GUJARAT VIDYAPITH

KRISHI VIGYAN KENDRA

AMBHETI-VALSAD

GUJARAT

Annual Progress Report

April 2016-March-2017

SUBMITTED TO

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

NEW DELHI – 110 012

INDEX

ANNUAL PROGRESS REPORT (April-2016-March-2017)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	57	1338	564	1902
Rural youths (ASCI)	02	28	12	40
Extension functionaries	06	127	87	214
Sponsored training	10	262	346	608
Vocational training	09	03	231	234
Total	**84**	**1758**	**1240**	**2998**

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	--	--	--
Pulses	402	84	--
Cereals	282	51	--
Vegetables	53	3.9	--
Other crops	22	04	--
Total	**759**	**142.9**	--
Livestock & Fisheries	--	--	--
Other enterprises	--	--	--
Total	--	--	--
Grand Total	**759**	**142.9**	--

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	10	70	70
Livestock	--	--	--
Various enterprises	--	--	--
Total	**10**	**70**	**70**
Technology Refined	--	--	--
Crops	--	--	--
Livestock	--	--	--
Total	--	--	--
Grand Total	**10**	**70**	**70**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1085	6389
Other extension activities	35	--
Total	**1120**	**6389**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	**Livestock**	**Weather**	**Marketing**	**Awareness**	**Other**	**Total**
Valsad	**Text only**	07	--	--	--	03	--	10
	Total Messages	07	--	--	--	03	--	10
	No.of farmers	60277	--	--	--	20119	--	80396

6. Seed & Planting Material Production

Particulars	Quintal/Number	Value Rs.
Seed (q)	472.69	472878
Planting material (No.)	724330 no	296560
Bio-Products – (Traps)	1810 no.	63070
Livestock Production (No.)	--	--

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil - 571	793	34260
Water - 397		19850
Plant - 68	77	--
Total - 1036	**870**	**54110**

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	04
2	Conferences	--
3	Meetings	06
4	Trainings for KVK officials	05
5	Visits of KVK officials	00
6	Book published	--
7	Training Manual	03
8	Book chapters	05
9	Research papers	03
10	Lead papers	--
11	Seminar papers	01
12	Extension folder	05
13	Award & recognition	01

DETAIL REPORT OF APR (April-2016 to March-2017)

1 GENERAL INFORMATION ABOUT THE KVK

1.1 Name and address of the KVK :

Address	Telephone		E .mail
	Office	Fax	
Krishi Vigyan Kendra, **AMBHETI** Ta. Kaparada Di. Valsad Via. Vapi Gujarat Pin. 396 191	(1) 02633 260055	02633 260055	kvkvalsad@gmail.com

1.2 Name of the Host Institution :

Address	Telephone		E. mail
	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

1.3 Name of the Senior Scientist and Head :

Name	Telephone / Contact		
	Residence	Mobile	E .mail
Dr. R.F.Thakor	--	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 31st March, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discip-line	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Category (SC/ST/OBC /Others)	Age	Email id
1	Sr. Sci.& Head	Dr. R.F.Thakor	Sr. Sci.& Head	Ext . Edu.	37400-67000	57520	19/05/01	Other	51	rthakor1965@yahoo.co.in
2	Scientist	Sh. K.A.Patel	Scientist	Pl. Prot.	15600-39100	32960	28/02/94	Other	48	kamlesh.patel40@gmail.com
3	Scientist	Sh. A.R.Patel	Scientist	Ext . Edu.	15600-39100	32960	23/01/96	Other	52	arvindkvkvalsad@gmail.com
4	Scientist	Sh. L.T.Kapur	Scientist	Soil Science	15600-39100	23890	16/12/06	SC	38	ltkvkambheti@gmail.com
5	Scientist	Sh. M.M.Gajjar	Scientist	Agronomy	15600-39100	17550	17/09/13	Other	36	gajjarmit4772@yahoo.com
6	Scientist	--	--	Horti.	--	--	--	--		--
7	Programme Assistant	Smt. P.R.Ahir	Programme Assistant	Home Sci.	9300-34800	19260	01/05/01	OBC	40	--
8	Programme Assistant	Sh. B.M.Patel	Programme Assistant	Ani .Sci.	9300-34800	17950	02/12/02	Other	45	kvkbalu@ rediffmail.com
9	Programme Assistant	Sh. P.J.Joshi	Programme Assistant	Agri. Engg.	9300-34800	19070	23/12/02	Other	43	Prjoshi1p@rediffmail.com
10	Farm Manager	Sh. P.R.Patel	Farm manager	Farm manager	9300-34800	18460	01/05/01	OBC	41	paresh1567@gmail.com
11	Accountant / Superintendent	Sh. C.D.Patel	O.S	O.S	9300-34800	10560	27/09/13	Other	29	cp.kvk8272@gmail.com
12	Stenographer	Sh.V.B.Patel	Jr. st.cum Acc.	Accou ntant	5200-20200	13350	01/11/99	ST	50	vinodkvkambheti@gmail.com
13	Driver	Sh. R.D.Rohit	Driver	Driver	5200-20200	9120	16/06/08	SC	39	rdrohit1976@gmail.com
14	Driver	Sh. H.G.Valand	Driver	Driver	5200-20200	8780	01/08/09	OBC	38	harikrushna1979@gmil.com
15	Supporting staff	Sh. A.R.Patel	Peon	Office attendant	5200-20200	8640	01/11/99	ST	41	ashokpatelambheti@gmail.com
16	Supporting staff	Sh. B.M.Patel	Farm attendant	Farm attendant	5200-20200	5860	01/04/13	OBC	27	bhavinpatel386510@gmail.com

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

Sr . No.	Item	Area (Ha.)
1	Under building	2.0 ha.
2	Under demonstration unit	1.0 ha
3	Under crops	8.0 ha
4	Orchard /Agro forestry	6.0 ha
5	Others (Grass land)	3.0 ha.

1. 7 Infrastructural Development

(A) Buildings

Sr. No	Name of building	Number	Plinth area (Sq.mt.)	Source of Funding	Status of construction
1	Administrative Building	01	720 Sq.mt	ICAR /GVP	Completed
2	Farmers Hostel	01	138 Sq.mt	ICAR	Completed
3	Staff Quarter	06	154 Sq.mt	ICAR	Completed
4	-- Dairy Demo. Unit	01	100 Sq.mt	ICAR , TSP ,Valsad	Completed
5	Bore well	01	300 ft	ICAR	Completed
6	Threshing floor	01	100 Sq.mt	ICAR	Completed
7	Farm godown	01	100 Sq.mt	ICAR	Completed
8	Implement shed	01	140 Sq.mt	ICAR	Completed
9	Soil-water testing lab.	01	--		
10	Plant Health Clinic	01	--		

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Tractor	1993	1,94,850	Approx. 47,000 hrs.	Replacement requires.
Tractor Trolley	1995	61,500	-	Replacement requires.

