

ANNUAL REPORT OF KVK, VYARA, NAU, TAPI
(April-2016-March-2017)

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & Farm women	21	252	490	742
Rural youths	3	30	58	88
Extension functionaries	1	0	24	24
Sponsored Training	27	252	884	1136
Vocational Training	2	0	60	60
Total	54	534	1516	2050

2. Front Line Demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	150	79	--
Pulses	299	119	--
Cereals	153	60	--
Vegetables	222	46.5	--
Other crops	20	7	--
Hybrid crops	0	0	--
Total	844	311.5	
Livestock & Fisheries	180	00	180 Animals
Other enterprises (Home Science)	210	00	
Total	390	00	
Grand Total	1234	311.5	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	1	6	6
Livestock			
Various enterprises	0	0	0
Total	0	0	0
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	1	6	6

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1549	77196
Other extension activities	147	-
Total	1696	77196

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
KVK, NAU, Vyara, Dist.Tapi	Text only	25	6	0	0	7	22	60
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	25	6	0	0	7	22	60
	Total farmers Benefitted/Message	11876	11876	0	0	11876	11876	11876

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	230.45	543890
Planting material (No.)	119874	203159
Bio-Products (kg)	7260	39930
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	630	148370
Water	16	800
Plant	80	0
Total	726	149170

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	5
2	Conferences	2
3	Meetings	9
4	Trainings for KVK officials	7
5	Visits of KVK officials	0
6	Book published	1
7	Training Manual	0
8	Book chapters	2
9	Research papers	9
10	Lead papers	0
11	Seminar papers	1
12	Extension folder	30
13	Proceedings	1
14	Award & recognition	2
15	On going research projects	5

Note: Details of HRD and Publications are given in Annexure-II

DETAIL REPORT OF APR-2016-17

GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail
	Office	FAX	
Krishi Vigyan Kendra Navsari Agricultural University Bhenskatri Road, Panvadi Vyara, Dist. Tapi, Gujarat-394 650	(02626) 221869	--	kvkvyara@nau.in kvkvyara@yahoo.co.in

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

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

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. P.D.Verma	-	7575011107	drverma@nau.in

1.4. Year of sanction: 2004 (As ZARS KVK – 2000), Full fledged KVK in the year 2006.

1.5. Staff Position (as on 30th March, 2017)

Sl. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Perman-ent /Temp-orary	Category (SC/ST/OBC/Others)	Mobile no.	Age	Email id
1	Programme Coordinator	Dr.P.D.Verma	Senior Scientist & Head	Extension Education	15600-39100 G.P. – 8000	23070	7/11/2016	Permanent	General	75757011107	55	drverma@nau.in
2	Subject Matter Specialist	Dr. C. D. Pandya	Scientist	Extension Education	15600-39100 G.P. – 6000	24540	29/07/2009	Permanent	General	09898847034	49	akshaydhara@nau.in
3	Subject Matter Specialist	Prof. Arti N. Soni	Scientist	Home Science	15600-39100 G.P. – 6000	21390	04/04/2008	Permanent	General	09427053600	38	sonyarti@gmail.com
4	Subject Matter Specialist	Dr. J. K. Movaliya	Scientist	Veterinary Science	15600-39100 G.P. – 6000	15600	1/11/2016	Permanent	General	09727708876	36	jkmovaliya@nau.in
5	Subject Matter Specialist	Dr. S.M.Chavan	Scientist	Plant Protection	15600-39100 G.P. – 6000	17610	10/01/2013	Permanent	General	08347991415	33	sachinento@gmail.com
6	Subject Matter Specialist	Dr. M. R.Gami	Scientist	Agronomy	15600-39100 G.P. — 6000	17610	01/03/2013	Permanent	OBC	09998002585	38	mrgami@nau.in
7	Subject Matter Specialist	Prof. Pravinkumar Modi	Scientist	Horticulture	15600-39100 G.P. – 6000	17610	14/03/2013	Permanent	General	08758447576	29	pmodi.horti@gmail.com
8	Programme Assistant	Mr. N.N.Makani	Prog. Assi.	--	9300-34800 G.P. — 4400	38090 (Fix)	13/07/2015	Permanent	General	09409613458	26	nnmakani@nau.in
9	Computer Programmer	Nisheeta R. Patel	Comp. Prog.	--	9300-34800 G.P. — 4400	12240	21/08/2008	Permanent	SC	09724245646	31	nishipatel_12@nau.in
10	Farm Manager	Mr. V. N. Parmar	Farm Manager	--	9300-34800 G.P.- 4400	12740	23/08/2007	Permanent	General	09426539939	37	viralinh@nau.in
11	Accountant / Superintendent	Mr. S.I. Surti	Acct. / Super.	--	9300-34800 G.P. 4200	15230	1/12/2016	Permanent	OBC	9601278015	57	--
12	Stenographer	Vacant	Steno.	--	5200-20200 G.P. — 2400	--	--	--	--	--	--	--
13	Driver	Mr. C. I. Patel	Driver	--	5200-20200 G.P. 1900	6820	23/08/2007	Permanent	OBC	09879771484	32	-
14	Driver	Vacant	Driver	--	5200-20200 G.P. 1900	--	--	--	--	--	--	--
15	Supporting staff	Vacant	Supp. Staff	--	4440-7400 G.P.-1400	--	--	--	--	--	--	--
16	Supporting staff	Vacant	Supp. Staff	--	4440-7400 G.P.-1400	--	--	--	--	--	--	--

1.6 Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	2.50
2	Under Crops	4.23
3	Orchard/Agro-forestry	2.23
4	Others (specify), Poly House, Shed Net House, Vermi-compost Unit	0.45

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1	Administrative Building	ICAR	31/3/2011	516	--	--	--	--
2	Farmers Hostel	ICAR	31/3/2011	248	--	--	--	--
3	Staff Quarters (5)	ICAR	31/3/2011	348	--	--	--	--
4	Demonstration Units -5	ICAR	--	--	--	--	--	Under process
5	Fencing	--	--	--	--	--	--	--
6	Rain Water harvesting system	--	--	--	--	--	--	--
7	Threshing floor	--	--	--	--	--	--	--
8	Farm godown	--	--	--	--	--	--	--

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Jeep (Bolero)	2004	4,30,500=00	3,53,751	Not Working
Tractor	2001	3,31,225=00	4120 hrs.	Working
Motorcycle	2011	48,816=00	11788	Working

C) Equipments & AV aids

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
(1)	Furniture (Godrej)				
1	Table T-9	4	30/3/2001	26636	Working
2	Table T-104	1	30/3/2001	8515	Working
3	Chair CH-18C	20	30/3/2001	43300	Working
4	Chair PCH-700 B	1	30/3/2001	8168	Working
5	Chair CH-7 B	4	30/3/2001	5692	Working
6	Store Well – Glass Door	1	30/3/2001	9259	Working
7	Slotted Angel Racks	4	30/3/2001	4900	Working
(2)	Mahindra Tractor model 575 DI 45 HP & Accessories	1	30/3/2001	3,31,225	Working
(3)	Photo Copier NP 7160 Canon NPG-1	1	31/3/2001	117274	Not working
(4)	Furniture (Godrej)				
1	Table –T- 402	5	27/12/2002	24600	Working
2	Comp. Table C-6	1	27/12/2002	5255	Working
3	Store Well – Glass Door	1	27/12/2002	9330	Working
4	Store Well Plane	2	27/12/2002	16000	Working
5	Chair CHR-7B	15	27/12/2002	22350	Working
6	Chair PCH-5000 2 T	2	27/12/2002	7230	Working
7	Filing Cabinet	1	27/12/2002	7900	Working
(5)	Computer & Peripherals	1	28/12/2002	51850	Working
(6)	3 KVA on line UPS	1	28/12/2002	38000	Not working
(7)	HP Laser Jet 1200 Printer	1	28/12/2002	20600	Not working
(8)	MSXP standard edition with Indian Longwise Proofing tools	1	30/12/2002	6450	Not working
(9) 1	CD writer	1	28/12/2002	3025	Working
2	HP Scan jet 2300c Scanner	1	28/12/2002	3700	Not working
(10) 1	Ceramic steel white writing board 4'x6'	1	21/2/2003	9000	Working
2	Ceramic chalk writing board 4'x 6'	1	21/2/2003	9000	Working
(11) 1	Over Head Projector	1	22/3/2003	27690	Working
2	Plastic screen with tripod stand	1	22/3/2003	4500	Working
(12) 1	LG 29 CA Color TV 29"	1	21/3/2003	26990	Working
2	Thomson 5 in 1 VCD player	1	21/3/2003	6990	Working
(13)	P.A. System				
1	Amplifier SSA 250	1	22/3/2003	9400	Working
2	Eco Mixture DMX 40	1	22/3/2003	3249	Working
3	Full Range Speaker SRX 250 D	4	22/3/2003	24472	Working
4	Microphone		22/3/2003		Working
	ALD 101 x LR	1	22/3/2003	1140	Working
	ATP 20 M	1	22/3/2003	489	Working
	WM 201	1	22/3/2003	1615	Working
5	Unit Horn Combination UHC 30 x T	1	22/3/2003	1188	Working
6	Micro Phone Stand		22/3/2003		Working
	DGN	1	22/3/2003	456	Working
	DGT	1	22/3/2003	285	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
	ATS:5	1	22/3/2003	100	Working
(14)	A.V. Trolley	1	22/3/2003	4132	Working
(15)	Laminated Chart with wooden Frame size 20" x 30"	33	22/3/2003	24420	Working
(16)	Sony Digital Handy cam	1	22/3/2003	32750	Working
1	Power adapter	1	22/3/2003		Working
2	Battery	1	22/3/2003		Working
3	Remote Control	1	22/3/2003		Working
4	AV Connecting Cable	1	22/3/2003		Working
5	Belt shoulder strap	1	22/3/2003		Working
6	Handy Cam Recording Caset	1	22/3/2003		Working
(17)	Automatic slide Projector	1	22/3/2003	13695	Working
(18)	Portable Generator EXK 2000 AC	1	24/3/2003	38200	Working
(19)	Education Exhibition Panel System	1	25/3/2003	13500	Working
1	News Paper Stand	1	25/3/2003	3500	Working
2	Displayer/Book/ Magazine Stand	1	25/3/2003	3500	Working
3	Notice Writing Board with Acrylic Shutter	1	25/3/2003	4450	Working
(20)	Stainless steal Vessels	23	28/3/2003	19450	Working
(21)	Modem	1	31/3/2003	2020	Working
(22)	Laminated Charts with Plywood Framing size 24"x30"	5	12/3/2004	3000	Working
(23)	Colour Enlargement charts	33	29/3/2004	24420	Working
(24)	Jeep Mahindra & Mahindra Bolero D.I.	1	2/12/2004	430500	Working
(25)	Bolero Accessories		2/12/2004	21650	Working
(27)	Whirlpool freeze	1	27/3/2006	15800	Working
(28) 1	Electronic Automatic Kel Pus Microprocessor based eight place macro block digestion system model KES-08L	1	27/3/2006	88120	Working
2	Electronic Kel plus micro processor based Automatic Distillation system model distil EM	1	27/3/2006	142300	Working
(29)	Double still with thermo sensor hr (All glass) cat No 2348	1	27/3/2006	33924	Working
(30)	Nova Rotary shaking machine				
1	(a)Capacity 16 flasks of 250 ml	1	28/3/2006	24500	Working
2	(b)Capacity 25 flasks of 250 ml	1	28/3/2006	29750	Working
3	Nova Hot plate Rectangular model NV-8535 stainless steel				
	(a) Size 12" x 20"	1	28/3/2006	8500	Working
	(b) Size 18" x 24"	1	28/3/2006	11250	Working
4	Nova willy mill stain lese steel camber Size 100 x 50 mm	1	28/3/2006	31900	Working
(31)1	Laboratory Table	4	27/3/2006	34400	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
2	Racks	6	27/3/2006	9000	Working
3	Stools	12	27/3/2006	5400	Working
4	Steel cupboard storewell	4	27/3/2006	19200	Working
5	Steel cupboard storewel	4	27/3/2006	14000	Working
6	Steel racks	4	27/3/2006	8600	
7	Partition racks	3	27/3/2006	22500	Working
8	Office chair	4	27/3/2006	4000	Working
(32)	Systronics make				
1	Micro controller based Digital spectrophotometer model -106	1	27/3/2006	26800	Working
2	Systronics make micro controller based flame photometer compressor model-128	1	27/3/2006	35200	Working
3	Systronics make micro controller based PH meter	1	27/3/2006	10900	Working
4	Systronics make micro processor based conductivity meter	1	27/3/2006	12800	Working
(33)	Hot air oven	1	27/3/2006	21200	Working
(34) 1	Chemical Balance	1	27/3/2006	75000	Working
2	CENTRO FIX WATERBATH	1	27/3/2006	10800	Working
3	CENTRO FIX – Muffle furnace	1	27/3/2006	29500	Working
4	Automatic autoclave	1	27/3/2006	21000	Working
(35)	City weigh balance model ST-10 Cap- 10 kg	1	27/3/2006	10640	Working
(36) 1	LG AC-15 ton	1	31/3/2006	23740	Working
2	Micro kjeldahl Assembly	1	31/3/2006	10700	Working
(37)	Burner maker type with stop coke	8	31/3/2006	2000	Working
(38)	Voltas make water cooler	1	31/3/2006	26500	Working
(39) 1	Soft Pin up Board	25	29/11/2007	96250	Working
2	Single Pole Stand	26	29/11/2007	35360	Working
(40)	Microscope for Computer	1	17/3/2008	294028	Working
(41) 1	SDZ – TR – PL – HL Microscope controlled Transformer	1	15/3/2008	209444	Working
2	OP – 150 R Fibre Optic Illumivater	1	15/3/2008		Working
3	GMTV – 33 H High Resolution Coloured CCTV system	1	15/3/2008		Working
(42)	Colony Counter – MSW – 408	1	15/3/2008	5668	Working
(43)	Oven Universal – MSW – 213	1	15/3/2008	65788	Working
(44)	Insect Rating Case	5	17/3/2008	14000	Working
(45)	LG A/C machine 2.0 Ton Split AC with Remote	2	17/3/2008	58680	Working
(46)	LG Refrigeration–280 Lit. Model -295TMG4	1	25/3/2008	18000	Working
(47)	Phillips Grinder – 1618	2	25/3/2008	6000	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
(48)	Sony Cyber Shot – DSC – W 90	1	25/3/2008	14800	Working
(49) 1	Pressure Cooker – 8 lit.	1	24/3/2008	4500	Working
2	S/A/S Tope – 17’’	1	24/3/2008		Working
3	S/A/S Tope – 21’’	1	24/3/2008		Working
4	S. S. Cover	2	24/3/2008		Working
(50) 1	Insect Display show cases	4	24/3/2008	17420	Working
2	Insect Show cases cabinet	1	24/3/2008		Working
(51) 1	Compaq Computer – 3250 IL	1	25/3/2008	28950	Working
2	MS XP Professional Vista License Copy	1	25/3/2008	6000	Working
(52)	Top Loading Balance – BH 200 H	1	19/3/2008	28120	Working
(53)	Digital Conductivity TDS Meter Model — 307	1	24/3/2008	11648	Working
(54)	Digital PH meter Model — 802	1	24/3/2008	7006	Working
(55)	Distillation Apparatus (J – sil)	1	24/3/2008	15912	Working
(56)	H/P Laser Jet Printer — 1022	1	25/3/2008	10990	Working
(57)	Steel Rack KV-110 78’’x36’’x15’’	5	25/3/2008	9844	Working
(58) 1	Steel Cupboard – 78’’x36’’x19’’	2	23/3/2008	11100	Working
2	Computer Table	1	23/3/2008	3300	Working
3	Computer Chair	2	23/3/2008	5200	Working
(59)	Shaking Incubator – 24 BL	1	25/3/2008	95387	Working
(60)	CentriFuge – R – 24	1	25/3/2008	32025	Working
	Voltage stabilizer 3.0 KVA	1	25/3/2008	6630	
(61)	Double Pan Balance Analytical Weight Box	1 1	24/3/2008	3640	Working
(62)	Gas Cylinder, Regulator, Gas Stove	1	13/3/2008	1930	Working
(63)	B.O.D. Incubator — 270	1	22/3/2008	90534	Working
(64)	KLENZFLO Horizontal laminar clean air work station – 1500c	1	28/3/2008	138320	Working
(65)	Crompton Greaves Fans	4	28/3/2008	6800	Working
(66)	Humidifier (S.S. Body)	1	30/3/2008	11034	Working
(67)	ASPEE Tractamount Bloover fro Intranational	1	30/3/2008	99960	Working
(68)	Panasonic Multifunctional Device Copy/Print/Scan/Fax	1	28/03/2010	14900	Working
(69)	Eco Display Unit Size : 6’ x 2’	1	28/03/2010	9625	Working
(70)	DIM System size : 36’’ x 24’’	2	28/03/2010	19250	Working
(71) 1	Podium	1	28/03/2010	4200	Working
2	Podium	1	28/03/2010	4200	Working
(72) 1	LCD Projector — Mo.D.832 Mx	1	06/01/2011	66305	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
2	VIVITEK Dongel	1	06/01/2011	16910	Working
3	WALTOP 6'' Interactive RF Pod	1	06/01/2011	14863	Working
4	Motorized Screen size – 5’x7’	1	06/01/2011	12905	Working
5	Impact 65 T (PA system)	1	06/01/2011	17800	Working
(73) 1	23'' – LCD Computer	1	15/10/2010	33420	Working
2	Branded CPU E-Machine		15/10/2010	“	Working
3	Printer – Canon	1	15/10/2010	8500	Working
4	UPS – Umax 600 VA	1	15/10/2010	1850	Working
5	HP Scanner	1	15/10/2010	4500	Working
6	Q.H. Internet Security	1	15/10/2010	1150	Working
(74)	Crystal EPABX system set and accessories	1	11/02/2011	49219	Working
(75) 1	Power Tiller	1	18/02/2011	149430	Working
2	Multi crop Thresher	1	18/02/2011	23100	Working
		1	18/02/2011	26000	Working
3	Power Sprayer	1	18/02/2011	24850	Working
4	Winnower	1	18/02/2011	24150	Working
5	Seed cum Ferti. drill	1	18/02/2011	28880	Working
(76) 1	Steel Cupboard 18''X 36''X 78''	9	8/1/2011	58977	Working
2	Visitor Chair	25	8/1/2011	48475	Working
3	Rack- 6 X 3 X 1 foot	15	8/1/2011	43170	Working
4	Rivolving Chair	6	8/1/2011	21810	Working
*(77) 1	Gayatri two-way Leveller Heavy Duty	1	11/3/2011	12600	Working
2	Gayatri Cultivator Heavy Duty	1	11/3/2011	20700	Working
*(78)	Plough & Harrow	1	17/2/2011	19000	Working
*(79) 1	Rotavator- 5.25	1	13/3/2011	60380=95	Working
2	Hydrolic trailor	1	13/3/2011	102380=90	Working
(80)	Varoon Vinowing Monoblock Electric Fan	1	25/3/2011	6900	Working
(81)	Splender Pro Kick Spoke	1	31/3/2011	41860	Working
(82)	Sub-mersible pump set 2 H.P. with accessories	1	28/3/2011	14600	Working
(83) 1	Steel Cupboard	13	28/12/2012	71500	Working
2	Table (4 X 2.5) rek	10	28/12/2012	35000	Working
3	Steel Coat (6 X 3.5)	10	28/12/2012	40000	Working
4	Sofa set- Tipoi	1 set	28/12/2012	17500	Working
5	Chair-Table-Tipoi	1	28/12/2012	7500	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	No.	Date of Purchase	Cost (Rs.)	Present Status
		set			
6	News paper stand	3	28/12/2012	3150	Working
7	Computer Table-Chair	2	28/12/2012	12558	Working
8	Water cooler	2	28/12/2012	84000	Working
9	Post weigh balance	2	28/12/2012	2100	Working
10	Steel cupboard	2	28/12/2012	37000	Working
(84) 1	Sofa three seater waiting chair	20	13/01/2012	62980	Working
2	Fix Chair	10	13/01/2012	23090	Working
(85)	10 H.P. 4 stage falkan sub- mersible pump set with accessories	1 set	04/02/2012	64125	Working
(86) 1	Electronics media Microprocessor – PH meter model — 1012	1	23/03/2012	13000	Working
2	Electronics media Microprocessor –Spectrophoto meter model– 2305	1	23/03/2012	33950	Working
3	NOVA fermentor (Digital Microprocessor Pid control)	1	23/03/2012	360000	Working
4	Swisser Table top balance model – swit – 105 10 kg	1	23/03/2012	8775	Working
5	NOVA digital hot air oven 24’’x24’’x36’’	1	23/03/2012	36900	Working
(87) 1	HD Handy cam (video camera)	1	27/03/2012	71025	Working
2	Digital Camera HD (15-30 mega pixel)	1	27/03/2012	66660	Working
3	Double distilled water RO plant for lab use	1	27/03/2012	24860	Working
4	Refrigerator 310 lit with stb 1KVA	1	27/03/2012	29035	Working
(88)	2 HP 8 Stage Neck Motor	1	20/12/2014	8500	Working
(89)	Photocopier machine (Digital Colour Multi function office machine (Richo) MP (2004SP))	1	21/3/2017	1,50,000	Working
(90)	AVECO E-GURU Interactive white Board- Model-1R80, size- 1816mmX1410X36mm, Projection Size-656mmX1250mm, Aspect Ratio:4:3	1	24/3/2017	41,975	Working
(91)	Voltas AC-1.5 tonType-Split	2	18/3/2017	72,000	Working
(92)	Carrier Split AC-2.0 ton- 3 star, Model-24 k Superia	2	24/3/2017	84,000	Working
(93)	Chaff cutter power operated, BKV2HPCFAT, 3 Blades, 1440 RPM, 50H, 220V, 12A	1	17/3/2017	22491	Working

***77, 78 and 79 purchased from University Grant not from ICAR**

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

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1	04/03/2017	<ol style="list-style-type: none"> 1. Dr. C. J. Dangaria, Chairperson, Hon. Vice Chancellor, Navsari Agricultural University, Navsari 2. Dr. G. R. Patel, Member, Director of Extension Education, Navsari Agricultural University, Navsari 3. Dr. P.D.Verma, Member Secretary & Senior Scientist & Head, KVK, Vyara 4. Dr. V. P. Patel, Member, Associate Research Scientist, Regional Rice Research Station, Navsari Agricultural University, Vyara 5. Mr. Jigar Gohil, , Member, Assistant Professor, (Horticulture Expert), Polytechnic in Agril., NAU, Vyara 6. Dr. M. S. Dudhat, Member, Principal (Agronomy Expert), Polytechnic in Agriculture, Navsari Agricultural University, Vyara 7. Mr. K.V.Patel, Member, Deputy Director of Horticulture, Tapi district, Vyara 8. Mr. Prafulbhai Patel, Member, District Agriculture Officer, Department of Agriculture, District Panchayat, Vyara, Tapi 9. Dr. C. M. Rana, Member, Deputy Director of Animal Husbandry, District Panchayat, Tapi District, Vyara 10. Mr. K. R. Patani, Member, Assistant Director (Fisheries), Near CRPF Campus, Ukai, Dist. Tapi 11. Mr. S. U. Vohra, member, Assistant Director, G.L.D.C., Parsiwad, Vyara, Dist. Tapi 12. Mr. Prafulbhai Patel, Member, Project Director, ATMA-Tapi 13. Mr. J.A.Chotaliya, Member, Lead bank Manager , Bank of Baroda, Surti Bazar, Vyara 14. Smt. Sunitaben Konkani, Member, KVK SHG Degama, Dist. Tapi 15. Lilaben Gamit, Progressive Women Farmer, Member of GSSC Ltd., Gandhinagar, At. Bedi, Ta. Songadh, Dist. Tapi 16. Range Forest Officer (Social Forestry), Invitee Member, Vyara Range, Dist. Tapi 17. Mr. Abhesing Chaudhari, Invitee Member, Chairman, A. P. M. C., Market Yard, Vyara, Dist. Tapi 18. Mr. S.D.Bhoye, Invitee Member, District Registrar, Co-operative 	<ol style="list-style-type: none"> 1. New Varieties of crops and vegetables should be incorporated in Action Plan. 2. Local varieties / traditional seed / germ plasma available in the tribal areas need to be protected under PPV & FRA. 3. Farmers should encourage for adoption of drip irrigation. 4. Awareness and training programme on skill development should be organized. 5. More use of ICT in all KVK mandatory activities. 6. Small millets should be incorporated in FLDs. 7. Popularizing the mushroom cultivation through training and awareness programme. 8. Promote the suitable goat breed and backyard poultry in Tapi district. 9. Awareness programme should be organized in collaboration with APMC, Vyara on marketing of Okra particularly for export purpose. 	Incorporate in Annual Action Plan:2017-18

Sl.No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
		<p>Societies, O/P. Market Yard, Vyara, Dist. Tapi</p> <p>19. Smt. Ansuyaben Vasava, Invitee Member, Resource Person and SEWA worker-Tapi</p> <p>20. Smt. Rekhaben A. Chaudhari, Invitee Member, Small Farmer, Valod Representative of Bhupendrabhai Desai, Valod</p> <p>21. Mr. Nirav Kansara, Invitee Member, Reporter, TV-9 Local Channel, Vyara Zone</p> <p>22. Mr. Harishbhai Shah, Invitee Member, Press Reporter, Gujarat Samachar</p> <p>23. Mrs. Gopiben. F. Chaudhari, Invitee Member, Resource Person of KVK & Farm Woman, Dolara, Ta. Vyara</p> <p>24. Induben Aanandbhai Chaudhari, Invitee Member, President, <i>Jivan Deep Mahila</i> Co-operative Society, Bardipada, Ta. Dolvan, Dist. Tapi</p> <p>25. Smt. Chandrikaben Bipinbhai Patel, Invitee Member, Progressive Farm Woman, At. Dolvan, Ta. Dolvan, Dist. Tapi</p> <p>26. Mr. H.C. Trivedi, Invitee Member, Gujarat Matikam Kalakari Sansthan, Gandhinagar</p> <p>27. Mrs. Madhuben Konkani, Secretary Jivandeep Co.op.Soc., Bardipada, Ta. Dolvan, Dist. Tapi</p> <p>28. Chaudhari Ishwar J., Invitee Member, A.K.R.S.P.-Vyara</p>		

** Copy of SAC proceedings along with list of participants is attached in -Annexure-I*

2. DETAILS OF DISTRICT (2016-17)

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

S. No.	Farming system/enterprise
1.	Agriculture and Animal Husbandry along with an Agro forestry
2.	Agriculture and horticulture
3.	Agro-forestry

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

1. Agro-climatic zones

S. No.	Agro-climatic Zone	Characteristics
1.	South Gujarat Heavy Rainfall Zone-I	<ul style="list-style-type: none"> It consists of three talukas of Tapi district i.e. Songadh, Vyara and Valod taluka It has an intensive rainfall over 1500 to 2200 mm per annum Rain mostly received during month of July- August The zone has clay soil with normal pH and EC, medium organic Carbon and phosphorous and high in potash
2.	South Gujarat Rainfall Zone-II	<ul style="list-style-type: none"> It consists of two talukas i.e. Uchchhal and Nizar. Rainfall of the area varying between 1000 to 1500 mm per annum This zone has black soil of medium to heavy texture 75 per cent of the area is rainfed.

