcane	ICM	Improved variety, LBF	Co-N-04131	10	1.0	86.0	77.5	83.7	76.0	10.13	113900	234360	120460	2.06	106181	212800	106619	2.00
Fodder Sorghum	ICM	Improved seeds	SSG	38	8.0	480	425	460.9	376.9	22.34	33200	101217	68017	3.05	31800	82778	50978	2.60

FLD on Livestock –Nil

FLD on Fisheries –Nil

FLD on Other Enterprises – Mushroom production

Category	**Name of the technology demonstrated**	**No. of Farmer**	**No.of units**	**Major parameters**		**% change in major parameter**	**Other parameter**		**Economics of demonstration (Rs.) or Rs./unit**				**Economics of check (Rs.) or Rs./unit**			
				Demo	**Check**		**Demo**	**Check**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**	**Gross Cost**	**Gross Return**	**Net Return**	**BCR (R/C)**
Oyster Mushroom	Pleurotus spp	17	17	--	--	--	--	--	2500	15000	12500	6.00	--	-	-	-

FLD on Women Empowerment –Nil

FLD on Farm Implements and Machinery

Name of the implement	**Crop**	**Technology demonstrated**	**No. of Farmer**	**Area (ha)**	**Major parameters**	**Field observation (output/man hour)**		**% change in major parameter**	**Labour reduction (man days)**				**Cost reduction (Rs./ha or Rs./Unit etc.)**			
						Demo	**Check**		**Land preparation**	**Sowing**	**Threshing**	**Total**	**Land preparation**	**Labour**	**Threshing Labour**	**Total**
Paddy Thresher	Paddy	Use of paddy thresher	53	57	Labour Saving	--	--	--	--	--	15 man days/ha	15 man days/ha	--		3000 Rs/ha	3000 Rs/ha
Bucket irrigation	Brinjal	Low cost MIS (bucket Irrigation)	19	0.95	Crop is standing											

FLD on Other Enterprise: Kitchen Gardening –Nil

FLD on Demonstration details on crop hybrids

Crop	Technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average										
Vegetable crop																	
Bittergourd	Improved variety, IPM, LBF	F1 (Akash)	25	2.5	228	198	211.12	178.56	18.23	66300	190000	123700	2.87	62800	160650	97850	2.55
Chilli	Improved variety	Hybride. (Eagle)	12	2.5	Harvesting in progress												

D. Performance of Cluster Frontline Demonstrations (CFLD)

CFLD on Oilseed crops -- Nil

CFLD on Pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Greengram (NFSM)	ICM	Improved variety + Line sowing + INM + IPM	GAM-5	75	30	11.2	6.2	9.04	6.81	32.75	18800	49742	30942	2.64	16280	37459	21179	2.30
Pigeonpea (NFSM)	ICM	Improved variety + Line sowing + INM + IPM	BDN - 711	50	20	11.52	6.96	8.88	6.25	42.08	23307	48843	25536	2.10	21180	34353	13173	1.62
Chickpea (NFSM)	ICM	Improved variety +Seed treatment + Line sowing + IPM	GJG-3	75	30	13.8	9.3	11.68	8.71	34.09	21647	60722	39075	2.81	20120	43573	23453	2.17

3.4. Training Programmes

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
I Crop Production										
Water management	02	--	--	--	43	30	73	43	30	73
Weed management	02	--	--	--	67	35	102	67	35	102
Nursery management	02	--	--	--	65	19	84	65	19	84
Integrated Crop Management	08	--	--	--	179	116	295	179	116	295
Total	**14**	--	--	--	**354**	**200**	**554**	**354**	**200**	**554**
II Horticulture	--	--	--	--	--	--	--	--	--	--
III Soil Health and Fertility Mgt.										
Soil and Water Testing	02	--	--	--	27	13	40	27	13	40
Integrated Nutrient Management	02	--	--	--	24	26	50	24	26	50
Total	**04**	--	--	--	**51**	**39**	**90**	**51**	**39**	**90**
IV Livestock Prod. and Management										
Dairy farming	03	--	--	--	33	116	149	33	116	149
Feed and fodder management	05	--	--	--	53	242	295	53	242	295
Total	**08**	--	--	--	**86**	**358**	**444**	**86**	**358**	**444**
V Home Science/Women Empowerment										
Nursery management	01	--	--	--	14	14	28	14	14	28
Vermicomposting	01	--	--	--	14	13	27	14	13	27
Mushroom production	04	--	--	--	10	91	101	10	91	101
Total	**06**	--	--	--	**38**	**118**	**156**	**38**	**118**	**156**
VI Agril. Engineering										
Farm mechanization	02	--	--	--	66	01	67	66	01	67
Micro irrigation	03	--	--	--	113	02	115	113	02	115
Total	**05**	--	--	--	**179**	**03**	**182**	**179**	**03**	**182**

VII Plant Protection										
Integrated Pest-disease Management	03	--	--	--	57	01	58	57	01	58
Total	**03**	--	--	--	**57**	**01**	**58**	**58**	**01**	**58**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	03	--	--	--	52	13	65	52	13	65
Leadership development	01	--	--	--	27	02	29	27	02	29
Formation and mgt. of FIGs	02	--	--	--	25	26	51	25	26	51
Total	**06**	--	--	--	**104**	**41**	**145**	**104**	**41**	**145**
Grand Total	**46**	--	--	--	**869**	**760**	**1629**	**869**	**760**	**1629**