Jeep (Bolero)	2010	477058	153645	Working condition.
Power tiller	2010	1,55,500	--	Working condition.
Motor Cycle	2011	49995	9202	Working condition.

C) Equipments and A.V. aids

Name of the Equipment	**Year of purchase**	**Cost (Rs.)**	**Present status**
P A S system	1997	10230	Working condition.
Computer -2	2007 & 2010	1,02,270 +50,000	Working condition.
L C D	2007	75,400	Working condition.
Camera -2	1997 & 2007	2675 + 15250	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.
Laptop -Lenevo	2012	36368	Working condition.
LED –Sony TV	2015	52000	Working condition.

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

Sl. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1	10/02/17	1. Dr Rajendra Khimani Registrar, G.V. Ahmedabad Chairman 2. Dr. S.K.Singh Director ATARI Jodhpur 3. Dr. S.D. Kavad Asso. Prof. (DEE.) Office, NAU, Navsari 4. Dr. R.M. Sorathiya Res.Sci. L R.S NAU, Navsari 5. Dr. D.K. Sharma Res.Sci. (Horti.) NAU, Paria 6. Dr.H.M.Viradia Asso. Res.Sci. NAU, Navsari 7. Shri D.D. Chaudhri Veterinary Officer (A.H.),Valsad 8. Shri M.M. Chaudhri Asst. Director (Agril.) Valsad 9. Mrs.Hemangini Barot DDM, NABARD , Valsad 10 Shri N.V. Patel Deputy Director (Horti.),Valsad 11. Shri Divyesh Patel BTM, ATMA, Valsad 12. Dr. A. M. Takar Vasudhara Dairy, Alipore 13. Shri C. J. Patel Asst. Director (Horti.),Valsad 14. Mrs. Sangita S. Thorat PC JNT Kaparada 15. Shri Ramesh S. Bhoya J.N.Trust, Kaparada	1. The technologies demonstrated on farmers field under FLD should not be tested under OFT. 2. Technologies to be tested under OFT must be finalized with Scientists of SAU. 3. Lesson plan of each training must be prepared by the trainer and get it approved by Sr. Sci. and head. 4. Crop wise cost of production and cost of critical inputs should be presented. 5. The successful technologies under NICRA project may be replicated in to 3-4 villages. 6. World women day will now be celebrated on 15th Oct. every year. 7. The designation of SMS has been changed to Scientist. 8. More emphasize should be given on need analysis of the farmers. 9. Critical inputs under FLD must be based on the results of farming situation analysis. 10. Inputs which are out of reach of farmers /not available in the local market should not be tested under FLD or OFT. 11. Skill training programmes on quality seed production must be organized by the scientist (crop production). Lesson plan to be sent to Director, ATARI. 12. Research papers based on the results of FLD/OFT shall be published in the NAAS rated journal. 13. Training programmes related to horticulture discipline to be included in the action plan. Experts may be invited from NAU,	Action taken planned

		16. Dr. Jayatibhai Patel G.S.K. Ambheti 17. Shri Nileshbhai.K.Patel Farmers Representative (Prog. farmer) 18. Shri Hasmukh N. desai Farmers Rep. (Entrepreneur farmer) 19. Mrs. Ramilaben.M.Patel Farm women Rep. (President, SHG) 20. Mrs.Pushpaben Patel Farm women Rep.(Entre. farm women) 21. Dr. R.F.Thakor Member Secretary	Paria. 14. Demonstration on Banana cell sap and liquid bio fertilizer produced by NAU should be conducted especially in vegetable crops. 15. Demonstration on Drumstick plantation (Var. PKM-1) and minor fruit plants may be established at KVK farm. 16. Regular updation of KVK portal. 17. Organic inputs such as LBF, Cell sap should be added as critical inputs in FLD and OFT. 18. Farmers tour may be organized on participatory mode. 19. Soil analysis of eucalyptus demo plots should be done annually. 20. Minimum six days duration training programmes in each discipline must be organized.	

2. DETAILS OF DISTRICT (2016-17)

2.1 Major farming systems / enterprises (based on the analysis made by 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 and major agro ecological situations (based on the soil and topography)

Sr. 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.

Sr. 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 (2016-17)

Sr. No.	Crops	Area (,000 ha.)	Production (,000 tones.)	Productivity (Kgs / ha.)
1	**Food grains**			
	Paddy (irrigated)	21.184	69.9072	3300
	Paddy (Unirrigated)	51.572	133.055	2580
	Total Paddy	**72.756**	**202.962**	**2789**
	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	9205
	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**	

2.5 Weather data (2016-17)

Month	**Rainfall (mm)**	**Rainy days**	**Temperature C**		**Relative Humidity (%)**	
			Maximum	**Minimum**	**Maximum**	**Minimum**
January	0	0	31.68	9.35	72.7	33.73
February	0	0	32.27	12.71	84.61	45.95
March	0	0	35.94	15.13	67.32	38.96
April	0	0	36.07	19.76	70.48	46.87
May	0	0	36.03	25.21	76.07	55.25
June	168	09	34.13	26.38	81.04	70.79
July	1465	28	29.5	22.73	95.71	88.37
August	509	22	30.12	24.22	91.13	82.61
September	490	18	29.71	22.72	94.47	80.91
October	39	05	32.96	18.35	85.69	57.49
November	0	0	34.84	11.91	75.67	33.17