2. Agro-ecosystems

Sr. No.	Agro ecological situation	Characteristics
1.	Situation I	<ul style="list-style-type: none"> The total geographical area is about 5.57 lack ha. Which is 58 per cent of the zone and of which 53 Per cent is under forest Cultivated area is 15.29 per cent as it is a heavy rainfall situation 5 per cent area is under doubled crop Major Field crops grown are paddy, minor millets, pulses, sorghum and oilseeds like ground nut and soybean.
2.	Situation III	<ul style="list-style-type: none"> The total geographical area is about 2.22 lack ha, which is 25.21 per cent of the zone and 59.3 Per cent is under cultivation Cultivated area is 1.64 lakh ha. 14.5 per cent area is under doubled crop. <p>Soil of this situation is deep and fine Textured.</p>

2.3: Soil types

S. No.	Soil type	Characteristics	Area in ha
1.	Hilly Area – Light soil	Lateritic and eroded shallow soil with high infiltration rate	130023
2.	Plain area- Heavy Black soil	Heavy Black to medium black with medium to poor drainage, in some area it is water logged and salt affected.	208779

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

Sl. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
Rabi-Summer-2015-16				
1	Wheat	3150	9607	30.50
2	Rabi Sorghum	1688	2532	15.00
3	Maize	1177	1589	13.50
4	Gram	1603	1683	10.50
5	Sugarcane	26431	216161	81.78
6	Indian bean (Val)	401	381	9.50
7	Other pulses	102	255	2.50
Kharif – 2016				
1	Irrigated Paddy	33631	94167	28.00
2	Un-irrigated Paddy	21191	38144	18.00
3	Kharif – Sorghum	10542	13072	12.40
4	Kharif – Maize	1663	2278	13.70
5	Soybean	12164	12772	10.50
6	Kharif – Pigeon pea	10651	18688	8.51
7	Kharif – Green gram	1107	847	7.65
8	Black gram	2039	1121	5.50
9	Other Kharif Pulses	13	6	4.50
10	Kharif Groundnut	624	998	16.00
11	Sesamum	10	12	12.00
12	Irrigated Cotton	631	1672	26.50
13	Un-irrigated Cotton	1415	1783	12.60

Source: District Agriculture Department – Tapi

Horticultural Crops: (2015-2016)

Sl. No.	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
A	Fruits			
	Mango	5500	50050	91
	Sapota	100	1100	110
	Citrus	26	295	113
	Ber	3	13	43
	Banana	1500	88500	590
	Guava	21	210	100
	Pomegranate	51	509	100
	Papaya	2067	126604	613
	Custard apple	45	371	82
	Aonla	19	139	73
	Cashew nut	275	804	29
	Coconut	62	508	82
	Date palm	7	0	0
	Others	334	2672	80
B	Vegetables			
	Brinjal	3715	67242	181
	Cabbage	138	3206	232
	Okra	9926	134994	136
	Tomato	650	14625	225
	Cauliflower	335	6496	194

Sl. No.	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
	Cluster bean	710	6731	95
	Cowpea	760	6042	80
	Cucurbits	3780	66150	175
	Others	2260	28250	125
C	Spices			
	Chilli-Dry	1140	1639	14.38
	Ginger	32	640	200
	Turmeric	67	1374	205
	Fenugreek	105	210	20
	Ajawain	70	50	7
D	Flowers			
	Rose	57	513	90
	Marigold	260	2574	99
	Mogra	73	636	87
	Lily	10	80	80
	Others	134	1164.46	87

Source: District Horticulture Department — Tapi

2.5: Weather data

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April-2016	0.0	26.7	24.9	83.2	64.9
May-2016	0.0	28.6	26.6	87.3	58.5
June-2016	2.7	27.8	25.3	85.4	65.8
July-2016	509	26.9	24.3	92.6	86.4
August-2016	347.8	27.8	23.6	94.5	87.6
September-2016	211	28.4	24.9	90.9	73.6
October-2016	100	27.5	23.1	90.1	69.4
November-2016	0	24.9	18.1	81.6	37.1
December-2016	1.0	27.1	16.6	80.7	36.7
January-2017	0	26.7	15.2	80	46
February-2017	0	28.2	18.7	75.6	59.6
March-2017	6	28.7	26.4	76	52

Source: Regional Rice Research Station, NAU, Vyara

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

Category	Population	Production	Productivity
Cattle			
<i>Crossbred (Milch)</i>	37300	92.28 (000 tonnes Milk)	7.470 lit/ day per in-milk animal
<i>Indigenous(Milch)</i>	32500	25.72 (000 tonnes Milk)	3.498 lit/ day per in-milk animal
<i>Buffalo(Milch)</i>	85500	98.02 (000 tonnes Milk)	4.407 lit/ day per in-milk animal
Sheep			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	1000	1180 kg wool/year	1156 wool gm / sheep / year
Goats	95532	3.13 (000 tonnes Milk)	0.307 lit/ day per in milk animal
Pigs			
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
Rabbits			
<i>Rabbits</i>	-	-	-
Poultry			
<i>Hens</i>	-	-	-
<i>Desi</i>	433300	147.76 lakh egg	118 eggs per layer/year
<i>Improved</i>	139600	303.71 lakh egg	324 eggs per layer/year
<i>Ducks</i>	-	-	-
<i>Turkey and others</i>	-	-	-

Category	Area	Production (Q.)	Productivity
Fish	-	-	-

Source: 31st survey report on estimates of major livestock products for the year 2013-14, Gujarat State. Directorate of Animal Husbandry, Gandhinagar

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

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Vyara	Vyara	Dolara	Paddy, Sugarcane, Gram, Groundnut, Okra, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of knowledge about scientific package of practices among farmers/ Farm women • Lack of awareness about organic farming • Lack of irrigation facility • Lack of Knowledge about value addition of Agril. produce • Low milk production • Poor livestock management • Drudgery among farm women during Agril. practices • Lack of knowledge about Health & Nutrition • Sickle cell Anemia 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM) and precision Farming • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Crop diversification • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Low cost green house and small scale Nursery Management • Off-season cultivation of high valued crops • Capacity building and Group dynamics
2			Zankhari	Paddy, Sugarcane, Gram, Groundnut, Okra, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of knowledge about scientific package of practices among farmers/ Farm women • Lack of awareness about organic farming • Lack of irrigation facility • Lack of Knowledge about value addition of Agril. produce • Low milk production • Poor livestock management • Drudgery among farm women during Agril. practices • Lack of knowledge about health & nutrition • Sickle cell Anemia 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM) and precision Farming • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
						<ul style="list-style-type: none"> milch animals • Low cost green house and small scale Nursery Management • Off-season cultivation of high valued crops • Capacity building and Group dynamics
3	Dolvan	Dolvan	Bardipada	Paddy, Sugarcane, Gram, Groundnut, Okra, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of technological knowledge(ICM, INM,IPDM) among farmers/ Farm women • Lack of awareness towards animal disease management • Lack of Knowledge about value addition of Agril. produce • Undulated land and poor fertility status of soil • Drudgery among farm women during Agril. practices • Lack of knowledge about health & nutrition • Sickle cell Anemia • Low milk production per animal 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Low cost green house and small scale Nursery Management • Off-season cultivation of high valued crops • Capacity building and Group dynamics
4			Jamaliya	Paddy, Sugarcane, Gram, Groundnut, Okra, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of technological knowledge(ICM, INM,IPDM) among farmers/ Farm women • Undulated land and poor fertility status of soil • Lack of awareness towards animal disease management • Poor economic condition • Lack of Knowledge about value addition of Agril. produce • Drudgery among farm women during Agril. practices 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
					<ul style="list-style-type: none"> • Lack of knowledge about health & nutrition • Sickle cell Anemia • Low milk production 	<ul style="list-style-type: none"> • women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Low cost green house and small scale Nursery Management • Off-season cultivation of high valued crops • Capacity building and Group dynamics
5	Valod	Valod	Kaher	Paddy, Sugarcane, Gram, Pigeon pea, Okra, Brinjal, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of technological knowledge about crop production • Injudicious use of pesticides in vegetables • Lack of awareness about organic farming • Lack of knowledge about fruits & vegetable preservation • Lack of knowledge about insect – pest identification & their management • Poor animal management • Drudgery among farm women during Agril. practices • Lack of knowledge about health & nutrition 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Low cost green house and small scale Nursery Management • Off-season cultivation of high valued crops • Capacity building and Group dynamics
6			Kalamkui	Paddy, Sugarcane, Gram, Pigeon pea, Okra, Brinjal, Cucurbitaceous vegetables, Animal	<ul style="list-style-type: none"> • Lack of technological knowledge about crop production • Injudicious use of pesticides in vegetables • Lack of awareness about organic farming • Lack of knowledge about fruits & vegetable preservation • Lack of knowledge about insect – pest identification & their management 	<ul style="list-style-type: none"> • Integrated Crop Management (ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
				Husbandry	<ul style="list-style-type: none"> Poor animal management Drudgery among farm women during Agril. practices Lack of knowledge about Health & Nutrition Poor food grain storage 	<ul style="list-style-type: none"> Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness Drudgery reduction technology for farm women Value addition in Agricultural crops Breeding, Feeding & Dairy management of milch animals Low cost green house and small scale Nursery Management Off-season cultivation of high valued crops Capacity building and Group dynamics
7	Songadh	Songadh	Ukhalda	Paddy, Sugarcane, Sorghum, Gram, Groundnut, Pigeon pea, Okra, Cucurbitaceous vegetables, Animal Husbandry	<ul style="list-style-type: none"> Lack of knowledge about new agricultural technology Lack of awareness about scientific rearing of Animal Husbandry & poultry Scarcity of water Lack of awareness about organic farming Poor food grain storage practices Lack of awareness about Health & Nutrition Drudgery among farm women during Agril. practices Lack of Knowledge about value addition of Agril. produce Sickle cell Anemia Poor economic condition 	<ul style="list-style-type: none"> Integrated Crop Management (ICM and precision Farming) Organic farming Integrated Nutrient Management Integrated Pest and Disease Management Soil and Water conservation Women empowerment and self reliability through Entrepreneurial development Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness Drudgery reduction technology for farm women Value addition in Agricultural crops Breeding, Feeding & Dairy management of milch animals & poultry management Off-season cultivation of high valued crops Capacity building and Group dynamics
8			Bedvan-pra-Bhensrot	Paddy, Sugarcane, Sorghum, Gram, Groundnut, Pigeon pea, Okra, Cucurbitaceous	<ul style="list-style-type: none"> Lack of knowledge about new agricultural technology Low adoption of new technology Lack of awareness about scientific rearing of Animal Husbandry Scarcity of water Lack of awareness about organic farming 	<ul style="list-style-type: none"> Integrated Crop Management (ICM) and precision Farming Organic farming Integrated Nutrient Management Integrated Pest and Disease Management Soil and Water conservation Women empowerment and self reliability

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
				vegetables, Animal Husbandry	<ul style="list-style-type: none"> Poor food grain storage practices Lack of awareness about Health & Nutrition Drudgery among farm women during Agril. practices Lack of Knowledge about value addition of Agril. produce Poor economic condition 	<ul style="list-style-type: none"> through Entrepreneurial development Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness Drudgery reduction technology for farm women Value addition in Agricultural crops Breeding, Feeding & Dairy management of milch animals Off-season cultivation of high valued crops Capacity building and Group dynamics
9	Uchchhal	Uchchhal	Mohini	Paddy, Sugarcane, Cotton, Sorghum, Pigeon pea, Soybean, vegetables, Animal Husbandry	<ul style="list-style-type: none"> Lack of knowledge about scientific package of practices of different crops Lack of knowledge about insects — pests & diseases Injudicious use of chemical pesticide in cotton Lack of awareness about organic farming Scarcity of water Poor food grain storage practices Lack of awareness about Health & Nutrition Drudgery among farm women during Agril. practices Lack of Knowledge about preservation of Agril. produce Inadequate intake of fruits & vegetables Sickle cell Anemia Poor livestock management Poor economic condition 	<ul style="list-style-type: none"> Integrated Crop Management(ICM) and precision Farming Organic farming Integrated Nutrient Management Integrated Pest and Disease Management Soil and Water conservation Women empowerment and self reliability through Entrepreneurial development Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness Drudgery reduction technology for farm women Value addition in Agricultural crops Breeding, Feeding & Dairy management of milch animals Dry land horticulture Capacity building and Group dynamics
10			Vadgam	Paddy, Sugarcane, Cotton, Sorghum, Pigeon pea, vegetables, Animal Husbandry	<ul style="list-style-type: none"> Lack of knowledge about scientific package of practices of different crops Lack of knowledge about insects — pests & diseases Injudicious use of chemical pesticide in cotton Lack of awareness about organic farming 	<ul style="list-style-type: none"> Integrated Crop Management(ICM) and precision Farming Organic farming Integrated Nutrient Management Integrated Pest and Disease Management Soil and Water conservation Women empowerment and self reliability

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
					<ul style="list-style-type: none"> • Scarcity of water • Poor food grain storage practices • Lack of awareness about Health & Nutrition • Drudgery among farm women during Agril. practices • Lack of Knowledge about preservation of Agril. produce • Sickle cell Anemia • Poor livestock management • Poor Socio-economic condition 	<ul style="list-style-type: none"> • through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Dry land horticulture • Capacity building and Group dynamics
11	Kukarmunda	Kukarmunda	Kelni	Paddy, Sugarcane, Wheat, Cotton, Sorghum, Pigeon pea, vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Lack of technological knowledge(ICM, INM,IPDM) among farmers/ Farm women • Lack of knowledge about insect — pest identification & their management • Injudicious use of chemical pesticides • Lack of awareness about organic farming • Poor marketing facility • Lack of availability of Agril. inputs • Poor grain storage practices • Lack of Knowledge about preservation of Agril. produce • Poor Livestock management 	<ul style="list-style-type: none"> • Integrated Crop Management(ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Dry land horticulture • Capacity building and Group dynamics
12	Nizar	Nizar	Laxmikheda	Paddy, Wheat, Cotton, Castor, Sorghum, Pigeon pea, vegetables, Animal Husbandry	<ul style="list-style-type: none"> • Poor marketing facility • Lack of technological knowledge about crop production practices • Injudicious use of chemical pesticide/ fertilizers • Lack of awareness about organic farming • Viral disease problem in fruits & vegetables • Weed management in black soil is a big 	<ul style="list-style-type: none"> • Integrated Crop Management(ICM and precision Farming) • Organic farming • Integrated Nutrient Management • Integrated Pest and Disease Management • Soil and Water conservation • Women empowerment and self reliability through Entrepreneurial development

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
					problem <ul style="list-style-type: none"> • High production cost due-to lift irrigation • Poor grain storage practices • Lack of Knowledge about preservation of Agril. produce • Poor Livestock management • Sickle cell anemia 	<ul style="list-style-type: none"> • Health & Nutrition for vulnerable groups, Malnutrition and Sickle cell anemia awareness • Drudgery reduction technology for farm women • Value addition in Agricultural crops • Breeding, Feeding & Dairy management of milch animals • Dry land horticulture • Capacity building and Group dynamics

2.8 Priority/thrust areas

Crop/Enterprise	Thrust areas
Paddy, Sorghum, Groundnut, Vegetables, Sugarcane, Oilseed crops & pulses	Integrated Crop Management (ICM) and precision Farming
Vegetables, Fruits, Cereals & Pulse crops	Organic farming
Paddy, Sorghum, Sugarcane, Cotton, Groundnut, Vegetables & Fruits	Integrated Nutrient management
Paddy, Sugarcane, Cotton, Groundnut, Vegetables, Fruits	Integrated Pest & Disease Management
Vegetables, Fruits, Cereals & Pulse crops	Soil and Water conservation
Drumstick, Custard apple	Dry land horticulture
Green house technology, Drip irrigation, High value crops	High tech horticulture
Low cost green house	Low cost green house and small scale Nursery Management
Okra, Tomato, Watermelon	Off-season cultivation of high valued crops
Women empowerment	Women empowerment and self reliability through Entrepreneurial development
Fruits, Vegetables, Cereals & pulses	Value addition in Agricultural crops
Health & Nutrition	Health & nutrition for vulnerable groups, Malnutrition and Sickle cell Anemia awareness
Women drudgery reduction	Drudgery reduction technologies for farm women
Dairy/ Disease/Feed management	Breeding, feeding & dairy management of milch animals & poultry management
Capacity building and group dynamics	Capacity building and group dynamics

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		Total No. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
4	1	6	6	292	292	1190	1190

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			Number of Participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers	36	48	1440	1878	1512	1696	6160	77196
Rural youth	4	5	80	148				
Extn. Functionaries	2	1	50	24				
Total	42	54	1570	2050	1512	1696	6160	77196

Seed Production (Qtl.)			Planting material (Nos.)		
5			6		
Target	Achievement	Distributed to no. of farmers	Target	Achievement	Distributed to no. of farmers
200	230.45	679	310000	119874	860

I.A TECHNOLOGY ASSESSMENT

Summary of technologies assessed under various crops by KVK

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers
Integrated Nutrient Management	Paddy	Nutrient Management in transplanted paddy	6	6
Varietal Evaluation	-	-	-	-
Integrated Pest Management	-	-	-	-
	-	-	-	-
Integrated Crop Management				
Integrated Disease Management	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
Weed Management	-	-	-	-
Resource Conservation Technology	-	-	-	-
Farm Machineries	-	-	-	-
Integrated Farming System	-	-	-	-
Seed / Plant production	-	-	-	-
Post Harvest Technology / Value addition	-	-	-	-
Drudgery Reduction	-	-	-	-
Storage Technique	-	-	-	-
Others (Pl. specify)	-	-	-	-
Total			6	6

Summary of technologies assessed under livestock by KVK

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

Summary of technologies assessed under various enterprises by KVK

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

I.B. TECHNOLOGY REFINEMENT

Summary of technologies refined under various crops by KVK

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers
Integrated Nutrient Management	-	-	-	-
Varietal Evaluation	-	-	-	-
Integrated Pest Management	-	-	-	-
Integrated Crop Management	-	-	-	-
Integrated Disease Management	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-
Weed Management	-	-	-	-
Resource Conservation Technology	-	-	-	-
Farm Machineries	-	-	-	-
Integrated Farming System	-	-	-	-
Seed / Plant production	-	-	-	-
Post Harvest Technology / Value addition	-	-	-	-
Drudgery Reduction	-	-	-	-
Storage Technique	-	-	-	-
Others (Pl. specify)	-	-	-	-
Total			-	-

Summary of technologies refined under various livestock by KVK

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

Summary of technologies refined under various enterprises by KVK

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

I.C. TECHNOLOGY ASSESSMENT AND REFINEMENT IN DETAIL

NUTRIENT MANAGEMENT

Problem definition: Injudicious use of chemical fertilizer and Poor nutrient management

Technology Assessed: Nutrient management in transplanted paddy

KVK-Tapi in Gujarat conducted on-farm trial to assess Nutrient Management in transplanted paddy. Highest growth parameters, no. of plant height (60 cm), no. of tillers (15), yield (41.50 Qtl), net return (Rs. 40750/-) and B:C ratio (1:1.89) recorded with recommended practices compared to farmers practices.

Table- Nutrient management in transplanted paddy

Treatments		No. of trials	Plant height (cm)		No. of Tillers		Total yield (Qtl/ha)	Net return (Rs.)	B:C Ratio
			30 DAP	60 DAP	30 DAP	60 DAP			
T ₁	Farmers Practices (Higher dose per unit area)	6	27	54	7	12	26.65	17475	1.28
T ₂	100-30-00 NPK kg/ha (Recommended Dose)		31	60	9	15	41.50	40750	1.89

(Data presented in above Table are average of three years)

II. FRONT LINE DEMONSTRATION

Follow-up for results of FLDs implemented during previous years

List of technologies demonstrated during previous year and popularized during 2015-16 and recommended for large scale adoption in the district

Sl. No.	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Gram (PKV-2)	ICM	High yielding variety	FLDs, training, Khedut shibir, News paper coverage	53	241	112
2	Sugarcane (CON-5071)	ICM	High yielding variety	FLDs, training, Khedut shibir, News paper coverage	57	275	121
3	Sorghum (GJ-41)	ICM	High yielding variety	FLDs, training, Khedut shibir, News paper coverage	51	235	102
4	Maize (Hybrid)	ICM	High yielding variety	FLDs, training, Khedut shibir, News paper coverage	50	225	90
5	Paddy (NAUR-1)	ICM	SIRA Technology	FLDs, training, Khedut shibir, News paper coverage	39	169	60
6	Paddy (GMR-3)	ICM	SRI Technology	FLDs, training, Khedut shibir, News paper coverage	49	212	141
7	Paddy (Gurjari)	ICM	ICM	FLDs, training, Khedut shibir, News paper coverage	53	243	121
8	Paddy (Jaya)	ICM	ICM	FLDs, training, Khedut shibir, News paper coverage	60	313	143
9	Paddy (Purna)	ICM	New high yielding variety	FLDs, training, Khedut shibir, News paper coverage	57	281	139
10	Soybean (GS-3)	ICM	New variety	FLDs, training, Khedut shibir, News paper coverage	53	261	146
11	Pigeon pea (Vaishali)	INM	INM	FLDs, training, Khedut shibir, News paper coverage	52	202	103
12	Groundnut (GG 20)	INM	INM	FLDs, training, Khedut shibir, News paper coverage	49	103	107
13	Okra	INM	Integrated Nutrient Management	FLDs, training, Khedut shibir, News paper coverage	30	300	50
14	Brinjal	INM	Integrated Nutrient Management	FLDs, training, Khedut shibir, News paper coverage	20	150	20
15	Okra	IPM	Integrated Pest Management	FLDs, training, Khedut shibir, News paper coverage	22	175	65
16	Brinjal	IPM	Integrated Pest Management	FLDs, training, Khedut shibir, News paper coverage	21	123	42

Sl. No.	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
17	Bitter gourd	IPM	Integrated Pest Management	FLDs, training, Khedut shibir, News paper coverage	18	44	28
18	Ridge gourd	IPM	Integrated Pest Management	FLD's, FLD visit, field visit, farmers scientist interaction, training, khedut shibir	15	51	18
19	Gram	IDM	Integrated Disease Management	FLD's, FLD visit, field visit, farmers scientist interaction, training, khedut shibir	35	135	48
20	Paddy	IPM	Integrated Pest Management	FLD's, FLD visit, field visit, farmers scientist interaction, training, khedut shibir	55	176	75
21	Cotton	IPM	Integrated Pest Management	FLDs, Training, FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Farmers-Scientist interaction, Khedut Shibir, Newspaper coverage	32	124	54
22	Cotton	ICM	Intercropping	FLDs, Training, FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Farmers	1	6	2
23	Cotton	INM	Integrated Nutrient Management	FLDs, Training, FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Farmers	8	30	12

* Thematic areas as given in Table 3.1 (A1 and A2)

b. Details of FLDs implemented during *Rabi:2015-16 and Kharif-2016* (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
	Cereals									
1	Wheat -Lok-1	INM	Seed and biofertilizer (Rhizobium and P.S.B)	<i>Rabi:2015-16</i>	10	10	25	-	25	-
2	Wheat-GW-496	INM	Seed and biofertilizer (Rhizobium and P.S.B)	<i>Rabi:2015-16</i>	10	10	25	-	25	-
3	Paddy-NAUR-1	IPM	Pheromone traps, <i>Scirpolure</i> , Pseudomonas, Propargite	<i>Kharif-2016</i>	5	5	12	-	12	-
4	Paddy- Jaya	ICM	High yielding variety	<i>Kharif-2016</i>	5	5	13	-	13	-
5	Paddy- GNR-3	ICM	High yielding variety	<i>Kharif-2016</i>	5	5	13	-	13	-
6	Paddy- Gurjari	ICM	High yielding variety	<i>Kharif-2016</i>	5	5	13	-	13	-
7	Paddy- NAUR-1	ICM	High yielding variety	<i>Kharif-2016</i>	5	5	13	-	13	-
8	Paddy- Purna	ICM	High yielding variety	<i>Kharif-2016</i>	5	5	13	-	13	-
9	Wheat-Lok-1	ICM	High yielding variety	<i>Rabi-2016-17</i>	5	5	13	-	13	-
10	Wheat-GW-496	ICM	High yielding variety	<i>Rabi-2016-17</i>	5	5	13	-	13	-
	Pulses									
11	Gram-GG-3	ICM	High yielding variety	<i>Rabi:2015-16</i>	10	10	25	-	25	-
12	Gram-GG-3	ICM	High yielding variety	<i>Rabi-2016-17</i>	5	5	13	-	13	-
13	Gram-PKV-2	ICM	High yielding variety	<i>Rabi:2015-16</i>	10	10	25	-	25	-
14	Green gram-Co-4	INM	Seed and biofertilizer (Rhizobium and P.S.B)	<i>Rabi:2015-16</i>	10	10	25	-	25	-
15	Green gram-Co-4	INM	Seed and biofertilizer (Rhizobium and P.S.B)	<i>Rabi:2015-16</i>	5.2	5.2	13	-	13	-
16	Green gram-Meha	INM	Seed and biofertilizer (Rhizobium and P.S.B)	<i>Rabi:2015-16</i>	18.8	18.8	47	-	47	-
17	Greengram- Co-4	ICM	Improved seed	<i>Rabi-2016-17</i>	5	5	13	-	13	-
18	Pigeonpea-	INM	Improved seed	<i>Kharif-2016</i>	5	5	13	-	13	-

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
	Vaishali									
19	Soybean- NRC-37	INM	Seed and biofertilizer (rhizobium and P.S.B)	<i>Kharif-2016</i>	10	10	25	-	25	-
20	Blackgram-GU-1	INM	Seed and biofertilizer (rhizobium and P.S.B)	<i>Kharif-2016</i>	20	20	50	-	50	-
	Horticultural crops									
21	Brinjal	INM	Effect of bio-fertilizers (Azotobactor, PSB and Potash mobilizer) and novel organic liquid fertilizer	<i>Rabi:2015-16</i>	5	5	19	-	19	-
22	Okra	INM		<i>Rabi:2015-16</i>	15	15	74	-	74	-
23	Watermelon	INM		<i>Rabi:2015-16</i>	3	3	9	-	9	-
24	Okra	IPM	Pheromone traps, Leucinlure, Azadirachtin 1500 ppm, Yellow sticky traps, <i>Pseudomonas</i> , <i>Trichoderma</i>	<i>Rabi:2015-16</i>	4	4	12	-	12	-
25	Brinjal	IPM	Pheromone traps, Leucinlure, Azadirachtin 1500 ppm, Yellow sticky traps, <i>Pseudomonas</i> , <i>Trichoderrma</i>	<i>Rabi:2015-16</i>	3	3	12	-	12	-
26	Cucumber	IPM	NAUROJI fruit fly trap	<i>Rabi:2015-16</i>	2	2	10	-	10	-
27	Indian Bean-NPS-1	ICM	Seeds of New variety	<i>Kharif-2016</i>	2	2	29	-	29	
28	Okra	INM	Effect of bio-fertilizers (Azotobactor, PSB and Potash mobilizer) and novel organic liquid fertilizer	<i>Rabi:2016</i>	2	2	10	-	10	
29	Brinjal	INM		<i>Rabi:2016</i>	2	2	10	-	10	
30	Watermelon	INM		<i>Rabi:2016</i>	2	2	10	-	10	
31	Tomato	ICM	New Variety –Arka Rakshak	<i>Summer-2017</i>	2	1	6	-	6	
32	Mango	INM	Novel organic liquid fertilizer	<i>Summer-2017</i>	2	2	8	-	8	
33	Okra	IPM	Pheromone traps, Ervitlure,	<i>Rabi:2016-17</i>	3	3	15	-	15	

