

ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVK, VYARA,
NAU, TAPI-2018-19
(1st April-2018-31st March-2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Website address & No. of visitors (hits)
	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	Website address: tapi.kvk6.in No. of visitors: 235429

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

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

1.3. Name of the Senior Scientist and Head 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 March 31, 2019)

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate			If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay	Date of joining	
1	Programme Coordinator	Dr.P.D.Verma	Extension Education	25170	8000	7/11/2016	NA
2	Subject Matter Specialist	Dr. C. D. Pandya	Extension Education	26500	7000	29/07/2009	NA
3	Subject Matter Specialist	Prof. Arti N. Soni	Home Science	23070	6000	04/04/2008	NA
4	Subject Matter Specialist	Dr. J. K. Movaliya	Veterinary Science	17610	6000	1/11/2016	NA
5	Subject Matter Specialist	Dr. S.M.Chavan	Plant Protection	19050	7000	10/01/2013	NA
6	Subject Matter Specialist	Dr. M. R.Gami	Agronomy	19050	6000	01/03/2013	NA
7	Subject Matter Specialist	Prof. Pravinkumar Modi	Horticulture	19050	7000	14/03/2013	NA
8	Programme Assistant	Mr. N.N.Makani	--	9300-34800- G.P.- 4000	38090 Fix	13/07/2015	NA
9	Computer Programmer	Nisheeta R. Patel	--	52372	--	21/08/2008	NA
10	Farm Manager	Vacant	--	46200	--	--	--
11	Accountant / Superintendent	Smt. S. R. Chaudhary	--	35400-112400	47800	25/9/2018	NA
12	Stenographer	Vacant	--	5200-20200 G.P. — 2400	--	--	--
13	Driver 1	Mr. C. I. Patel	--	24500	--	23/08/2007	NA
14	Driver 2	Vacant	--	5200-20200 G.P. 1900	--	--	--
15	Supporting staff 1	Vacant	--	4440-7400 G.P.- 1400	--	--	--
16	Supporting staff 2	Vacant	--	4440-7400 G.P.- 1400	--	--	--

1.6 Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	0.86
2	Under Demonstration Units	0.38
3	Under Crops	4.33
4	Horticulture	2.23
5	Pond	0
6	Others (specify),	0

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		248	--	--	--	
3	Staff Quarters (5)	ICAR	31/3/2011	348	--	--	--	--
4	Demonstration Units -9	ICAR	--	--	876014=00	--	--	--
5	Fencing	--	--	--	--	--	--	--
6	Rain Water harvesting system	--	--	--	--	--	--	--
7	Threshing floor	--	--	--	--	--	--	--
8	Farm godown	--	--	--	--	--	--	--
9	ICT lab	--	--	--	--	--	--	--
10	Other	--	--	--	--	--	--	--

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	Sold
Tractor	2001	3,31,225=00	4806 hrs	Working
Motorcycle	2011	48,816=00	15826	Working