December	0	0	--	--	--	--

2.5 Production and Productivity of livestock, Poultry, Fisheries etc. in the district (2016-17)

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	--	--

Source : District Panchayat-Valsad

2.7 Details of Operational area / Villages (2016-17)

Sr. No.	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Area
1	Kaparada	Karjun, Mendha, Nandgam, Girnara,Singartati, Chavshala, Ambajangal Khutali, Amdha, Panas,Dhodhadkuva, Kolvera,.	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.
2	Dharampur	Nani vahiyal, Bhanvad, Pindval, Pangarbari, Samarsingi, Hanmatmal	Paddy , Pulses, Vegetables & Dairy .	Low productivity in all crops. Poor milk production	ICM ,INM, IPM, IWM Feed & fodder mgt. Integrated livestock mgt.
3	Pardi	Goima, Tarmalia, Asma, Ambach, Pati, Lakhmapore,	Paddy ,Sugarcane, Pulses, Vegetables , Mango & Dairy.	Low productivity in all crops. Poor milk production	ICM ,INM, IPM, IWM Feed & fodder mgt. Integrated livestock mgt.
4	Umargam	Saronda, Aklara, Borigam	Paddy & Vegetable.	Low productivity in all crops.	ICM ,INM, IPM, IWM
5	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
Brinjal	Varietal evaluation ,ICM, IWM, INM, IPM

Livestock	Feed & fodder mgt., Integrated livestock mgt.
Income generation	Vocational training

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2016-17

OFT (Technology Assessment and Refinement)				FLD (Oilseeds, Pulses, Cotton, Other Crops/Enterprises)			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
11	10	80	70	140	142.9	620	759

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities				
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	102	67	2526	2522	Field day	09	11	630	945
Rural youth	06	11	150	274	Farmers seminar	07	08	700	754
Extension Functionaries	04	06	100	214	Sci.-farmers interaction	20	44	400	1181
					Farmers visit to kvk	600	577	600	577
					Diagnostic visit	04	05	20	25
					Scientist visit to farmers field	120	47	120	121
					Lecture delivered	20	38	3000	9204

Seed Production (Qt.)			Planting material (Nos.)		
Target	**Achievement**	**Distributed to no. of farmers**	**Target**	**Achievement**	**Distributed to no. of farmers**
Paddy – 70.0	118.29	755	Drumstick- 1500 nos.	2630 nos.	100
Greengram - 1.00	0.90	20	Sugarcane - 300.0 qt.	350.0 qt.	18
Chickpea – 3.00	3.30	35	Veg.(Seedlings) – 3,00,000 nos.	3,12,000 nos.	360
Indianbean (NPS-1)	0.20	10	Fodder tousseks- 1,80,000 nos.	2,95,700 nos.	258
			Sweetpotato cuttings-2,00,000 nos.	1,14,000 nos.	38

I.A TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVKs

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management	Mango	Assessment of nutrient management in Mango for fruit setting & fruit retention.	05	05
	Fingermillet	Assessment of use of LBF enriched vermin compost in Fingermillet.	05	05
	Brinjal	Assessment of Integrated Nutrient Management in Brinjal.	05	05
Varietal Evaluation	Paddy	Assessment of Paddy variety for kharif cultivation	10	10
	Sweetpotato	Assessment of improved variety of Sweetpotato.	05	05
	Chickpea	Assessment of Gram variety for rainfed rabi cultivation	10	10
Integrated Pest Management	Mango	Assessment of different pesticides for management of hoppers in Mango	10	10
Integrated Crop Management	Paddy	Assessment of seed rate of Paddy nursery on yield of crop .	05	05
	Sweetpotato	Assessment of production technology of Sweetpotato	05	05
Integrated Disease Management	Bittergourd	Assessment of Bittergourd variety for management of mosaic disease.	10	10
Total			**70**	**70**

Summary of technologies assessed under livestock by KVK- Nil

I.B. TECHNOLOGY REFINEMENT –Nil

I.C. TECHNOLOGY ASSESSMENT IN DETAIL

INTEGRATED NUTRIENT MANAGEMENT

Problem definition: Lower yield and profitability in Mango cultivation due to low fruit setting & low fruit retention.

Technology assessed : Assessment of nutrient management in Mango for fruit setting & fruit retention.

KVK, Valsad in Gujarat conducted on-farm trial to find out appropriate nutrient management practice to enhance the Mango productivity. The assessed practice of foliar spray of NAA (20 ppm) and 2% Urea with 3 Foliar spray of 0.1% borax and 0.2%$ZnSO_4$ during Nov., Dec. and Jan. found to be better with 59% fruit retention and 26.59 % increase in yield

Table : Effect NAA ,Zn and Boron in fruit retention and yield in Mango

Technology Option	No. of trials	Fruit retention (%)	Yield (kg./ha)	Increase in yield (%)	B:C Ratio
T_1: Farmer practices (800:150:350 NPK gm/ tree) + 100kg FYM.	10	38	8558	0.00	3.14
T_2 : RDF (750:160:750 NPK gm/ tree)+ NAA (20ppm)+ 2% Urea (SAU Reco.)		44	10362	16.99	3.50
T_3: RDF +NAA (20 ppm)+ 2% Urea + 3 Foliar spray of 0.1% borax+0.2%$ZnSO_4$ (Nov., Dec. and Jan.)		59	10668	26.59	3.73

INTEGRATED NUTRIENT MANAGEMENT

Problem definition: Injudicious use of costly chemical fertilizer, reduce net profit and yield of Fingermillet

Technology assessed : Assessment of integrated nutrient management in Fingermillet

KVK, Valsad assess the technology of integrated nutrient management by the application of 50% SAU RDF through chemical fertilizers with LBF enriched (@ 1.25 lit ha^{-1}) Vermicompost @ 1 t ha^{-1} in Guj. Nagli- 5 variety of Fingermillet and found that the yield of Fingermillet was enhanced with highest increase in net profit and BCR.

Table : Performance of integrated nutrient management in Finger millet**.**

Technology Options	**No. of trials**	**Yield (kg/ha)**	**Increase in yield (%)**	**Increase in net profit (%)**	**B:C Ratio**
T_1 : Farmer practice (No use of fertilizers)	05	1125	0.00	0.00	1.28
T_2 : RDF (8 -10 t ha^{-1}FYM + 40 : 20 : 00 kg NPK ha^{-1})		1442	28.18	0.51	1.21
T_3 : 20 : 10 : 00 kg NPK ha^{-1}+ 1 t ha^{-1} Vermi. + LBF @ 1.25 lit ha^{-1} (For enrichment of Vermi.		1445	28.44	32.45	1.29

INTEGRATED NUTRIENT MANAGEMENT

Problem definition: Low return from Brinjal

Technology assessed : Assessment of Integrated Nutrient Management in Brinjal

KVK-Valsad conducted on farm testing to assess the use of liquid biofertiliser enriched vermicompost in brinjal crop for increase in yield and net profit with **T_1 :** Farmer practice (i.e 172 : 70 : 85 kg NPK ha^{-1}), **T_2 :** 75% recommended dose of fertilizer (75:28:28 kg N, P_2O_5, K_2O ha^{-1}) + 25% 0f RDF through Bio-compost (10 tones ha^{-1}) and **T_3 :** 60% recommended dose of fertilizer (60:30:30 kg N, P_2O_5, K_2O ha^{-1}) +12 t FYM ha^{-1} (20% 0f RDF) +1.25 lt. ha^{-1} LBF(20% 0f RDF). Data of trials revealed that application of 60% of RDF with Use of LBF enriched FYM increased 34.81% net profit and B:C ratio (3.62), compared to RDF (3.29) and Farmer practice (2.83) BCR.