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
			Azadirachtin 1500 ppm, Metarhizium anisopla, <i>Lecanicillium lacani</i> , <i>Trichoderma</i>							
34	Brinjal	IPM	Pheromone traps, Leucinlure, Azadirachtin 1500 ppm, <i>Pseudomonas</i> , <i>Trichoderrma</i>	<i>Rabi:2016-17</i>	3	3	12	-	12	
	Oilseeds									-
35	Groundnut — GJG-9	New high yielding variety	New high yielding variety	<i>Summer-2016</i>	13.2	13.2	25	-	25	-
36	Groundnut — GG-31	New high yielding variety	New high yielding variety	<i>Summer-2016</i>	12.4	12.4	31	-	31	-
37	Groundnut-TAG- 37A	New high yielding variety	New high yielding variety	<i>Summer-2016</i>	33.4	33.4	44	-	44	-
38	Groundnut-GG- 20	INM	Seed and biofertilizer (rhyzobium and P.S.B)	<i>Kharif-2016</i>	20	20	50	-	50	-
	Cotton									
39	Cotton	IPM	Pheromone traps, Pectinolure, Azadirachtin 1500 ppm, <i>Pseudomonas</i>	<i>Kharif-2016</i>	5	5	12	-	12	-

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Wheat - Lok-1	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Oct. to 15 th Nov.,2015	21 st Feb. to 25 th March, 2016	1158	59
Wheat-GW-496	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Oct. to 15 th Nov.,2015	21 st Feb. to 25 th March, 2016		
Wheat -Lok-1	<i>Rabi:2016-17</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Oct. to 15 th Nov.,2016	21 st Feb. to 25 th March, 2017		
Wheat-GW-496	<i>Rabi:2016-17</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Oct. to 15 th Nov.,2016	21 st Feb. to 25 th March, 2017		
Paddy-NAUR-1	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Paddy	15 th June to 30 th July,2016	15 th Sept to 10 th Oct., 2016		
Paddy- Jaya	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Paddy	15 th June to 15 th July, 2016	15 th Sept. to 10 th Oct.,2016		
Paddy- GNR-3	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Fallow	15 th June to 15 th July, 2016	15 th Sept. to 10 th Oct.,2016		
Paddy- Gurjari	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Fallow	15 th June to 15 th July, 2016	15 th Sept. to 10 th Oct.,2016		
Paddy-NAUR-1	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Fallow	15 th June to 15 th July, 2016	15 th Sept. to 10 th Oct.,2016		
Paddy- Purna	<i>Kharif-2016</i>	Irrigated	Medium black	L	M	H	Fallow	15 th June to 15 th July, 2016	15 th Sept. to 10 th Oct.,2016		
Gram-GG-3	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Fallow	15 th Nov. to 15 th Dec.,2015	10 th March to 25 th March,2016		
Gram-PKV-2	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Fallow	15 th Nov. to 15 th Dec.,2015	10 th March to 25 th March,2016		
Gram-GG-3	<i>Rabi-2016-17</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Nov. to 15 th Dec.,2016	10 th March to 25 th March,2017		
Green gram-	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Fallow	15 th Nov. to	10 th March to		

Crop	Season	Farming situation (RF/ Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Co-4								15 th Dec.,2015	25 th March,2016		
Green gram-Co-4	<i>Rabi:2015-16</i>	Irrigated	Medium black	L	M	H	Fallow	15 th Nov. to 15 th Dec.,2015	10 th March to 25 th March,2016	1158	59
Green gram-Co-4	<i>Rabi:2016-17</i>	Irrigated	Medium black	L	M	H	Paddy	15 th Nov. to 15 th Dec.,2016	10 th March to 25 th March,2017		
Green gram-Meha	<i>Rabi:2015-16</i>	Irrigated	Red	M	M	M	Paddy	10 th Jan. to 16 th Feb.,2016	15 th March to 15 th April.,2016		
Pigeonpea-Vaishali	<i>Kharif-2016</i>	Irrigated	Black	L	M	M	Paddy	15 th July to 25 th July,2016	15 th Oct. to 25 th Oct,2016		
Soybean-NRC-37	<i>Kharif-2016</i>	Irrigated	Black	M	M	M	Paddy	15 th July to 25 th July,2016	15 th Oct. to 25 th Oct,2016		
Blackgram-GU-1	<i>Kharif-2016</i>	Irrigated	Red	M	L	M	Paddy	15 th July to 25 th July,2016	15 th Sept. to 25 th Sept.,2016		
Brinjal	<i>Rabi:2015-16</i>	Irrigated	Light shallow & Medium black	L	M	H	Paddy	15 th October-15 th November	15 th March – 15 th April		
Okra	<i>Rabi:2015-16</i>	Irrigated	Light shallow & Medium black	L	M	H	Paddy	15 th October-15 th November	15 th March – 15 th April		
Watermelon	<i>Rabi:2015-16</i>	Irrigated	Light soil and Light Shallow	L	M	H	Paddy	15 th October-15 th November	15 th January-15 th —February		
Okra	<i>Rabi:2015-16</i>	Irrigated	Medium Black	L	M	H	Fallow	1 st Nov. to 15 th Nov., 2015	1 st Jan. to 30 th April-2016		
Brinjal	<i>Rabi:2015-16</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	10 th Nov. to 15 th Nov.,2015	20 th Jan. to 30 th April-16		
Cucumber	<i>Rabi:2015-16</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	15 th Oct. to 20 th Nov., 2015	20 th Dec. to 25 th February-2016		
Indian Bean-	<i>Kharif-2016</i>	Irrigated	Light to	L	M	H	Fallow	September-	15 th January-	1158	59

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
NPS-1			Medium Black Soil					2016	15 th –February-2017		
Okra	<i>Rabi:2016-17</i>	Irrigated	Medium Black	L	M	H	Fallow	1 st Nov. to 15 th Nov., 2016	1 st Jan. to 25 th April-2017		
Brinjal	<i>Rabi:2016-17</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	10 th Nov. to 15 th Nov.,2016	20 th Jan. to 20 th April-2017		
Watermelon	<i>Rabi:2016-17</i>	Irrigated	Medium Black	L	M	H	Fallow	15 th October-15 th November	15 th January-15 th –February		
Tomato	<i>Rabi Summer:2017</i>	Irrigated	Medium Black	L	M	H	Fallow	10 th February to 20 th February-2017	1 st April to 30 May-2017		
Mango	<i>Rabi Summer:2017</i>	Irrigated	Medium Black	L	M	H	Fallow	--	15 th May to 30 June-2017		
Okra	<i>Rabi:2016-17</i>	Irrigated	Medium Black	L	M	H	Fallow	1 st Nov. to 15 th Nov., 2016	1 st Jan. to 25 th April-2017		
Brinjal	<i>Rabi:2016-17</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	10 th Nov. to 15 th Nov.,2016	20 th Jan. to 20 th April-2017		
Groundnut — GJG-9	<i>Summer-2016</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	15 th Dec. to 30 th Dec.,2015	15 th April to 15 th May-2016		
Groundnut — GG-31	<i>Summer-2016</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	15 th Dec. to 30 th Dec.,2015	15 th April to 15 th May-2016		
Groundnut-TAG-37A	<i>Summer-2016</i>	Irrigated	Light to Med. Black Soil	L	M	H	Fallow	15 th Dec. to 30 th Dec.,2015	15 th April to 15 th May-2016		
Groundnut-GG-20	<i>Khariif-2016</i>	Irrigated	Medium black	N	P	K	Fallow	15 th July to 25 th July,2016	15 th Sept. to 15 th Oct.,2016	1158	59

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Cotton	<i>Kharif-2016</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	15 th May to 15 st June, 2016	25 th Nov. to 15 th Jan, 2017		

Technical Feedback on the demonstrated technologies

Sr. No.	Technical Feedback
1	Research should be initiate against brinjal little leaf disease
2	There is urgent need to release recommendations on herbal plant pesticides for management of pest and diseases in relation to organic farming

Farmers' reactions on specific technologies

Sr. No.	Farmer's Feedback
1	By adopting IPDM technology reduced pesticide load and ultimately minimize cost of cultivation.
2	Pseudomonas gave good results in paddy and cotton against bacterial leaf blight and angular leaf spot diseases, respectively
3	Good quality Pheromone lures for cotton pink bollworm and paddy yellow stem borer are not available in market.
4	Seedlings available through KVK Plug nursery (use of <i>Trichoderma</i>) having less infection of fungal diseases
5	Cucurbits (bitter gourd, ridge gourd, bottle gourd) seedlings available through KVK Plug nursery resulting early flowering (about 15 days) and gave higher price.
6	Novel organic liquid fertilizer gave good results in fruit setting and ultimately increases yield.
7	Paddy variety NAUR-1 is early mature and gave higher yield. Paddy variety Jaya suitable in water logged condition. Paddy var. GNR-3 are best suitable for pahuva making but lodging in some field was observed.
8	Soyaben NRC-37 gave higher yield and late maturity as compared to JS-335. Blackgram GU-1 gave higher yield but early maturity .This variety not useful under late withdrawal of monsoon. Groundnut GG-20 variety most preferred by farmers in kharif season due to its higher productivity.

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	18	14/9/16,,15/9/16,7/9/16,17/9/16,23/9/16,23/9/16,28/9/16,30/9/16, 30/9/16, 30/9/16, 1/10/16, 7/10/16, 18/10/16, 25/10/16, 25/10/16, 5/11/16, 16/2/2017, 6/3/2017	574	-
2	Farmers Training	9	1-4/6/16, 27-30/6/16, 25-28/6/16, 26-29/9/16, 26-29/9/16, 3-6/10/16, 3-6/10/16, 5-7/12/16, 21/12/16	359	-
3	Media coverage	2	10/10/16, 14/10/16	-	-
4	Training for extension functionaries	-	-	-	-

Performance of Frontline demonstrations

Cluster Frontline Demonstrations on oilseed crops (NFSM & NMOOP)- As per page No. 89-90

Front Line demonstration on pulse crops (Agronomy)

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	Gross Cost	Gross Return	Net Return	BCR
						High	Low	Average										
Gram (Rabi-15-16)	HYV	High yielding variety	GG-3	25	10	12.3	11.3	11.60	9.7	19.59	17500	39730	22230	2.27	15200	33223	18023	2.18
Gram (Rabi-15-16)	ICM	New variety	PKV-2	25	10	12.9	11.7	12.31	8.9	38.31	17500	42162	24662	2.40	14500	30483	15983	2.10
Gram (Rabi-16)	ICM	High Yielding variety	GG-3	13	5	11.50	7.50	9.69	7.89	22.81	17500	37558	20058	2.14	15500	31560	16060	2.04
Green gram (Rabi-15-16)	INM	Seed and biofertilizer (<i>rhizobium</i> and P.S.B)	Co-4	25	10	10.9	7.64	8.98	6.78	32.44	19500	46921	27421	2.4	16500	35426	18926	2.14
Pigeonpea (Kharif-16)	INM	Seed and biofertilizer (<i>rhizobium</i> and P.S.B)	Vaishali	13	5	12.80	7.90	9.89	6.70	47.61	17500	49946	32446	2.85	16500	33835	17335	2.05
Soybean (Kharif-16)	INM	Seed and biofertilizer (<i>rhizobium</i> and P.S.B)	NRC-37	25	10	14.10	10.90	11.25	8.81	27.70	17200	31219	14019	1.81	19000	24448	5448	1.28

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	Gross Cost	Gross Return	Net Return	BCR
						High	Low	Average										
Greengram (Rabi 16-17)	ICM	Seed	Co-4	13	5	9.0	6.50	7.69	6.2	24.03	15200	40181	24981	2.64	13500	32395	18895	2.39

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
					High	Low	Average												
Cereals																			
Coarse Rice	Agromony																		
Paddy- Jaya (Kharif-16)	ICM	High yielding variety	13	5	38.90	26.80	32.85	24.80	32.45	-	-	30500	48289	17789	1.58	29500	36456	6956	1.24
Paddy- GNR-3 (Kharif-16)	ICM	High yielding variety	13	5	37.20	28.90	33.41	25.90	28.99	-	-	30500	49113	18613	1.61	29500	38073	8573	1.30
Paddy- Gurjari (Kharif-16)	ICM	High yielding variety	13	5	36.80	27.10	31.73	24.81	27.90	-	-	30500	46643	16143	1.53	29500	36471	6971	1.24
Paddy- NAUR-1 (Kharif-16)	ICM	High yielding variety	13	5	40.10	29.70	34.62	26.70	29.66	-	-	30500	50891	20391	1.67	29500	39249	9749	1.33
Paddy- Purna (Kharif-16)	ICM	High yielding variety	13	5	32.10	23.80	27.03	20.60	31.21	-	-	20500	39734	19234	1.94	18500	30282	11782	1.64
Wheat - Lok-1 (Rabi-15-16)	INM	Seed and biofertilizer (<i>Rhizobium</i> and P.S.B)	25	10	26.5	18.5	19.12	16.52	15.73	-	-	17500	29158	11658	1.67	18200	25193	6993	1.38
Wheat-GW-496 (Rabi-15-16)	INM		25	10	27.6	20.0	19.02	15.63	21.69	-	-	17500	29006	11506	1.66	18200	23836	5636	1.31
Wheat -Lok-1 (Rabi-16)	ICM	High yielding variety	13	5	24.3	19.7	18.9	15.30	23.53	-	-	17550	28823	11273	1.64	18500	23333	4833	1.26
Wheat-GW-496 (Rabi-16)	ICM	High yielding variety	13	5	25.2	20.1	19.6	16.56	18.36	-	-	17550	29890	12340	1.70	18500	25254	6754	1.37
Millets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horticulture																			
Vegetables																			
Brinjal (Rabi 2015-16)	INM	Novel organic liquid fertilizer	19	5	176	170	174	165	5.45	-	-	73000	261000	188000	3.58	70000	231000	161000	3.3
Okra (Rabi)	INM		74	15	103	93	98	92	6.52	-	-	78000	343000	265000	4.40	75000	294000	219000	3.92

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo					Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
					High	Low	Average												
2015-16)																			
Watermelon (Rabi 2015-16)	INM		9	3	150	130	140	135	3.70	-	-	47000	154000	107000	3.28	45000	135000	90000	3.00
Indian Bean-NPS-1 (Kharif-2016)	ICM	Seeds of New variety	29	2	37.50	30.00	33.44	27.50	21.59	-	-	40000	120375	80375	3.01	35750	99000	63250	2.77
Okra(Rabi 2016-17)	INM	Azotobactor, PSB and Potash mobilizer) and novel organic liquid fertilizer	10	2	120.00	105.00	111.54	90.00	23.93			97500	390373	292873	4.00	93500	315000	2,21500	3.36
Brinjal (Rabi 2016-17)	INM		10	2	180.00	165.00	172.06	150.00	14.71			90000	344120	254120	3.82	86000	300000	214000	3.48
Watermelon (Rabi 2016-17)	INM		10	2.5	280.00	200.00	234.40	202.00	16.04			52000	164080	112080	3.16	50000	132310	82310	2.65
Fruit crop																			
Mango(Summer 2017)	INM	Novel organic liquid fertilizer	8	2	--Crop is standing --														
Plant Protection																			
Okra (Rabi:2016-17)	IPM	Pheromone traps,	15	3	111.5	96.8	106.8	95.5	11.83	-	-	80400	213600	133200	2.66	87800	191000	103200	2.18
Brinjal (Rabi:2016-17)	IPM	Azadirachtin 1500 ppm, Metarhizium anisoplea, <i>Lecanicillium lacani</i> , <i>Trichoderma</i>	12	3	225.2	204.3	214.7	184.5	16.37	-	-	76800	214700	137900	2.80	83400	184500	101100	2.21
Cotton	IPM	As per-b	12	5	18.4	14.0	15.9	13.9	14.38	-	-	28500	73140	44640	2.57	29800	63940	34140	2.15
Paddy-NAUR-1 (Kharif-16)	IPM	Pheromone traps, <i>Pseudomonas</i> , Propargite	12	5	45.50	37.40	41.5	36.5	13.70	-	-	30500	56025	25525	1.84	29200	49275	20075	1.69
Okra (Rabi:2015-16)	IPM	Pheromone traps,	12	4	108.4	94.6	100.8	89.5	12.63	-	-	76600	201600	125000	2.63	86400	179000	92600	2.07
Brinjal (Rabi:2015-16)	IPM	Azadirachtin 1500 ppm, <i>Metarhizium</i>	12	3	232.2	210.3	219.4	188.65	16.30	-	-	74400	219400	145000	2.95	86800	188650	101850	2.17

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)			% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)				
					Demo				Check	Demo	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
					High	Low	Average												
		<i>anisoplea, Lecanicillium lacani, Trichoderma</i>																	
Cucumber (Rabi:2015-16)	IPM	Fruit fly trap	10	2	106.05	88.36	96.8	82.64	17.13	-	-	32000	116160	84160	3.63	35400	99168	63768	2.80
Medicinal & aromatic plants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fodder Crops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of Farmers	No. of Units (Animal/ Poultry/ Birds, etc)	Major parameters		% change in major parameter	Economics of demonstration (Rs.)				Economics of check (Rs.)			
					Demon.	Check		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
Buffalo	Fertility management	Ovulanta (Clomiphen & minerals) for infertility cure	50	50	70	186	37.63	5000	7542	2542	1.51	2400	2950	550	1.23
Goat	Disease management	Ivermectin inj. @0.2 mg/kg b.wt	100	100	9	27	33.33	9000	15000	6000	1.67	5000	7200	2200	1.44
Buffalo	Nutrition management	Bypass fat @ 50 gm /day for 120 days (Oral route)	20	20	8.4	7.1	15.47	22000	36600	14600	1.66	14200	16800	2600	1.18
HF cow	Disease management	Saaf Kit (Iodine solution)	10	30	Case Mastitis Noticed in		100	4500	7320	2320	1.63	2800	3200	400	1.14
					0 (out of 30 animals)	2 (out of 10 animals)									

FLD on Fisheries –Nil–

FLD on Other enterprises –Nil–

FLD on Women Empowerment –Nil--

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of Farm women	Area (ha)	Major parameters	Filed observation (ha/man hour)		% change in major parameter	Labor reduction (man days) (man-h/ha)				Cost reduction (Rs./ha/day)	
						Demo	Check		Harvesting		Weeding		Labour**	
									Demo	Check	Demo	Check	Demo	Check
Twin wheel hoe weeder* for weeding	Vegetables (Rabi: 2015-16)	Women drudgery reduction	10	-	-Field observation (ha/hr) -Labour requirement (Man hours/ha) -Cost of operation	0.012	0.0081	48.14	-	-	84	124	1575 (67.74%)	2325
Improved <i>NAVEEN</i> sickle* for paddy harvesting	Paddy (Kharif: 2016)	Women drudgery reduction	100	-	-Field observation (ha/hr) -Labour requirement (Man hours/ha) -Cost of operation	0.0077	0.0059	30.50	130	169	-	-	2848 (76.19%)	3738
Twin wheel hoe weeder* for weeding	Vegetables (Rabi: 2016-17)	Women drudgery reduction	50	-	-Field observation (ha/hr) -Labour requirement (Man hours/ha) -Cost of operation	0.014	0.0093	50.53	-	-	72	108	1602 (64.28%)	2492

*Twin wheel hoe weeder and *NAVEEN* Sickle are recommended by CIAE, Bhopal

**Cost of operation is calculated as per university labour wages

FLD on Other Enterprise: Kitchen gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farm women	No. of Units	Yield (Kg)		% change in yield	Other parameters		Economics of demonstration (Rs./demon.)				Economics of check (Rs./demon.)			
					Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Seeds & seedlings of vegetables alongwith Vermicompost, Fruit fly trap & yellow sticky trap	Nutritional security by kitchen gardening	Organic Kitchen garden	50	50	81.30	47.00	72.97	-	-	514	4065	3551	7.90	350	2350	2000	6.71

FLD on Demonstration details on crop hybrids --Nil--

III. 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
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	1	0	0	0	23	12	35	23	12	35
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	2	0	0	0	62	48	110	62	48	110
Soil & water conservatiion	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	4	0	0	0	56	75	131	56	75	131
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	7	0	0	0	141	135	276	141	135	276
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	0	0	0	0	0	0	0	0	0	0
Off-season vegetables	2	0	0	0	20	28	48	20	28	48
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total (a)	2	0	0	0	20	28	48	20	28	48
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	1	0	0	0	23	54	77	23	54	77
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	1	0	0	0	23	54	77	23	54	77
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	3	0	0	0	43	82	125	43	82	125
III Soil Health and Fertility Management										
Soil fertility management	0	0	0	0	0	0	0	0	0	0
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	7	0	0	0	71	192	263	71	192	263
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	0	0	0	0	37	37	0	37	37
Disease Management	2	0	0	0	22	21	43	22	21	43
Feed & fodder technology	1	0	0	0	3	17	20	3	17	20
Production of quality animal products	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	11	0	0	0	96	267	363	96	267	363
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	0	0	0	0	113	113	0	113	113
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	7	0	48	48	3	319	322	3	367	370
Women empowerment	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	1	0	0	0	0	58	58	0	58	58
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	0	0	0	37	37	0	37	37
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	11	0	48	48	3	527	530	3	575	578
VI Agril. Engineering										
Farm Machinery and its maintenance	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Pest Management	2	0	0	0	41	46	87	41	46	87
Integrated Disease Management	1	0	0	0	17	3	20	17	3	20
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	3	0	0	0	56	56	112	56	56	112
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	6	0	0	0	114	105	219	114	105	219
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	1	0	0	0	15	0	15	15	0	15
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	2	0	0	0	21	40	61	21	40	61
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	36	40	76	36	40	76
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	41	0	48	48	433	1156	1589	433	1204	1637

Farmers' Training including sponsored training programmes (Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	0	0	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0	0	0
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	1	0	0	0	20	15	35	20	15	35
Soil & water conservatiion	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	20	15	35	20	15	35
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	0	0	0	36	1	37	36	1	37
Off-season vegetables	0	0	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (a)	1	0	0	0	36	1	37	36	1	37
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Cultivation of Fruit	0	0	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	0	0	0	0	0	0	0	0	0	0
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	1	0	0	0	36	1	37	36	1	37
III Soil Health and Fertility Management										
Soil fertility management	0	0	0	0	0	0	0	0	0	0
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	1	0	0	0	0	20	20	0	20	20
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0	0	0
Feed & fodder technology	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	20	20	0	20	20
V Home Science/Women empowerment										
Household food security by kitchen gardening and	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
nutrition gardening										
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Women empowerment	1	0	0	0	0	34	34	0	34	34
Location specific drudgery reduction technologies	1	0	0	0	0	53	53	0	53	53
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	1	0	0	0	0	22	22	0	22	22
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	0	109	109	0	109	109
VI Agril. Engineering										
Farm Machinery and its maintenance	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Pest Management	1	0	0	0	15	25	40	15	25	40
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	15	25	40	15	25	40
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	7	0	0	0	71	170	241	71	170	241

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

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Resource Conservation Technologies	0	0	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0	0	0
Integrated Farming	1	0	0	0	23	12	35	23	12	35
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	3	0	0	0	82	63	145	82	63	145
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	4	0	0	0	75	131	206	75	131	206
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	8	0	0	0	161	150	311	161	150	311
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	0	0	0	36	1	37	36	1	37
Off-season vegetables	2	0	0	0	20	28	48	20	28	48
Nursery raising	0	0	0	0	0	0	0	0	0	0
Exotic vegetables	0	0	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0	0	0
Protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (a)	3	0	0	0	56	29	85	56	29	85
b) Fruits										
Training and Pruning	0	0	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0	0	0
Cultivation of Fruit	1	0	0	0	23	54	77	23	54	77
Management of young plants/orchards	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	1	0	0	0	23	54	77	23	54	77
c) Ornamental Plants										
Nursery Management	0	0	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	0	0	0	0	0	0	0	0	0	0
d) Plantation crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	0	0	0	0	0	0	0	0	0	0
e) Tuber crops										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology	0	0	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management	0	0	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	4	0	0	0	79	83	162	79	83	162
III Soil Health and Fertility Management										
Soil fertility management	0	0	0	0	0	0	0	0	0	0
Integrated water management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient Management	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	8	0	0	0	71	212	283	71	212	283
Poultry Management	0	0	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0	0	0
Animal Nutrition Management	1	0	0	0	0	37	37	0	37	37
Disease Management	2	0	0	0	22	21	43	22	21	43
Feed & fodder technology	1	0	0	0	3	17	20	3	17	20
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	12	0	0	0	96	287	383	96	287	383
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	2	0	0	0	0	113	113	0	113	113
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0	0	0
Designing and development for high nutrient	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
efficiency diet										
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0	0	0
Processing and cooking	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0	0	0
Value addition	7	0	48	48	3	319	322	3	367	370
Women empowerment	1	0	0	0	0	34	34	0	34	34
Location specific drudgery reduction technologies	2	0	0	0	0	111	111	0	111	111
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	2	0	0	0	0	59	59	0	59	59
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	14	0	48	48	3	636	639	3	684	687
VI Agril. Engineering										
Farm Machinery and its maintenance	0	0	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
VII Plant Protection										
Integrated Pest Management	3	0	0	0	56	71	127	56	71	127
Integrated Disease Management	1	0	0	0	17	3	20	17	3	20
Bio-control of pests and diseases	0	0	0	0	0	0	0	0	0	0
Production of bio control agents and bio pesticides	3	0	0	0	56	56	112	56	56	112
Others (pl specify)	0	0	0	0	0	0	0	0	0	0

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Total	7	0	0	0	129	130	259	129	130	259
VIII Fisheries										
Integrated fish farming	0	0	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
IX Production of Inputs at site										
Seed Production	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0	0	0
Vermi-compost production	1	0	0	0	15	0	15	15	0	15
Organic manures production	0	0	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0	0	0
Mushroom Production	2	0	0	0	21	40	61	21	40	61

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Apiculture	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	36	40	76	36	40	76
X Capacity Building and Group Dynamics										
Leadership development	0	0	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies	0	0	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	48	0	48	48	504	1326	1830	504	1374	1878

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

Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0	0	0

Bee-keeping	0	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0

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

Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0	0
Integrated farming	0	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	0	0	0	3	47	50	3	47	50	

Planting material production	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0
Mushroom Production	1	0	0	0	10	11	21	10	11	21
Bee-keeping	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	1	0	0	0	17	0	17	17	0	17
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	0	30	58	88	30	58	88

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

Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0

Integrated farming	0	0	0	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0	0	0	0
Production of organic inputs	1	0	0	0	3	47	50	3	47	50	
Planting material production	0	0	0	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0	0	0	0
Mushroom Production	1	0	0	0	10	11	21	10	11	21	
Bee-keeping	0	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0	0	0	0
Post Harvest Technology	1	0	0	0	17	0	17	17	0	17	
Tailoring and Stitching	0	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0	0	0	0
Fish harvest and processing technology	0	0	0	0	0	0	0	0	0	0	0
Fry and fingerling rearing	0	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	0	0	0	30	58	88	30	58	88	

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

Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	1	0	0	0	0	24	24	0	24	24
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	0	0	24	24	0	24	24

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

Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0

Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0

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

Productivity enhancement in field crops	0	0	0	0	0	0	0	0	0	0	0
Integrated Pest Management	0	0	0	0	0	0	0	0	0	0	0
Integrated Nutrient management	0	0	0	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0	0	0	0
Women and Child care	1	0	0	0	0	0	24	24	0	24	24
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0	0	0	0
Any other (pl.specify)	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	0	0	0	0	24	24	0	24	24