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**
I Crop Production										
Weed Management	02	--	--	--	40	10	50	40	10	50
Water management	02	--	--	--	37	50	87	37	50	87
Integrated Crop Mgt.	09	--	--	--	153	114	267	153	114	267
Total	**13**	--	--	--	**230**	**174**	**404**	**230**	**174**	**404**
II Horticulture										
III Soil Health and Fertility Mgt.										
Integrated Nutrient Management	02	--	--	--	38	07	45	38	07	45
Soil and Water Testing	02	--	--	--	27	19	46	27	19	46
Total	**04**	--	--	--	**65**	**26**	**91**	**65**	**26**	**91**
IV Livestock Production and Management										
Dairy farming	03	--	--	--	41	81	122	41	81	122
Feed and fodder management	08	--	--	--	159	242	401	159	242	401
Total	**11**	--	--	--	**200**	**323**	**523**	**200**	**323**	**523**
V Home Science/Women empowerment										

Value addition in Mango	01	--	--	--	00	21	21	00	21	21
Mushroom production	01	--	--	--	00	30	30	00	30	30
Vermicomposting	02	--	--	--	08	72	80	08	72	80
Total	**04**	--	--	--	**08**	**123**	**131**	**08**	**123**	**131**
VI Agril. Engineering										
Micro irrigation systems	02	--	--	--	46	05	51	46	05	51
Water conservation-Farm pond	01	--	--	--	22	04	26	22	04	26
Farm mechanisation	01	--	--	--	27	00	27	27	00	27
Total	**04**	--	--	--	**95**	**09**	**104**	**95**	**09**	**104**
VII Plant Protection										
Integrated Pest-disease Management	04	--	--	--	65	61	126	65	61	126
Total	**04**	--	--	--	**65**	**61**	**126**	**65**	**61**	**126**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	02	--	--	--	37	18	55	37	18	55
Total	**02**	--	--	--	**37**	**18**	**55**	**37**	**18**	**55**
Grand Total	**42**	--	--	--	**700**	**734**	**1434**	**700**	**734**	**1434**

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**
I Crop Production										
Water management	04	--	--	--	80	80	160	80	80	160
Weed management	04	--	--	--	107	45	152	107	45	152
Nursery management	02	--	--	--	65	19	84	65	19	84
Integrated Crop Management	17	--	--	--	332	230	562	332	230	562
Total	**27**				**584**	**374**	**958**	**584**	**374**	**958**
II Horticulture	--	--	--	--	--	--	--	--	--	--
III Soil Health and Fertility Mgt.										
Soil and Water Testing	04	--	--	--	54	32	86	54	32	86

Integrated Nutrient Management	04	--	--	--	62	33	95	62	33	95
Total	**08**	--	--	--	**116**	**65**	**181**	**116**	**65**	**181**
IV Livestock Production and Management										
Dairy farming	06	--	--	--	74	197	271	74	197	271
Feed and fodder management	13	--	--	--	212	484	696	212	484	696
Total	**19**				**286**	**681**	**967**	**286**	**681**	**967**
V Home Science/Women empowerment										
Nursery management	01	--	--	--	14	14	28	14	14	28
Vermicomposting	03	--	--	--	22	85	107	22	85	107
Mushroom production	05	--	--	--	10	121	131	10	121	131
Value addition in Mango	01	--	--	--	00	21	21	00	21	21
Total	**10**	--	--	--	**46**	**241**	**287**	**46**	**241**	**287**
VI Agril. Engineering										
Farm mechanization	03	--	--	--	93	01	94	93	01	94
Micro irrigation systems	05	--	--	--	159	07	166	159	07	166
Water conservation-Farm pond	01	--	--	--	22	04	26	22	04	26
Total	**09**	--	--	--	**274**	**12**	**286**	**274**	**12**	**286**
VII Plant Protection										
Integrated Pest-disease Management	07	--	--	--	122	62	184	122	62	184
Total	**07**	--	--	--	**122**	**62**	**184**	**122**	**62**	**184**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	03	--	--	--	89	31	120	89	31	120
Leadership development	01	--	--	--	27	02	29	27	02	29
Formation and mgt. of FIGs	02	--	--	--	25	26	51	25	26	51
Total	**08**	--	--	--	**141**	**59**	**200**	**141**	**59**	**200**
Grand Total	**88**	--	--	--	**1569**	**1494**	**3063**	**1569**	**1494**	**3063**

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
Organic Growers	01	--	--	--	20	00	20	20	00	20
Dairy Entrepreneur	01	--	--	--	19	01	20	19	01	20
Mushroom production	01	--	--	--	24	04	28	24	04	28
Nursery raising	01	--	--	--	--	21	21	--	21	21
Total	**04**	--	--	--	**63**	**26**	**89**	**63**	**26**	**89**

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

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
Organic Growers	01	--	--	--	20	00	20	20	00	20
Dairy Entrepreneur	01	--	--	--	19	01	20	19	01	20
Mushroom production	01	--	--	--	24	04	28	24	04	28
Nursery raising	01	--	--	--	--	21	21	--	21	21
Total	**04**	--	--	--	**63**	**26**	**89**	**63**	**26**	**89**