C) Equipments & AV aids

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
(1)	Furniture (Godrej)			
1	Table T-9	30/3/2001	26636	Working
2	Table T-104	30/3/2001	8515	Working
3	Chair CH-186	30/3/2001	43300	Working
4	Chair PCH-7000 D	30/3/2001	8168	Working
5	Chair CH-7 B	30/3/2001	5692	Working
6	Store Well – Glass Door	30/3/2001	9259	Working
7	Slotted Angel Racks	30/3/2001	4900	Working
(2)	Mahindra Tractor model 575 DI 45 HP & Accessories	30/3/2001	3,31,225	Working
(3)	Photo Copier NP 7160 Canon NPG-1	31/3/2001	117274	Not working
(4)	Furniture (Godrej)			
1	Table –T- 402	27/12/2002	24600	Not good
2	Comp. Table C-6	27/12/2002	5255	Working
3	Store Well – Glass Door	27/12/2002	9330	Working
4	Store Well Plane	27/12/2002	16000	Working
5	Chair CHR-7B	27/12/2002	22350	1-Not good
6	Chair PCH-5000 2 T	27/12/2002	7230	1-Not good
7	Filing Cabinet	27/12/2002	7900	Working
(5)	Computer & Peripherals	28/12/2002	51850	Working
(6)	3 KVA on line UPS	28/12/2002	38000	Not working
(7)	HP Laser Jet 1200 Printer	28/12/2002	20600	Not working
(8)	MSXP standard edition with Indian Longwise Proofing tools	30/12/2002	6450	Not Working
(9) 1	CD writer	28/12/2002	3025	Working
2	HP Scan jet 2300c Scanner	28/12/2002	3700	Not Working
(10) 1	Ceramic steel white writing board 4'x6'	21/2/2003	9000	Working
2	Ceramic chalk writing board 4'x 6'	21/2/2003	9000	Working
(11) 1	Over Head Projector	22/3/2003	27690	Working
2	Plastic screen with tripod stand	22/3/2003	4500	Not Working
(12) 1	LG 29 CA Color TV 29"	21/3/2003	26990	Working
2	Thomson 5 in 1 VCD player	21/3/2003	6990	Not Working
(13)	P.A. System			
1	Amplifier SSA 250	22/3/2003	9400	Working
2	Eco Mixture DMX 40	22/3/2003	3249	Working
3	Full Range Speaker SRX 250 D	22/3/2003	24472	Working
4	Microphone			
	ALD 101 x LR	22/3/2003	1140	Not Working
	ATP 20 M	22/3/2003	489	Not Working
	WM 201	22/3/2003	1615	Not Working
5	Unit Horn Combination UHC 30 x T	22/3/2003	1188	Not Working
6	Micro Phone Stand	22/3/2003		Working
	DGN	22/3/2003	456	Working
	DGT	22/3/2003	285	Working
	ATS:5	22/3/2003	100	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
(14)	A.V. Trolley	22/3/2003	4132	Working
(15)	Laminated Chart with wooden Frame size 20" x 30"	22/3/2003	24420	Not good
(16)	Sony Digital Handy cam	22/3/2003	32750	Not Working
1	Power adapter	22/3/2003		Not Working
2	Battery	22/3/2003		Not Working
3	Remote Control	22/3/2003		Not Working
4	AV Connecting Cable	22/3/2003		Not Working
5	Belt shoulder strap	22/3/2003		Not Working
6	Handy Cam Recording Caset	22/3/2003		Not Working
(17)	Automatic slide Projector	22/3/2003	13695	Working
(18)	Portable Generator EXK 2000 AC	24/3/2003	38200	Working
(19)	Education Exhibition Panel System	25/3/2003	13500	Working
1	News Paper Stand	25/3/2003	3500	Working
2	Displayer/Book/ Magazine Stand	25/3/2003	3500	Working
3	Notice Writing Board with Acrylic Shutter	25/3/2003	4450	Working
(20)	Stainless steel Vessels	28/3/2003	19450	Working
(21)	Modem	31/3/2003	2020	Working
(22)	Laminated Charts with Plywood Framing size 24"x30"	12/3/2004	3000	Not good
(23)	Colour Enlargement charts	29/3/2004	24420	Not good
(24)	Jeep Mahindra & Mahindra Bolero D.I.	2/12/2004	430500	Working
(25)	Bolero Accessories	2/12/2004	21650	Working
(27)	Whirlpool freeze	27/3/2006	15800	Working
(28) 1	Electronic Automatic Kel Pus Microprocessor based eight place macro block digestion system model KES-08L	27/3/2006	88120	Not Working
2	Electronic Kel plus micro processor based Automatic Distillation system model distil EM	27/3/2006	142300	Not Working
(29)	Double still with thermo sensor hr (All glass) cat No 2348	27/3/2006	33924	Working
(30)	Nova Rotary shaking machine			
1	(a)Capacity 16 flasks of 250 ml	28/3/2006	24500	Not Working
2	(b)Capacity 25 flasks of 250 ml	28/3/2006	29750	Not Working
3	Nova Hot plate Rectangular model NV-8535 stainless steel			
	(a) Size 12" x 20"	28/3/2006	8500	Not Working
	(b) Size 18" x 24"	28/3/2006	11250	Not Working
4	Nova willy mill stain lese steel camber Size 10.0 x 50 mm	28/3/2006	31900	Not Working
(31)1	Laboratory Table	27/3/2006	34400	Working
2	Racks	27/3/2006	9000	Working
3	Stools	27/3/2006	5400	Working
4	Steel cupboard storewell	27/3/2006	19200	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
5	Steel cupboard storewel	27/3/2006	14000	Working
6	Steel racks	27/3/2006	8600	Working
7	Partition racks	27/3/2006	22500	Working
8	Office chair	27/3/2006	4000	Working
(32)	Systronics make			
1	Micro controller based Digital spectrophotometer model -106	27/3/2006	26800	Not Working
2	Systronics make micro controller based flame photometer compressor model-128	27/3/2006	35200	Not Working
3	Systronics make micro controller based PH meter	27/3/2006	10900	Not Working
4	Systronics make micro processor based conductivity meter	27/3/2006	12800	Not Working
(33)	Hot air oven	27/3/2006	21200	Working
(34) 1	Chemical Balance	27/3/2006	75000	Working
2	CENTRO FIX WATERBATH	27/3/2006	10800	Not Working
3	CENTRO FIX – Muffle furnace	27/3/2006	29500	Not Working
4	Automatic autoclave	27/3/2006	21000	Working
(35)	City weigh balance model ST-10 Cap- 10 kg	27/3/2006	10640	Working
(36) 1	LG AC-1.5 ton	31/3/2006	23740	Not Working
2	Micro kjeldahl Assembly	31/3/2006	10700	Not Working
(37)	Burner maker type with stop coke	31/3/2006	2000	Not Working
(38)	Voltas make water cooler	31/3/2006	26500	Working
(39) 1	Soft Pin up Board	29/11/2007	96250	6-not good
2	Single Pole Stand	29/11/2007	35360	Working
(40)	Microscope for Computer	17/3/2008	294028	Working
(41) 1	SDZ – TR – PL – HL Microscope controlled Transformer	15/3/2008	209444	Working
2	OP – 150 R Fibre Optic Illumivater	15/3/2008		Working
3	GMTV – 33 H High Resolution Coloured CCTV system	15/3/2008		Working
(42)	Colony Counter – MSW – 408	15/3/2008	5668	Working
(43)	Oven Universal – MSW – 213	15/3/2008	65788	Working
(44)	Insect Rating Case	17/3/2008	14000	Working
(45)	LG A/C machine 2.0 Ton Split AC with Remote	17/3/2008	58680	Not Working
(46)	LG Refrigeration–280 Lit. Model - 295TMG4	25/3/2008	18000	Working
(47)	Phillips Grinder – 1618	25/3/2008	6000	Working
(48)	Sony Cyber Shot – DSC – W 90	25/3/2008	14800	Working
(49) 1	Pressure Cooker – 8 lit.	24/3/2008	4500	Working
2	S/A/S Tope – 17’’	24/3/2008		Working
3	S/A/S Tope – 21’’	24/3/2008		Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
4	S. S. Cover	24/3/2008		Working
(50) 1	Insect Display show cases	24/3/2008	17420	1-Not Working
2	Insect Show cases cabinet	24/3/2008		Working
(51) 1	Compaq Computer – 3250 IL	25/3/2008	28950	Working
2	MS XP Professional Vista License Copy	25/3/2008	6000	Working
(52)	Top Loading Balance – BH 200 H	19/3/2008	28120	Working
(53)	Digital Conductivity TDS Meter Model – 307	24/3/2008	11648	Working
(54)	Digital PH meter Model - 802	24/3/2008	7006	Working
(55)	Distillation Apparatus (5 – Lit)	24/3/2008	15912	Not Working
(56)	H/P Laser Jet Printer - 1022	25/3/2008	10990	Working
(57)	Steel Rack KV-110 78’’x36’’x15’’	25/3/2008	9844	Working
(58) 1	Steel Cupboard – 78’’x36’’x19’’	23/3/2008	11100	Working
2	Computer Table	23/3/2008	3300	Working
3	Computer Chair	23/3/2008	5200	Not Working
(59)	Shaking Incubator – 24 BL	25/3/2008	95387	Working
(60)	CentriFuge – R – 24	25/3/2008	32025	Working
	Voltage stabilizer 3.0 KVA	25/3/2008	6630	
(61)	Double Pan Balance Analytical Weight Box	24/3/2008	3640	Working
(62)	Gas Cylinder, Regulator, Gas Stove	13/3/2008	1930	Working
(63)	B.O.D. Incubator – 270	22/3/2008	90534	Not Working
(64)	KLENZFLO Horizontal laminar clean air work station – 1500c	28/3/2008	138320	Working
(65)	Crompton Greaves Fans	28/3/2008	6800	1-Not Working
(66)	Humidifier (S.S. Body)	30/3/2008	11034	Working
(67)	ASPEE Tractamount Bloover fro Intranational	30/3/2008	99960	Working
(68)	Panasonic Multifunctional Device Copy/Print/Scan/Fax	28/03/2010	14900	Working
(69)	Eco Display Unit Size : 6’ x 2’	28/03/2010	9625	Working
(70)	DIM System size : 36’’ x 24’’	28/03/2010	19250	Working
(71) 1	Podium	28/03/2010	4200	Working
2	Podium	28/03/2010	4200	Working
(72) 1	LCD Projector - Mo.D.832 Mx	06/01/2011	66305	Not Working
2	VIVITEK Dongel	06/01/2011	16910	Not Working
3	WALTOP 6’’ Interactive RF Pod	06/01/2011	14863	Not Working
4	Motorized Screen size – 5’x7’	06/01/2011	12905	Working
5	Impact 65 T (PA system)	06/01/2011	17800	Working
(73) 1	23’’ – LCD Computer	15/10/2010	33420	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
2	Branded CPU E-Machine	15/10/2010	“	Working
3	Printer – Canon	15/10/2010	8500	Working
4	UPS – Umax 600 VA	15/10/2010	1850	Not Working
5	HP Scanner	15/10/2010	4500	Working
6	Q.H. Internet Security	15/10/2010	1150	Working
(74)	Crystal EPABX system set and accessories	11/02/2011	49219	Working
(75) 1	Power Tiller	18/02/2011	149430	Working
2	Multi crop Thresher	18/02/2011	23100	Working
		18/02/2011	26000	Working
3	Power Sprayer	18/02/2011	24850	Working
4	Winnower	18/02/2011	24150	Working
5	Seed cum Ferti. drill	18/02/2011	28880	Working
(76) 1	Steel Cupboard 18”X 36”X 78”	8/1/2011	58977	Working
2	Visitor Chair	8/1/2011	48475	2-Not Working
3	Rack- 6 X 3 X 1 foot	8/1/2011	43170	Working
4	Rivolving Chair	8/1/2011	21810	3-Not Good
*(77)1	Gayatri two-way Leveller Heavy Duty	11/3/2011	12600	Working
2	Gayatri Cultivator Heavy Duty	11/3/2011	20700	Working
*(78)	Plough & Harrow	17/2/2011	19000	Working
*(79)1	Rotavator- 5.25	13/3/2011	60380=95	Working
2	Hydrolic trailer	13/3/2011	102380=90	Working
(80)	Varoon Vinowing Monoblock Electric Fan	25/3/2011	6900	Working
(81)	Splender Pro Kick Spoke	31/3/2011	41860	Working
(82)	Sub-mersible pump set 2 H.P. with accessories	28/3/2011	14600	Working
(83) 1	Steel Cupboard	28/12/2012	71500	Working
2	Table (4 X 2.5) rek	28/12/2012	35000	Working
3	Steel Coat (6 X 3.5)	28/12/2012	40000	Working
4	Sofa set- Tipoi	28/12/2012	17500	Working
5	Chair-Table-Tipoi	28/12/2012	7500	Working
6	News paper stand	28/12/2012	3150	Working
7	Computer Table-Chair	28/12/2012	12558	Working
8	Water cooler	28/12/2012	84000	Working
9	Post weigh balance	28/12/2012	2100	Working
10	Steel cupboard	28/12/2012	37000	Working
(84)1	Sofa three seater waiting chair	13/01/2012	62980	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
2	Fix Chair	13/01/2012	23090	Working
(85)	10 H.P. 4 stage falkan sub-mersible pump set with accessories	04/02/2012	64125	Working
(86) 1	Electronics media Microprocessor – PH meter model – 1012	23/03/2012	13000	Working
2	Electronics media Microprocessor – Spectrophoto meter model – 2305	23/03/2012	33950	Working
3	NOVA fermentor (Digital Microprocessor Pid control)	23/03/2012	360000	Working
4	Swisser Table top balance model – swit – 105 10 kg	23/03/2012	8775	Working
5	NOVA digital hot air oven 24"x24"x36"	23/03/2012	36900	Not Working
(87) 1	HD Handy cam (video camera)	27/03/2012	71025	Working
2	Digital Camera HD (15-30 mega pixel)	27/03/2012	66660	Working
3	Double distilled water RO plant for lab use	27/03/2012	24860	Working
4	Refrigerator 310 lit with stb 1 KVA	27/03/2012	29035	Working
(88)	2 HP 8 Stage Neck Motor	20/12/2014	8500	Working
(89)	Photocopier machine (Digital Colour Multi function office machine (Richo) MP (2004SP))	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	24/3/2017	41,975	Working
(91)	Voltas AC-1.5 tonType-Split	18/3/2017	72,000	Working
(92)	Carrier Split AC-2.0 ton- 3 star, Model-24 k Superia	24/3/2017	84,000	Working
(93)	Chaff cutter power operated, BKV2HPCFAT, 3 Blades, 1440 RPM, 50H, 220V, 12A	17/3/2017	22491	Working
(94)	Information Kiosk thin client based free standing-Type Model SK-19-T	10/3/2017	90250	Working
(95)	Lenovo Computer-All in One	14/03/2017	92398	Working
(96)	Paddy Thresher with Motor	20/03/2017	23500	Working
(97)	RO with water cooler -50 LPH with 100 litre LPH SS storage	02/03/2017	79000	Working
(98)	Laser Printer-Brother Model No. 2321 D	21/03/2017	14760	Working
(99)	Colored Laser Printer-CP 1025	21/03/2017	18000	Working
(100)	Scanner-Canon	21/03/2017	8476.20	Working
(101)	Maize Dhusker cum sheller-1000 kg/cobs/hour capacity	14/03/2017	182000	Working
(101)	7.5 HP Motor	24/03/2017	18200	Working