Table. 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	7	0	0	0	134	112	246	134	112	246
Commercial production of vegetables	1	0	0	0	23	54	77	23	54	77
Production and value addition										
Fruit Plants	0	0	0	0	0	0	0	0	0	0
Ornamental plants	0	0	0	0	0	0	0	0	0	0
Spices crops	0	0	0	0	0	0	0	0	0	0
Soil health and fertility management	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	1	0	0	0	2	32	34	2	32	34
Methods of protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (IPM)	1	0	0	0	32	20	52	32	20	52
Total	10	0	0	0	191	218	409	191	218	409
Post harvest technology and value addition										
Processing and value addition	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Farm machinery										
Farm machinery, tools and implements	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Livestock production and management	6	0	0	0	58	149	207	58	149	207
Animal Nutrition Management	1	0	0	0	0	37	37	0	37	37
Animal Disease Management	0	0	0	0	0	0	0	0	0	0
Fisheries Nutrition	0	0	0	0	0	0	0	0	0	0
Fisheries Management	0	0	0	0	0	0	0	0	0	0
Total	7	0	0	0	58	186	244	58	186	244
Home Science										
Household nutritional security	1	0	0	0	0	53	53	0	53	53
Economic empowerment of women	9	0	48	48	3	379	382	3	427	430
Drudgery reduction of women	0	0	0	0	0	0	0	0	0	0
Total	10	0	48	48	3	432	435	3	480	483

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Agricultural Extension										
Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	27	0	48	48	252	836	1088	252	884	1136

Name of sponsoring agencies involved: DRG-Junagadh, SEWA-Vyara, ATMA-Tapi, Seed Science & tech.dept., AAU, Anand, NCRI, Hyderabad, Udaybhansinhji Regional Institute of Co-operative Management, Gandhinagar, ATMA-Valsad, ATMA, Vadodara, GUJARAT MATIKAM KALAKARI ANE Rural Technology Institute, Bajipura

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

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Commercial floriculture	0	0	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0	0	0
Commercial vegetable production	0	0	0	0	0	0	0	0	0	0
Integrated crop management	0	0	0	0	0	0	0	0	0	0
Organic farming	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Post harvest technology and value addition										
Value addition	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Livestock and fisheries										
Dairy farming	0	0	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0	0	0
Poultry farming	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

Area of training	No. of	No. of Participants								
	Courses	General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Income generation activities										
Vermicomposting	0	0	0	0	0	0	0	0	0	0
Production of bio-agents, bio-pesticides, bio-fertilizers etc.	0	0	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0	0	0
Rural Crafts	2	0	0	0	0	60	60	0	60	60
Seed production	0	0	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0	0	0
Mushroom cultivation	0	0	0	0	0	0	0	0	0	0
Nursery, grafting etc.	0	0	0	0	0	0	0	0	0	0
Tailoring, stitching, embroidery, dying etc.	0	0	0	0	0	0	0	0	0	0
Agril. para-workers, para-vet training	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	60	60	0	60	60
Agricultural Extension										
Capacity building and group dynamics	0	0	0	0	0	0	0	0	0	0
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	2	0	0	0	0	60	60	0	60	60

IV. Extension Programmes

Activities	No. of programmes	No. of farmers			No. of Extension Personnel	TOTAL
		Male	Female	Total		
Advisory Services	957	1671	2895	4566	19	4585
Diagnostic visits	43	93	32	125	0	125
Field Day	18	153	421	574	0	574
Group discussions	35	738	821	1559	0	1559
Kisan Ghosthi	8	161	170	331	0	331
Film Show	33	417	1806	2223	9	2232
Self Help Groups	4	0	90	90	0	90
Kisan Mela	1	210	851	1061	19	1080
Exhibition	3	6080	7974	14054	45	14099
Scientists' visit to farmer's field	29	60	44	104	5	109
Plant health camps	80	133	9	142	0	142
Animal health camps	1	38	10	48	2	50
Farm Science Club	0	0	0	0	0	0
Ex-trainees Sammelan	7	1	145	146	0	146
Farmers' seminar/workshop	0	0	0	0	0	0
Method Demonstrations	68	831	1620	2451	6	2457
Celebration of important days	0	0	0	0	0	0
1.ICAR Foundation Day	1	0	70	70	0	70
2.Mahila Krushi Divas	1	0	335	335	35	370
3.Parthenium Awareness Week	1	104	131	235	0	235
4.Swatchha Bharat Abhiyan Pakhavadiya	1	11	125	136	0	136
5.Jay Kishan Jai Vigyan Week	1	13	27	40	0	40
6.Radio Kishan Day	1	30	3	33	0	33
	6	158	691	849	35	884
Special day celebration						
1.World Food Day	1	2	48	50	0	50
2.Agriculture Education Day	1	12	59	71	0	71
3.World Soil Day	1	23	37	60	7	67
4.International Women's Day	1	135	500	635	15	650
Exposure visits	3	53	54	107	0	107
Others (pl. specify)	7	225	698	923		
Guest lecture	118	8832	18796	27628	50	27678
<i>Khedut shibir</i>	18	733	494	1227	15	1242
<i>Mahila shibir</i>	3	64	127	191	10	201
<i>Pashupalan shibir</i>	1	50	10	50	0	50
Farmers-Scientists Interaction	6	84	99	183	0	183
<i>Krishi Mahotsav</i> programme	2	5865	7101	12966	53	13019
Extension literature distributed	101	2155	3215	5370	45	5415
Total	1549	26097	43950	76861	335	77196

Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	0
Extension Literature	30
News paper coverage	12
Popular articles	28
Radio Talks	12
TV Talks	2
Animal health camps (Number of animals treated)	50
Others (pl. specify) Book:MAGFALI-AADARSH TELIBIYA PAK	1
Book chapter	2
Research papers	9
Research paper abstracts	1
Total	147

(Annexure –II is attached)

Name of KVK	Message Type	Type of Messages						Total
		Crop	Live - stock	Weather	Mark-eting	Aware -ness	Other enterprise	
KVK, NAU, Vyara, Dist.Tapi	Text only	25	6	0	0	7	22	60
	Voice only	0	0	0	0	0	0	0
	Voice & Text both	0	0	0	0	0	0	0
	Total Messages	25	6	0	0	7	22	60
	Total farmers Benefitted /Message	11876	11876	0	0	11876	11876	11876

V. DETAILS OF TECHNOLOGY WEEK CELEBRATIONS

Number of KVKs organized Technology Week	Types of Activities	No. of Activities	Number of Participants	Related crop/livestock technology
--	--	--	--	--

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 (Summer-2016)	Gurjari	-	75.00	207000	249
		Jaya	-	48.25	133170	178
	Paddy (Kharif-2016)	GNR-3	-	21.50	59340	135
		Jaya	-	33.60	0	0
		Gurjari	-	28.00	77280	67

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed (q)	Value (Rs.)	Number of farmers
		IR-28	-	18.00	0	0
Oilseeds	-	-	-	--	0	0
Pulses	Green gram (Summer-2016)	Meha	-	3.00	33000	25
	Green gram (Rabi-2015)	Co-4	-	3.10	34100	25
Commercial crops	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-
Flower crops	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Fodder crop seeds	-	-	-	-	-	-
Fiber crops	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total				230.45	543890	679

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial	-	-	-	-	-	-
Fruits & Vegetable seedlings	Brinjal	Sungrow-143,MAHY-Neelam		66904	50847.04	300
	Tomato	Arka Rakshak, Abhinav		15134	15134	250
	Chilli	VNR-22		11839	11839	50
	Bittergourd	Nunhemp-Racer and Sungrow-Vivek		15974	63896	100
	Bottle gourd	Nunhemp-Alokik		1865	6527.5	20
	Sponge gourd	Nunhemp-Doli and Ankur-Alok		330	1155	10
	Ridge gourd	Mahy-7		1302	4557	10
	Cucumber	Deshi-Naylon		255	637.5	4
	Cabbage	Sakata		106	106	1

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
	Pointed gourd	GNPG-1		150	1500	1
	Little gourd	GNLG-1		3491	34910	70
	Moringa	PKM-1		357	5355	10
	Rose	Deshi		10	100	2
	Marigold	Sakata-999		2120	5300	3
	Mango	Sonpari		37	1295	29
	Total			119874	203159	860
Ornamental plants						
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Tuber	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total				119874	203159	860

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers	-	-	-	-
Bio-pesticide	-	-	-	-
Bio-fungicide	-	-	-	-
Bio Agents	-	-	-	-
Others	Vermicompost	7260	39930	200
	<i>JIVAMRUT</i>	1000 lit.	-	Use in farm nursery
Total		7260	39930	200

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows	-	-	-	-
Buffaloes	-	-	-	-
Calves	-	-	-	-
Others (Pl. specify)	-	-	-	-
Poultry				
Broilers	-	-	-	-
Layers	-	-	-	-
Duals (broiler and layer)	-	-	-	-
Japanese Quail	-	-	-	-
Turkey	-	-	-	-
Emu	-	-	-	-
Ducks	-	-	-	-

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Others (Pl. specify)	-	-	-	-
Piggery				
Piglet	-	-	-	-
Others (Pl. specify)	-	-	-	-
Fisheries				
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Total	-	-	-	-

VII. DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	630	630	115	148370.00
Water	16	16	7	800.00
Plant	80	80	61	0
Manure	0	0	0	0
Others (pl. specify)	0	0	0	0
Total	726	726	183	149170.00

N.B.: Soil Testing rate –Rs. 300/- and Rs. 400/-, Water Testing rate: Rs. 50/-

VIII. SCIENTIFIC ADVISORY COMMITTEE

Name of KVK	Number of SACs conducted
KVK, NAU, Vyara, Dist. Tapi	1

IX. NEWSLETTER/MAGAZINE

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

X. PUBLICATIONS

Category	Number
Research Papers	7
Technical bulletins	--
Technical reports	16
Others (pl. specify)	
Book-MAGFALI-AADARSH TELIBIYA PAK	1
Research paper abstracts	1
Book chapter	2
Popular articles	28
Extension Literature (Folder)	30
Newspaper coverage	12

Note: Details of Publications are given in *Annexure-II*

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

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

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

Introduction of alternate crops/varieties

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

Major area coverage under alternate crops/varieties

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

Farmers-scientists interaction on livestock management

Livestock components	Number of interactions	No.of participants
--Nil--		

Animal health camps organized

Number of camps	No.of animals	No.of farmers
--Nil--		

Seed distribution in drought hit states

Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
--Nil--			

Large scale adoption of resource conservation technologies

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

Awareness campaign

	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers	No.	No.of farmers
--Nil--												

XIII. DETAILS ON HRD ACTIVITIES

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

Name of the SAU	Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
NAU	Management of Commodity Interest Groups and Farmers Organizations	1	14	7
Total		1	14	7

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

Title of the training programmes	No of programmes	No. of Participants	No. of KVKs involved
Workshop on pulse crops	1	1	1
Workshop on oilseed crops	1	1	1
Training cum awareness programme on PPV&FRA	1	1	1
Total	3	3	3

XIV. CASE STUDIES/ SUCCESS STORIES

1. CASE STUDIES:

Name of KVK: Tapi, Gujarat

1. IPM Technology – A Boon for Eco-friendly Pest Management in Brinjal

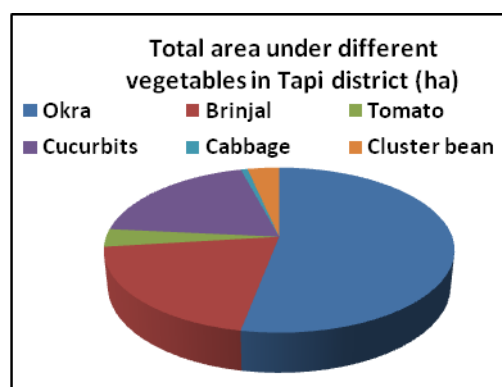
Introduction:

Insect pests are the significant biotic stresses which not only limit productivity but also destabilize brinjal production. The tropical warm and humid climate prevalent in the country is very favourable for insect diversity and abundance. Insect pest infestation is one of the most limiting factor for accelerating yield potential of brinjal and is one of the major constrain in the brinjal production. The brinjal crop is prone to damage by more than 36 insect pests from the planting till the harvest (Ragupathy et al., 1997). In Gujarat, it is cultivated over 76,000 ha with an annual production of 14,77,000 metric tonnes (Indian Horticulture Database, 2015). In Tapi district of south Gujarat ecosystem, total area under vegetable crop is 22097 ha. Brinjal is the second important vegetable crop after okra. It contributes 17 % area (3715 ha) of vegetables in Tapi district. Under south Gujarat condition upto 5.76 per cent shoots and 47.67 per cent fruits were observed to be infested by the pest (Patel, 1992). While, up to 71.70 per cent fruit damage by brinjal shoot and fruit borer is reported by Shah et al. (1984).

In view of growing concern among the public for pesticide contamination along with growing popularity of organic farming, adoption of ecofriendly methods of pest control in vegetable crop like brinjal has become very important. This becomes more relevant in brinjal where harvesting or picking is done at weekly or shorter interval. This would also enable less or no insecticide residue in farm produce above detectable level. So, keeping this in consideration, role of Integrated Pest Management (NPM) becomes more relevant particularly in brinjal.

KVK intervention:

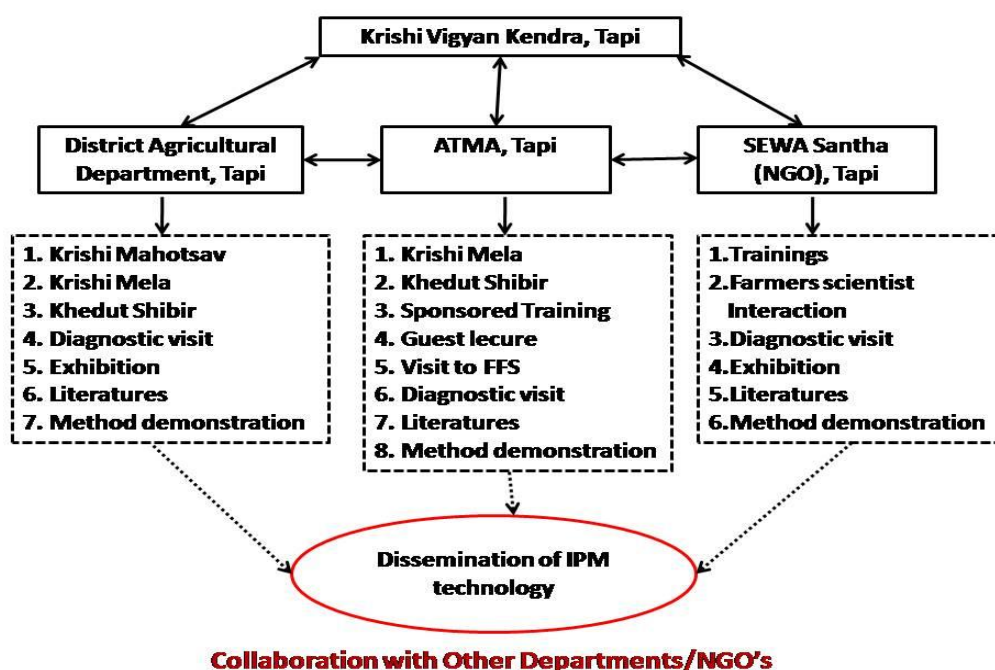
The entry point visit to the adopted villages was made by the team of Subject Matter Specialists. To find out the technological adoption gaps and to identify the thrust areas for the agricultural development, a PRA was made. During PRA survey of adopted villages it was found that, due to lack of knowledge regarding scientific package of practices tribal farmers are assassinating huge budget behind crop production, indiscriminating use of agrochemical and loosing the health of soil, water and environment and also unable to get higher net return due to lack of knowledge regarding value addition and market management. During interaction it was also found that, for management of insect pests of brinjal, farmers solely depend upon chemical pesticides. They were unknown about the identification of pests of



brinjal, their life cycle, nature of damage etc. For management of insect pests of brinjal, they have been used health hazardous chemical pesticides injudiciously and indiscriminately. Moreover, it was very interesting to notice that, most of the vegetable (okra & brinjal) growing farmers have not been consumed vegetables grown by them. As they all are known about the pesticide load done by themselves on vegetables for management of pests and diseases.

By considering this, Krishi Vigyan Kendra, Vyara has been made an effort to disseminate IPM technology through various extension activities in different villages of Tapi district. In context to same, Subject Matter Specialist (Plant Protection) arranged training programmes (on/off) to increase awareness about “**Integrated Pest Management**” among farmers. During training programmes, he mainly emphasized on ‘**Pesticide Residues**’ in different crops and guide farmers about the different component of IPM viz., cultural practices, mechanical and physical practices; use of botanical pesticides, biological agents and lastly use of chemical pesticides.

Subsequently, IPM kit comprising of yellow sticky traps, pheromone traps with *Leucinelure*, Neem based Azadirachtin 1500 ppm and Trichocards were distributed to each selected farmers as FLD inputs (Table 1). Consequently, method demonstration was also carried out for operation and installation of IPM inputs viz., yellow sticky traps, pheromone traps, *Trichocards* etc. Moreover, the other non-pesticidal practices such as clean cultivation, collection and destruction of infested shoots and fruits, growing marigold as trap crops, ecological engineering in pest management were also carried out through farmers. Constant follow up visits, FLD meeting, FLD visit, field day and other extension activities have been concentrated. The advice about need based pesticide application (based on the ETL level) was also given during field visit/FLD visit. Initially, farmers were hesitating in adopting need based application of single pesticides and other IPM component but with constant encouragement, KVK scientists are successful in building up confidence in them. Scientist (Plant Protection) also guide farmers about the identification of insect pests, bioagents, and their life stages. The details of trainings, FLD given, cost of cultivation and economics are given below.



Moreover, dissemination of IPM technology in vegetables were also carried out in association with ATMA project, District Agricultural Departments through various extension activities [Sponsored training, Farmers Field School (FFS) visit, diagnostic visit, method demonstration, distribution of literature, mega events viz, *Krishi Mahotsav, Krishi Melas, Khedut Shibir* etc.]

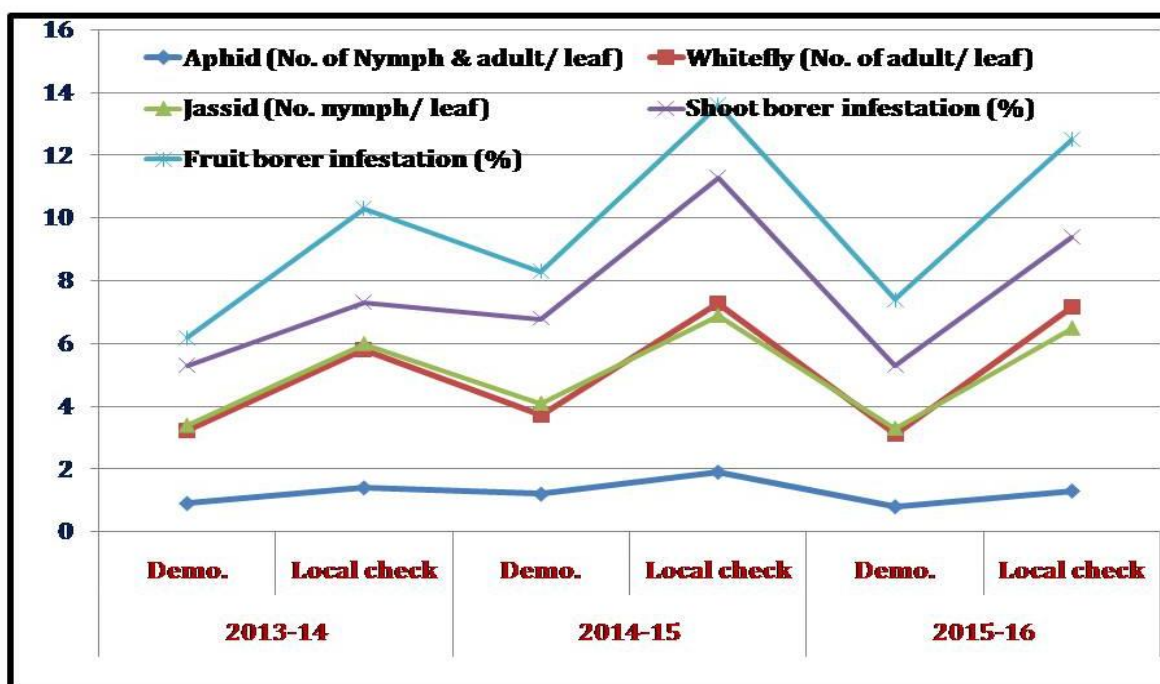
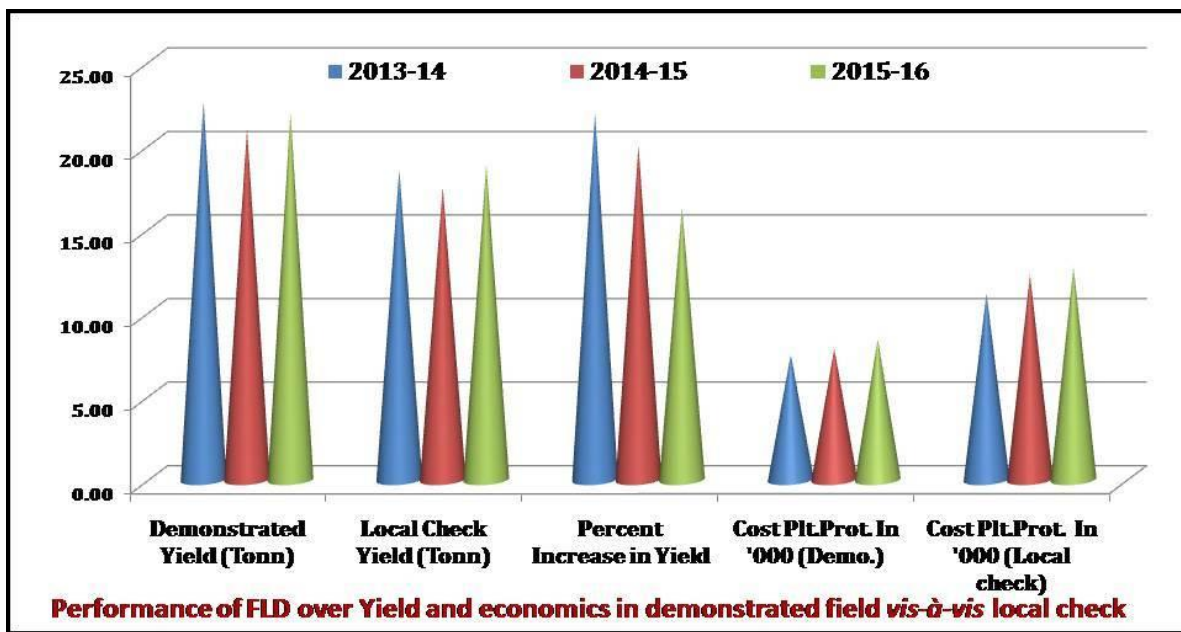
Table 1: Details of FLD (Technology-IPM in Brinjal) conducted during 2013-14 to 2015-16

Sr No	Year	Area (ha)	Name of the village	No. of farmers	Inputs supplied & other advisories	
					Direct benefit (critical Inputs supplied)	Indirect benefit (other advisories)
1	2013-14	3	Ucchamala, Vaskui, Vadpada (U), Bahida Raipura, Bedvan Bhesroth	10	Pheromone Trap, <i>Ervit-lures</i> , Yellow Sticky Traps, Neem kernel based Azadirachtin 0.15%, Pseudomonas,	Clean cultivation, Mechanical removal of infested shoot and fruits by BSFB, installation of bird perches
2	2014-15	3	Bhadbhunja	12		
3	2015-16	3	Dhat, Chikhaldia,	12		

Table 2: Performance of yield and economics in demonstrated field vis-à-vis local check

Sr.	Year	Demo. Yield Qt/ha			Yield of Local Check Qt/ha	Increase in Yield (%)	Cost of Plant Protection	
		H	L	A			Demo. (Rs./ha)	Local Check (Rs./ha)
1	2	3	4	5	6	7	8	9
1	2013-14	230.25	219.65	226.45	185.65	21.98	7500	11150
2	2014-15	215.6	206.3	210.4	175.3	20.02	7850	12270
3	2015-16	232.2	210.3	219.4	188.65	16.30	8425	12750
Average		226.01	212.08	218.75	183.2	19.43	7925	12057

Year	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		B:C Ratio	
	Demo.	Local Check	Demo.	Local Check	Demon.	Local Check	Demon.	Local Check
10	11	12	13	14	15	16	17	18
2013-14	105000	115000	339675	278475	234675	163475	3.24	2.42
2014-15	109000	120000	315600	262950	206600	142950	2.90	2.19
2015-16	74400	86800	219400	188650	145000	101850	2.95	2.17
Average	96133	107267	291558	243358	195425	136092	3.03	2.26



Performance of IPM technology over insect-pest in brinjal

Output:

During 2013-14, 2014-15 and 2015-16 average yield obtained from demonstrated plot was 226.45 Qt/ha, 210.4 Qt/ha and 219.4 Qt/ha as compared to local check 185.65 Qt/ha, 175.3 Qt/ha and 188.65 Qt/ha, respectively (Table 2). The per cent increase in yield was 21.98%, 20.02 % and 16.03 % during 2013-14, 2014-15 and 2015-16, respectively. The B:C ratio obtained from demonstrated plot was also found higher (3.24, 2.90 and 2.95) than local check (2.42, 2.19 and 2.17) during three consecutive years (Table 2).

Outcome:

In IPM technology number of pesticide spray was decreased up to 45 % and it was helpful in conserving natural enemies. By the principle of '*Seeing is believing*', other neighboring farmers visited to demonstrated IPM field and made enquiry about the plant protection measures viz., pheromone traps, yellow sticky traps, trichocards etc. and also their source of accessibility. Interesting thing is that, demand for pheromone traps, yellow sticky traps and other botanical pesticides from neighboring farmers have also been increased. The farmers from neighboring villages were also attracted and associated with the KVK for adopting IPM technology.

Sr No	Year	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
				No. of villages	No. of farmers	Area in ha
1	2013-14	IPM	Training, FLDs, FLD Visit, Diagnostic visit, Method demonstrations, Farmers Scientist Interaction, Field day, <u>Collaborative work with other department viz., ATMA, DAO, NGO's-</u>	20	90	32
2	2014-15		Sponsored training, Krishi Mahotsav, Khedut shibir,	18	115	38
3	2015-16		Diagnostic visit, Method demonstrations, visit to FFS, Exhibition etc.	21	123	42

IPM is an ecofriendly pest management approach which not only reduces the cost of plant protection, but also promises higher yield. IPM also helps in reducing the pesticide load from 15 sprays to 7 sprays. Farmers were successful in keeping off the pest incidence below ETL with the advanced guidance provided by KVK scientists is the major achievement of the demonstrations.

Impact

Due to hard work, live contact, constant follow up, motivation and well communication of Scientists of Krishi Vigyan Kendra, Vyara; the area under brinjal cultivation with IPM technology is increasing significantly day by day in Tapi district. The standard of living of the farmers who benefitted by this technology, has also been increased.

2. Technology Integration for development

1. Situation analysis/Problem statement:

Tapi District in Gujarat state is tribal domain district. In Tapi district cultivation of vegetables in 22274 ha and production is 333735 M.T. out of that area under cultivation of brinjal is 3715 ha and production is 67241 M.T. (180 Qtl/ha). Productivity of brinjal is low as compare to National (191 Qtl./ha) and State (194 Qtl./ha) . However ,the potential productivity is about 200 Qtl./ha which have been observed in FrontLine Demonstration plots. Farmers of the district characterized with small land holding, and scarcity of irrigation water. Not only lack of technical know how about the vegetables cultivation is also a major concern in the district. The major vegetables crops grown in the district are Brinjal, Okra, and cucurbits.