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
Integrated pest management	02				64	07	71	64	07	71
Formation and mgt.of FIGs	01				32	--	32	32	--	32
Formation and mgt.of SHGs	01				29	27	56	29	27	56
Leadership development	01				03	30	33	03	30	33
Total	**05**				**128**	**64**	**192**	**128**	**64**	**192**

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
Livestock feed and fodder production	01	--	--	--	23	03	26	23	03	26
Integrated pest management	01	--	--	--	15	03	18	15	03	18
Total	**02**	--	--	--	**38**	**06**	**44**	**38**	**06**	**44**

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
Integrated pest management	03	--	--	--	79	10	89	79	10	89
Formation and mgt.of FIGs	01	--	--	--	32	--	32	32	--	32
Formation and mgt.of SHGs	01	--	--	--	29	27	56	29	27	56
Leadership development	01	--	--	--	03	30	33	03	30	33
Livestock feed and fodder prod.	01	--	--	--	23	03	26	23	03	26
Total	**07**	--	--	--	**166**	**70**	**236**	**166**	**70**	**236**

Sponsored training programmes

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										
Increasing production and productivity of crops	01	--	--	--	36	24	60	36	24	60
Total	**01**	--	--	--	**36**	**24**	**60**	**36**	**24**	**60**

Soil health and fertility management										
Production and use of organic inputs	01	--	--	--	11	63	74	11	63	74
Total	**01**	--	--	--	**11**	**63**	**74**	**11**	**63**	**74**
Livestock and fisheries										
Livestock production and management	01	--	--	--	00	59	59	00	59	59
Total	**01**	--	--	--	**00**	**59**	**59**	**00**	**59**	**59**
Plant Protection										
Integrated Pest management	01	--	--	--	27	32	59	27	32	59
Total	**01**	--	--	--	**27**	**32**	**59**	**27**	**32**	**59**
Agricultural Extension										
Management of SHGs	01	--	--	--	04	52	56	04	52	56
Total	**01**	--	--	--	**04**	**52**	**56**	**04**	**52**	**56**
GRAND TOTAL	**05**	--	--	--	**78**	**230**	**308**	**78**	**230**	**308**

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**
Income generation activities										
Mushroom production	01	--	--	--	24	04	28	24	04	28
Nursery raising	01	--	--	--	--	21	21	--	21	21
Total	**02**	--	--	--	**24**	**25**	**49**	**24**	**25**	**49**

Details of trainings organized under ASCI

Area of training	**No. of Courses**	**No. of Participants**								
		General			**SC/ST**			**Grand Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Organic Growers	01	--	--	--	20	00	20	20	00	20
Dairy Entrepreneur	01	--	--	--	19	01	20	19	01	20
Total	**02**	--	--	--	**39**	**01**	**40**	**39**	**01**	**40**

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Diagnostic visits	04	33	02	35
Field Day	11	963	10	973
Kisan Ghosthi	11	273	15	288
Farmers Seminar	13	1338	14	1352
Film Show	35	989	--	989
Kisan Mela	--	--	--	--
Exhibition	05	2719	25	2744
Farmers visit to kvk	1078	1078	--	1078
Scientists' visit to farmers field	51	226	05	231
Advisory Services	07	88745	--	88745
Method Demonstrations	19	639	04	643
Celebration of important days	06	648	09	657
Pre Rabi sammelan	01	226	06	232
Exposure visits	09	186	--	186
Soil Health camp	01	38	02	40
Lecture delivered in other programmes	41	5808	25	5833
Total	1292	103909	117	104026

Details of other extension programmes

Particulars	Number
Extension Literature	04
News paper coverage	14
Popular articles	06
Radio Talks	14
TV Talks	10
Animal health camps (Number of animals treated)	587 animals

3.6. PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs)	Number of farmers
Cereals	Paddy	GAR-13	--	27.72	2,87,160	570
		Navin	--	68.00		
Pulses	Pigeonpea	Vaishali	--	1.07	10,700	13
Others	Sugarcane	Co.N-04131	--	470.00	157920	13
Total				**566.79**	**4,55,780**	**596**

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal, Tomato, Chilli	--	Mukta round NS-501 Eagle	85000	73000	150
	Drumstick	PKM-1	--	500	7000	30
Tuber	Sweet potato	C-71	--	60000 cuttings	30000	17
Fodder crop saplings	Perennial grass	Co-4	--	50000 (tousseks)	10000	221
Total				**195500**	**120000**	**418**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Nos./Kg	Value (Rs.)	No. of Farmers
Bio Agents	Fruitfly trap (Mango)	1227 no.	48490	90
Others	Vermicompost	10000 kg.	40000	--