Sl. No.	Name of Equipments/ Instruments/ Farm Machineries	Date of Purchase	Cost (Rs.)	Present Status
(102)	1.5 HP 10 stage motor ISI with accessories	24/03/2017	19688	Working
(103)	Winnowing Fan	24/03/2017	35000	Working
(104)	Haier Deep Freezer-588 litre capacity	24/03/2017	66000	Working
(105)	Pulvarizer Machine	24/03/2017	35675	Working
(106)	Soyabean Processing Unit	24/03/2017	325248	Working
(107)	PKV Custard Apple pulper Machine-0.5 HP Single Phase Motor-Capacity 70 kg/hour	24/03/2017	78775	Working
(106)	PKV Mini Dall Mill	28/03/2017	93000	Working
(107)	Model; captain 250DI 4WD Regular Model (tyre Size 8×18)+Insurance charge	31/3/2019	381570	Working
	Tyre size 8.3×20 Extra Amount		20000	
	Power steering Extra Amount		20000	
	Oil immersed Brake Extra Amount		5800	
(108)	Rotavetor 3ft L type blade	31/3/2019	51480	Working
(109)	Reversible Plough	31/3/2019	23520	Working
(110)	land leveler	31/3/2019	18724	Working
(111)	Cultivator 7 tyn	31/3/2019	21346	Working
(112)	Seed cum fertilizer drill	31/3/2019	41664	Working
(113)	Multi crop Thresher (CS-01)	31/3/2019	214999	Working
(114)	Cultivator (LEW-9)	31/3/2019	33600	Working
(115)	Resersible MB Plough (Hydraulic, reversible-TAI-25)	31/3/2019	67200	Working
(116)	View Sonic Multimedia Projector	31/3/2019	115700	Working
(117)	Laptop-HP	31/3/2019	49999	Working
(118)	Paddy Thresher	31/3/2019	15000	Working

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

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

Date	Name and Designation of Participants	Salient Recommendations	Action taken
12/03/2018	<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. Dr. Jigar Gohil, , Member, Assistant Professor, (Horticulture Expert), Polytechnic in Agril., NAU, Vyara 6. Dr. M. A. Kataria, Member, Assistant Research Scientist,LRS, Navsari Agricultural University, Navsari 7. Shri Prafulbhai R. Chaudhari, Member, Project Director, ATMA-Tapi 8. Shri S.B.Gamit, Member, District Agriculture Officer, Department of Agriculture, District Panchayat, Vyara, Tapi 9. Shri Nikunj Patel, Member, Deputy Director of Horticulture, Tapi district,Vyara 10. Dr. C. M. Rana, Member, Deputy Director of Animal Husbandry, District Panchayat,Tapi District, Vyara 11. Shri Samir Ardesana, Member, Assistant Director (Fisheries), Near CRPF Campus, Ukai, Dist. Tapi 12. Shri Ghanshyam S. Patel, Member, Progress farmer, At & Po. Bahurupa Ta. Kukarmunda 13. Jayaben Mahendrabhai Chaudhari, Member, Progress farm women, At & Po. Unchchamala Ta. Vyara 14. Mr. Kantibhai Desai, Member, Agri-Enterpreneur, Sardar Agro Centre, APMC, Vyara 15. Rubinaben Somabhai Gamit, Invitee Member, President, SHG, At & Po. Zankhari Ta. Vyara 16. Shri Pravinbhai Gamit, Invitee Member,Chairman, APMC, Vyara 17. Smt. Shantaben K. Gamit, Progressive Farm Women & Invitee Member, At & Po. Bedi Ta. Songadh 18. Shri D. T. Desai, Private Agro Dealer & Invitee Member, Patidar Agro Centre, APMC, Vyara 	<ol style="list-style-type: none"> 1. Sesame variety GT-5 released by JAU should be taken in Front Line Demonstration. 2. Green gram variety GM-6 also should be taken in Front Line Demonstration. 3. Varietal Front Line Demonstration on Paddy GNR-7 should be taken. 4. Procedure for accreditation of mango orchard should be initiated. 5. Varieties released by SAUs should be taken in Front Line Demonstrations of vegetable crops. 	<p>Incorporate in Annual Action Plan:2019-20</p>