Table : Performance of integrated nutrient management in Brinjal

Technology Options	No. of trials	Yield (kg/ha)	Gross return (Rs./ha)	Total Cost of cultivation (Rs./ha)	Net profit (Rs./ha)	Increase in Net profit (%)	B:C Ratio
T_1 : Farmer practice (i.e 172 : 70 : 85 kg NPK ha^{-1})	05	27830	194810	68750	126060	0.00	2.83
T_2 : 75% RDF (75:28:28 kg NPK ha^{-1}) + 25% 0f RDF through Bio-compost (10 tones ha^{-1})		32561	227927	69250	158677	25.87	3.29
T_3 : 60% RDF (60:30:30 kg NPK ha^{-1}) +12 t FYM ha^{-1} (20% 0f RDF) +1.25 lt. ha^{-1} LBF(20% 0f RDF)		33526	234682	64745	169937	34.81	3.62

VARIETAL EVALUTION

Problem definition : Low return due to higher cost of production of paddy

Technology assessed : Assessment of paddy variety for kharif cultivation in Valsad district.

KVK, Valsad conducted on farm trial to assess the variety of Paddy in rain fed condition. The result shown that the paddy variety GAR-13 gave 3701 Kg/ha yield as compare to GNR-2 (3052 Kg/ha) and Hybrid (US-312) (3195 Kg/ha). Also the net return of GAR-13 was Rs. 26135 per ha. as compare to GNR-2 with net return of Rs. 16550 and the hybrid (US-312) of Rs. 13485 per ha respectively.

Table : Performance of paddy variety

Technology Options	Productive tillers/hill	Yield (kg/ha)	Gross income (Rs/ha)	Expenditure (Rs/ha)	Net profit (Rs/ha)	B:C Ratio
T1 : Farmers practices (Hybrid)	10.50	3195	47925	34440	13485	1.4
T2 : NAU recommendation (GNR-2)	10.30	3052	45780	29230	16550	1.6
T3 : GAR - 13	12.40	3701	55515	29380	26135	1.9

VARIETAL EVALUTION

Problem definition: Low yield of Gram

Technology assessed : Assessment of Gram variety for rainfed rabi cultivation in Valsad district.

KVK, Valsad conducted on farm trial to assess the variety of Gram in rain fed rabi cultivation. The result shown that the Gram variety PKV-2 gave 1434 Kg/ha yield as compare to GG-2 (1340 Kg/ha) and Local variety (986 Kg/ha). Also the net return of Rs. 69,567 per ha. as compare to the GG-2 of Rs. 59,434 per ha and local variety with net return of Rs. 40,450 per ha.

Table : Performance of Gram variety

Treatment	Yield (kg/ha)	Selling price (Rs/kg)	Gross income (Rs/ha)	Gross cost (Rs/ha)	Net profit (Rs/ha)	B:C Ratio
T1: Farmers practices (local variety with local practices)	986	60	59,130	18,680	40,450	3.17
T2: Recommendation (GG-2 with improved practices)	1340	60	80,376	20,300	59,434	3.93
T3: PKV-2 with improved practices	1434	63	90,367	20,800	69,567	4.34

INTEGRATED PEST MANAGEMENT

Problem definition: Low yield in Mango due to infestation of hoppers

Technology assessed : Assessment of different pesticides for management of hoppers in Mango

Mango hopper is a regular pest in the Pardi block of Valsad district. Attack of hoppers causes lot of damage to Mango crop. Therefore, there is a higher economic loss from producer point of view as it lower down the yield and deteriorate fruit quality resulting into low market value. It was also observed that the farmers in this area are using different insecticides with no result. It is possible that the pest might have created some resistant power against certain pesticides. Therefore, KVK Valsad conducted on-farm trial to check efficacy of different pesticides for proper management of Mango hoppers. Result of first year 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 @ 2 g / 10 lit after fruit set reduced the percentage of damage of hoppers from 28 to 11 and yield was increased by 26.58 per cent.

Table : Comparisons of technology for management of hoppers in Mango

Technology Option	**No. of trials**	**Infestation of hoppers (%)**	**Yield (kg/ha)**	**% Increase in yield**
T1 : 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)	10	28	8650	--
T2 : First spray of Synthetic Pyrethroids (Cypermethrin 25 EC @ 3ml/10 lit) at early stage of panicle formation and second spray of Imidachloprid 17.8 SL@ 3 ml/10 lit after fruit set (SAU recommendation)		17	10120	16.99
T3 : First spray of Imidachloprid 17.8 SL@ 3 ml/10 lit at early stage of panicle formation and second spray of Thiomethoxam @ 2 g / 10 lit after fruit set (Source : Central Institute for Subtropical Horticulture, Lukhnow)		11	10950	26.58

INTEGRATED CROP MANAGEMENT

Problem definition : Low yield of Paddy due to poor nursery management in rainfed condition

Technology assessed : Assessment of seed rate of paddy nursery on yield of crop.

KVK, Valsad conducted on farm trial to assess or refine the Ideal seed rate of Paddy nursery on yield of crop in rain fed condition of Valsad district. The result shown that the seed rate @ 30 gm/m^2 in flat bed gave 3538 kg/ha yield as compare to recommended seed rate @ 30gm/m^2 10x1 m raised bed yield 3360 kg/ha and 3150 kg/ha from > 40 gm/m^2 flat bed of farmer practices.

Table : Performance of seed rate in Paddy nursery management

Technology Options	**Productive tillers/hill**	**Yield (kg/ha)**	**Gross income (Rs/ha)**	**Gross cost (Rs/ha)**	**Net profit (Rs/ha)**	**B:C Ratio**
T1: Farmers practices (>40 gm/m^2 flatbed)	10.60	3150	47250	31135	16115	1.52
T2: Recommendation (30 gm/m^2 – 10 x 1 m raised bed	11.20	3360	50400	29377	21023	1.72
T3: Seed rate @ 30 gm/m^2 flat bed	11.60	3538	53070	29077	23993	1.80

INTEGRATED DISEASE MANAGEMENT

Problem definition: Low yield in Bittergourd due to mosaic disease.