It has been observed that the cultivation of brinjal Farmers have not adopted the recommended practices. Even though they do not follow the proper plant geometry which resulted in to poor growth, and increase incidence of insect and pests. The poor growth

insists the farmers to use excess and uneven dose of chemical fertilizers. That imbalance of nutrients in root zone directly leads to poor growth and production *i.e.* poor Flowering, fruiting and quality of fruits.

2. Plan, Implement and Support:

As the cultivation of Brinjal in the area having the potential of about 15 per cent increment through integration of proper technology. The KVK organized the Frontline demonstrations as well as educate the farmers about the efficient use of water, weed management during training, khedut shibir, field days and Krishi Mahotsava. The technologies integrated were IPM management through yellow sticky traps, pheromone traps, neem oil, dusparni, pseudomonas and Trichoderma, INM *i.e.* Biofertilizers (Azotobacter, PSB and Postash mobilizers) and Novel organic liquid fertilizers (an unique organic product developed by the Navsari Agricultural University from the Banana stem) incorporated in demonstrations. Besides, the farmers were also provided technical support by the scientist of Horticulturist and Entomologist through field visit and telephone. The detailed information is furnished in Table-1.

Table-1 Data of Demonstrated technology in Rabi-2013-14

Sr. No.	Crop	Technology Demonstrated	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Check Yield Qtl/ha	Potential yield (%)
						Highest	lowest	Average		
1	Brinjal	INM	Surti Ravaiya	8	2	198	176	187	172	15.11

The results of FLD's were showed before the farmers which was higher than the farmers practices. These results were encouraged the farmers to adopt the proper technologies which incorporated in FLDs organized by the KVK, Tapi.

Sureshbhai B. Gamit, a farmer of Village- Ghata, decided to adopt the combination of technologies suggested by the scientists of KVK Tapi, As previously he was engaged with sugarcane and paddy farming only. He had 5 ha undulated land (3ha red and 2 ha black soil) at that time. In the year 2014-15, he has leveled whole land and think about the cultivation of brinjal and discussed with the scientists of Krishi Vigyan Kendra, N.A.U., Vyara-Tapi for cultivation of brinjal with integration of technology. Scientist Horticulture advised him to maintain the plant geometry first in brinjal (90x90 cm.), water management through drip irrigation system, weed management through silver mulching in summer month will be required. Besides, INM and IPM approaches should also be followed as:

S.no.	Activities	No.	Description
1	Diagnostic visit	3	1. Fruit and shoot borer-Spray Neem oil and use of pheromone traps 2. For sucking pest application of neem oil and yellow sticker 3. Flower and fruit drop – Spray Novel organic liquid fertilizer as well as Boron
2	Field Visit	2	--
3	Method demonstration	2	1. Maintain Plant geometry 2. Application of biofertilizers in field and seedling treatment
4	Quality plant material provided	11000 Seedlings	Brinjal Cv. Mahy Neelam
5	Inputs of IPM and INM provided		1. Neem oil, Pheromone traps, Yellow sticky traps 2. Biofertilizers 3. Application of micronutrients

The integration of improved technologies were as :

For cultivation of brinjal he has incorporate well rotten FYM in 20-22 ton/ha with trichoderma (4 kg/ha) as well as DAP (100 kg), potassium sulphate (20kg/ha) and sea weed extract (16kg/ha) before 10 days of planting. The seedlings of variety Mahy Neelam purchased from KVK,Tapi as the centre prepared these seedlings .The seedlings were planted in the month of April with a spacing of 90x90 cm on raised beds with silver polythene mulching and drip irrigation system. At the time of planting roots of seedling dipped in biofertilizers and biofungicides to reduce the mortality which was limited up to 3-4% due to this treatment. After DAS of planting application of biofertilizers (Azotobactor, PSB and Postash mobilizers) 8 liter each/ha and in earlier stage vegetative growth period application of Urea/Amonium Sulphate and Potasium sulphate (2:1) and at reproductive stage (45-50 DAP) apply Urea/Amonium Sulphate and potasium sulphate (1:3) through fertigation and foliar application of Novel organic liquid fertilizer (1.5% at every 15th day after planting-20 spray) and to control the insect pest management he was follow all instruction gave by Scientist Plant protection.

3. Output:

He has started harvesting of brinjal 60 days after planting. The yield obtained by him 16000 kg from 40 picking in 240 days (maximum 500 kg and minimum 300 kg fruits harvest/picking) from that total income Rs.3,20,000 and total cost of cultivation Rs.1,30,000 (80,000 of inputs and labour cost and 50000 Drip system and mulching) as well as he get net income Rs.2,90,000 only from 240 days and 1.00 ha land. He says I had done only 6 spray of various pesticides for sucking pests whitefly and fruit and shoot borers as well as fungicides otherwise 10 sprays of neem oil, 50 yellow sticky traps, 10 pheromone traps for shoot and fruit borer as well as trichoderma and pseudomonas with irrigation water (3 ltr. each) in whole cycle of plant. His all produce sent to Saradar, APMC, Market Surat and fetches good price.

Sr. No.	Effects	Before adoption of technology	After technology adoption
1	Crop	Sugarcane	Brinjal
2	Production	1200 qtl/ha	160 qtl/ha
3	Price	Rs. 2200 /tonne	Rs. 20/kg
4	Cultivation, Labour organic and inorganic fertilizers and Pesticides, drip system, mulching <i>etc</i>	Rs. 1.00 lakh/ha	Rs. 1.30 lakh/ha (cost Drip system included*)
5	Total income	Rs. 2.64 Lakh/ha	Rs. 3.20 Lakh/ha
6	Net income	Rs. 1.64 Lakh/ha	Rs. 1.90 Lakh/ha
7	Life cycle	In 14 Month	In 8 Month

* Drip irrigation system cost was recovered in first year by the scientific cultivation of brinjal

Production is less because planted in summer month but fetches good price

4. Outcome:

With the adoption of these technology plant geometry, INM, IPM reduce the cost of cultivation because of less plants required in per unit area (10-15% planting material cost), less pest and disease attack due sunlight arrived at top to base of plants, less chemical fertilizers (25%) requires due to application of bio fertilizers and Novel organic liquid fertilizer application which contain macro and Micro nutrients (10 essential elements and 2 hormones and 100% organic) that's why farmers also encourage for organic farming of brinjal and other vegetable crops. By the use of drip irrigation system save water (25-30%), fertilizers (10%), labour (10%), time (35-40 hr.) and electricity (100 hr.). Plastic mulching also reduced labour cost (15%) because weed management cost also higher in each crops

pecially vegetables. All such factor directly benefited to the farmers as well as help for quality production which help the farmers to get remunerative price of brinjal in the market.

5. Impact

Due to the success of Surash bhai some of the farmers in the area have adopted the brinjal cultivation with drip irrigation (30 farmers), INM and IPM technology (80 farmers) used in village of Ghata, Nani chikhli, Saraiyya, Bardipada, Balpur, Virpur (Vyara), Ambach, Buhari, Godadha, Bajipura, Kalkwa, Andhatri (Valod), Mandal, godchit, kikakui (Songarh), Bhitbhudrak (Uchhal), Bardipada and Jamliya (Dolvan) etc. they all are said that drip irrigation system saved water and nutrient as well as higher the yield, reduced the cost of cultivation and increase net income/unit area.

He also opined that in summer month quality of brinjal of other farmers not good but by the application of micronutrient and potash helping in improve quality with shining of fruits. Due to that he could fetches higher price in market as compare to others. Grading, precooling and packing properly reduce the post harvest losses.

This will motivate the farmers to adopt the cultivation of all the crops with technology *i.e.* Drip irrigation, fertigation and integrated nutrient and pest management with proper plant geometry.

B. SUCCESS STORIES:

1. Name of KVK: Tapi, Gujarat

Title: Fruits and Vegetables preservation technology: Viable option to empower tribal women

Introduction:

According to Chanakya- self initiative and self-realization are very powerful weapons in empowering the poor and eradicating poverty from the world. The Granny's proverb says that your kitchen shows very much about you.

India currently produces about 50 million tonnes of fruits and 90 million tonnes of vegetables. Only 2% of these fruits and vegetables are processed in against of 23% in China, 78% in Phillippines, 83% in Malaysia. The force of those engaged in agriculture are still illiterate and just 5% have completed higher secondary education. Even in 2004-05, around 60% of rural male workers and 85% of rural female workers are either illiterate or have been educated upto primary level. Besides, when we think about the tribal, they are generally resource poor and economically backward. In this situation it is very difficult to empower them with various value added tasty fooditems available in the market. With due attention to that ATMA of Tapi and Navsari district have formed various FIGs to empower tribal women as both the districts are tribal dominated. Majority of tribal women of both the districts have little knowledge about processing and preservation technology *i.e.* value addition in fruits and vegetables.

KVK intervention:

Project Director, ATMA, Tapi and Navsari decided to provide training to tribal women of FIGs in the field of agro-processing (Value added products) Meanwhile they were in contact with Krishi Vigyan Kendra, Tapi. As KVK, Tapi having the Scientist of Home science who is capable of giving training about fruits and vegetables preservation technology. As empowerment is a holistic process which should address several aspects of living and livelihoods of women. Needless to say that knowledge, awareness and training are the basic ingredients which will help women in particular and society in general to realize the potential of women. Therefore, it was felt necessary that KVK, Tapi can play a significant role to empower tribal women of FIGs through training on fruits and vegetables preservation technology. As they have no knowledge about preservation except mango pickle. In view of this KVK, Tapi has decided to conduct training programmes on processing and preservation for FIGs members in collaboration with ATMA, Tapi and ATMA, Navsari to motivate the

tribal farm women towards adoption of scientific preservation technology. They organized 29 training programmes on 'Fruits and vegetable preservation' which benefitted to 1222 tribal farm women of FIGs from 79 villages during the year 2012-13 to 2016-17. In addition to that, method demonstration on 'Preparation of Papaya jam and Tomato ketchup' was also conducted by the Scientist. During training, folders on 'Fruits and vegetable preservation' and book namely '*MULYAVARDHAN DVARA MAHILAONO UDHYOGSAHASIKTA VIKAS*' in local language were also distributed to all trainees. The detail of training programmes is given in Table No.1.

Table No.1 Detail of training programmes

Particulars	Year	No. of Training	No. of FIGs' members	No. of villages covered in district
ATMA, Tapi	2012-13 to 2016-17	18	849	58
ATMA, Navsari	2013-14 to 2015-16	11	373	21
Total		29	1222	79

Output:

It was decided by the KVK, Tapi to follow up the importance of these training programmes with the help of ATMA, Tapi and Navsari districts. The results were very encouraging for us as well as ATMAs. After participating in training programmes, about 47 per cent of trainees of both districts have adopted the preservation technology. During season, they have prepared Tomato ketchup and Papaya jam in scientific way for domestic use. The economic benefit of tribal farm women of FIGs by preparing tomato ketchup and papaya jam is given in Table No.2 and figure 1 and 2.

Table No.2 Economic benefit of FIGs by preparing Tomato ketchup and Papaya jam for domestic utilization

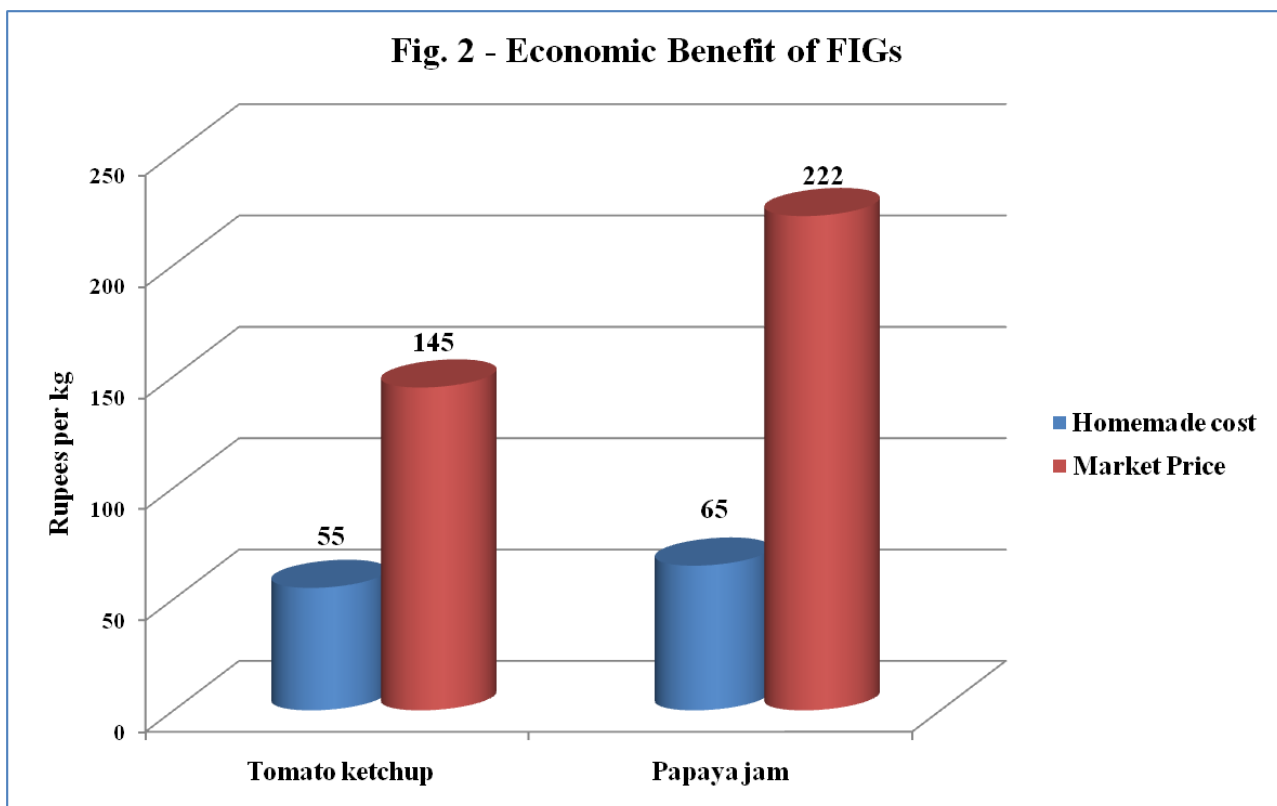
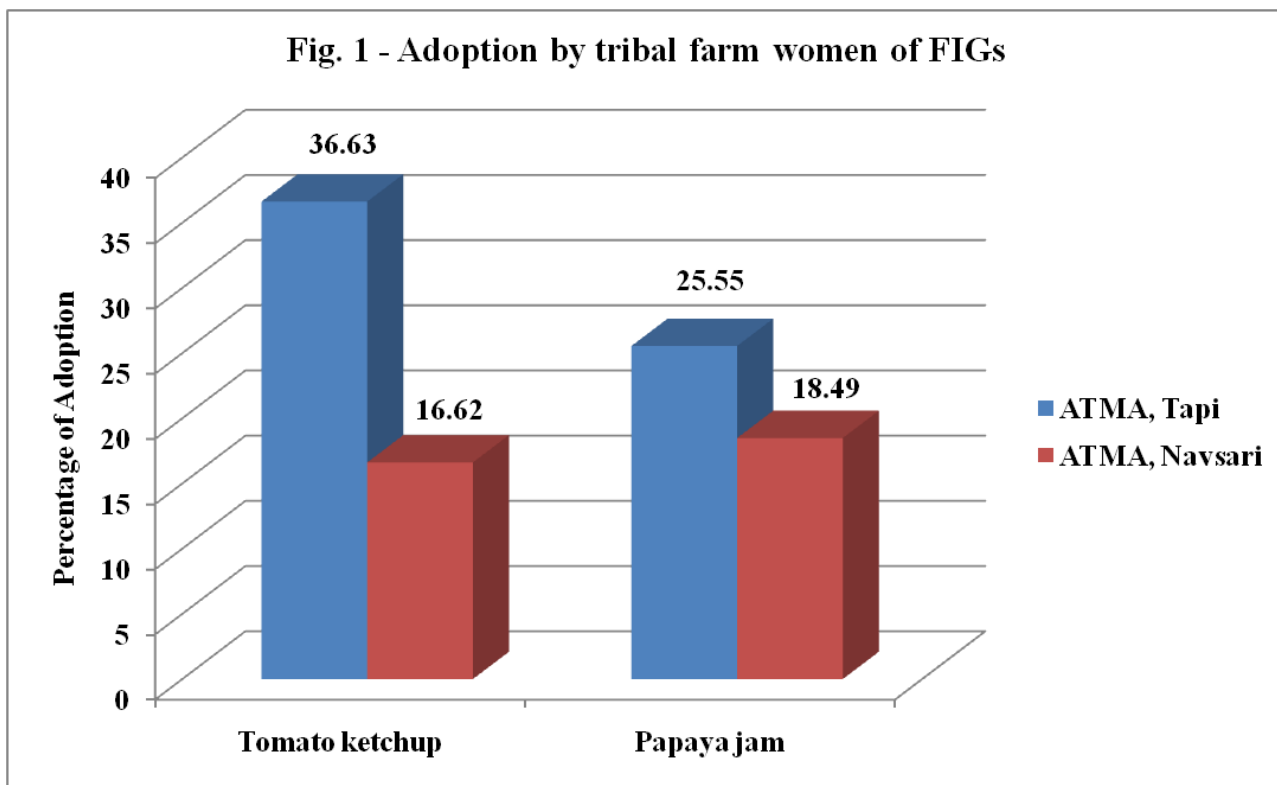
Name of District	Food Product	No. of Trainees	Adoption by tribal farm women of FIGs		Quantity per year (Kg)	*Homemade Cost (Rs.)	**Market Price (Rs.)	Economic Benefit (Rs.)
			No.	%				
ATMA, Tapi	Tomato ketchup	849	311	36.63	709	38995.00	102805.00	63810.00
	Papaya jam		217	25.55	268	17420.00	59496.00	42076.00
ATMA, Navsari	Tomato ketchup	373	62	16.62	191	10505.00	27695.00	17109.00
	Papaya jam		69	18.49	88	5720.00	19536.00	13816.00
Total					1256	72640.00	209532.00	136811.00

***Homemade cost:**

Tomato ketchup: Rs.55/Kg
Papaya jam: Rs.65/Kg

****Market Price:**

Tomato ketchup:Rs.145/Kg(Maggi)
Mix fruit jam:Rs.111/500gm (KISSAN)



Trained tribal farm women have prepared Tomato ketchup and Papaya jam for household consumption by using processing and preservation technology. It is found that 36.63% and 16.62% of the tribal farm women prepared tomato ketchup while 25.55% and 18.49% of the tribal farm women prepared papaya jam with use of citric acid in Tapi and Navsari district respectively. The tribal farm women have prepared **900 kg** tomato ketchup and **356 kg** papaya jam per year and they saved total **Rs.1,36,811/-** as compared to market price. Besides, they saved **Rs.90/Kg** for tomato ketchup and **Rs.157/Kg** for papaya jam than

market price by adopting the preservation technology. The cost of Tomato ketchup and papaya jam in market is approximately *three times more* than the cost of homemade products. No wonder that the kitchen of tribal women is filled with the fragrance of jam and tomato ketchup which they never prepared at home.

Outcome:

The outcomes of these training programmes were expressed by the tribal women in the form of feedback given below.

Feedback of tribal farm women of FIGs:

1. These products may be prepared when the fruits and vegetables available in the market at cheaper rate.
2. Homemade product is cheaper than market.
3. Quality of product is better.
4. Product can be prepared as per taste and quantity required.
5. Product can be used during off season of fruits & vegetables.
6. Stored in sterilized bottle which helps to increase the shelf life of product.

Not only that many neighbours and relatives of trained women contacted them to prepare these value added products and get a better social acceptance in their area itself.

Impact:

Looking to the importance of processing and preservation technology the tribal farm women from surrounding villages of Tapi and Navsari district have showed their keen interest and readiness to participate in the training programme (Source: ATMA, Tapi and ATMA, Navsari). Besides this type of training programmes may be the torch bearer approach for agro-based entrepreneurship development among tribal women.

XV. STATUS REVOLVING FUNDS

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 1 st April of each year
April 2014 to March 2015	454579	994970	1367261	82288
April 2015 to March 2016	82288	1514608	1543149	53747
April 2016 to March 2017	53747	1272574	1087909	238412

XVI. BUDGET INFORMATION

1. Budget Head : 2704-1

Sr. No.	Head	RE 2016-17	Opening Balance as on 01-04-2016	Receipt during 2016-17	Total (RE) 2016-17 (Re-appropriation of RE Within Kvk)	Expenditure During 2016-17	Closing Balance as on 31-03-2017
1	2		3	4	5 (3+4)	6	7 (5-6)
1	Capital	21,60,000	0	17,75,000	17,75,000	17,75,000	0
2	Salary	68,00,000	0	58,10,000	67,25,148	67,25,148	0
3	General	31,85,000	0	26,16,000	22,13,852	22,00,604	13,248
	TOTAL	1,21,45,000	0	1,02,01,000	1,07,14,000	1,07,00,752	13,248

XVII. OTHER ADDITIONAL ACTIVITIES

1. Front Line demonstration under NFSM

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)
Green gram (Rabi-15)	INM	Seed and biofertilizer (rhizobium and P.S.B)	Co-4	13	5.2
Green gram (Summer-16)	ICM	High yielding variety	Meha	47	18.8
Blackgram (Kharif-16)	INM	Seed and biofertilizer (rhizobium and P.S.B)	GU-1	50	20
Green gram (Rabi-2016)	INM	Seed and biofertilizer (rhizobium and P.S.B)	Co-4	50	20
Green gram (Summer-2017)	INM	Seed and biofertilizer (rhizobium and P.S.B)	Meha	100	40

Yield (q/ha)			% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)				
Demo				Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
High	Low	Average	Check									
10.5	8.4	9.20	7.90	16.46	17500	48070	30570	2.74	17000	41276	24276	2.43
11.5	9.1	10.13	8.20	23.53	16300	52929	36629	3.24	15500	42845	27345	2.76
6.10	4.90	5.50	3.80	44.74	17900	62500	44600	3.49	21500	55600	34100	2.59
7.8	4.6	6.1	4.4	38.63	17500	31873	14373	1.82	16000	22990	6990	1.43

--Crop is standing--

Training programmes organized under NFSM:

Sl. No.	Date	Type of training (on/off campus)	Title of training programme	Participant farmers (SC/ST)-B			Total participants (A+B)		
				Men	Women	Total	Men	Women	Total
1	16/6/2016	On campus training	Scientific cultivation of Blackgram	30	20	50	30	20	50

Extension activities including field visits organized under NFSM:

Sl. No.	Date	Name of extension activity	Participant farmers			Participant extension personnel		
			Men	Women	Total	Men	Women	Total
1	14/09/2016	Field Day	30	20	50	3	-	3

2. Front Line demonstration under NFSM-Rabi-2016-17

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)
	Green gram	Co-4	50	20	

3. Front Line demonstration of oilseed under NMOOP

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)
Groundnut (Rabi summer 16)	ICM	New high yielding variety	GJG-9	25	13.2
Groundnut (Rabi summer 16)	ICM	New high yielding variety	GG-31	31	12.4
Groundnut (Rabi summer 16)	ICM	New high yielding variety	TAG-37A	44	33.4
Groundnut (Kharif- 16)	INM	Seed and biofertilizer (<i>Rhizobium</i> and P.S.B)	GG-20	50	20

Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
High	Low	Average										
21.5	15.6	19.07	13.3	43.38	31500	76852	45352	2.43	32500	53599	21099	1.65
19.6	15.9	17.20	14.9	15.4	31000	69316	38316	2.23	31500	60047	28547	1.91
19.5	12.9	15.69	12.7	23.54	31200	63230	32030	2.03	31600	51181	19581	1.61
20.2	12.58	16.21	11.90	36.22	24500	68406	43906	2.79	26200	50218	24018	1.91

4. Front Line demonstration of oilseed under NMOOP-Rabi-2016-2017

Sr.No.	Crop	Variety	Total no. of farmers	Total Area (ha)	Progress of crop
1	Sesame (Til)	Guj-Til-3	50	20	crop is standing
2	Groundnut	TAG 37A	50	20	crop is standing

5. FARMERS' FAIR & Awareness Programme on PRADHANMANTRI FASAL BEEMA YOJANA:

Date of PMFBY programme	04/04/2016
No. of participants (Farmers/ Farm women)	1080
No. of organizations in exhibition	7
	Name & designation details of guests
Chief Guest attended the programme	Shri Prabhuhai Vasava, Hon. Member of Parliament ,23-Bardoli Electorate area, Gujarat
Other guests attended the programme	Dr. G.R. Patel, Hon'ble Director of Extension Education, NAU, Navsari
	Shri B. K. Vasava, Director, District Rural Development Agency, Tapi
	Shri N. R. Damor, Project Administrator, Tribal Subplan, Songadh
	Shri N.H Gamit, Assistant Director of Agriculture (Soil Testing Laboratory), Vyara

	Shri Saaji Itty, Deputy Manager, Agriculture Insurance Company of India, Regional Office, Ahmedabad
	Shri Vilas Save, NABARD, Surat
	Shri P.R Chaudhari, District Agriculture Officer, Dist. Tapi

6. Celebration of Pre-Rabi Campaign:

Sr. No.	Date	Name of activity	Participants		
			Male	Female	Total
1	03/01/2017	Farmers Meeting on “Integrated Nutrient Management in Rabi crops”	17	43	60
2	09/01/2017	Farmers Meeting on “Role of Bio-fertilizers in Rabi crops”	63	27	90
3	11/01/2017	Khedut shibir on “Use of bio-fertilizers in Rabi crops”	43	83	126
4	26/1/2017	Kishan Gosthi on “Importance of Rabi crops in Agriculture” & SANMAN SAMAROH	72	163	235
TOTAL			195	316	511

7. Activities carried out under Protection of Plant Varieties and Farmers Rights ACT

Programme	Number	No. of participants
Training cum awareness programme on Protection of plant varieties and farmers right	3 I. 15/03/2017 II. 25/03/2017 III. 26/03/2017	235 (105+90+40)
Exhibition	3	235
Village covered	Participate Farmers of 35 villages of different talukas <i>i.e.</i> Vyara, Songadh and Uchhal of Tapi district :	235
VIP’s invited in programme	Dr. Shahi Kumar (IFS), District Forest Officer, Tapi	
Literature Distribution (folder)	1	235
How many times the photos/news events uploaded on the website	2 times	

8. Activities carried out under production of export oriented produce

Programme	Number	No. of participants
Farmers meeting on Production of export oriented produce on PPP mode	1 (Dated: 18/01/2017)	34
Village covered	16 Villages of Dolvan, Songarh, Valod, Vyara villages	34
VIP’s invited in programme	Sh. K.B. Patel (Deputy Director of Horticulture- Tapi)	

How many times the photos/news events uploaded on the website	1	34
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9. Activities carried out under Sub Mission on Agricultural Mechanization

Programme	Number	No. of participants
Entrepreneurship development through post harvest management and value addition	1 (30/01/2017 to 5/02/2017)	17
* Programme organized in collaboration with Center of Excellence on post harvest Technology, ASPEE college of Horticulture and Forestry, Navsari Agricultural University, Navsari		
Method demonstration	8 (Tooty fruity, Tomato Souse, Strawberry Jam, fried moong, potato and banana wafers, Okra drying, guava Squash, Turmeric powder making)	17
Exposure visit	1. Suruchi Shikshan Vasahat, Bardoli 2. Soil and water management Unit 3. Krishi Vigyan Kendra, N.A.U., Navsari 4. Value chain of banana Pseudostem Unit, N.A.U., Navsari 5. Organic farm unit, N.A.U., Navsari	17
Village covered	8 Villages 1. Kikakui-2 2. Mohini-2 3. Mandal-3 4. Sirishpada-2 5. Temka-1 6. Bedi -4 7. Dolara-2 8. Dhat-1	17
How many times the photos/news events uploaded on the website	1	17

10. Seed Hub programme:

Physical Progress and Financial Progress – Quality Seed Production under Revolving Fund (Kharif 2016, Rabi 2016-17 and Spring/Summer 2017)

Crop	Variety	Year of release	Seed Production/Expected Production(q)			Financial (Rs in lakhs)				Reasons for shortfall, if any
			Target	Area sown (ha)	Category of Seed (F/S, C/S or T/L)	Fund allocated	Fund released	Expenditure	Unspent Balance	
Pigeon pea	Vaishali	1995	150 qtl.	20	C/S	45.00	45.00	-	45.00	-
Chick pea	GG-3	1999	200 qtl.	20	C/S					-
Green Gram	Meha	2005	150 qtl.	20	F/S					-

Production Performance:

S. N	Crop & Variety	Area (ha.)	No. of farmers	Production (kg)	Procurement for seed			
					Own		Sold to farmers	
					Seed	Food	Seed	Commercial
1	Pigeon pea (Vaishali)	20	50	17850 (15000)	1500	2000	1000	13350
2	Chick pea (GG-3)	20	50	15360 (200)	2000	1500	2500	9360
3	Green gram (Meha)	20	50	--Crop is standing-- (15000 kg)				

11. Adaptive trials:

PLAN SCHEME

(Period: 01-4-2016 to 31-3-2017)

Name of the Scheme: Strengthening of Testing of University's technologies on farmers' fields through adaptive trials Phase-II, Navsari

Budget Head: 12306-B

Office: Krishi Vigyan Kendra, N. A. U., Vyara, Dist. Tapi.