Date	Name and Designation of Participants	Salient Recommendations	Action taken
	<p>19. Shri. Dharmesh Vani, Invitee Member, Press Reporter- Gujarat Raksha, Vyara</p> <p>20. Shri Anup Bhatt, Invitee Member, Press Reporter- Dhabkar & Sandesh News TV</p> <p>21. Shri Narendrasinh R. Rehvar, Invitee Member, Ambedkar Vanavasi Kalyan Trust-Surat</p> <p>22. Shri Mansukhabhai S. Gamit, Progressive Farmer & Invitee Member, At & Po. Nani Chikhali, Ta. Vyara</p> <p>23. Smt. Lilaben Gamit, Invitee Member, Progressive Women Farmer, Member of GSSC Ltd., Gandhinagar, Member of Extension Council-NAU, Navsari, At. Bedi, Ta.Songadh, Dist. Tapi</p> <p>24. Shri J. A. Chotalia, LDM, Bank of Baroda, Vyara</p> <p>25. Dr.C.D.Pandya, Special invitee, Scientist (Extension), KVK,Vyara</p> <p>26. Prof.A.N.Soni, Special invitee, Scientist (Home Science), KVK,Vyara</p> <p>27. Dr.S.M.Chavan, Special invitee, Scientist (Plant Protection), KVK, Vyara</p> <p>28. Dr.P.K.Modi, Special invitee, Scientist (Horticulture), KVK, Vyara</p> <p>29. Dr. J. K. Movaliya, Special invitee, Scientist (Animal Science), KVK,Vyara</p> <p>30. Dr. M.R.Gami, Special invitee, Scientist (Crop Production), KVK, 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. Topography

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 (Qtl/ha)
Rabi-Summer-2017-18				
1	Wheat	3578	10931	30.55
2	Rabi Sorghum	2384	3576	15.00
3	Maize	948	1280	13.50
4	Gram	2569	2697	10.50
5	Sugarcane	27153	2117934	780.00
6	Indian bean (Val)	354	336	95.00
7	Castor			
Kharif – 2018				
1	Paddy	52371	162350	31.00
2	Kharif – Sorghum	11786	14966	13.50
3	Kharif – Maize	1678	2467	14.70
4	Soybean	14341	16492	11.50
5	Kharif – Pigeon pea	18489	20338	11.00
6	Kharif – Green gram	138	97	70.00
7	Black gram	1357	1018	75.00
8	Kharif Groundnut	1573	2831	18.00
9	Cotton	7269	18263	26.50

Source: District Agriculture Department – Tapi

Horticultural Crops: (2017-2018)

Sl. No	Crop	Area (ha)	Production (MT.)	Productivity (Qtl/ha)
A	Fruits			
	Mango	5590	51707.50	92.50
	Sapota	115	1288.00	112.00
	Citrus	115	1305.25	113.50
	Ber	5	21.75	43.50
	Banana	1575	94500	600.00
	Guava	25	254.75	101.90
	Pomegranate	51	561	110.00
	Date palm	7	--	--
	Papaya	2085	128228	61.50
	Custard apple	45	372	82.67
	Aonla	20	147	73.50
	Cashew nut	275	466	16.95
	Coconut	65	536	82.46
	Others	340	2737.00	80.50
B	Vegetables			
	Brinjal	3757	70068.05	186.50
	Cabbage	136	3182.4	234.00
	Okra	9950	135818.36	136.50
	Tomato	661	15203.00	230.00
	Cauliflower	333	6460	193.99
	Cluster bean	727	6906.50	95.00
	Cowpea	792	6328.08	79.90
Cucurbits	3827	70416.80	184.00	

Sl. No	Crop	Area (ha)	Production (MT.)	Productivity (Qtl/ha)
	Others	2287	30874.50	135.00
C	Creepers			
	Bottle gourd	589.00	13783.10	234.01
	Bitter gourd	532.00	8584.50	161.36
	Sweet melon	191.00	4642.76	243.08
	Smooth gourd	191.00	2222.10	116.34
	Ridge gourd	130.00	1715.50	131.96
	Cucumber	137.00	2316.10	169.06
	Ponited gourd	736.00	12908.00	175.38
	Watermelon	278.00	8405.83	302.37
	Pumpkin	118.00	2801.60	237.42
	Ivy gourd	611.00	9113.50	149.16
	Indian bean	127.00	1517.60	119.50
	Broad bean	116.00	1687.00	145.43
	Spine gourd	71.00	718.50	101.20
D	Spices			
	Chilli-Dry	1155	1848	16.00
	Ginger	40	796	199.00
	Turmeric	75	1545	206.00
	Fenugreek	110	210	19.09
	Ajawain	80	60	75.00
D	Flowers			
	Rose	61	549.61	90.10
	Marigold	265	2624.94	99.05
	Mogra	76	661.7	87.07
	Lily	15	124.95	83.30
	Others	140	1230.36	87.88

Source: District Horticulture Department — Tapi

2.5 Weather data

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April-2018	0	40.5	24.1	87.7	73.1
May-2018	0	41.5	27.1	91.3	75.8
June-2018	111.0	38.4	27.0	94.6	84.5
July-2018	754.0	31.2	25.3	96.4	97.4
August-2018	524.5	31.9	25.7	95.7	91.3
September-2018	52.50	34.2	25.5	92.5	86.7
October-2018	0	39.3	23.4	88.0	74.9
Nov-2018	0	37.9	13.90	89.4	85.3
Dec.2018	0	32.5	12.0	83.6	77.7
January-19	0	31.8	10.8	84.0	78.2
February-19	0	32.1	14.5	78.5	75.4
March-19	0	38.6	19.6	83.0	82.20

Source: Regional Rice Research Station, NAU, Vyara

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

Category	Population	Production ('000 tones)	Productivity (kg/day)
Cattle			
<i>Crossbred</i>	45123	92.28	6.780(Milk)
<i>Indigenous</i>	169421	25.72	2.500(Milk)
Buffalo	176458	98.02	4.910(Milk)
Sheep	1000	1.17 metric tones	1.090 kg wool/sheep
Goats	96599	3.13	0.450 (Milk)
Pigs	2723	--	--
Rabbits	1576	--	--
Poultry			
<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
Donkey	1943	--	--

Source: DISTRICT INDUSTRIAL POTENTIALITY SURVEY REPORT OF TAPI DISTRICT 2016-17

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 	<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

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"> • Drudgery among farm women during Agril. practices • Lack of knowledge about health & nutrition • Sickle cell Anemia 	<ul style="list-style-type: none"> • 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
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

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
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 • Lack of knowledge about health & nutrition • Sickle cell Anemia • Low milk production 	<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
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 	<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
					Agril. practices <ul style="list-style-type: none"> Lack of knowledge about health & nutrition 	women <ul style="list-style-type: none"> 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 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 Poor food grain storage 	<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
7	Songadh	Songadh	Ukhalda	Paddy, Sugarcane, Sorghum,	<ul style="list-style-type: none"> Lack of knowledge about new agricultural technology Lack of awareness about scientific 	<ul style="list-style-type: none"> Integrated Crop Management (ICM and precision Farming) Organic farming

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
				Gram, Groundnut, Pigeon pea, Okra, Cucurbitaceous vegetables, Animal Husbandry	rearing of Animal Husbandry & poultry <ul style="list-style-type: none"> • 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 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 vegetables, Animal Husbandry	<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 • 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"> • 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 • Off-season cultivation of high valued