Production of livestock materials: nil

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

A. KVK News Letter - Date of start :January – 2012 Number of copies to be published : 400

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	1. Correlates of Entepreneuraial behavior of mango growers	• R.F.Thakor & B.M.Mehta	01
Technical reports	--	--	--
News letters	Half yearly news letter	R.F.Thakor et.al	02
Technical bulletins	1. Technology Demonstrations for Climate Reselient Agriculture 2. Krushi Sanjivani	R.F.Thakor et.al R.F.Thakor et.al	500 1000
Popular articles	1. Scientific cultivation of indianbean	A.R.Patel ,K.A.Patel , L.T.Kapur, R.F.Thakor	
	2. Fruitfly Trap – An eco friendly tool to enhance the quality of mango	K.A.Patel ,R.F.Thakor	
	3. Falmakhi Trap- Aam ki gunvatta badhane ke liye paryavarn anukul sadhan	K.A.Patel ,R.F.Thakor	
	4. Production Technology of Kharif Groundnut	Mr. M.M. Gajjar & Dr. R.F. Thakor	
	5. Useful tools of Paddy crop.	Mr. M.M. Gajjar & Dr. R.F. Thakor	
	6. Production technology of Finger millet.	Mr. M.M. Gajjar & Dr. R.F. Thakor	
Extension literature	1. Scientific cultivation of Chickpea	M.M.Gajjar & K.A.Patel	1000
	2. Scientific cultivation of Summer Greengram	M.M.Gajjar & K.A.Patel	1000
	3. Mushroom production	P.R.Ahir , K.A.Patel ,R.F.Thakor	1000
	4. Fruitfly Trap	K.A.Patel , R.F.Thakor	1000

C. Details of Electronic Media Produced- Nil

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

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs.

TITLE - Enhancing Farm Income and Employment Opportunity through Mushroom Cultivation in Tribal area.

Name of KVK : Valsad

Title of intervention : Pleuro tus spp of mushroom

Name of farmer & Address : Nirmalaben Anilbhai Gavit

At.- AMDHA Ta.- Kaprada, Di.- Valsad.

Details of technology demonstrated: - Pleurotus spp of mushroom on paddy straw.

Institutional Involvement :

Capacity building training programmes on mushroom production technology were conducted by the KVK for tribal farm women belonging to BPL household. Each training programme was six days and main focus was on skill development with respect mushroom production .Major components of training programme includes selection of seeds, preparation of subtract material, filling up of bags ,chemical treatment , harvesting etc.

Smt. Nirmalben A Gavit, a farm woman of 35 years of age belongs to the tribal dominated kaparada village of valsad district of the Gujarat state with 88 per cent of total geographical area covered under hills and forest. She is having a marginal / small one ha of cultivable land. Hr family cultivates rice, the staple food of district during kharif. She along with her husband usually goes for wage earning outside for their livelihood support. She was come in contact with Gujarat Vidyapith Krishi Vigyan Kendra (GVPKVK) during meeting of SHG members in her village. Later on she become a member of the group selected to for a week long duration mushroom production. She started growing mushroom under the guidance of kvk scientist who helped her in providing all the inputs and technical support under front line demonstration programme. After two years of constant interaction with kvk scientists she is now able to more than 12 beds of produce oyster mushroom. Under her leadership other members of the group were also joined and started growing paddy straw mushroom during Rabi season in a small area 375 sq.ft. in 2016. The success has helped in growing socio economic status.

Mushroom are good sources of quality protein, vitamins, and minerals. It has got medicinal values also. As a low caloric, high protein food with negligible starch and sugars. There are 200 types of mushroom of which mainly three types of edible mushroom Are cultivated in India on commercial basis. They are paddy straw mushroom (Volvariella volvacea), oyster or Dhingri mushroom (Pleurotus sajor- kaju) and white button mushroom (Agaricus biosporus). Among these three types of mushroom Oyster or Dhingri mushroom can be grown from the months of October to March when the room temp is between 20 C to 30C .The most common variety grown in Gujarat state is Pleurotus sajor- kaju .Considering the easy method of cultivation it can be easily grown by the rural tribal people in small shady place in leisure period by utilizing paddy straw for an additional income. It has very good marketing potentiality .Except hot summer it can be grown successfully. Good quality of Paddy straw 2 kg chopped with chaff cutter or by manual chopper (Koyta) is required .The chopped paddy straw is soaked in water for about 12-14 hrs after which the excess water is drained out Properly by spreading the straw on clean hard surface for about one hour.

After mixing the spawn this straw would be filled in nylon bags and compressed slightly to make compact .Then the nylon bag is kept within the polythelen bags which is tight with a rope covers the straw. Normally mycelium takes 15-18 days to grow if the temperature maintained between 23-28 C

along with humidity 75-80 percent. When mycelium growth observed in the paddy straw it is removed from the poly bag and can be placed on a shelf or platform or hanged at suitable place. One should watered it daily to maintain humidity .The pinhead of the mushroom starts appearing after 20-25 days of spawning.It takes about 45 days to develop as mushroom. The total average yield of a bed is about 1.8 to 2.0 kg.
It was harvested when the cap diameter is approx.10-12 cms. Like other fruits and vegetables mushroom are also highly perishable and cannot be stored for more than 24 hours at ambient temperature because of their high moisture content..Fresh harvested mushroom can be kept in good hygienic air tight condition. Wraped it with polythene bags. It can be stored in refrigerator for 1-2 days. It can be dried under natural sunlight. Tribal farmers under the leadership of Nirmalaben started mushroom production .Most of the mushroom grower are selling their produce as fresh .