(A) Financial Progress :					(Rs. Lakhs)
Sr. No.	Item	Total Grant Allotment for Year 2016-17	Expenditure 1-4-2016 to 31-3-2017	Puls (+) Minus (-)	Reason for Puls (+) Minus (-)
1	2	3	4	5	6
1	Pay	-	-	-	-
2	Recurring	900000	899596	404	-
3	Non-Recurring	-	-	-	-
4	Civil	-	-	-	-
Total :		900000	899596	404	-

(B) Physical Progress and Achievement:

Objectives of Scheme	Physical Progress / Achievement against each objective
1.Improved variety of Paddy	375 Demonstration
2.Improved variety of Paddy	127 Demonstration
3.Improved variety of Paddy	24 Demonstration
4.Improved variety of Paddy	52 Demonstration
5.Improved variety of Black gram	139 Demonstration
6.High Yielding variety of Pigeon pea	241 Demonstration
7.New variety of Soybean	28 Demonstration
8.Improved variety of Paddy	381 Demonstration
9.Improved variety of Paddy	131 Demonstration
10.Improved variety of Paddy	24 Demonstration
11.Improved variety of Paddy	60 Demonstration
12.Improved variety of Black gram	139 Demonstration
13.High Yielding variety of Pigeon pea	241 Demonstration
14.New variety of Soybean	28 Demonstration
15.Integrated Nutrient Management of Ground nut	25 Demonstration
16.Improved variety of Summer Green gram	15 Demonstration
17.Improved variety of Rabi Green gram	50 Demonstration
18.Improved variety of Rabi Green gram	400 Demonstration

19.Improved variety of Red gram	50 Demonstration
20.Improved variety of Paddy	135 Demonstration
21.Improved variety of Paddy	70 Demonstration
22.Improved variety of Paddy	15 Demonstration
23.Improved variety of Chick pea	35 Demonstration
Total	2398 Demonstration

(C) Detail information of Demonstrations:					
SN	Technology	Crop	Variety	No. of demon.	No. of Farmers
1	Improved variety of Paddy	Paddy	Jaya	375	375
2	Improved variety of Paddy	Paddy	GNR-3	127	127
3	Improved variety of Paddy	Paddy	IR-28	24	24
4	Improved variety of Paddy	Paddy	Gurjari	52	52
5	Improved variety of Black gram	Blackgram	GU-1	139	139
6	High Yielding variety of Pigeon pea	Pigeonpea	Vaishali	241	241
7	New variety of Soybean	Soybean	NRC-37	28	28
8	Improved variety of Paddy	Paddy	Jaya	381	381
9	Improved variety of Paddy	Paddy	GNR-3	131	131
10	Improved variety of Paddy	Paddy	IR-28	24	24
11	Improved variety of Paddy	Paddy	Gurjari	60	60
12	Improved variety of Black gram	Blackgram	GU-1	139	139
13	High Yielding variety of Pigeon pea	Pigeonpea	Vaishali	241	241
14	New variety of Soybean	Soybean	NRC-37	28	28
15	Integrated Nutrient Management of Ground nut	Groundnut	GG-20	25	25
16	Improved variety of Summer Green gram	Greengram	Meha	15	15
17	Improved variety of Rabi Green gram	Greengram	CO-4	50	50
18	Improved variety of Rabi Green gram	Greengram	CO-4	400	400
19	Improved variety of Pigeonpea	Pigeonpea	Vaishali	50	50
20	Improved variety of Paddy	Paddy	GNR-3	135	135
21	Improved variety of Paddy	Paddy	Gurjari	70	70
22	Improved variety of Paddy	Paddy	Jaya	15	15
23	Improved variety of Chick pea	Chickpea	GG-3	35	35
Total				2398	2398

➤ **FLD on Groundnut-TSP-DGR-Jungadh**

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)
Groundnut (Summer-2016)	INM	Improved variety & Bio-fertilizers	TAG 37 A	100	40

Groundnut (Kharif-2016)	INM	Improved variety & Bio-fertilizers	GG 20	50	20
Groundnut (Summer-2017)	ICM	Improved variety	TAG 37 A	100	40

12. Activities carried out in 'Aadarsh Sansad Gram-Chikhalvav, Block-Vyara, Dist.Tapi

Sr. no.	Programmes/ Activities	Number	No. of Participants
1	Training programmes organized (Off campus)	1	10
2	Group meeting-Details of Activities carried out by KVK	1	35
3	Farmers Scientist Interaction-Pest and Disease Management in Groundnut	1	25
3	Diagnostic visit-Pest infestation in paddy	1	01
4	Farm women meeting-Planning for training and SHG related work	1	16
5	Field day on Groundnut	1	36
6	Guest lecture delivered-1. Ecological engineering in Pest management, 2. Organic Farming	2	455
7	Khedut-Shibir-Role of bio-pesticides and predatory birds in Pest management	1	02
8	Extension workers/Local leader/VIPs invited/presented during activities	Sarpanch, Resource person, Dairy President and member of Grampanchayat etc	

13. Activities carried out under celebration of 'Swachhata Pakhwada' during 16-31/11/2016

Sr. no.	Programmes/ Activities	Number	No. of Participants
1	Training programmes organized	1	48
2	Awareness programmes organized for students and farmers	8	250
3	Method Demonstration organized (Compost preparation from farm waste, Use of farm waste as mulch, Vermi-compost preparation from farm waste and FYM etc.)	3	100
4	Villages covered (Bedvan bhesroth, Bedi, Dhat, Jamaliya, Bardipada, Jankhari)	6	398
5	VIPs invited in programmes	Sarpanch, resource person, Social workers	-
6	News events uploaded on the website	6 times	-

14. Mera Gaon Mera Gaurav (MGMG)

Name of SAU/Institute: Navsari Agricultural University, KVK,Vyara(Tapi)

Table 1: Details of MGMG Team and status of benchmark survey of selected villages

Team	Name of scientists with discipline	Name of village	Name of block	Name of district	Benchmark survey Status
1	2	3	4	5	6
Team 33	1.Dr.C.D.Pandya (Ext.Edu.)	1.Dolara	Vyara	Tapi	Completed
	2.Prof.Arti N.Soni (Home Science.)	2.Zankhari	Vyara	Tapi	Completed
	3.Dr.S.M.Chavan(Pl.Prot.)	3.Bardipada	Dolvan	Tapi	Completed
	4.Dr.M.R.Gami(Crop Prod.)	4.Jamaliya	Dolvan	Tapi	Completed
		5.Ukhaldia	Songadh	Tapi	Completed

Table 2: Activities carried out up to 31st March, 2017 in the selected villages

Team	Visit to village		Goshthis/ Interface meetings conducted		Demonstrations conducted		
	No. of visits	No. of farmers	No. of goshthis/ interface meetings	No. of farmers	Title of demonstration	No. of demon	No. of farmers
1	2	3	4	5	6	7	8
Team 33	34	399	25	623	NAVEEN sickle for paddy harvesting to reduce women drudgery	53	53
					Twin wheel hoe weeder to reduce women drudgery	50	50
					Kitchen gardening	50	50
					IPDM in okra	20	20
					Use of Saaf Kit for prevention of Mastitist	30	30
					Use of Bypass Fat to prevent negative energy balance &	20	20
					Total	223	223

Table 2 continue.....

Team	Trainings conducted		Mobile-based advisory		Literature support provided		Input support	
	No. of training	No. of farmers	No. of farmers	No. of advisories	No. of literature	No. of farmers	Area (ha)	No. of farmers
9	10	11	12	13	14	15	16	17
Team 33	11	281	11876	2	13	456	03	20

Table 2 continue.....

Team	Linkages created with Other departments/ agencies (furnish name)	Problem diagnosed		Awareness created	
		General problem	Agriculture problem	Subject matter	No. of farmers
18	19	20	21	22	23
Team 33	-ATMA, Tapi -SEWA, Vyara -JEEVANDEEP MAHILA MANDAL, Bardipada -RSETI, Vyara -NCRI, Hyderabad -AAU, Anand - Udaybhansinhji Regional Institute of Co-operative	-Sickle cell anemia - Leptospirosis -Irregular supply of electricity	-Lack of knowledge about crop production, fruits & vege. preservation, insect-pest identification & their mgt. -Heavy load of pesticides in vege. -Low irrigation facility -Lack of	-Role of bio-pesticide in pest management - Role of predatory birds in agriculture -Cashless Digital India	10 11 68

Team	Linkages created with Other departments/ agencies (furnish name)	Problem diagnosed		Awareness created	
		General problem	Agriculture problem	Subject matter	No. of farmers
	Management (URICM), Gandhinagar -GUJARAT MATIKAM KALAKARI & Rural Tech. Insti., Bajjipura		awareness about organic farming -Drudgery of farm women in Agri. practices		

Table 3: Any other activity carried out up to 31st March, 2017

Team	Name of activity	No. of farmers
1	2	3
Team 33	Celebration of different days	700
	Guest lecture	37
	Farmers visit to KVK	125
	Method demonstration of installation of pheromone traps, yellow sticky traps, use of bio-fertilizers and bio-pesticides through FYM, seed treatment, seedling treatment <i>etc</i> , Use of twin wheel hoe for weeding, use of Naveen sickle for paddy harvesting	129
	Exposure visit of farmers	14
	Sample diagnosed at PHC	02

15. RESEARCH STUDIES:

1. Title of the project / programme :

Constraints in adoption of *Kharif* Groundnut in Tapi district

2. Investigators :

1. Dr. C.D.Pandya, Scientist(Extension), KVK, NAU, Vyara, Dist. Tapi
2. Prof. Arti N. Soni, Scientist (Home Science), KVK, NAU, Vyara, Dist. Tapi
3. Dr. M. R. Gami, Scientist (Agronomy), KVK, NAU, Vyara, Dist. Tapi

3. Objectives :

1. To study the personal profile of the respondents.
2. To study the constraints faced by the respondents in adoption of *Kharif* Groundnut.
3. To seek suggestions from the respondents to overcome the constraints.

4. Research methodology :

Ex-post-facto research design is followed. In Tapi districts, three talukas is selected *viz.* Vyara, Songadh & Dolvan purposively as groundnut seed were supplied to the farmers of these taluka. Among these three taluka, different villages like Karanjvel, Dolara, Zakhari, Nani Chikhali, Bardipada, Jamaliya, Dosvada, Bedi are selected purposively making the total of 100 respondents for the study. Teacher's made interview schedule is used to know the constraints in adoption of *Kharif* groundnut.

5. Analytical method :

Frequencies, percentage, mean and S.D. are used for the tabulation & analysis of the data.

6. Duration of project / programme :

One year

7. Result and Discussion:

1. Personal Profile of the respondents:

Table 1: Distribution of Respondents according to their personal characteristics

n=100

Sr. No.	Personal Characteristics	n=100	
		No. of respondents	Per cent
1	Age group		
a	Young (Below 35 years)	20	20
b	Middle (35 to 50 years)	67	67
c	Old (Above 50 years)	13	13
2	Level of Education		
a	Illiterate	8	8
b	Primary school	47	47
c	Middle school	32	32
d	High school	6	6
e	College/Post graduation	7	7
3	Land Holding		
a	Big (above 10 ha)	0	0
b	Medium (4.01to 10 ha)	0	0
c	Semi medium (2.01to 4 ha)	0	0
d	Small (1.01 to 2 ha)	46	46
e	Marginal (0.01 to 1 ha)	54	54
f	Landless	0	0
4	Occupation		
a	professional / service in Govt.	0	0
b	Farming / Business/Farming with service /Farming with other enterprise	100	100
c	Skilled Occupation	0	0
d	service in private	0	0
e	Unskilled occupation	0	0
5	Annual income		
a	Above Rs. 2,00,000	0	0
b	Rs. 1,50,001 to 2,00,000	0	0
c	Rs. 1,00,001 to 1,50,000	1	1
d	Rs. 50,001 to 1,00,000	4	4
e	Up to Rs. 50,000	95	95
6	Social participation		
a	Member/holding position in one organization	18	18
b	Member/holding position in more than one organization	20	20
c	No participation	62	62
7	Extension Participation		
a	Participated in one activities	0	0
b	Participated in more than one activities	100	100
8	Economic Motivation		
a	Low Economic Motivation (<17)	13	13
b	Medium Economic Motivation (17-19)	87	87
c	High Economic Motivation (>19)	0	0

A perusal of the data presented in Table 1.1 showed that more than half (67.00 per cent) of the respondents belonged to middle age group followed by 20.00 and 13.00 per cent belonged to young age and old age categories.

It is evident from the Table 1.2 that nearly half (47.00 per cent) of the respondents were having primary school level of education followed by middle (32.00 per cent), illiterate school (8.00 per cent), college/ post graduation (7.00 per cent) and high school (6.00 per cent). It is interesting to note that no respondents were functionally literate.

The information presented in the Table 1.3 revealed that majority (54.00 per cent) of the respondents belonged to marginal land holding category followed by small land holding categories i.e. 46 per cent. None of the respondents belonged to semi medium, medium, big and landless land holding categories.

The data presented in Table 1.4 revealed that all (100.00 per cent) the respondents had farming /business/ farming with service /farming with other enterprise as their main occupation.

From the data presented in Table 1.5, it is clear that majority (95.00 per cent) of the respondents had annual income up to Rs. 50,000. While 4.00 and 1.00 per cent of them had Rs. 50,001 to 1,00,000 and Rs. 1,00,001 to 1,50,000 respectively. While none of them had annual income Rs. 1,50,001 to 2,00,000 and above Rs. 2,00,000.

The information presented in Table 1.6 revealed that majority (62.00 per cent) of the respondents had no any social participation followed by 20.00 and 18.00 per cent of them were member/holding position in more than one organization and member/holding position in one organization.

It is evident from the Table 1.7 that all the respondents (100.00 per cent) had participated in more than one extension activities.

The data presented in Table 1.8 indicated that great majority (87.00 per cent) of the respondents had medium level of economic motivation followed by 13.00 per cent and 0.00 per cent of them had low and high level of economic motivation.

2. Constraints in adoption of *Kharif* Groundnut:

The responses from the respondents are tabulated as under:

Sr.No.	Constraints	Respondents	Percentage	Rank
1	Non availability of seeds	75	75	IV
2	Unaware of diseases & pests	53	53	VII
3	High cost of seeds	68	68	V
4	Lack of proper equipments	82	82	II
5	Lack of technical knowledge	49	49	VIII
6	Lack of finance	45	45	IX
7	Market price of the produce is low	66	66	VI
8	Highly laborious work	84	84	I
9	No or less profitable crop in <i>Kharif</i> season	78	78	III

It is evident from the table 2 clearly indicated that it is highly laborious work (84.00 per cent) was perceived by the respondents as the main constraint and ranked first followed by lack of proper equipments (82.00 per cent) ranked second, no or less profitable crop in *Kharif* season (78.00 per cent) ranked third, non availability of seeds (75.00 per cent) ranked fourth, high cost of seeds (68.00 per cent) ranked fifth, market price of the produce is low (66.00 per cent) ranked sixth, unaware of diseases & pests (53.00 per cent) ranked seventh, lack of technical knowledge (49.00 per cent) ranked eighth and lack of finance (45.00 per cent) ranked as ninth.

3. Suggestion to overcome the constraints:

The following are the suggestion to overcome the constraints:

Sr.No.	Suggestion	Respondents	Percentage	Rank
1	Timely availability of seeds	76	76	II
2	Market price of the produce should be increased	72	72	III
3	Improved seeds should be made available at cheaper rate	70	70	IV
4	Credit for buying equipments	81	81	I
5	Information about improved varieties should be provided	65	65	VI
6	Information about plant protection practices should be provided	69	69	V

As revealed from table 3, the respondents suggested that credit for buying equipments should be given (81.00 per cent) and ranked first followed by timely availability of seeds (76.00 per cent) got second ranked, market price of the produce should be increased (72.00 per cent) ranked third, improved seeds should be made available at cheaper rate (70.00 per cent) ranked fourth, information about plant protection practices should be provided (69.00 per cent) ranked fifth and information about improved varieties should be provided (65.00 per cent) ranked sixth.

Conclusion:

From the above discussion, it could be concluded that more than half (67.00 per cent) of the respondents belonged to middle age group, nearly half (47.00 per cent) of the respondents were having primary school level of education, majority (54.00 per cent) of the respondents belonged to marginal land holding category, all (100.00 per cent) the respondents had farming /business/ farming with service /farming with other enterprise as their main occupation, majority (95.00 per cent) of the respondents had annual income up to Rs. 50,000, majority (62.00 per cent) of the respondents had no any social participation, all the respondents (100.00 per cent) had participated in more than one extension activities, great majority (87.00 per cent) of the respondents had medium level of economic motivation, it is highly laborious work (84.00 per cent) was perceived by the respondents as the main constraint and the respondents suggested that credit for buying equipments should be given (81.00 per cent) and ranked first.

16. Impact of Training programmes

1. Impact of training programme on knowledge of tribal farm women:

Duration of all training programmes: 4 days

Sr.No.	Title of Training Programme	No. of Training	No. of Trainees
1	Kitchen gardening	1	60
2	Health and Nutrition for pregnant & lactating women and children	2	59
3	Drudgery reduction technologies for farmwomen in farm operations	2	111
4	Value addition in fruits and vegetables	1	48
	Total	6	278

1.1 Title of Training: Kitchen gardening

Sr.No.	Technical practices	No. of Trainees	Knowledge (%)	
			Before Training	After Training
1	Daily requirement of vegetables in balanced diet	60	0	60.00
2	Major nutrients available in vegetables		0	45.00
3	Citrus fruits & vegetables are rich source of Vitamin-C		0	40.00
4	Iron and Calcium are available in green leafy vegetables		10.00	59.16
5	Fruit fly trap is used for IPM in cucurbitaceous vegetables		0	71.66
6	Effect on human health by using excess amount of chemical fertilizers and pesticides in Agri. crops		13.33	80.00
7	Vitamin-A is essential for good vision		0	35.00

1.2 Title of Training: Health and Nutrition for pregnant & lactating women and children

Sr.No.	Technical practices	No. of Trainees	Knowledge (%)	
			Before Training	After Training
1	Protein is essential for better growth & development of body	59	23.72	74.57
2	Normal body weight of healthy new born child		45.76	79.66
3	First one to three days of Mother's milk ('Colostrum') is very important for new born baby		27.11	69.49
4	Complete protein rich food is used for children to prevent malnutrition		25.42	72.88
5	In addition to mother's milk, weaning foods should be given to children after 6 months of age		71.18	79.66
6	ORS is used to prevent diarrhoea/ Dehydration		76.27	91.52

1.3 Title of Training: Drudgery reduction technologies for farmwomen in farm operations

Sr.No.	Details of major Drudgery reducing tools for farm women	No. of Trainees	Knowledge (%)	
			Before Training	After Training
1	NAVEEN sickle for paddy harvesting	111	03.60	100.00
2	Twin wheel hoe weeder for weeding		02.70	100.00
3	<i>Bhindi</i> plucker		0	100.00
4	<i>Dal</i> mill		27.92	93.69
5	Hand maize sheller		00.90	100.00
6	Manual Rice Transplanter		04.50	93.69
7	Groundnut Decorticator		0	100.00
8	Pedal paddy Thresher		0	100.00
9	NAVEEN Dibbler		0	81.98
10	Multifuel cooking stove		0	87.38

1.4 Title of Training: Value addition in fruits and vegetables

Sr.No.	Fruits & vegetable preservation technology practices	No. of Trainees	Knowledge (%)	
			Before Training	After Training
1	Sorting and Grading of fruits and vegetables	48	43.75	100.00

2	Washing and cleaning of fruits and vegetables		85.41	100.00
3	Processing for Tomato ketchup, Papaya jam & Lemon squash:			
3.1	Juice extraction and filtration		22.91	100.00
3.2	Cooking:			
	(i)Tomato ketchup: juice is reduced to about 1/3 of its original volume		14.58	85.41
	(ii)Papaya jam: The quantity of jam prepared is about 2 times the weight of sugar used		0	75.00
	(iii)Use of citric acid in jam		0	56.25
	(iv)Lemon Squash: The quantity of sugar used is about double of the weight of lemon juice		0	93.75
4	Use of preservatives such as Vinegar, Sodium benzoate, Potassium metabisulphate		0	45.83
5	Sterilization of glass bottles		0	100.00
6	Bottling of products		0	100.00
7	Storage of products		0	100.00

2. Impact of In-service training programme on knowledge of Extension workers:

Sr. No.	Title of In-Service Training Programme	Date	Type of Trainees	No. of Trainees
1	Malnutrition in children & its control measures	12/03/15	Taluka Co-ordinators & Supervisors, ICDS, Tapi	21
2	Malnutrition in children & its control measures	17/03/15 to 18/03/15	Aanganwadi workers, Tapi	40
3	Malnutrition in children & its control measures	15/03/16 to 16/03/16	Health workers of SEWA, Vyara	27
4	Health and Nutrition for tribal farm women	31/01/17 to 03/02/17	MAHILA SARPANCH & Committee members of Gram Panchayat & Leaders of UTTAN MAHILA BACHAT-DHIRAN SAHAKARI MANDALI, Vyara	24
Total				112

2.1 Detail Technical practices reg. impact of In-service Training on knowledge of Female Extension workers:

Sr.No.	Technical practices	No. of Trainees	Knowledge (%)	
			Before Training	After Training
1	1 gm fat gives 9 .00K.Cal.energy	112	12.50	75.89
2	Goiter is caused by iodine deficiency in body		66.96	88.39
3	Protein Energy Malnutrition in children		24.10	73.21
4	Vitamin-C is present in sprouted pulses		24.10	71.42
5	Sign & symptoms of iron deficiency Anemia		64.28	80.35
6	Vitamin-B12 and Folic acid is responsible for formation of Red Blood Cell		23.21	70.53
7	According to WHO, Vitamin-C is essential for adequate absorption of iron in body		35.71	73.21
8	First one to three days of Mother's milk ('Colostrum') is very important for new born		65.17	80.35

	baby			
9	Probiotic foods		27.67	77.67
10	Combination of cereals and pulses in ratio of 3:1 is rich source of complete protein		55.35	87.50

3. Impact of KVK activities in adopted villages of KVK-Tapi

Objectives:

1. To know the impact of KVK activities in adopted villages of KVK-Tapi.
2. To ascertain the relationship between dependent and independent variables.

Research Methodology:

Ex-post-facto research design was conducted. In Tapi district, three talukas were selected viz. Vyara, Songadh & Valod purposively as most of the activities were done in these talukas. Out of these three talukas two villages from each talukas were selected purposively. For selection of respondents from these six villages, proportionate random sampling method was followed for making the total of 60 respondents.

Analytical method:

The data was tabulated, analyzed and interpreted in the link of the objectives. The statistical measures namely Frequency, Percentage, Mean, S.D. and correlation were used.

RESULT AND DISCUSSION:

Impact of KVK activities

The results of the study were presented in following tables:

Table 1 Impact of KVK activities on Knowledge level of the respondents

n=60

Sr. No.	KVK activities	Knowledge			
		Before		After	
		Frequency	Percentage	Frequency	Percentage
1	Training				
1	INM in field crops	18	30.00	47	78.00
2	Scientific cultivation of field crops	20	33.00	51	85.00
3	Scientific cultivation of horticultural crops	26	43.00	49	82.00
4	INM in horticultural crops	19	32.00	48	80.00
5	IPM in cotton	21	35.00	54	90.00
6	IPM in field crops	17	28.00	36	60.00
7	IPM in horticultural crops	24	40.00	43	72.00
8	Kitchen gardening	32	53.00	55	92.00
2	FLDs				
1	INM in paddy	17	28.00	48	80.00
2	IPM in cotton	26	43.00	53	88.00
3	Land configuration in gram	21	35.00	44	73.00
4	SRI technology in paddy	25	42.00	54	90.00
5	SIRA technology in paddy	18	30.00	47	78.00
6	Introduction of new variety of pigeon pea	11	18.00	51	85.00
7	Plant geometry in okra	23	38.00	49	82.00

The data presented in table 1.1 revealed that majority (53.00 per cent) of the respondents had knowledge about kitchen gardening followed by 43.00, 40.00, 35.00, 33.00, 32.00, 30.00 and 28.00 per cent of them had knowledge about scientific cultivation of

horticultural crops, IPM in horticultural crops, IPM in cotton, scientific cultivation of field crops, INM in horticultural crops, INM in field crops and IPM in field crops respectively before participating in training programme at KVK while, majority (92.00 per cent) of the respondents had gained knowledge about kitchen gardening after participating in training programme at KVK followed by 90.00, 85.00, 82.00, 80.00, 78.00, 72.00 and 60.00 per cent of them had gained knowledge about IPM in cotton, scientific cultivation of field crops, scientific cultivation of horticultural crops, INM in horticultural crops, INM in field crops, IPM in horticultural crops and IPM in field crops respectively.

The data presented in table 1.2.2 revealed that majority (43.00 per cent) of the respondents had knowledge about IPM in cotton followed by 42.00, 38.00, 35.00, 30.00, 28.00 and 18.00 per cent of them had knowledge about SRI technology in paddy, plant geometry in okra, land configuration in gram, SIRA technology in paddy, INM in paddy and introduction of new variety of pigeon pea respectively before conducting FLDs on their fields while, majority (90.00 per cent) of the respondents had gained knowledge about SRI technology in paddy after conducting FLDs on their fields followed by 88.00, 85.00, 82.00, 80.00, 78.00 and 73.00 per cent of them had gained knowledge about IPM in cotton, introduction of new variety of pigeon pea, plant geometry in okra, INM in paddy, SIRA technology in paddy and land configuration in gram respectively.