Technology assessed : Assessment of Bittergourd variety for management of mosaic disease.

Mosaic – a viral disease is a serious threat to commercial production of bitter gourd in Kaparada block of Valsad district resulting in yield loss. Farmers of this area are using hybrid variety of different companies which are susceptible to mosaic disease. Farmers waste lot of money for spraying pesticides with no result in control. KVK Valsad conducted on-farm trial to assess different varieties for the management of mosaic disease in Bittergourd. Result of second year showed that the technology of Mosaic resistant variety (Vivek) + Removal of infected plant and spraying of systemic insecticide for control of vector reduced the percentage of disease incidence from 18 to 6 and yield was increased by 15.59 per cent.

Table : Comparisons of technology for management of mosaic in Bittergourd.

Technology Options	**No. of trials**	**Incidence of mosaic (%)**	**Yield (kg/ha)**	**% Increase in yield over farmer's practice**
T1. Kohinoor variety (Farmers practice)	10	18	18600	--
T2. Improved var. (Coimbatore long) + Removal of infected plant and spraying of systemic insecticide for control of vector (Recommendation)		12	19300	6.45
T3. Mosaic resistant variety (Vivek)+ Removal of infected plant and spraying of systemic insecticide for control of vector		06	21500	15.59

II. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2016-17 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	Demo. of improved variety seeds	25	450	120
2	Fingermillet	Varietal Evaluation	HYVs of Fingermillet	Demo. of improved variety seeds	06	120	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	23	150	60
5	Sweetpotato	Varietal Evaluation	HYVs of Sweetpotato	Demo. of improved variety seeds	04	22	05
6	Greengram	Varietal Evaluation	HYVs of Greengram	Demo. of improved variety seedlings	08	125	20
7	Green fodder	Varietal Evaluation	HYVs of Perrenial grass	Demo. of improved variety planting material	40	200	25

Details of FLDs implemented during 2016 -17

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, LBF	Kharif	25	30	150	--	150	--
2	Sugarcane	ICM	HYV, LBF	Rabi	02	04	22	--	22	--
3	Finger millet	ICM	HYV,LBF, Biopesticides	Kharif	20	16.0	100	--	100	--
4	Blackgram	ICM	HYV, LBF	Kharif	05	05	50	--	50	--
5	Bittergourd	ICM	HYV, IPM, LBF	Kharif	2.5	2.5	25	--	25	--
6	Sweetpotato	ICM	HYV (Co-3-4)	Kharif	02	1.4	28	--	28	--
7	Chickpea	ICM	HYV, IPM, LBF	Rabi	05	30	150	--	150	--
8	Indianbean	ICM	HYV(Guj.Val-2), Biopesticides, LBF	Rabi	02	04	40	--	40	--
9	Greengram	ICM	HYV,INM, IPM	Summer	05	24	103	--	103	--
10	Sorghum	ICM	HYV,INM, IPM	Rabi	05	05	32	--	32	
11	Indianbean	ICM	HYV(NPS-1), Biopesticides, LBF	Rabi	01	01	09	--	09	
12	Greengram	ICM	HYV,INM, IPM	Summer	05	20	50	--	50	--
13	Sugarcane	ICM	HYV, LBF	Rabi	01	01	10	--	10	--

Details of farming situation

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					
Paddy	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	1st fortnight of July	2nd fortnight of October	2671	82
Sugarcane	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Oct – Nov-15	Dec-16	2671	82
Finger millet	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	2nd fortnight of July	2nd fortnight of October	2671	82
Blackgram	Kharif	Rainfed	Medium black	Low	Medium	High	Pulses	2nd fortnight of July	2nd fortnight of October	2671	82
Bittergourd	Kharif	Irrigated	Medium black	Low	Medium	High	Paddy	June-16	Aug-Nov-16	2671	82
Sweetpotato	Kharif	Irrigated	Medium black	Low	Medium	High	Paddy	July-16	Oct-16	2671	82
Greengram	Summer	Irrigated	Medium black	Low	Medium	High	Paddy	Feb-16	May- 16	--	--
Chickpea	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Dec-16	March- 17	--	--
Indianbean	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Oct-16	April-17	--	--
Sorghum	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Dec-16	April-17	--	--
Indianbean	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Nov-16	April-17	--	--
Sugarcane	Rabi	Irrigated	Medium black	Low	Medium	High	Paddy	Oct – Nov-16	Dec-17	--	--

Technical feedback on the demonstrated technologies.

Sr. No	Feed Back
1	Fingermillet (Guj Nagli-5) variety gives good response in longer rainy season only.
2	Paddy variety GAR-13 have more tillering and bold spike .
3	No uniform maturity found in Meha variety of Greengram .
4	Sweetpotato variety CO-3-4 having more bulbs per plant resulted in higher yield.
5	Production of Sugarcane variety Co-N-7072 may be reduced in case of late harvesting.
6	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	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	Spike is large and variety is found resistant to pest- disease compare to local variety.
3	Greengram	Meha variety is found resistant to YMV.
4	Bittergourd	Mosaic incidence found less.
5	Indianbean	More number of pods per branch, early pod setting .
6	Sugarcane	Seed rate has been reduced to 50%.
7	Sweetpotato	Good colour, thickness and sweetness fetches higher market price.
8	LBF	Application of LBF is easy to apply and cheaper as compare to costly chemical fertilizers.