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"> 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 Scarcity of water Poor food grain storage practices Lack of awareness about Health & 	<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

Sl. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
					Nutrition <ul style="list-style-type: none"> • 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"> • 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 	<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"> • Viral disease problem in fruits & vegetables • Weed management in black soil is a big problem • 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 	<p>through Entrepreneurial development</p> <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

1. Introduction of improved variety
2. Balanced fertilizers and ecofriendly pest and disease management
3. Ration balancing for dairy animals
4. Health & Nutrition for vulnerable groups among farm women and rural youth
5. Drudgery reduction technology for farm women
6. Women/youth empowerment through Entrepreneurial development

3. TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		No. of farmers		Number of FLDs		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
5	5	52	52	Crop based-80 ha	85	285	286
				Farm Implements-15 SHGs	16 SHGs	150	160
				Mushroom cultivation-1	1	25	25
				Animal Science-6	7	105	135
				Vermicomposting-1	1	10	10

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
Farmers-25	72	630	2491	408	1443	4585	48287
Rural youth- 4	11	95	347				
Extn. Functionaries- 4	8	90	344				
Total	33	91	815	408	1443	4585	48287

Seed Production (Qtl.)		Planting material (Nos.)	
5		6	
Target	Achievement	Target	Achievement
275.70	258.49	As per farmers demand	117609

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
0	0	0	0

3.1. B. Operational areas details during 2018-19

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise/ Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Intervention (OFT, FLD, Training, extension activity etc.)*
1	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 	Dolara, Zankhari, Bardipada, Jamaliya	Intervention is given below
2	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 	Kaher, Kalamkui	
3	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 	Ukhalda, Bedvan-pra-Bhensrot	
4	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 	Uchchal, Mohini	

		<ul style="list-style-type: none"> • 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 		
5	Paddy, Sugarcane, Wheat, Castor, 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 • Viral disease problem in fruits & vegetables • Weed management in black soil is a big problem 	Kelni, Laxmikheda	

* Support with problem-cause and interventions diagram

Interventions: ON FARM TESTING

S.N.	Particulars	Technology Intervention
1	Eco-friendly pest management in okra (Concluded)	Mechanical control of infested shoots at early infection + Use of yellow sticky traps (20 traps/acre) + Installation of pheromone traps (24 traps/acre) with <i>Ervit-lure</i> + Spraying of neem seed kernel extract 5% + Spraying of <i>Bacillus thuringiensis</i> powder @ 1kg/ha
2	Plant geometry in okra (Concluded)	45X30 cms
3	Assessment of pheromone trap technology for mass trapping of <i>Earias vitella</i> Fabricius in Okra (Second Year)	Installation of pheromone traps @ 60 traps/ha
4	Effect of Compound cattle feed on milk production of buffalo (Second Year)	1 bag of 65 Kg CF and 1 kg MM
5	Assessment of chick pea variety (Second Year)	GG 3
6	Assessment of foliar application of different organic inputs on mango (First Year)	Use of organic inputs and Scientific cultural practices
7	Assessment of foliar application of different organic inputs on Okra (New)	Use of organic inputs and Scientific cultural practices

7. Assessment of foliar application of different organic inputs on okra (New)

In Tapi district major cultivated fruit crop is okra. Foliar application of chemical fertilizers increase cost as well as increase incidence of pest but application of organic fertilizer reduces the cost, improve yield and quality as well as pest incidence in okra plant. Assessment of such organic inputs for check best performance in yield and quality characters, OFT is taken.

Reasons of low productivity:

1. Excess and uneven use of chemical fertilizers
2. Lack of awareness about time and methods of fertilizer application

Intervention Point:

1. Foliar application of organic inputs
2. Use of Recommended fertilizer dose
3. Time of nutrient application (every 15 days)

Technology Intervention:

1. Use of organic inputs
2. Scientific cultural practices

Treatments:

- T₁ Farmers' practices- Use of chemical fertilizers (as soil application)
- T₂ Novel organic liquid nutrient 1%
- T₃ Novel organic liquid nutrient plus 1%
- T₄ Waste decomposer 40 %

Plot size: - 0.10 ha

No. of farmers: - 10

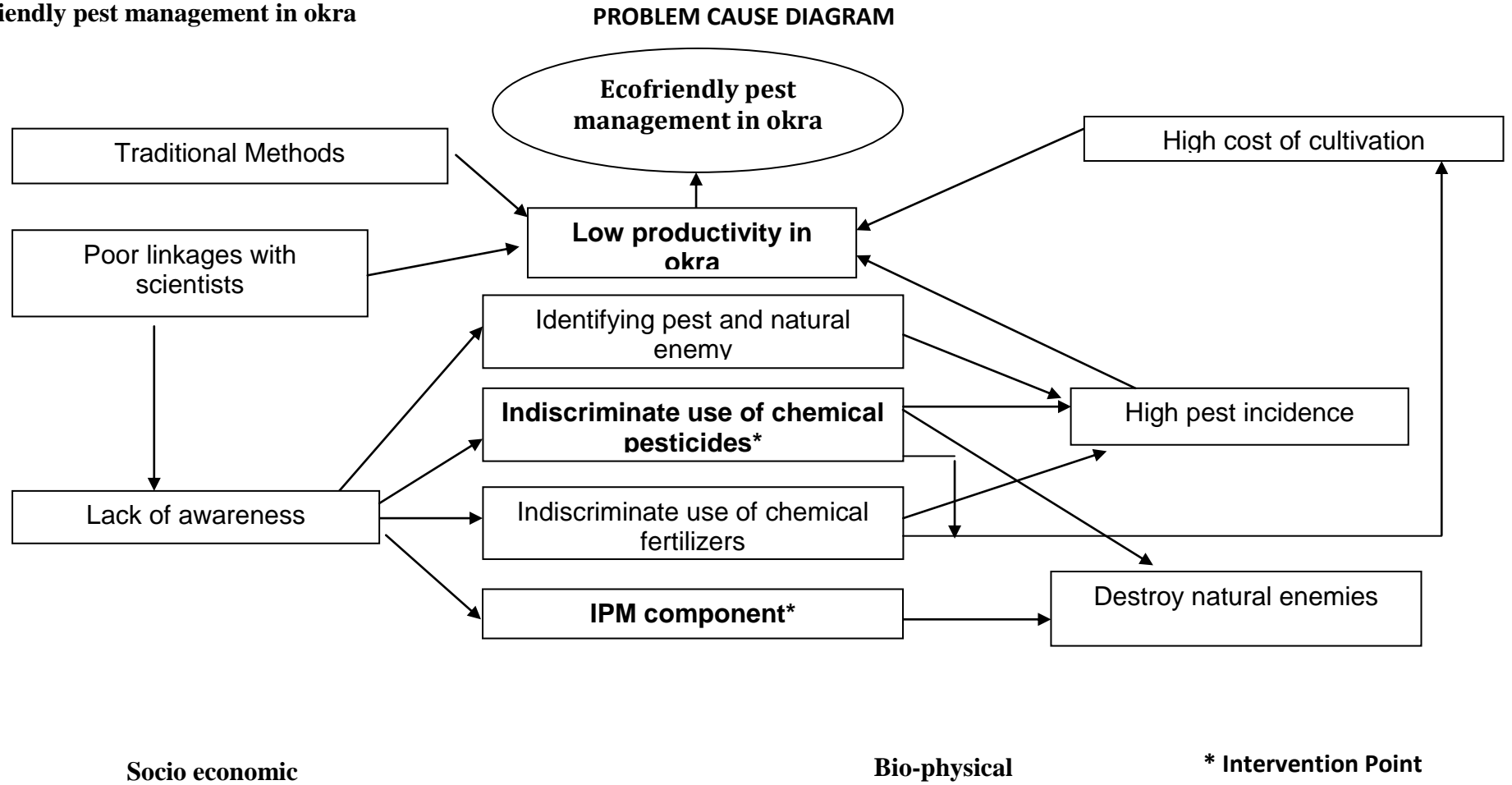
Critical input to be supplied: Organic inputs