Economics

This gave him an additional income of Rs 10,000 to Rs 15,000. Encouraged by the profitability of mushroom cultivation.

Category	**Technology demonstrated**	**No of farmers**	**No of Units**	**Economics of demo.unit**			
				Gross cost	**Gross return**	**Net return**	**BCR (GR/GC)**
Oyester mushroom	Pleurotus spp	17	17	2500	15000	12500	6.00

Mushroom Production Unit

E. Give details of innovative methodology or innovative technology of Transfer of Technology developed and used during the year - Nil

F. Give details of indigenous technology practiced by the farmers in the KVK operational area which can be considered for technology development (in detail with suitable photographs)-

Sr.No.	Crop/Enterprise	ITK Practiced	Purpose of ITK
1	All crops grown by seed sowing.	A white thin thread tied in three lines around the field.	-To protect the newly emerged shoots of seeds sown in the field from damage of the Peacock (birds). As they eats the shoots and tender leaves of plants.

5.1. Indicate the specific training need analysis tools/methodology followed for

A. Practicing Farmers

a. Participatory Rural Appraisal
b. Farmer group discussions
c. Diagnostic services
d. Existing cropping system

B. Rural Youth

a Participatory Rural Appraisal
b. Farmer group discussions

C. In-service personnel

a Existing cropping system
b. Feed back from state departments as well as NGOs

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) PRA
ii) Problem identified from Matrix
iii) Field level observations
iv) Farmer group discussions

For FLD:

i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system

5.3. Field activities

Name of villages identified/adopted with block name (from which year) -

Block	Village	Year
Kaparada	Khuntali,	2012
	Mendha, Kakadkopar, Dhodhadkuva,	2015
Dharampur	Sadadvera , Pindval	2015
	Panva, Kilavani	2017
Pardi	Asma, Arnala, Pati Panchalai,	2014
	Lakhmapor, Chival	2015
Valsad	Ozar	2015
Umargam	Borigam ,Saronda	2015

ii. No. of farm families selected per village : 25

iii. No. of survey/PRA conducted : 05

iv. No. of technologies taken to the adopted villages- 08

v. Name of the technologies found suitable by the farmers of the adopted villages:

a) Use of azolla in paddy

b) Vermi compost preparation at farm level

C) Use of methyl eugenol trap in Mango

d) Use of plastic tray for vegetable seedling raising

e) Mushroom production

f) Improved variety of Indianbean

g) Perennial fodder grass variety

vi. Impact (production, income, employment, area/technological– horizontal/vertical): Pl see results item no.13

vii. Constraints if any in the continued application of these improved technologies :

a) Non availability of spawn of mushroom
b) Unavailability of seeds of improved variety.
c) High cost of inputs i.e. chemical of trap, plastic tray etc.

5.4 . No. and Name of villages adopted for Doubling Farmers Income. Indicate whether benchmark survey of the villages are done or not.

Sr.No	Name of villages adopted for Doubling Farmers Income	whether benchmark survey of the villages are done or not.
1	Amdha	Yes
2	Lakhmapore	Yes
3	Pati	Yes
4	Kharedi	Yes
5	Motivahiyal	Yes

6. LINKAGES

A. Functional linkage with different organizations

Sr. No.	Name of organization	Nature of linkage
1	Navsari. Agril. Uni. Navsari	Provides expertise for latest technology and supply of improved seeds of paddy, sugarcane, indian bean, sweetpotato. and Trichoderma, LBFs
2	ATMA	Training and organizing farmers shibir.
3	Dept. of Agril. Valsad.	Involvement of kvk experts for delivering lectures, farmers seminars and extension functionaries' trainings.
4	Dept. of Horticulture, Valsad	Involvement for exposure visit at excellence centre.
5	Dept. of Animal husbandry, Valsad	Joint organization of cattle treatment camp & Pashupalan shibir
6	Vasudhara dairy	Joint implementation of farmers, farm women & ext. functionaries training.
7	J. N. Trust, Kaparada	Joint implementation of farmers trainings & seminars.
8	Jain Irrigation Co , Dharampur	Soil and water sample analysis.
9	Mushroom training centre, Vapi	Joint implementation of mushroom training.
10	Afpro-Voltas	Imparting Training and guidance

B. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies –Nil

C. Details of linkage with ATMA

a) Is ATMA implemented in your district -- Yes

Role of KVK in preparation of SREP of the district –

- Dr.R.F.Thakor Sr. Sci. and Head KVK was a member of SREP preparation Team of Valsad district

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks
01	Meetings	AGB, AMC, Convergence	08	01	
02	Research projects	--	--	--	
03	Training programmes	Trainings, FFS	12	05	
04	Demonstrations	Field day	--	03	
05	Extension Programmes				
	Kisan Mela	--	04	--	
	Technology Week	--	--	--	
	Exposure visit	--	03	--	
	Exhibition	--	02	--	
	Soil health camps	--	--	--	
	Animal Health Campaigns	--	--	--	
	Others (Pl. specify)				
	Kisan Ghosthi		04	02	
	Sankalp se Siddhi	--	--	--	
06	Publications				
	Video Films	--	--	--	
	Books	--	--	--	
	Extension Literature	--	--	--	
	Pamphlets	--	--	--	
	Others (Pl. specify)	--	--	--	
07	Other Activities (Pl.specify)				
	Watershed approach	--	--	--	
	Integrated Farm Development	--	--	--	
	Agri-preneurs development	--	--	--	