Extension and Training activities under FLD

Sr. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	11	06/05/16 12/05/16 13/05/16 23/09/16 04/10/16 19/10/16 20/10/16 28/01/17 31/01/17 11/02/17 25/02/17	72 125 53 120 81 75 85 66 65 108 95	
2	Farmers Training	13	23-24/05/16 26-27/05/16 30/5&2/6/16 30-31/5/16 31-5&08/06/16 06-07/06/16 09-10/06/16 30/06&02/07/16 25-26/10/16 08-12/11/16 15-19/11/16 16-19/2/17 22-25/2/17	45 38 29 23 28 42 27 39 21 70 37 19 18	
3	Media coverage	06	11/04/16 25/05/16 17/10/16 24/10/16 08//12/16 22/03/17	--	
4	Training for extension functionaries	--	--		

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.										
Black gram	ICM	Imp. variety + Seed treatment, LBF	(Guj. Udad-1)	50	05	4.80	1.50	2.84	2.25	26.22	16480	28448	11968	1.73	13400	22480	9080	1.68
Green gram	ICM	Improved variety + Line sowing + INM + IPM	Meha	103	24	7.80	5.40	6.75	5.27	28.08	17200	54000	36800	3.14	15800	42160	26360	2.67
Chick pea	ICM	Improved variety +Seed treatment + Line sowing + IPM	GJG-3	150	30	13.8	11.5	13.45	11.41	17.87	19800	80680	60880	4.07	18593	68484	49891	3.68

FLD on Other crops

Category & 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	150	30	46.3	29.0	37.17	28.03	32.6	29377	55760	26383	1.90	29785	42049	12264	1.41
Finger millet	ICM	Improved variety, Biopesticides LBF	Guj. Nagli – 5	100	16	13.8	10.2	12.61	10.35	21.83	17555	31525	13970	1.79	15975	25875	9900	1.61
Vegetables																		
Bittergourd	ICM	Improved variety, IPM, LBF	F1 (Akash)	25	2.5	228	196	216.3	186.8	15.75	62000	108160	46160	1.74	59000	93440	34440	1.58
Sweetpotato	ICM	Improved variety	CO-3-4	28	1.4	218	190	212	174	21.83	76400	254400	178000	3.32	73300	191400	118100	2.61
Commercial Crops																		
Sugarcane	ICM	Improved variety,LBF	Co-N 07072	22	04	1205	1065	1192	1073	11.09	76241	202640	126399	2.66	78529	182410	103881	2.32

FLD on Livestock –Nil

FLD on Women Empowerment –Nil

FLD on Farm Implements and Machinery –Nil

FLD on Other Enterprise: Kitchen Gardening –Nil

FLD on Demonstration details on crop hybrids - Nil

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
I Crop Production										
Water management	01	--	--	--	30	17	47	30	17	47
Weed management	01	--	--	--	27	18	45	27	18	45
Nursery management	01	--	--	--	31	03	34	31	03	34
Integrated Crop Management	10	--	--	--	358	64	422	358	64	422
Total	**13**	--	--	--	**446**	**102**	**548**	**446**	**102**	**548**
II Horticulture	--	--	--	--	--	--	--	--	--	--
III Soil Health and Fertility Management										
Production and use of organic inputs	01	--	--	--	26	--	26	26	--	26
Soil and Water Testing	01	--	--	--	14	02	16	14	02	16
Total	**02**	--	--	--	**40**	**02**	**42**	**40**	**02**	**42**
IV Livestock Prod. and Management	--	--	--	--	--	--	--	--	--	--
Dairy farming	01	--	--	--	03	32	35	03	32	35
Feed and fodder management	02	--	--	--	09	83	92	09	83	92
Total	**03**	--	--	--	**12**	**115**	**127**	**12**	**115**	**127**
V Home Science/Women empowerment		--	--	--						
Nutritional gardening	01	--	--	--	--	25	25	--	25	25
Women empowerment	01	--	--	--	--	16	16	--	16	16
Total	**02**	--	--	--	--	**41**	**41**	--	**41**	**41**

VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	02	--	--	--	38	--	38	38	-	38
Farm mechanization	02	--	--	--	46	05	51	46	05	51
Total	**04**	**--**	**--**	**--**	**84**	**05**	**89**	**84**	**05**	**89**
VII Plant Protection										
Integrated Pest-disease Management	01	--	--	--	39	--	39	39	--	39
Bio-control of pests and diseases	01	--	--	--	19	05	24	19	05	24
Total	**02**	**--**	**--**	**--**	**58**	**05**	**63**	**58**	**05**	**63**
X Capacity Building and Group Dynamics										
Leadership development	03	--	--	--	89	27	116	89	27	116
Formation and Management of SHGs	03	--	--	--	138	11	149	138	11	149
Total	**06**	**--**	**--**	**--**	**227**	**38**	**265**	**227**	**38**	**265**
Grand Total	**32**	**--**	**--**	**--**	**867**	**308**	**1175**	**867**	**308**	**1175**

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	--	--	--	56	14	70	56	14	70
Water management	02	--	--	--	36	14	50	36	14	50
Nursery management	01	--	--	--	19	06	25	19	06	25
Integrated Crop Mgt.	07	--	--	--	131	108	239	131	108	239
Total	**12**	--	--	--	**242**	**142**	**384**	**242**	**142**	**384**
II Horticulture	--	--	--	--	--	--	--	--	--	--
III Soil Health and Fertility Management										
Integrated Nutrient Management	02	--	--	--	49	05	54	49	05	54
Soil and Water Testing	01	--	--	--	19	--	19	19	--	19
Total	**03**	--	--	--	**68**	**05**	**73**	**68**	**05**	**73**
IV Livestock Production and Management	--	--	--	--	--	--	--	--	--	--
Dairy farming	01	--	--	--	06	10	16	06	10	16
Feed and fodder management	01	--	--	--	07	10	17	07	10	17
Total	**02**	--	--	--	**13**	**20**	**33**	**13**	**20**	**33**
V Home Science/Women empowerment										
Mushroom production	01	--	--	--	--	20	20	--	20	20
Nutritional gardening	01	--	--	--	--	25	25	--	25	25
Total	**02**	--	--	--		**45**	**45**	--	**45**	**45**
VI Agril. Engineering										

Installation and maintenance of micro irrigation systems	01	--	--	--	16	--	16	16	--	16
Repair and maintenance of farm machinery and implements	02	--	--	--	69	18	87	69	18	87
Total	**03**	**--**	**--**	**--**	**85**	**18**	**103**	**85**	**18**	**103**
VII Plant Protection										
Integrated Pest-disease Management	01	--	--	--	15	01	16	15	01	16
Bio-control of pests and diseases	01	--	--	--	25	22	47	25	22	47
Total	**02**	**--**	**--**	**--**	**40**	**23**	**63**	**40**	**23**	**63**
X Capacity Building and Group Dynamics										
Formation and Management of SHGs	01	--	--	--	23	03	26	23	03	26
Total	**01**	**--**	**--**	**--**	**23**	**03**	**26**	**23**	**03**	**26**
Grand Total	**25**	--	--	--	**471**	**256**	**727**	**471**	**256**	**727**