Observations to be recorded:

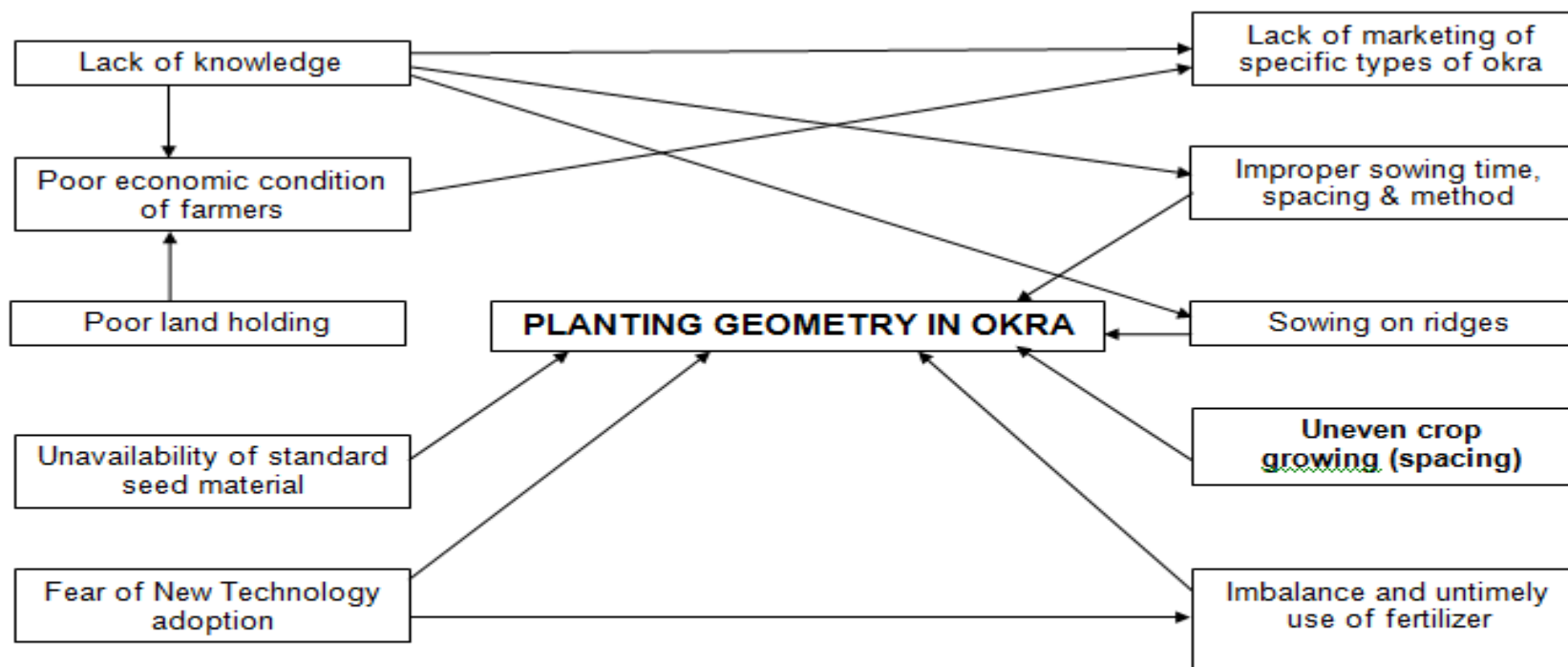
1. Date of 1st flower initiation
2. No. of branches/plant
3. No. of picking/plant
4. Yield per hectare (Quintal)
5. Quality of pods (grade I, II, III)
6. Disease and pest infestation

Interventions: (PROBLEM CAUSE DIAGRAM)