Table 2 Impact of KVK activities on adoption level of the respondents

n=60

Sr. No.	KVK activities	Adoption			
		Before		After	
		Frequency	Percentage	Frequency	Percentage
1	Training				
1	INM in field crops	14	23.00	38	63.00
2	Scientific cultivation of field crops	16	27.00	43	72.00
3	Scientific cultivation of horticultural crops	19	32.00	46	77.00
4	INM in horticultural crops	18	30.00	39	65.00
5	IPM in cotton	20	33.00	47	78.00
6	IPM in field crops	13	22.00	36	60.00
7	IPM in horticultural crops	17	28.00	40	67.00
8	Kitchen gardening	15	25.00	50	83.00
2	FLDs				
1	INM in paddy	10	17.00	37	62.00
2	IPM in cotton	22	37.00	46	77.00
3	Land configuration in gram	14	23.00	44	73.00
4	SRI technology in paddy	16	27.00	41	78.00
5	SIRA technology in paddy	11	18.00	45	75.00
6	Introduction of new variety of pigeon pea	09	15.00	51	85.00
7	Plant geometry in okra	12	20.00	48	80.00

The data presented in table 2.1 revealed that majority (33.00 per cent) of the respondents had adopted IPM in cotton followed by 32.00, 30.00, 28.00, 27.00, 25.00, 23.00 and 22.00 per cent of them had adopted scientific cultivation of horticultural crops, INM in horticultural crops, IPM in horticultural crops, scientific cultivation of field crops, Kitchen gardening, INM in field crops, and IPM in field crops respectively before participating in training programme at KVK while, majority (83.00 per cent) of the respondents had adopted

kitchen gardening after participating in training programme at KVK followed by 78.00, 77.00, 72.00, 67.00, 65.00, 63.00 and 60.00 per cent of them had adopted IPM in cotton, scientific cultivation of horticultural crops, scientific cultivation of field crops, IPM in horticultural crops, INM in horticultural crops, INM in field crops and IPM in field crops.

The data portrayed in table 2.2 revealed that majority (37.00 per cent) of the respondents had adopted FLD technology in IPM in cotton before conducting FLDs on their fields followed by 27.00, 23.00, 20.00, 18.00, 17.00 and 15.00 per cent of them had adopted FLD technology in SRI technology in paddy, land configuration in gram, plant geometry in okra, SIRA technology in paddy, INM in paddy and introduction of new variety of pigeon pea respectively while, majority (85.00 per cent) of the respondents had adopted FLD technology of introduction of new variety of pigeon pea followed by 80.00, 78.00, 77.00, 75.00, 73.00 and 62.00 per cent of them had adopted FLD technology in plant geometry in okra, SRI technology in paddy, IPM in cotton, SIRA technology in paddy, land configuration in gram and INM in paddy respectively after conducting FLDs on their fields.

2: Relationship between personal profile of the respondents and their level of knowledge and extent of adoption

The results of the study were presented in following table.

Table 3: Relationship between personal profile of the respondents and their level of knowledge about training and FLDs after joining the KVK

n=60

Sr. No.	Independent variables	Correlation Co-efficient ('r' value)
1	Age	0.258*
2	Education	0.264*
3	Caste	0.123
4	Family size	0.129
5	Family type	0.114
6	Occupation	0.236
7	Land holding	0.272*
8	Herd size	0.224
9	Annual income	0.184
10	Material possession	0.103
11	Socio – political participation	0.157
12	House holding	0.133
13	Personal achievement	0.258 *
14	Scientific orientation	0.261*
15	Economic motivation	0.354**

* Significant at 5 per cent level

** Highly significant at 1 per cent level

The data presented in table 3 revealed that age, education, land holding, personal achievement and scientific orientation were significantly associated with their level of knowledge about training and FLDs after joining the KVK while, economic motivation was highly significant with their level of knowledge about training and FLDs after joining the KVK.

Table 4: Relationship between personal profile of the respondents and their extent of adoption about training and FLD technology after joining the KVK

n=60

Sr. No.	Independent variables	Correlation Co-efficient ('r' value)
---------	-----------------------	--------------------------------------

1	Age	0.171
2	Education	0.289*
3	Caste	0.154
4	Family size	0.127
5	Family type	0.247
6	Occupation	0.238
7	Land holding	0.259*
8	Herd size	0.243
9	Annual income	0.279*
10	Material possession	0.345**
11	Socio – political participation	0.224
12	House holding	0.170
13	Personal achievement	0.133
14	Scientific orientation	0.331 **
15	Economic motivation	0.267*

* Significant at 5 per cent level

** Highly significant at 1 per cent level

The data portrayed in table 4 revealed that education, land holding, annual income and economic motivation were significantly associated with their level of knowledge about training and FLDs after joining the KVK while, material possession and scientific orientation were highly significant with their level of knowledge about training and FLDs after joining the KVK.

CONCLUSION:

From the above discussion, it could be concluded that KVK activities had great impact on knowledge and adoption level of respondents about trainings and FLDs technologies after joining with KVK-Tapi.

4. Impact of training programme during the last five year:

4.1. Impact of training regarding scientific cultivation of okra

The Okra crop is becoming more and more popular in Tapi district. The considerable acreage area (4000 hectare) is under okra cultivation. Due to lack of knowledge regarding scientific package of practices tribal farmers are wasting huge budget behind crop production, indiscriminating use of agrochemical and loosing the health of soil, water and environment and also unable to get higher net return due to lack of knowledge regarding value addition and market management. To overcome this problem KVK, Tapi has started an integrated campaign. KVK, Tapi conducted 9 on campus and 7 off campus trainings, total number of beneficiaries of FLD is 124 covering 7 villages of Tapi district and other extension activities during last three year. The details regarding such innovated movement is presented here as an impact study.

Table 1:-Overall knowledge of scientific package of practices of okra

n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of knowledge	55	16
Medium level of knowledge	35	56
High level of knowledge	10	28

Results of overall knowledge of scientific package of practices of Okra indicated that the medium and high level of knowledge before KVK was 35.00 per cent and 10.00 per cent,

respectively, which was increased up to 50.00 per cent and 28.00 per cent after contact with of KVK (Table-1).

Table 2:- Knowledge regarding selected scientific innovations for okra cultivation n=100

Sr.No.	Selected scientific innovations	Low	Medium	High
1	New high yielding varieties	16	28	56
2	Seed rate	11	16	73
3	Integrated Nutrient management	26	35	39
4	Integrated Pest Management	25	61	14
5	Knowledge regarding yellow mosaic virus/ powdery mildew	26	43	31
6	Plant growth regulator	7	11	82
7	Value addition	6	16	78

In case of knowledge regarding selected scientific innovations for okra cultivation medium and high level of knowledge was 35.00 per cent and 39.00 per cent, respectively in case of integrated nutrient management , Where as in integrated pest management was 61.00 per cent and 14.00 per cent, respectively. High knowledge level regarding plant growth regulators and value addition was 82.00 per cent and 78.00 per cent, respectively (Table-2).

Table 3:- Overall adoption of scientific package of practices of okra n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of adoption	14	4
Medium level of adoption	69	28
High level of adoption	17	68

The data presented in table 3 indicated that medium and high level adoption was 69.00 per cent and 17.00 before KVK where that of after conducted with KVK was 28.00 per cent and 68.00 per cent, respectively.

Table 4:- Adoption of critical okra production technology n= 100

Sr. No.	Name of technology	Adoption (%)
1	New high yielding varieties	82
2	Seed rate	76
3	Integrated Nutrient management	82
4	Integrated Pest Management	61
5	Knowledge regarding yellow mosaic virus/ powdery mildew	72
6	Plant growth regulator	73
7	Value addition	77

Adoption of okra production technology, 82.00 per cent farmers adopted high yielding varieties and INM. 76.00 per cent farmers adopted recommended seed rate. In case of plant growth regulator and value adoption 73%.00 per cent and 77.00 per cent adoption was observed (Table-4). From the above discussion, it can be concluded that knowledge level and adoption level of the tribal farmer s were increased after imparting training and conducting FLD by KVK scientists. KVK, Vyara is working as a knowledge hub for latest agricultural technology in Tapi district.

4.2 Impact of training regarding scientific cultivation of brinjal

In Tapi district farmers were obtaining very low yield in Brinjal. Low productivity of Brinjal was due to lack of knowledge about scientific cultivation, poor nutrient management and lack of knowledge in IPDM. KVK conducted 9 on campus and 7 off campus trainings,

total number of beneficiaries of FLD is 97 covering 7 villages of Tapi district and other extension activities during last three year. Impact study results are present here.

Table 1:- Overall knowledge of scientific package of practices of brinjal
n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of knowledge	59	7
Medium level of knowledge	28	51
High level of knowledge	13	42

Results of overall knowledge of scientific package of practices of Brinjal indicated that the medium and high level of knowledge before KVK was 28.00 per cent and 13.00 per cent, respectively, which was increased up to 51.00 per cent and 42.00 per cent after contact with KVK (Table-1).

Table 2:- Knowledge regarding selected scientific innovations for brinjal cultivation
n=100

Sr.No.	Selected scientific innovation	Low	Medium	High
1	Integrated Nutrient management	9	26	65
2	Pest and disease control	22	59	19
3	IPM	29	55	16
4	Plant growth regulator	4	12	84
5	Recommended spacing	6	38	56
6	Value addition	5	14	81

In case of knowledge regarding selected scientific innovations for Brinjal cultivation medium and high level of knowledge was 26.00 per cent and 65.00 per cent, respectively in case of integrated nutrient management , Where as in pest and disease control was 59.00 per cent and 19.00 per cent, respectively. High knowledge level regarding plant growth regulators and value addition was 84.00 per cent and 81 .00 per cent (Table-2).

Table 3:- Overall adoption of scientific package of practices of brinjal

n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of adoption	28	6
Medium level of adoption	56	22
High level of adoption	16	72

The perusal of data presented Table 3 indicated that before contact with KVK, more than half (56.00 per cent) of the respondents had medium level of adoption followed by low (28.00 per cent) and high (16.00 per cent) level of adoption. But, after contact with KVK, it was found that 72.00 per cent had high level of adoption followed by medium (22.00 per cent) and low (6.00 per cent) level of adoption.

Table 4:- Adoption of critical Brinjal production technology

n= 100

Sr. No.	Name of technology	Adoption (%)
1	Integrated Nutrient management	89
2	Pest and disease control	68
3	IPM	59
4	Plant growth regulator	82
5	Recommended spacing	92
6	Value addition	86

The adoption of brinjal production technology, 89.00 per cent farmers adopted INM, 92.00 per cent farmers adopted recommended spacing. In case of plant growth regulator and

value adoption 82.00 per cent and 86.00 per cent adoption was observed. Pest and disease control & IPM 68% and 59% farmers adopted the technology (Table-4).

From the above discussion, it can be concluded that the impact of training conducted by KVK has beneficial effect on knowledge level and adoption level of the tribal farmers about scientific cultivation of brinjal. Among the Knowledge regarding selected scientific innovations for brinjal cultivation, majority (84.00 per cent) of the respondent had knowledge about plant growth regulator followed by value addition (81.00 per cent) and integrated nutrient management (65.00 per cent) after receiving training. In case of adoption of critical brinjal production technology, majority (92.00 per cent) of the respondents had adopted recommended spacing followed by integrated nutrient management (89.00 per cent), value addition (86.00 per cent) and plant growth regulator (82.00 per cent).

4.3 Impact of training regarding package of practices of soybean crop

The soybean cultivation is highly profitable in tribal dominated areas of the Surat and Tapi district. This crop is also advisable to the farmers for improvement of the soil physical, chemical and biological health. The human health point of view this crop is highly advisable to the people of the tribal region to control the diseases related to the mal nutrition and deficiency syndromes. Farmers of Tapi district growing rainfed drill paddy but its produce very low yield so it's get very low remunerative. In place of drill paddy soybean crop earn more net profit than drill paddy. KVK conducted 8 on campus and 10 off campus trainings, total number of beneficiaries of FLD is 43 covering 7 villages of Tapi district and other extension activities during last three year. The impact study results are present here.

Table 1:- Overall knowledge of package of practices of soybean crop

n=100		
Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of knowledge	89	07
Medium level of knowledge	09	14
High level of knowledge	02	79

Results of overall knowledge of soybean indicated that the low, medium and high level of knowledge before contact with KVK was 89.00 per cent, 09.00 per cent & 02.00 per cent, respectively and it was increased up to 07.00 per cent, 14.00 per cent and 79.00 per cent after contact with KVK (Table-1).

Table 2:- Knowledge regarding selected scientific innovations for soybean crop

n=100				
Sr.No.	Selected scientific innovation	Low	Medium	High
1	New high yielding varieties	10	5	85
2	Seed rate	13	74	13
3	Bio fertilizer	11	16	73
4	Weeding	23	8	69
5	Integrated Nutrient management	09	13	78

In case of Knowledge regarding selected scientific innovations for soybean high knowledge regarding selected scientific innovations were found except seed rate.

Table 3:- Overall adoption of scientific cultivation of soybean

n=100		
Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of adoption	75	05
Medium level of adoption	13	06
High level of adoption	12	89

Data presented in table -3 indicated that majority of the farmer had low level of knowledge (75.00 per cent) before contact with KVK. After contact with KVK, 89.00 per cent of the farmers had high level of knowledge.

Table 4:- Adoption of critical soybean production technology

n= 100		
Sr. No.	Name of technology	Adoption (%)
1	New high yielding varieties	92
2	Seed rate	87
3	Bio fertilizer	73
4	Weeding	70
5	Integrated Nutrient management	88

Data present in table 4 indicated that 92.00 per cent of the farmer had adopted new high yielding variety followed by INM (88.00 per cent).

From the above discussion, it could be inferred that after imparting training and other intensive approach by KVK, Tapi, majority (79.00 per cent) of the tribal farmers of these area had high the knowledge level and majority (89.00 per cent) of the tribal farmers of these area had high adoption level about package of practices of soybean crop. At the end we can suggest this crop in the region to increase the income of the farmers and also to improve their own, family as well as soil health.

The study has acknowledged the knowledge level of the farmers towards profitable cultivation of the soybean. This study can be guideline for other extension worker to implement this way of extension technology for their clients in their respective area of operation for TOT. On this foundation the extension personnel may locate clients for training and also those who can be used as counselors to other farmers. The study is also useful for effective propagation of the new technology in other regions for eco friendly and sustainable agricultural development. The study also reflects the role of KVKs in effective Transfer of Technologies (TOTs) at grass root level.

4.4 Impact of training regarding package of practices of gram crop

Tribal area of Tapi district grow gram on moisture conserve or in light irrigation, but they get very low yield due to use of low yielding variety, poor knowledge about scientific cultivation of gram. KVK, Tapi had done intensive effort on training about scientific cultivation, demonstration on new variety & land configuration. KVK conducted 6 on campus and 8 off campus trainings, total number of beneficiaries of FLD is 48 covering 7 villages of Tapi district and other extension activities during last three year. So impact study results are present replacing drill paddy.

Table 1:- Overall knowledge of package of practices of gram crop

n=100		
Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of knowledge	78	08
Medium level of knowledge	16	10
High level of knowledge	06	82

Data depicted in table 1 indicated that 78.00 per cent of the farmers had low level of knowledge which was increased (82.00 per cent) after contact with KVK.

Table 2:- Knowledge regarding selected scientific innovations for gram crop

n=100				
Sr.No.	Selected scientific innovation	Low	Medium	High
1	New high yielding varieties	08	05	87
2	Land configuration	06	13	81

3	Seed rate	14	08	78
4	Bio fertilizer	19	06	75
5	Weeding	17	12	71
6	Integrated Nutrient management	07	10	83

Data show in the table 2 indicated that 87.00 per cent of the farmers had knowledge about new high yielding varieties followed by Integrated Nutrient management (83.00 per cent), Land configuration (81.00 per cent) and bio fertilizer (75.00 per cent).

Table 3:- Overall adoption of scientific cultivation of gram

n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of adoption	76	04
Medium level of adoption	18	12
High level of adoption	06	84

Data presented in table-3 indicated that 76.00 per cent of the farmers had low level of adoption which was increased after contact with KVK (84.00 per cent).

Table 4:- Adoption of critical gram production technology

n= 100

Sr. No.	Name of technology	Adoption (%)
1	New high yielding varieties	89
2	Land configuration	85
3	Seed rate	82
4	Bio fertilizer	78
5	Weeding	72
6	Integrated Nutrient management	76

The data show in the table 4 indicated that 89.00 per cent of the farmers had new high yielding varieties which were followed by Land configuration (85.00 per cent), Seed rate (82.00 per cent) and Bio fertilizer (78.00 per cent).

From the above discussion, it could be said that overall knowledge level and adoption level of the tribal farmers about package of practices of gram had increased up to 82.00 per cent and 84.00 per cent, respectively after imparting training by KVK, Tapi.

4.5 Impact of training regarding package of practices of pigeon pea crop

Pigeon pea is the main pulse crop in South Gujarat. Tribal belt is preferring pigeon pea as a main leguminous food in their daily diet. Farmers grow very old variety and lack knowledge about improved variety, and scientific cultivation of pigeon pea. So they get very low production. KVK conducted 9 on campus and 12 off campus trainings, total number of beneficiaries of FLD is 73 covering 7 villages of Tapi district and other extension activities during last three year. So impact study results are present here.

Table 1:- Overall knowledge of package of practices of pigeon pea crop

n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of knowledge	74	06
Medium level of knowledge	21	07
High level of knowledge	05	87

Data depicted in table 1 indicated that 74.00 per cent of the farmers had low level of knowledge which was increased (87.00 per cent) after contact with KVK.

Table 2:- Knowledge regarding selected scientific innovations for pigeon pea crop n=100

Sr.No.	Selected scientific innovation	Low	Medium	High
1	New high yielding varieties	06	12	82
2	Land configuration	07	07	86
3	Seed rate	04	08	88
4	Bio fertilizer	18	06	76
5	Weeding	11	11	78
6	Integrated Nutrient management	10	06	84

Data show in the table 2 indicated that 88.00 per cent of the farmers had knowledge about seed rate followed by, Land configuration (86.00 per cent), INM (84.00 per cent) and bio fertilizer (76.00 per cent).

Table 3:- Overall adoption of scientific cultivation of pigeon pea n=100

Category	Before contact with KVK (%)	After contact with KVK (%)
Low level of adoption	65	05
Medium level of adoption	16	08
High level of adoption	09	87

Data presented in table-3 indicated that 65.00 per cent of the farmers had low level of adoption which was increased after contact with KVK (87.00 per cent).

Table 4:- Adoption of critical pigeon pea production technology n= 100

Sr. No.	Name of technology	Adoption (%)
1	New high yielding varieties	88
2	Land configuration	90
3	Seed rate	84
4	Bio fertilizer	78
5	Weeding	75
6	Integrated Nutrient management	84

The data show in the table 4 indicated that 90.00 per cent of the farmers had land configuration which was followed by new high yielding varieties (88.00 per cent), Seed rate (84.00 per cent) and INM (84.00 per cent).

From the above discussion, it could be said that majority of the respondents had high level of knowledge and adopted all the pigeon pea production technology. These may be due to the proper guidance given by the KVK scientists, demonstration and constant follow up by KVK missionary.

Based on this study we can suggest our other extension workers as well as to the policy makers to take a keen interest in the matter and do needful for great publicity of such technologies in their respective areas of working for successful journey towards next phase of Green Revolution on sustainable basis. This thing looks like diminutive but its impact is of great magnitude.

17. Selling of different University products to the farmers

	Quintal/Number	Value Rs.
1. Azotobactor	31 ltr	3720
2. PSB	52 ltr	6240
3. Potash Mobilizer	27 ltr	3240
4. Pseudomonas	83 ltr	5810
5. Rhizobium	51 ltr	5100

6. Novel organic liquid Fertilizer	151 ltr	19630
Others		
1. Fruit fly traps (Methyl Eugenol)	63	2835
2. Fruit fly traps (Cu leur)	8	520
3. Mango fruits	1529 kg	35650

18. Awards:

Sr. No.	Details of Awards	Name of Scientist
1	Best Article Award (Second rank) for KRUSHIGOVIDHYA magazine in the subject of Dairy, Food processing and Home Science for the year 2015-16 received by AAU, Anand, Name of Article: ' <i>AADIVASI SAMAJMA SICKLE CELL ANEMIA VISHE JAGRUTI LAVIE</i> '-August-2015, 68(4), 45-49.	Soni Arti N. & Soni Dipal N.
2	Best Article Award (Second rank) for KRUSHIGOVIDHYA magazine in the subject of Agri.Engineering for the year 2015-16 received by AAU, Anand, Name of Article: ' <i>MAHILAO MATE VISHESH UPAYOGI KRUSHI OJARO/ YANTRO</i> ' -October-2015, 68(6), 39-41.	Soni Dipal N. & Soni Arti N.

Annexure-I

Proceeding of Fourteenth Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Vyara held on 04/03/2017 at 10:00 am at Training Hall, KVK, NAU, Vyara

◆ **List of the members remained present in the meeting :**

Sr. No.	Name	Members/ Invitees	Designation
1	Dr. C. J. Dangaria	Chairman	Hon. Vice Chancellor Navsari Agricultural University, Navsari
2	Dr. G. R. Patel	Member	Director of Extension Education Navsari Agricultural University, Navsari
3	Dr. P. D. Verma	Member Secretary	Senior Scientist and Head KVK, Vyara
4	Dr. V. P. Patel	Member	Associate Research Scientist, Regional Rice Research Station, Navsari Agricultural University, Vyara
5	Mr. Jigar Gohil	Member	Assistant Professor (Horticulture Expert), Polytechnic in Agril. Navsari Agricultural University, Vyara
6	Dr. M.S.Dudhat	Member	Associate Professor (Agronomy Expert), N.M.College of Agril. Navsari Agricultural University, Navsari
7	Mr. K.V.Patel	Member	Deputy Director of Horticulture, Tapi district, Vyara
8	Mr. Prafulbhai Patel	Member	District Agriculture Officer, Department of Agriculture, District Panchayat, and Project Director, ATMA-Tapi, Vyara.
9	Dr. C. M. Rana	Member	Deputy Director of Animal Husbandry, District Panchayat, Tapi District, Vyara
10	Mr. K. R. Patani	Member	Assistant Director (Fisheries), Near CRPF Campus, Ukai, Dist. Tapi
11	Mr. S. U. Vohra	Member	Assistant Director, G.L.D.C., Parsiwad, Vyara, Dist. Tapi
12	Mr. Prafulbhai Patel	Member	Project Director, ATMA-Tapi, Vyara
13	Mr. J.A.Chotaliya	Member	Lead bank Manager , Bank of Baroda, Surti Bazar, Vyara

Sr. No.	Name	Members/ Invitees	Designation
14	Smt. Sunitaben Konkani	Member	KVK SHG Degama, Dist. Tapi
15	Smt. Lilaben Gamit	Progressive Women Farmer	Member of GSSC Ltd., Gandhinagar, At. Bedi, Ta. Songadh, Dist. Tapi
16	Range Forest Officer (Social Forestry)	Invitee Member	Vyara Range, Dist. Tapi
17	Mr. Abhesing Chaudhari	Invitee Member	Chairman, A. P. M. C., Market Yard, Vyara, Dist. Tapi
18	Mr. S.D.Bhoye	Invitee Member	District Registrar Co-operative Societies, Jilla Sadan, Vyara, Dist.Tapi
19	Smt.Ansuyaben Vasava	Invitee Member	Resource Person and SEWA worker-Tapi
20	Smt. Rekhaben A. Chaudhari	Invitee Member	Small Farmer, Valod Representative of Bhupendrabhai Desai, Valod
21	Mr. Nirav Kansara	Invitee Member	Reporter, TV-9 Local Channel, Vyara Zone
22	Mr. Harishbhai Shah	Invitee Member	Press Reporter, Gujarat Samachar
23	Mrs. Gopiben. F. Chaudhari	Invitee Member	Resource Person of KVK & Farm Woman, Dolara ,Ta.vyara
24	Induben Aanandbhai Chaudhari	Invitee Member	President, <i>Jivan Deep Mahila</i> Co- operative Society, Bardipada, Ta. Dolvan, Dist.Tapi
25	Smt.Chandrikaben Bipinbhai Patel	Invitee Member	Progressive Farm Woman, At. Dolvan, Ta. Dolvan, Dist. Tapi
26	Mr. H.C.Trivedi	Invitee Member	Gujarat Matikam kalakari Sansthan, Gandhinagar
27	Mrs. Madhuben Konkani	Secreatry Jivandeep Co.op.Soc.	Village :Baradipada Ta.Dolavan
28	Chaudhari Ishwar J.	Invitee Member	A.K.R.S.P.-Vyara
29	Dr.C.D.Pandya	Special invitee	Scientist (Extension), KVK,Vyara
30	Smt. A.N.Soni	Special invitee	Scientist (Home Science), KVK,Vyara
31	Dr.S.M.Chavan	Special invitee	Scientist (Plant Protection), KVK,Vyara
32	Dr.P.K.Modi	Special invitee	Scientist (Horticulture), KVK,Vyara
33	Dr. J. K. Movaliya	Special invitee	Scientist (Animal Science), KVK,Vyara

◆ **List of members who could not remain present in meeting :**

Sr. No.	Name and Designation	Members/ Invitees
1	Hon. Director - ATARI, Zone-VI, ICAR, Jodhpur, Rajasthan	Member
2	Director of Research & Member Navsari Agricultural University, Navsari	Member
3	Mr. Saradbhai Patel, Progressive Farmer, Nizar	Member
4	Mrs. Nutanben P. Chaudhari, Agri. Entrepreneur, Kalakava, Vyara	Member

The Fourteenth Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Vyara was structured to review the progress made by KVK from February, 2016 to January, 2017 and to discuss the action plan for the next year (i.e. April-2017 to March-2018) at training hall of KVK, Vyara on 4th March, 2017. The meeting was inaugurated by Dr. C. J. Dangaria, Honorable Vice Chancellor, NAU, Navsari and Chairman of SAC Meet. Dr. G. R. Patel, Honorable Director of Extension Education, NAU, Navsari and officers from different line departments, representatives of different social organizations, progressive farmers and farm women were actively participated in this meeting. All dignitaries, committee members, farmers and invitees welcomed by Senior Scientist & Head. Dr. P. D. Verma, Senior Scientist & Head presented the Annual Progress Report of the last year along with impact studies, success stories, case studies and publications. The progress made by KVK was appreciated by house. The Annual Action Plan for the year 2017-18 that include all mandatory activities keeping in view the need based, area specific and demand based extension activities were also presented by Senior Scientist & Head, KVK, NAU, Vyara.

The overall discussion made during the meet was really unique, distinctive, productive and resultant. The remarkable suggestions and feedback emerged out from each and every member inside the house. Dr. C. J. Dangaria, Hon. V.C. appreciated the Senior Scientist and Head and his team of scientists for good linkage with line departments. He has given valuable suggestions that local varieties at farmer's level must be protected under PPV & FRA. He also emphasized on adoption of drip irrigation to increase the water use efficiency in tribal areas. Besides farmers should adopt value addition practices to fetch better return of their farm produce. Dr. G. R. Patel, Director of Extension Education, NAU, Navsari gave worthy suggestions for further betterment of this KVK. He specially emphasized for the use of ICT by the farmers to get quick and speedy information. He also told that rural youth should be motivated for skill development with special reference to agriculture. A book written by Dr. S. M. Chavan, Dr. C. D. Pandya and other Scientists of KVK on "Magfali-Aadarsh Telibiya Pak" was also released by the dignitaries. The trainees of post harvest technology programme were also felicitated with kit and certificates by the dignitaries.