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	03	--	--	--	66	31	97	66	31	97
Weed management	03	--	--	--	83	32	115	83	32	115
Nursery management	02	--	--	--	40	09	49	40	09	49
Integrated Crop Management	17	--	--	--	489	172	661	489	172	661
Total	**25**	**--**	**--**	**--**	**688**	**244**	**932**	**688**	**244**	**932**
II Horticulture	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
III Soil Health and Fertility Management										
Integrated Nutrient Management	02	--	--	--	49	05	54	49	05	54
Production and use of organic inputs	01	--	--	--	26	--	26	26	--	26
Soil and Water Testing	02	--	--	--	33	02	35	33	02	35
Total	**05**	**--**	**--**	**--**	**108**	**07**	**115**	**108**	**07**	**115**
IV Livestock Production and Management	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
Dairy farming	02	--	--	--	09	42	51	09	42	51
Feed and fodder management	03	--	--	--	16	93	109	16	93	109
Total	**05**	**--**	**--**	**--**	**25**	**135**	**160**	**25**	**135**	**160**
V Home Science/Women empowerment										
Nutritional gardening	02	--	--	--	--	50	50	--	25	25
Women empowerment	01	--	--	--	--	16	16	--	16	16

Mushroom production	01	--	--	--	--	20	20	--	20	20
Total	**04**	**--**	**--**	**--**	**--**	**86**	**86**	**--**	**86**	**86**
VI Agril. Engineering										
Installation and maintenance of micro irrigation systems	03	--	--	--	54	--	54	54	--	54
Farm mechanization	02	--	--	--	46	05	51	46	05	51
Repair and maintenance of farm machinery and implements	02	--	--	--	69	18	87	69	18	87
Total	**07**	**--**	**--**	**--**	**169**	**23**	**192**	**169**	**23**	**192**
VII Plant Protection										
Integrated Pest-disease Management	02	--	--	--	54	01	54	54	01	54
Bio-control of pests and diseases	02	--	--	--	44	27	71	44	27	71
Total	**04**	**--**	**--**	**--**	**98**	**28**	**126**	**98**	**28**	**126**
X Capacity Building and Group Dynamics										
Leadership development	03	--	--	--	89	27	116	89	27	116
Formation and Management of SHGs	04	--	--	--	161	14	175	161	14	175
Total	**07**	**--**	**--**	**--**	**250**	**41**	**291**	**250**	**41**	**291**
Grand Total	**57**	**--**	**--**	**--**	**1338**	**564**	**1902**	**1338**	**564**	**1902**

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
Value addition	01	--	--	--	--	29	29	--	29	29
Mushroom production	01	--	--	--	03	29	32	03	29	32
Natural Fiber articles preparation	01					30	30	--	30	30
Rural Crafts	02	--	--	--	--	48	48	--	48	48
Mango growers (ASCI)	01				20	--	20	20	--	20
Paddy cultivators (ASCI)	01				08	12	20	08	12	20
Total	**07**	--	--	--	**31**	**148**	**179**	**31**	**148**	**179**

Training for Rural Youths 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
Value addition	01	--	--	--	--	19	19	--	19	19
Mushroom production	01	--	--	--	--	17	17	--	17	17
Natural Fiber articles preparation	01	--	--	--	--	30	30	--	30	30
Rural Crafts	01	--	--	--	--	29	29	--	29	29
Total	**04**	--	--	--	--	**95**	**95**	--	**95**	**95**

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

Area of training	No. of	No. of Participants

	Courses	General			SC/ST			Grand Total		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Value addition	02	--	--	--	--	48	48	--	48	48
Mushroom production	02	--	--	--	03	46	49	03	46	49
Natural fiber articles preparation	02	--	--	--	--	60	60	--	60	60
Rural Crafts	03	--	--	--	--	77	77	--	77	77
Mango growers	01				20	--	20	20	--	20
Paddy cultivators	01				08	12	20	08	12	20
Total	**11**	--	--	--	**31**	**243**	**274**	**31**	**243**	**274**

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 nutrient management	01	12	09	21	--	--	--	12	09	21
Formation and mgt.of SHGs	01	--	--	--	35	--	35	35	--	35
Total	**02**	**12**	**09**	**21**	**35**	**--**	**35**	**47**	**09**	**56**

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
Nutritional gardening	03	--	--	--	55	63	118	55	63	118
Livestock feed and fodder production	01	--	--	--	25	15	40	25	15	40
Total	**04**	--	--	--	**80**	**78**	**158**	**80**	**78**	**158**

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 nutrient management	01	12	09	21	--	--	--	12	09	21
Nutritional gardening	03	--	--	--	55	63	118	55	63	118
Livestock feed and fodder production	01	--	--	--	25	15	40	25	15	40
Formation and mgt.of SHGs	01	--	--	--	35	--	35	35	--	35
Total	**06**	**12**	**09**	**21**	**115**	**78**	**193**	**127**	**87**	**214**

Table. Sponsored training programmes

Area of Training	No. of Courses	No. of Participants			Sponsoring agency
		General	SC/ST	Grand Total	

		Male	Female	Total	Male	Female	Total	Male	Female	Total	ATMA
Crop production and management											
Increasing production and productivity of crops	03	--	--	--	155	89	244	155	89	244	
Integrated Pest Management	03	--	--	--	96	52	148	96	52	148	
Total	**06**				**251**	**141**	**392**	**251**	**141**	**392**	
Production and value addition											
Soil health and fertility management	01				--	44	44	--	44	44	
Production and use of organic inputs	01	--	--	--	05	55	60	05	55	60	
Total	**02**	--	--	--	**05**	**99**	**104**	**05**	**99**	**104**	
Agricultural Extension		--	--	--							
Capacity Building and Group Dynamics	02	--	--	--	06	106	112	06	106	112	
Total	**02**	--	--	--	**06**	**106**	**112**	**06**	**106**	**112**	
GRAND TOTAL	**10**	--	--	--	**262**	**346**	**608**	**262**	**346**	**608**	

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
PHT and value addition										
Value addition	02	--	--	--	--	48	48	--	48	48
Total	**02**	**--**	**--**	**--**	**--**	**48**	**48**	**--**	**48**	**48**
Income generation activities		--	--	--	--					
Rural Crafts	05	--	--	--	--	137	137		137	137
Mushroom cultivation	02	--	--	--	03	46	49	03	46	49
Mango growers	01				20	--	20	20	--	20
Paddy cultivators	01				08	12	20	08	12	20
Total	**11**	--	--	--	**31**	**243**	**274**	**31**	**243**	**274**