1. Eco-friendly pest management in okra

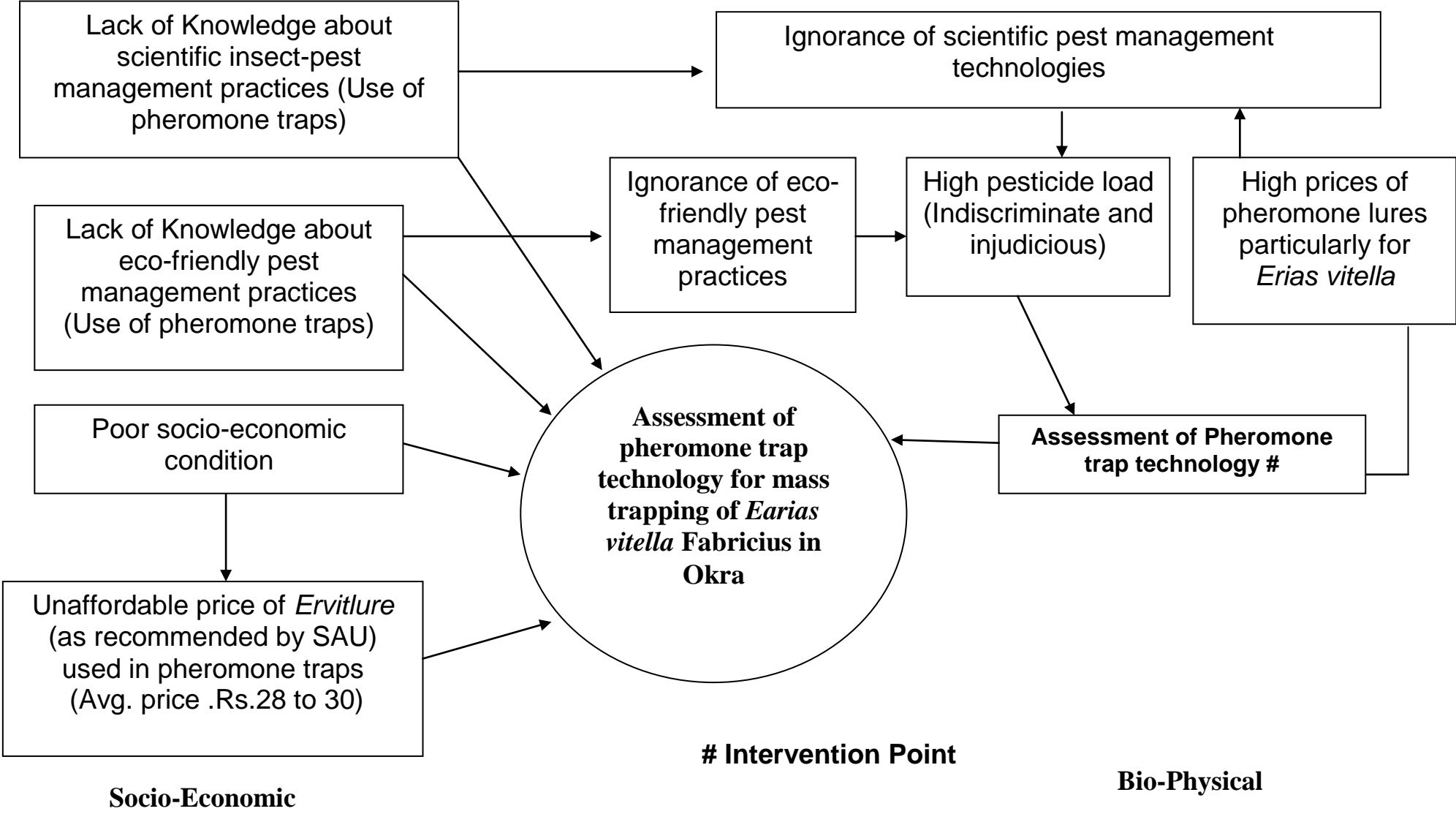


2. Plant geometry in okra



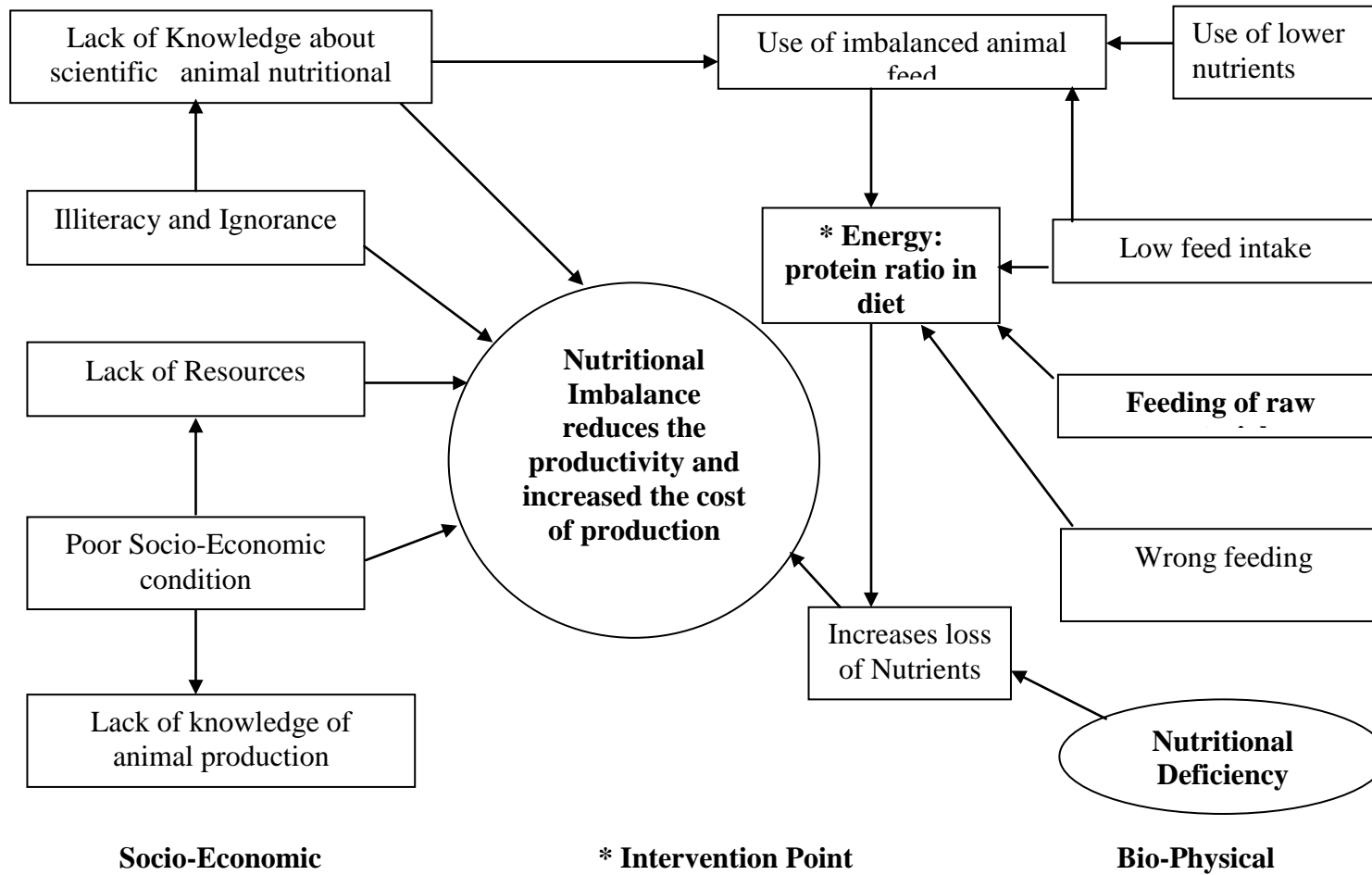
PROBLEM CAUSE DIAGRAM

3. Assessment of pheromone trap technology for mass trapping of *Earias vitella* Fabricius in Okra
Problem Cause Diagram

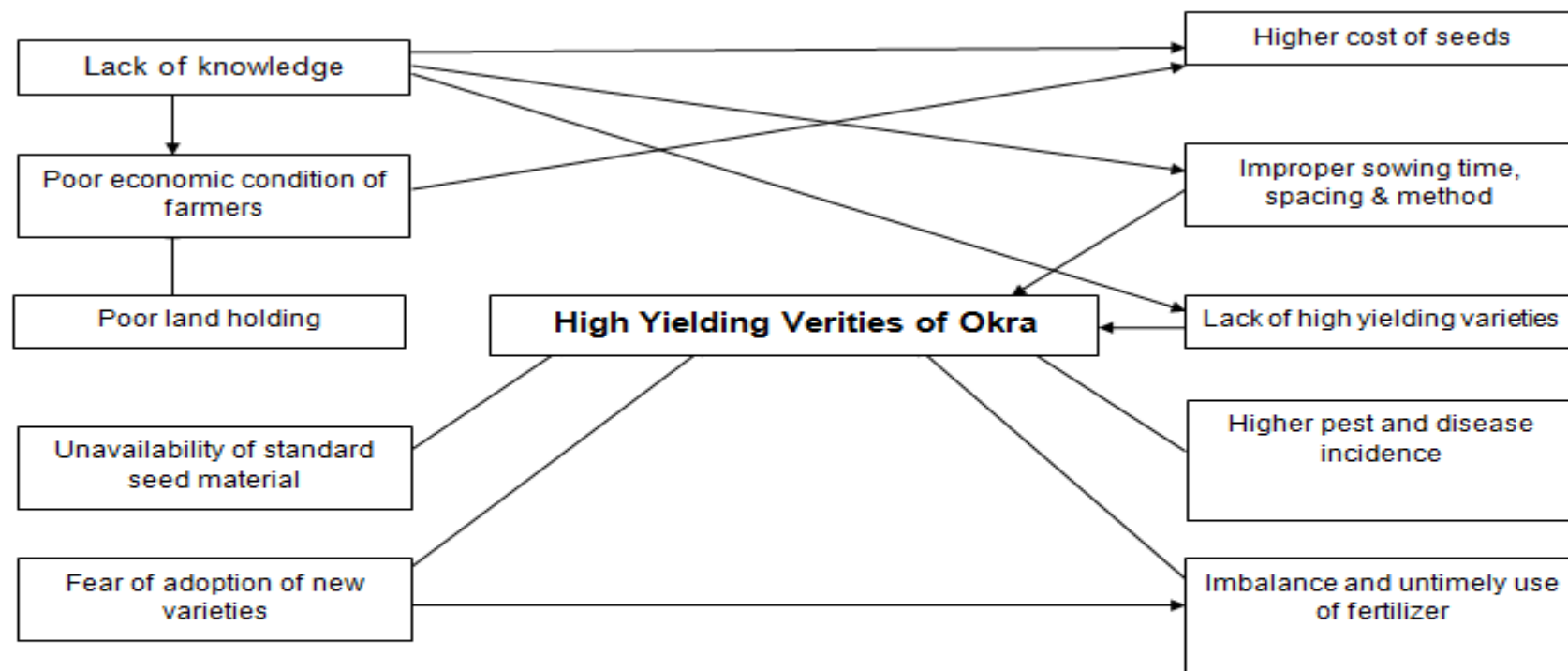


4. Effect of Compound cattle feed on milk production of buffalo

PROBLEM CAUSE DIAGRAM

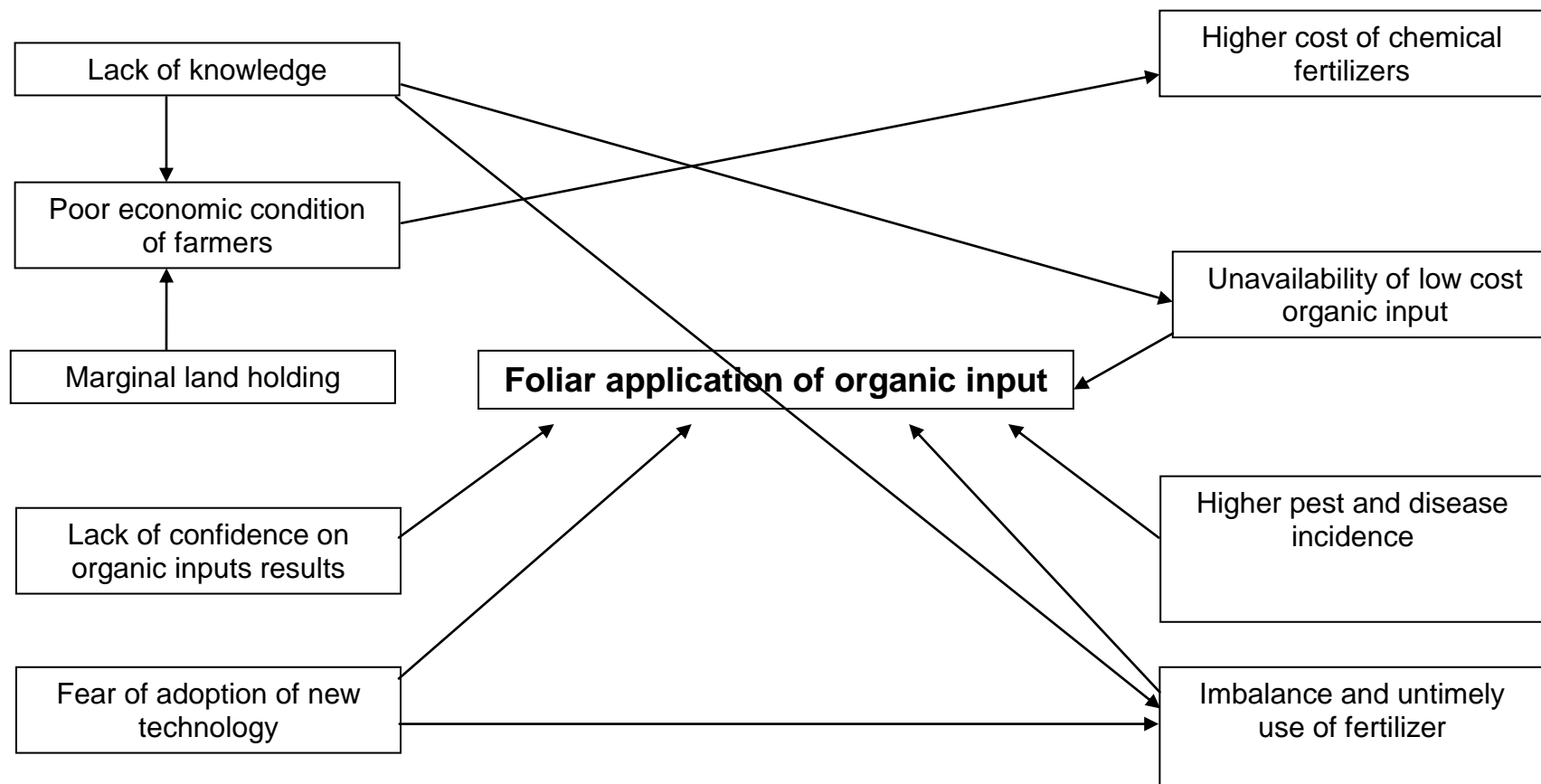


5. Assessment of chick pea variety (Second Year)



PROBLEM CAUSE DIAGRAM

6. Assessment of foliar application of different organic inputs on okra (First Year)



PROBLEM CAUSE DIAGRAM

***Interventions to be undertaken**

Sl. No	Crop/ Enterprise	Identified Problem	Interventions				Extension activities
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	
1	Paddy, Pigeon pea, Sugarcane, Indian bean	Very less production in existing variety and lack of awareness in farmers, Unaware about scientific cultivation of different crops	Assessment of chickpea, Assessment of foliar application of different organic inputs on okra,	New Varieties of Paddy, pigeon pea & sugarcane Indian bean,	Scientific cultivation of cereals, pulses, Vegetable crops,	Scientific cultivation of Okra, tomato, Indian bean, brinjal	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, <i>etc.</i>
2	Paddy, Little gourd	High dose of chemical fertilizers, no use of bio-fertilizers	--	INM in paddy, Effect of Novel organic Liquid Fertilizer in little gourd	Integrated Nutrients management in major crops (Paddy, little gourd)	--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, <i>etc.</i>