D. Give details of programmes implemented under National Horticultural Mission -Nil

E. Nature of linkage with National Fisheries Development Board – Nil

F. Details of linkage with RKVY

Details of trainings organized in linkage with RKVY under ASCI

Area of training	Fund allocated Rs.	No. of Courses	No. of Participants								
			General			SC/ST			Grand Total		
			Male	Female	Total	Male	Female	Total	Male	Female	Total
Organic Growers	165200	01	--	--	--	20	00	20	20	00	20
Dairy Entrepreneur	189600	01	--	--	--	19	01	20	19	01	20
Total	**354800**	**02**	--	--	--	**39**	**01**	**40**	**39**	**01**	**40**

7. Convergence with other agencies and departments :

Sr. No.	Name of agencies and departments	Nature of convergence
1	Dept. of Agril. Valsad.	Involvement of kvk experts for delivering lectures, farmers seminars and extension functionaries trainings.
2	Dept. of Horticulture, Valsad	Involvement for lectures delivering in farmers sammelan.
3	Dept. of Animal husbandry, Valsad	Joint organization cattle treatment camp & farmers shibir
4	ATMA, Valsad	Involvement of kvk experts for delivering lectures in training, FFS, seminars, etc.

8. Innovator Farmer's Meet –Nil

9. Farmers Field School (FFS) –Nil

10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:

Sr. No	Name of Crop/ Commodity	Technical Feedback
1	Paddy	Mid late variety with small grain size, non lodging, seed rate as well as seedling rate has been reduced to 20-30 %. Grain quality is better for culinary purpose compared to hybrid varieties.
2	Fingermillet	Variety had less incidence of pest- disease compare to local variety.
3	Greengram	GAM-5 variety is found resistant to YMV with bold grain size and uniform maturity. Good yield with attractive shiny grain appearance
4	Gram	Gram variety GJG-3- early maturity, bold size with good attractive yellow colour, more number of pod per plant , good yield in rainfed condition
5	Pigeon pea	BDN - 711 variety - mid late (150-160 Days) , bold size with white colour, good for Dal making, good cooking quality, less problem of wilt and sterility mosaic virus.
6	Bittergourd	Management of fruitfly increased the yield.
7	Indianbean	More number of pods per branch, early pod setting .
8	Sugarcane	Seed rate has been reduced to 50%.
9	Sweetpotato	Good colour and uniform thickness fetches higher market price.

10.2. Technical Feedback from the KVK Scientists (Subject wise) to the research institutions/universities:

- Indianbean variety with red colour seeds needs to be developed
- Pigeonpea variety which mature early on conserve rain moisture needed for sloppy muram type soil.
- Early to midlate lodging resistant variety for paddy and finger millet should developed for heavy rainfall area of south gujarat

11. Technology Week celebration during 2018-19 - No

12. Interventions on drought mitigation (if the KVK included in this special programme)- Nil

13. IMPACT

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

Sr . No.	Name of specific technology/skill transferred	No . of participants	% Adoption	Change in income (Rs.)	
				Before training Rs / unit	After training Rs / unit
1	HYV s of Sugarcane	55	70	112,000 Rs. / ha.	135,000 Rs. / ha.
2	HYV s of Paddy	70	85	21,000 Rs. / ha.	23,500 Rs. / ha.
3	HYV s of Fingermillet	50	75	18,500 Rs. / ha.	21,500 Rs. / ha.
4	HYV s of Brinjal	40	65	80,500 Rs. / ha.	110,000 Rs. / ha.
5	HYV s of Green fodder	60	100	36,500 Rs. / ha.	45,500 Rs. / ha.
6	Q lure traps IPM in Vegetable crops (cucurbits)	60	85	35,000 Rs. / ha.	52,000 Rs. / ha.
7	Mushroom Production	109	42.2	--	15000 Rs./farmer

C. Cases of large scale adoption-

Empowering dairy farmers through green Fodder production round the year

Tribal farmers of hilly areas of valsad district are small and marginal. About 69 per cent agriculture is rainfed. Paddy is an important crop of the district. Unavailability of green fodder round the year is one of the major constraints. Concentrated mixture feed available in the market are costly and hence not affordable by the farmers. Majority of tribal cattle owners fed their cattle with Paddy straw which is low grade roughages. The physique of the cattle are very poor. Inter calving period are also very long i.e. 16-18 months. Average milk production cost is high. Thus, the earning from dairy farming is very low. With this background kvk valsad introduced perennial multi cut fodder grass Co-4 variety during 2009-10. The salient features of the Co-4 variety are profuse tillering , non lodging, high crude protein content, broad green leaves, less water requirement, and less content of oxalate. Thus it has higher nutritive value.