14.1	Approval of minutes of Thirteenth Scientific Advisory Committee.
	The action taken on the minutes of Thirteenth Scientific Advisory Committee Meeting of KVK, Vyara held on 23 rd February, 2016 was presented by Senior Scientist and Head and approved by the house.

14.2	Progress made by KVK during 01-02-2016 to 28-02-2017.	
	Dr. P. D. Verma, Senior Scientist and Head, KVK, NAU, Vyara presented the report on progress made by KVK, Vyara for the period of 01-02-2016 to 31-02-2017 and it was accepted by the house.	
14.3	Action plan for the period of April-2017 to March-2018.	
	Discussion was made on the Action Plan for the period of April-2017 to March-2018 presented by Programme Co-ordinator, KVK, NAU, Vyara which was approved with following suggestions.	
	14.3.1	New Varieties of crops and vegetables should be incorporated in Action Plan.
	14.3.2	Local varieties / traditional seed / germ plasma available in the tribal areas need to be protected under PPV & FRA.
	14.3.3	Farmers should encourage for adoption of drip irrigation.
	14.3.4	Awareness and training programme on skill development should be organized.
	14.3.5	More use of ICT in all KVK mandatory activities.
	14.3.6	Small millets should be incorporated in FLDs.
	14.3.7	Popularizing the mushroom cultivation through training and awareness programme.
	14.3.8	Promote the suitable goat breed and backyard poultry in Tapi district.
	14.3.9	Awareness programme should be organized in collaboration with APMC, Vyara on marketing of Okra particularly for export purpose.

The meeting was ended with vote of thanks by Dr. C. D. Pandya, Scientist (Ext.), KVK, Vyara.

Member Secretary &
Senior Scientist & Head
Krishi Vigyan Kendra
NAU, Vyara, Dist. Tapi

Chairman
&
Hon. Vice Chancellor
Navsari Agricultural University,
Navsari

Annexure-II

1. Extension Literature (Folders)

Sr. No.	Subject	Name of Authors
1	KITCHEN GARDENING	Prof. Arti N.Soni, Dr. P.K.Modi, Dr. P.D.Verma
2	MAHILAO MATE AAHAR ANE POSHAN VYAVASTHA	Prof. Arti N.Soni, Dr. P.D.Verma
3	FAL ANE SHAKBHAIMATHI BANATI VIVIDH BANAVATO	Prof. Arti N.Soni, Dr. P.D.Verma
4	AAHARMA RAHEL POSHAKTATVTO, TENA KARYO, KHAMITHI THATA ROGO ANE PRAPTISTHAN	Prof. Arti N.Soni, Dr. P.D.Verma
5	LEPTOSYAROSIS	Prof. Arti N.Soni, Dr. P.D.Verma
6	MAHILAO MATE KHETIKARYAMA SHRAM GHATE TEVA UPYOGI OJARO/YANTRO	Prof. Arti N.Soni, Dr. P.D.Verma
7	AADIVASI SAMAJMA SICKELCELL ANEMIA VISHE JAGRUTI LAVIA	Prof. Arti N.Soni, Dr. P.D.Verma
8	SOYABINMATHI BANATI VIVIDH MULYAVARDHIT BANAVATO	Prof. Arti N.Soni, Dr. P.D.Verma
9	SARGAVO-SWASTHYA MATENU VARDAN	Prof. Arti N.Soni, Dr. P.K.Modi, Dr. P.D.Verma
10	SITAFAL-AADIVASI SAMAJNU KALVRUKSHA	Dr. P.D.Verma, Prof. Arti N.Soni, Dr. P.K.Modi,
11	PRADHANMATRI FASAL BEEMA YOJANANI MAHITI	Dr.C.D.Pandya, Dr. P.D.Verma
12	GRAMIN BACKYARD MARGHA MATE VYAVASTHAPAN	Dr. J.K.Movaliya, Dr.C.D.Pandya, Dr. P.D.Verma
13	SILAGE	Dr. J.K.Movaliya, Dr.C.D.Pandya, Dr. P.D.Verma
14	DHUDHALA PASHUONI VAIGYANIK ABHIGAMTHI MAVJAT ANE VYAVASTHA	Dr. J.K.Movaliya, Dr.C.D.Pandya, Dr. P.D.Verma
15	BAKARAPALAN	Dr. J.K.Movaliya, Dr.C.D.Pandya, Dr. P.D.Verma
16	JAMRUKHAMA GHANISTHA VAVETAR PADHDHATI	Dr. P.K.Modi, Dr. P.D.Verma, Dr. S.M.Chavan, Dr. B.B.Patel, Dr. V.N.Parmar
17	AAMBAMA GHANISTHA VAVETAR PADHDHATI	Dr. P.K.Modi, Dr. P.D.Verma, Dr. S.M.Chavan, Dr. B.B.Patel, Prof. S.R.Kumbhani
18	PARVAL ANE TINDOLANI VAIGYANIK KHETI PADHDHATI	Dr. P.K.Modi, Dr. P.D.Verma, Dr. S.M.Chavan, Dr. B.B.Patel, Dr. V.N.Parmar
19	KHEDUTONA AADHIKAR-PAKONI JATO ANE KHEDUTONA HAKKONA SAMRAKSHAN MATENU ADHINIYAM-2001	Dr. P.K.Modi, Dr.C.D.Pandya, Dr.V.P.Patel, Dr.S.M.Chavan, Dr. P.D.Verma, Prof. S.R.Kumbhani
20	BHINDANI VAIGYANIK KHETI PADHDHATI	Dr. P.K.Modi, Dr. P.D.Verma, Dr. S.M.Chavan, Dr. B.B.Patel, Dr. V.N.Parmar
21	AZOLANI KHETI PADHDHATI	Dr.S.M.Chavan, Dr.P.K.Modi, Dr.P.D.Verma
22	JAMINNI TANDURASTI-PANCH SUTRIYA KARYAKRAM	Dr.P.D.Verma, Dr. M.R.Gami
23	PADTAR JAMINNA MUDDAONA SAMRAKSHAN	Dr.P.D.Verma, Dr. M.R.Gami, Dr.P.K.Modi
24	JAL ANE JAMIN SAMRAKSHAN	Dr.P.D.Verma, Dr. M.R.Gami, Prof.

Sr. No.	Subject	Name of Authors
		S.R.Kumbhani
25	PARYAVARAN ANUKUL OCHHA KHARCHNI KHETI PADHDHATIO	Dr.P.D.Verma, Dr.S.M.Chavan, Dr.P.K.Modi
26	SAJIV KHETI- PANCH SUTRIYA KARYAKRAM	Dr.P.D.Verma, Dr. M.R.Gami, Prof. S.R.Kumbhani
27	PAK POSHAN-SANKALIT POSHAK TATVANI VYAVSTHA	Dr.P.D.Verma, Dr. M.R.Gami, Dr.P.K.Modi
28	KHEDUT MANDAL:PAYANO MITRA	Dr. P.D.Verma, Dr.C.D.Pandya
29	PAK UTPADANNI AADHUNIK PADHDHATIO	Dr. P.D.Verma, Dr. P.K.Modi, Dr. M.R.Gami, Dr. B.B.Patel
30	KHETIMA MYCORHIZANU MAHATVA	Dr.S.M.Chavan, Dr.P.D.Verma, Dr.P.K.Modi

2. News paper coverage

SR.NO.	DATE	NAME OF NEWSPAPER	SUBJECT
1	5/4/16	SANDESH	VYARAMA KHEDUTMELO ANE PRADHANMANTRI FASALVIMA YOJANA ANGE MARGADARSHAN SHIBIR YOJAI
2	10/5/16	SAMNA	TAMETANA PAKMA NAVI AAKRAMAK SOUTH AMERICAN PINWORM JIVATNO UPADRAV
3	12/5/16	GUJARAT MITRA	TAMETANA PAKMA NAVI AAKRAMAK SOUTH AMERICAN PINWORM JIVATNO UPADRAV
4	18/5/16	SAMNA	BHINDAMA PILI NAS ROG (YELLOW VEIN MOSAIC)NO UPADRAV
5	19/5/16	GUJARAT MITRA	PILA BHINDAMA 'YELLOW VEIN MOSAIC' NO UPADRAV
6	23/5/16	GUJARAT RAKSHA	TAPI JILLAMA BHINDANA PAK UPAR PILI NAS ROG (YELLOW VEIN MOSAIC)NO UPADRAV
7	10/10/16	GUJARAT RAKSHA	KVK DWARA SANSAD GRAM CHIKHALVAV KHATE MAGFALI PAK UPAR KSHETRIYA DIVASNI UJAVANI
8	14/10/16	SANDESH	VYARANA CHIKHALVAVMA KHATE MAGFALI PAK UPAR KSHETRIYA DINNI UJAVANI KARAI
9	25/10/2016	SANDESH	TALIM LIDHA BAD SIVANKAM THAKI PAGBHAR THATI TAPI JILLANI AADIVASI MAHILAO
10	16/1/2017	GUJARAT RAKSHA	KRISHI VIGYAN KENDRA, DWARA DOLARA GAME EK MASNO KAUSHALYA VIKAS TALIM KARYAKRAM YOJAYO
11	13/3/2017	GUJARAT RAKSHA	KVK KHATE 14 MI VAIGYANIK SALAHKAR SAMITINI BETHAK YOJAY
12	13/3/2017	GUJARAT RAKSHA	KVK, VYARA DWARA ZANKHARI GAME BE MASNO KAUSHALYA VIKAS TALIM KARYAKRAM YOJAYO

3. Popular articles

Sr. No.	Date	NEWSPAPER/Magazine	Subject	Authors
1	April-2016	KRUSHIGOVIDHYA 68(12), Pg:47-48	BHARATNI KHETIMA MAHILAONI BHUMIKA	Soni D.N., Soni A.N.
2	July-2016	KRUSHIGOVIDHYA 69(3), Pg:45-46	SWA SAHAY JUTH DWARA MAHILAONU SASHAKTIKARAN	Soni A.N., Soni D.N.
3	3/10/16	AGRO SANDESH	GREEN HOUSEMA PHOLONI KHETI KHUBAJ FAYADAKARAK	Pandya C.D.
4	10/10/16	AGRO SANDESH	GORADU ANE MADHYAM KALI JAMINMA PAN TARBUCHNO PAK SAFALTAPURVAK LAI SHAKAY	Modi P.K.
5	10/10/16	AGRO SANDESH	VELDA GAMNA KHEDUTOE KAPASMA THATA MILIBUGSNA UPADRAVNE KABUMA KARYO	Chavan S.M.
6	24/10/16	AGRO SANDESH	TAPI JILLAMA SEED VILLAGE PROGRAMME THAKI AJOD BIYARAN UTPADAN	Gami M.R.
7	17/10/16	AGRO SANDESH	SHAKKARTETINI KHETI THAKI 3 MASMA 1.16LAKHNI AAVAK MELAVATO BAHURUPA GAMNO KHEDUT	Modi P.K. & Chavan S.M.
8	7/11/16	AGRO SANDESH	TAMETA PAKMA NAVI AAKRAMAK SOUTH AMERICAN PINWORM JIVATNO UPADRAV	Chavan S.M.
9	14/11/16	AGRO SANDESH	LIGHT TRAP JIVATONA NIYANTRAN MATE EK PARYAVARANPRIYA GHATAK	Chavan S.M.
10	21/11/16	AGRO SANDESH	TAPI JILLAMA SDANGAR PAKMA KIAK NIYANTRAN MATE PHEROMONE TRAP TECHNOLOGYNO UPAYOG	Chavan S.M.
11	28/11/16	AGRO SANDESH	GHARMA SUSHOBHAN, DHARMIK PUJA, LAGNA ANE ANYA PRASANGOMA UPAYOGI EVI SONASALINI KHETI	Pandya C.D.
12	5/12/2016	AGRO SANDESH	BHINDANI SAJIV KHETIMA BIJ MAVJATNI PADHDHATI	Chavan S.M.
13	7/11/2016	AGRO SANDESH	GUJARATNA SUKA VISTARMA KUDARATI RITE UGATA KUNVAR PATHANA CHHOD	Pravinkumar Modi
14	14/11/2016	AGRO SANDESH	VARSH JUNA VELAONA TUKDAOMATHI TINDORA	Pravinkumar Modi

Sr. No.	Date	NEWSPAPER/Magazine	Subject	Authors
			<i>NI VAVNI</i>	
15	21/11/2016	AGRO SANDESH	<i>PIYAT VINA ANE DAREK PRAKARNI JAMIN MA KARAMDANI KHETI THAY SHAKE</i>	Pravinkumar Modi
16	5/12/2016	AGRO SANDESH	<i>MISHRA KE AANTAR PAK TARIKE AADU VAVI BAMNI KAMANI KARI SHAKAY</i>	Dr.C.D.Pandya
17	Dec-2016	KRISHIGOVIDHYA	<i>BALPOSHANNI JARURIYAT</i>	Arti N.Soni
18	19/12/2016	AGRO SANDESH	<i>BHINDAMA GANTHAVA SUKSHAM KRUMI TEMANI ODAKHA ANE NIYANTRAN</i>	Chavan S.M.
19	26/12/2018	AGRO SANDESH	<i>MAGFALIMA RAHELU JOKHAM AAFLATOXIN ATAKAVAVA MATE LEVATA PAGLA</i>	Dr.S.M.Chavan
20	9/1/2017	AGRO SANDESH	<i>BAGAYATI PAKOMA AAVARAN (MULCHING) NI AGATYATA</i>	Dr.P.M.Modi Dr.S.M.Chavan Dr.C.D.Pandya
21	16/1/2017	AGRO SANDESH	<i>PASHUPALAN SAFAL BANAVAVA MATE AATLU KARVU AAVASHYAK</i>	Dr.J.K.Movaliya
22	23/1/2017	AGRO SANDESH	<i>FULONI KHETI THI GODADHANA SHIKSHIT KHEDUTNA JEEVANMA AAVI MAHAK</i>	Pravinkumar Modi
23	23/1/2017	AGRO SANDESH	<i>DAKSHIN GUJARATNA DARIYAKANTHANA VISTARO MA CHIKUNI KHETI FAYDAKARAK</i>	Pravinkumar Modi
24	6/2/2017	AGRO SANDESH	<i>DAKSHN GUJARATNI JAMIN AADU NI KHETI MATE ANUKUL</i>	Dr. C.D.Pandya
25	13/2/2017	AGRO SANDESH	<i>AADIVASI KHEDUT NE AARTHIK MADAD MATE AASHIRVADRUP PURAK BACKYAR MARGHA ANE PAKSHI UCHCHER</i>	Dr. J.K.Movaliya
26	6/2/2017	AGRO SANDESH	<i>VEVALA SHAKBHAJIMA ROG-JIVAT NIYANTRAN</i>	Dr.S.M.Chavan
27	20/2/2017	AGRO SANDESH	<i>DANGARNA PARALNO UPYOG KARI GHARAAGANE MASHRUM UCHCHARI AARTHIK LAGHA MELVI SHAKAY</i>	Dr.S.M.Chavan
28	6/3/2017	AGRO SANDESH	<i>KERINO RAJA GANATI KERINA PAK MATE GHATAK PURVAR THATI JIVAT MADHIYO</i>	Dr.S.M.Chavan

4. Radio Talks

Sr. No.	Date	Place	Subject	Resource person
1	19/4/16 Time: 7:20 pm for 15 min.	AIR- AAKASHVANI-AHMEDABAD-VADODARA	KRISHI VIGYAN KENDRA DWARA GRAMIN MAHILAO MATE KARVAMA AAVTI VIVIDH PRAVRUTTIO	Prof.Arti N.Soni
2	19/7/16 Time: 7:20 pm for 15 min.	AIR- AAKASHVANI-AHMEDABAD-VADODARA	KHETIMA JAIVIK KHATARNI AGATYATA	Dr.C.D.Pandya
3	6/1/17 Time: 6:30 pm for 30 min.	AIR- AAKASHVANI-DAMAN	PMFBY	Dr.C.D.Pandya
4	11/1/17 Time: 6:30 pm for 30 min.	AIR- AAKASHVANI-DAMAN	KRISHI VIGYAN KENDRA DWARA GRAMIN MAHILAO MATE KARVAMA AAVTI VIVIDH PRAVRUTTIO	Prof.Arti N.Soni
5	16/1/17 Time: 6:30 pm for 30 min.	AIR- AAKASHVANI-DAMAN	Protection of Plant varieties and farmers rights	Dr.P.K.Modi
6	9/1/17 Time: 6:30 pm for 30 min.	AIR- AAKASHVANI-DAMAN	Scientific cultivation of pulses & oilseed crops	Dr.M.R.Gami
7	13/1/17 Time: 6:30 pm for 30 min.	AIR- AAKASHVANI-DAMAN	Use of pheromone trap technology for monitoring and management of insect pests	Dr.S.M.Chavan
8	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	Use of ICT in agriculture	Dr.C.D.Pandya
9	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	MAHILAONO KRISHI MA FALO	Prof.Arti N.Soni
10	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	AMBA ANE SHAKBAJI PAKONI VAIGYANIK KHETI	Dr.P.K.Modi
11	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	AADARSH PASHUPALAN	Dr/J.K.Movaliya
12	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	Use of chemical fertilizers and bio fertilizers	Dr.M.R.Gami
13	18-19/2/2017 Time :21-22 (20 min.)	AIR- AAKASHVANI-DAMAN	TAKAU KHETIMA PASHUDHAN NO FALO	Dr.P.D.Verma

5. TV Talks

Sr. No.	Date	Place	Subject	Resource person
1	13/4/16 Time:5:30 to 6:00 pm	Doordarshan-DD-Girnar-KRUSHIDARSHAN programme	PRADHANMANTRI FASAL BIMA YOJANA	Dr. C.D.Pandya, Arti N. Soni, Dr. M.R.Gami, Dr. J.K.Raval, Shri P.K.Modi
2	20/2/2017 Time:20.00	DD-Girnar	Broccoli-A new crop in Tapi district for higher renumeration	Shri P.K.Modi

6. Booklet:

Title: MAGFALI-AADARSH TELIBIYA PAK

Authors: Dr.S.M.Chavan, Dr.C.D.Pandya, Prof.Arti N.Soni, Dr. M.R.Gami, Shri N.N.Makani

7. Chapters published in various local publications

Sr. No.	Date	Name of Book	Subject	Authors
1	2015-16, Pg: 22-26	GATISHIL GUJARAT VIKASSHIL GUJARAT- VIKAS VATIKA (Published by Dist. Information office, Tapi)	<i>KRUSHI VIGYAN KENDRA, VYARANI VIVIDH VISTARAN PRAVRUTTIO</i>	Arti N.Soni, Dr.C.D.Pandya, Dr.S.M.Chavan, Shri.P.K.Modi, Dr.J.K.Raval, Dr.M.R.Gami
2	Sep.-2016	Kitchen garden-Published by AAU, Anand, pg: 74-76	<i>SHAKBHAJINA RASAAHAR</i>	Dipal N.Soni, Arti N.Soni

8. Research papers

Sr. No.	Date	Place	Subject	Resource person
1	14/6/16	International journal of Agriculture Sciences (NAAS - 4.10, ISSN:0975-3710), 8 (20)2016, 1357-1361.	Impact of Self Help Groups on Socio-economic status of tribal women in adopted villages of KVK, Tapi, Gujarat, India.	Soni Arti N., Pandya C.D., Patel G.R.
2	June-16	Advances in life Science (NASS-3.57, ISSN:2278- 3849), 5(11), 4764-4766	Palas (<i>Butea monosperma</i>) - A New host of stinkbug, <i>Cyclopelta siccifolia</i> (West Wood) in Gujarat.	Chavan S.M., Pandya C.D., Modi P.K.
3	September- 16	Biotic Environment (NASS- 2.56), 21(4), 64-65	Five stripped palm squirrel (<i>Funambulus pennati</i> <i>Wroughton</i>)damaging sugarcane in South Gujarat.	Chavan S.M., Pandya C.D.
4	September- 16	Biotic Environment (NASS- 2.56), 21(4), 72-73	Record of stem weevil, <i>Alcidodes fabrici</i> (F.) (Curculionidae: Coleoptera) on golden rod (<i>Solidago</i> <i>canadensis</i> L.) in South Gujarat.	Chavan S.M., Sushil Kumar
5	September- 16	Advances in life Science (NASS-3.56, ISSN:2278- 3849), 5(18), 7676-7680	Factors affecting on invitro establishment and multiplication of Sapota v.Kalipatti.	Modi P.K. and Patel R.M.
6	August-16	Advances in life Science (NASS-3.56, ISSN:2278- 3849), 5(15), 5736-5738	South American Tomato pinworm, <i>Tuta absoluta</i> : A new Invasive insect pest recorded on tomato in Gujarat, India	Chavan S.M., Modi P.K.,Pandya C.D.
7	April-2015 (published in Oct.2016)	Journal of Animal Research, 5(1),31-35, NAAS:4.49	Seroprevalence of Leptospirosis in clinically Ailing Bovine	Patel J.M., Vihol P.D., Raval J.K. & et al.
8	Nov.-2014 (published in	Journal of Veterinary World, Vol.7, 999-1003, NAAS:5.6	Seroepidemiological pattern of Leptospirosis in Bovine of South Gujarat, India	Patel J.M., Vihol P.D., Prasad M.C., Kalyani

Sr. No.	Date	Place	Subject	Resource person
	Oct.2016)			I.H., Raval J.K. & et al.
9	December-16	Advances in life Science (NASS-3.56), 5(20), 8900-8906	A review on morphological and biochemical basis of host plant resistance against paddy stem borer	Chavan S.M. and Patel K.G.

9. Research paper abstracts

Pandya C.D. and Pandya R.D. (2017). Knowledge and adoption of organic farming practices. Published in Souvenir-Cum-Abstract of **International Seminar** on “Agriculture & Food for Inclusive Growth and Development” at Lucknow during 14-15/01/2017, organised by **SVWS and Annapoorna Life Organic Food Pvt.LTD., Lucknow.**

10. Workshop /Seminars/Conference/Meeting etc. attended

Name of Scientist	Subject	Date	Place
Dr.S.M.Chavan	Training programme on 'Quarantine pests detection and identification'	31/3/16 to 20/4/16	NIPHM, Rajendranagar, Hyderabad
Dr.S.M.Chavan	Training programme on 'Establishment of mother cultures of different bio-control agents and mycorrhiza'	21/4/16 to 23/4/16	NIPHM, Rajendranagar, Hyderabad
Dr. C.D.Pandya	Zonal workshop of KVK-Zone VI	2/5/16 to 4/5/16	AAU, Anand
Dr.S.M.Chavan	Meeting reg. TAPI JILLA MEGHA AADIVASI MAHILA KHETI UTPADAK SAHAKARI MANDALI LTD.-SEWA	2/5/16	Prashun park, Vyara
Dr.J.K.Raval	Orientation programme	2/5/16 to 29/5/16	UGC-HRDC, V.V.nagar
Dr.S.M.Chavan	Seminar on 'Plant protection in organic farming	11/6/16	NAU, Navsari
Dr. C.D.Pandya	Interface meeting on Enhancing the preparedness of Agricultural contingencies in kharif 2016 for Gujarat	23/6/16	Mahatma Gandhi Labour Institute, Ahmedabad
ArtiN.Soni, Dr. C.D.Pandya, Dr.S.M.Chavan	Training on 'Climate change adoption through Agrotextiles'	18/7/16	NAU, Navsari
Shri PravinKumar Modi with 5 progressive farmers	International conference on 'Food, water & energy nexus in arena of climate change'	14/10/16	AAU, Anand
Dr.S.M.Chavan, Shri PravinKumar Modi	Farmers fair organised by Dr.Aambedkar trust.	20/10/16	Singpur, Ta.Songadh
Dr.M.R.Gami	Sensitization workshop cum training on pulses	24-25/10/16	ATARI, Jodhpur
Dr.J.K.Movaliya	National level conference cum Symposium on Animal health and production: Challenges and	23-25/11/16	Dept. of Pharmecology, Veterinary college,

Name of Scientist	Subject	Date	Place
	opportunity		NAU, Navsari
PravinKumar Modi	Advances in production technology of commercial vegetable crops	8-28/11/2016	Dept. of Veg., Y.S.Parmar University of Horti. & Forestry, Solan (H.P.)
DEE, PCs of KVKs, SMSs of KVKs	Review meeting of KVKs	6/12/2016	KVK-Vyara
Dr P.D.verma	Workshop on International Pulse Year	22/12/2016	Agra
Dr P.D.verma	Workshop on KVKs Annual Plan	30-31/12/2016	SDAU, Dantiwada
Dr. C.D.Pandya, Dr.J.K.Movaliya	Review meeting of KVKs	6/1/2017	ATIC-Navsari
Dr.J.K.Movaliya	Seminar on "Implementing appropriate vaccination regimen for improved AH & production	8/1/2017	Vety.college-Navsari
Dr.C.D.Pandya	International Seminar on "Agriculture and Food for Inclusive Growth & Development"	13-14/1/2017	NBRI, Lucknow
Dr.P.K.Modi	Farmers-Scientists Interaction on Mango Malformation	17/1/2017	ACHF-NAU, Navsari
Dr.C.D.Pandya	International Seminar on Agriculture & Food for inclusive growth and development. (Sponsored by SVWS, Lucknow)	13-14/1/2017	NBRI, Lucknow
Dr.C.D.Pandya	Workshop on "Strengthening bond between Aspee foundation & KVKs" (Sponsored by Aspee Foundation-Mumbai)	24-26/2/2017	Tansa Farm-Mumbai
Dr.S.M.Chavan	Fundamentals of Plant Health Management for plant health doctors	8/2/2017 to 28/3/2017	NIPHM, Rajendranagar, Hyderabad

11. On going research projects:

Sr. No.	Title of Research Study	Investigators
1	Fundamental clarity about FLDs and OFTs among KVK scientists of Gujarat	<ul style="list-style-type: none"> ◆ Dr. C.D.Pandya, Scientist (Extn), KVK, NAU, Vyara, Dist. Tapi ◆ Dr. P.D.Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi
2	Marketing behavior of Okra growers in Tapi district	<ul style="list-style-type: none"> ◆ Dr. P. D. Verma, Senior Scientist and Head, KVK, NAU, vyara ◆ Dr. P. K. Modi, Scientist (Horticulture), KVK, NAU, Vyara ◆ Prof.Arta N. Soni, Scientist (Home Science), KVK, NAU, Vyara
3	Adoption of improved dairy husbandry practices by the tribals of	◆ Dr. P. D. Verma, Senior Scientist and Head, KVK, NAU, vyara

Sr. No.	Title of Research Study	Investigators
	Tapi district	<ul style="list-style-type: none"> ◆ Dr. Jignesh Movalia, Scientist (Animal husbandry), KVK, NAU, Vyara ◆ Dr. C. D. Pandya, Scientist (Extn), KVK, NAU, Vyara, Dist. Tapi
4	Adoption of fruits and vegetable preservation technology by tribal farm women of Tapi district	<ul style="list-style-type: none"> ◆ Prof. Arti N. Soni, Scientist (Home Science), KVK, NAU, Vyara, Dist. Tapi ◆ Dr. P. D. Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi ◆ Dr. C. D. Pandya, Scientist (Extension Education), KVK, NAU, Vyara, Dist. Tapi
5	Pesticides Use Pattern among Okra Growers' in Tapi district	<ul style="list-style-type: none"> ◆ Dr. S.M.Chavan, Scientist (Plant Protection), KVK, Vyara ◆ Dr. P.D.Verma Senior Scientist and Head, KVK, Vyara ◆ Pravinkumar Modi, Scientist (Horti.), KVK, Vyara ◆ Dr.N.K.Gajare, Asst.Professor, Polytechnic in Agriculture,NAU, Vyara

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