IV. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Diagnostic visits	02	07	05	12
Field Day	11	945	04	949
Kisan Ghosthi	44	1181	08	1189
Farmers Seminar	08	754	06	760
Film Show	17	512	--	512
Kisan Mela	--	--	--	--
Exhibition	01	460	15	475
Farmers visit to kvk	577	577	--	577
Scientists' visit to farmers field	47	119	02	121
Advisory Services	313	313	--	313
Method Demonstrations	05	145	--	145
Celebration of important days	03	154	02	156
Pre Rabi sammelan	03	803	14	817
Exposure visits	09	230	--	230
Soil Health camp	04	126	03	129
Lecture delivered in other programmes	38	9204	26	9230
Total	**1082**	**15530**	**85**	**15601**

Details of other extension programmes

Particulars	Number
Extension Literature	05
News paper coverage	12
Popular articles	10
Radio Talks	05
TV Talks	06
Animal health amps (Number of animals treated)	10
Others (Soil health camps)	04
Total	**52**

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	Total
Valsad	Text only	07	--	--	--	03	--	10
	Total Messages	07	--	--	--	03	--	10
	Total farmers Benefitted	60277	--	--	--	20119	--	80396

V. DETAILS OF TECHNOLOGY WEEK CELEBRATION : Nil

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	GAR-13, MTU-1010	--	68.15 50.14	2,04,450 1,50,420	755
Pulses	Green gram	Meha	--	0.90	9000	20
	Chickpea	GG-2	--	3.30	33000	35
	Indianbean	NPS-1	--	0.20	6000	10
Others	Sugarcane	Co.N-7072	--	350.00 qt.	70000	18
Total			**--**	**472.69**	**472878**	**838**

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	DPR	--	80000	40000	360
	Brinjal	--	Mukta round	142000	99400	
	Tomato	--	NS-501(Namdhari)	22000	22000	
	Chilli	--	Eagle (Rashi)	48000	48000	
	Cabbage	--	Golden acre	10000	5000	
	Cauliflower	--	Snowball white	10000	5000	
	Drumstick	PKM-1	--	2630	31560	100
Tuber	Sweet potato	CO-3-4	--	114000 cuttings	45600	38
Fodder crop saplings	Perennial grass	Co-4	--	295700 (tousseks)	--	176
Total				**724330**	**296560**	**674**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity Nos./Kg	Value (Rs.)	No. of Farmers
Bio Agents	Fruitfly trap(Mango)	1810 no.	63070	124
Others	Earthworms	50.0 kg.	10000	08
	Vermicompost	22000 kg.	88000	Farm use
Total			**161070**	**132**

Table: Production of livestock materials: nil

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	571	793	42	34260
Water	397		31	19850
Plant	68	77	24	--
Total	**1036**	**870**	**97**	**54110**

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
VALSAD	01

IX. NEWSLETTER/MAGAZINE

Name of News letter/Magazine	No. of Copies printed for distribution
KVK- Newsletter	400

X. PUBLICATIONS

Category	Number
Research Paper	03
Technical bulletins	03
Technical reports	05
Others Popular articles	10
Leaflet / folders	05

XI. DETAILS ON RAIN WATER HARVESTING STRUCTURE AND MICRO-IRRIGATION SYSTEM - Nil
XII. INTERVENTIONS ON DISASTER MANAGEMENT/UNSEASONAL RAINFALL/HAILSTORM/COLD WAVES ETC -

Introduction of alternate crops/varieties-Nil

Major area coverage under alternate crops/varieties- Nil

Farmers-scientists interaction on livestock management- Nil

Animal health camps organised - Nil

Seed distribution in drought hit states- Nil

Large scale adoption of resource conservation technologies - Nil

Awareness campaign - Nil

XIII. DETAILS ON HRD ACTIVITIES

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

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

XIV. CASE STUDIES

a) ***Effective popularization on a larger scale of any one FLD technology and its role in transformation of district***

Name of the KVK : Krishi Vigyan Kendra-Ambheti-Valsad

Title : Introduction of High Yielding Variety of Fingermillet for rainfed tribal hilly area.

Introduction :-

Valsad district having slopy and undulating land in eastern part covering Kaparada and Dharampur talukas mostaly dominated by tribal communities. These farmers grows Fingermillet in slopy area. Fingermillet is an important cereal crop grown in kharif season. The farmers of district use local variety which having small spike resulting into low productivity. Continuous use of local variety gives lesser yields year over year. Thus, area under fingermillet cultivation reduces day by day because of low productivity of local variety.

Intervention :-

A training program on cultivation practices of improved Fingermillet variety was organized.

The front line demonstration on Guj.Nagli-5 cultivar which have large spike gives higher production were conducted at farmer's field.

To improve soil fertility Azospirilum, PSB and Potash Mobilizer liquid biofertilizers were demonstrated.

Output :-

Results of demonstration shows that the local variety gave yield of 1085 kg/ha. due to small spike and less management of crop production practices. Demonstrated improved variety Guj.Nagli-5 with improved practices gave yield of 1261 kg/ha. The demonstrated variety Guj.Nagli-5 gave 16.22 percent higher yield compared to local varieties.

Table : Result of Frontline Demonstration

Crop and Season	Farming Situation	Area (ha)	Grain Yield (kg/ha)		Gross Return (Rs/ha)		Net Return (Rs/ha)		BCR	
			(IP)	(FP)	(IP)	(FP)	(IP)	(FP)	(IP)	(FP)
Fingermillet (Kharif)	Rainfed	16	1261	1035	31525	25875	13970	9900	1.8	1.62

Note : Average Selling price of Green gram 25 Rs./kg

Outcome :-

In poor fertile slopy land the productivity of fingrmillet can improve by adopting improve variety Guj.Nagli-5 with addition to application of Liqid biofertilizer for soil health.

Impact:-

The demonstrated fingrmillet variety Guj.Nagli-5 has created very good impression among the other farmers of the village. The improved variety with higher production compare to their local variety impress farmers for sustaining the cultivation of fingermillet.

Photographs of Fingermillet var.Guj.Nagli-5

b) Performance of the end results of any one technology assessed, its refinement if any and its impact with respect to that crop or enterprise : Nil

XIII. STATUS OF REVOLVING FUNDs

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2014 to March 2015	59,89,062	25,10,619	15,01,732	69,97,949
April 2015 to March 2016	69,97,949	21,26,777	14,30,791	76,93,935
April 2016 to March 2017	76,93,935	20,64,524	16,55,877	**81,02,582**