KVK, Valsad motivate the farmers to go for multi cut perennial fodder grass during kharif so that it will gave green fodder throughout the year. Kendra made continuous efforts by organizing a series of extension activities includes on and off campus training, Front Line Demonstrations, Field days, Kisan gosthies, Exposure tour etc .Kendra also supply planting materials free of cost to the participants of the programme.FLD was laying down on 92.81 ha of land covering 2393 farmers of about 220 villages.

year	Area (ha) covered Under demo	No of villages Covered Under demo	No of farmers Covered Under demo	Expansion of the area	
				Area (ha) covered with demo	Villages covered with demo
14-15	22	58	1828		
15-16	24	22	82		
16-17	26	18	97		
17-18	13.6	86	231		
18-19	7.21	36	155		
Total	**92.81**	**220**	**2393**		

As a result of these efforts initially farmers started growing fodder grass on small piece of land but after realizing the importance the area under the variety increase by two folds in subsequent years following Farmer- lead- farmer approach. Earlier farmers grow fodder on the border of the farm, on the bunds of canal, area behind cow shed so cleaning and washing of cow and cow shed waste water and cow urine are efficiently reuse, During last five years kvk from its instructional farm supplied more than one lakh tussles planting material to farmers. Now they are growing in systematic manner in small plots. This improved variety CO-4 gave an average yield of 180 tonnes/ha/year. This alternative has not only reduce the cost of milk production by 8-10 per cent but also increase the milk production from 3.5 lit to 5 lit/day/animal. Feeding cattle with balanced diet with proper combination of dry and green fodder has good impact on animal physique also which in turn reduced inter calving period from 16 to 18 months to 14-16 months. A small interventions from kvk scientist has created remarkable changes in the field of dairy enterprise in the areas of district

Training on perennial fodder at KVK

Taking planting material after training

Method Demo on Fodder tussle Planting

Co-4 variety plot on farmers field

C. Details of impact analysis of KVK activities carried out during the reporting period -Nil

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
June	01	14728	--
July	01	14734	--
September	03	44417	--
January	02	14866	--

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Valsad	Text only	04	--	--	--	03	--	07
	Total Messages	04	--	--	--	03	--	07
	Total farmers Benefitted	59072	--	--	--	29653	--	88745

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

A. Performance of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Vermicompost	2003-04	0.1	Eudrilus eugeniae	Vermicompost	10 ton	22,000	50,000	Farm use
2	Dairy	2003-04	0.2	H.F.	Milk	7369 lit	509579	294760	
3	Dairy	2003-04	0.2	H.F.	FYM	20 tone	--	16,000	
4	Dairy	2003-04	0.5	Co.-4	Green fodder	50 ton	25,000	Nil	For Dairy unit
5	Veg. Nursery	2002-03	0.2	Hybrid seedling of Brinjal, Chilli, Tomato	Seedling	85000 no.	38000	73000	
6	Mango germplasm demo	2006-07	0.25	Keshar, Alphanso, Sonpari, Dasheri, Amrapali, Rajapuri,	--	--	--	--	
7	Bio Agents	2009-10	--	--	ME trap	1227 no.	29500	48490	

B. Performance of instructional farm (Crops) including seed production

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs with labour	Gross income	
Cereals									
Paddy	30/11/2018	10/05/2018	1.0	GAR-13	Seed production	2772 kg	40,000	83,160	
Paddy	10/06/2018	05/10/2018	1.5	GAR-13,Naveen	Seed production	6800 kg	58,000	2,04,000	
Pulses									
Pigeon pea	30/06/2018	22/12/2018	0.1	Vaishali	Seed production	107 kg	3,800	10,700	
Spices & Plantation crops									
Fruits									
Mango	1999	-	3.0	Kesar,Alphanso	Commercial	3000 kg	40,000	75,000	
Others (specify)									
Sugarcane	18/12/2017	20/10/2018	1.0	Co.N. 41131 Co.N.-13073	Seed production	47 tone	75,000	1,57,920	Damage by Pigs
Sugarcane	20/10/2017	12/02/2019	1.5	Co.N.- 41131	Commercial	90 tone	1,12,500	2,70,000	
Fodder	24/11/18	Multicut	0.10	Co.-4	Seed production	50,000 tussecks	10,000	10,000	
Eucalyptus	2015	--	2	JK-413	Commercial	--	1,35,000	---	
Casurina	2014	--	1	Clonal	Commercial	--	65,000	--	
Sweetpotato	Feb-2018	July 1st week	0.1	C-71	Seed production	60000 cutting	10000	30000	

C. Performance of production units (bio-agents / bio pesticides/ bio fertilizers etc.)

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Fruitfly trap (Mango)	1227 no.	29500	48490	90 farmers

D. Performance of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Cow	H.F.cross (06)	Milk	7369 lit	509579	294760	
			FYM	20 tone	--		

E. Utilization of hostel facilities- Accommodation available (No. of beds) : 25 Beds

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	58	174	
May 2018	286	536	
June 2018	144	208	
July 2018	27	108	
August 2018	357	357	
September 2018	0	0	
October 2018	463	802	
November 2018	49	60	
December 2018	78	225	
January 2019	55	121	
February 2019	73	176	
March 2019	0	0	

F. Database management -Nil

G. Details on Rain Water Harvesting Structure and micro-irrigation system -

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training	No. of Demonstrations	No. of plant materials produced	Visit by farmers	Visit by officials		
00	50000	Farm pond demo unit 50*50*5 ft.	03	05 method demo of Raingun	--	235	11	3.5 lakh litres	--

16. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India,	Ahmedabad	2628	Gujarat Vidyapith	10295506650	380002006	SBIN0002628
With KVK	State Bank of India, Dena bank	Dehgam Motapondha	07811 ---	Gujarat Vidyapith Krishi Vigyan Kendra,Ambhti	35719395798 089810003112	396002026 396018505	SBIN0007811 BKDN0240898

B. Utilization of KVK funds during the year 2018-19 (Rs. in lakh)

S.No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	146.00	146.00	143.21
2	**Traveling allowances**	0.80	0.80	0.78
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	6.00	6.00	5.96
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	10.51	10.51	9.95
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
	TOTAL (A)	163.31	163.31	159.90
B. Non-Recurring Contingencies				
1	**Works**	11.00	11.00	0
2	**Equipments including SWTL & Furniture**	0	0	0
3	**Vehicle** (Tractor)	8.00	8.00	7.28
4	**Library** (Purchase of assets like books & journals)	0	0	0
TOTAL (B)		19.00	19.00	7.28
C. REVOLVING FUND		--	--	--
GRAND TOTAL (A+B+C)		182.31	182.31	167.18

D. Status of revolving fund (Rs. in lakh) for the three years

Year	Opening balance on 1st April	Income during the year	Expenditure during the year	Net balance as on 1st April of each year
April 2016 to March 2017	76,93,935	20,64,524	16,55,877	81,02,582
April 2017 to March 2018	81,02,582	22,17,311	16,25,314	86,99,572
April 2018 to March 2019	86,99,572	23,06,096	16,93,001	93,12,667

17. Details of HRD activities attended by KVK staff during year

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr.R.F.Thakor	Sr. Sci. & head	Orientation training on preparation and dissemination of Agromet advisories at block level for nodal officers of KVKs zone-8	KVK-Aurangabad	6-7/07/18
		National conference of KVKs-2018	ICAR, NASC, New Delhi	16-18/03/18
Shri L.T.Kapur	SMS	Model training course on environment, climate, conversion agril.,soil health management and organic farming.	SDAU, S.K.Nagar	11-19/11/18
Shri A.R.Patel	SMS	Training of trainers organized by ASCI	EEI, Anand	25-27/09/18
Shri M.M.Gajjar	SMS	One day workshop on farming system for nutrition approach	KVK- Narayangoan	24/04/18
Shri B.M.Patel	Pro. Assistant	Training of trainers organized by ASCI	EEI, Anand	25-27/09/18
Mrs. P.R.Ahir	Pro. Assistant	One day workshop on farming system for nutrition approach	KVK- Narayangoan	24/04/18

18. List the other collaborative research/ extension projects and also write brief key achievements of the projects.

- **Pro SOIL -- Nil**
- **NARI (Please indicate the name of one adopted village and give the activities carried over on nutri sensitive agriculture)**

Sr. No	Name of Village	Name of Activity	No. of Activity	Date	No of Participants
1	Panas	Trainings on Mushroom production	01	23-27/07/18	27
		Trainings on Kitchen garden	01	22/11/18	22
		Training on Nursey management	01	28-31/08/18	34
		Awareness meet	02	24/08/18 27/08/18	27 55
		Demonstration on Kitchen Garden	22	22-11-18	22

- **VATICA --**
- **Seed Hub -- nil**
- **Others (if any) --**

19. Please include any other important and relevant information which has not been reflected above (write in detail). - Nil

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	88	1569	1494	3063
Rural youths	02	24	25	49
Extension functionaries	07	166	70	236
Sponsored Training	05	78	230	308
Vocational (Skill) Training	02	39	01	40
Total	**104**	**1876**	**1820**	**3696**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	--	--	--
Pulses	234	65.40	--
Cereals	200	40.00	--
Vegetables	54	6.00	--
Other crops (sugarcane, green fodder)	210	21.00	--
Total	**698**		--
Livestock & Fisheries	--	--	--
Other enterprises (Azollabed, Mushroom, Biodecomposer, Bucket irrigation)	122	0.95	122 units
Total	122	0.95	--
Grand Total	**820**	**133.35**	

3. Technology Assessment

Category	No. of Tech. Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	05	50	50
Livestock	--	--	--
Various enterprises	01	05	05
Total	**06**	**55**	**55**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1292	103909
Other extension activities	48	--
Total	**1340**	**103909**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Valsad	Text only	04	--	--	--	03	--	07
	Total Messages	04	--	--	--	03	--	07
	Total farmers Benefitted	59072	--	--	--	29653	--	88745

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	566.79	455780
Planting material (No.)	195000 no	113000
Bio-Products – (M E Traps)	1227 no.	48490

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil - 551	546	82650
Water - 260	254	13000
Plant - 66	79	--
Total - 877	**879**	**95650**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	02
2	Conferences	01
3	Meetings	10
4	Trainings for KVK officials	04
5	Visits of KVK officials	12
6	Book published	02
7	Training Manual	--
8	Book chapters	--
9	Research papers	01
10	Lead papers	--
11	Seminar papers	01
12	Extension folder	04
13	Proceedings	--
14	Award & recognition	--
15	On going research projects	--