3	Mango	Low cost inputs for Organic farming	Foliar application of different organic inputs on mango	Effect of novel organic liquid nutrient in mango and little gourd	Preparation and use of different organic inputs and vermin-compost, Use of bio fertilizer	Preparation of different organic inputs, Scientific cultivation of different crops	Field visit, Field Day, diagnostic visit, fld visit, Khedut shibirs, News paper coverage, Film show, Exhibitions, <i>etc.</i>
4	Nursery management	Lack of availability of quality planting material	-	-	Nursery management	-	Method demo. and vocational training
5	Ber, custard apple, Jamun, dragon fruit, aloe vera	Undulating and uneven soil, scarcity of water	-	-	Cultivation of fruit crops	-	Khedut shibir, group meeting, Field visits, Method demo., Film show, <i>etc.</i>
6	Horticultural crops	Lack of awareness about water management as well as post harvest management	-	-	Micro-irrigation system, grading and standardization, protected cultivation	-	Khedut shibir, group meeting, Field visits, Method demo., Film show, <i>etc.</i>
7	Okra, cluster bean, cucurbits, cowpea <i>etc.</i>	Less income in on-season	-	-	Off season vegetable cultivation	-	Group meeting, Field visit, diagnostic visit, <i>etc.</i>

Sl. No	Crop/ Enterprise	Identified Problem	Interventions				Extension activities
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	
8	Paddy, Cotton, Brinjal, Pigeonpea, Ridge goard, okra, gram	Injudicious use of pesticides,	Assessment of pheromone trap technology for mass trapping of <i>Earias vitella</i> Fabricius in Okra	IPM & IDM in paddy, cotton, Brinjal, Pigeonpea, Ridge goard, okra, gram	Integrated Pest and Disease Management in Kharif crops (Paddy, Cotton, Pigeon pea), Integrated Pest and Disease management in Vegetables and fruits(Brinjal, Okra, Cucurbits, Mango), IPDM in <i>rabi</i> crops (Okra, Gram, Sugarcane) Ecofriendly use of Agrochemicals in Agriculture, Role of bio-agents and bio-pesticides in IPDM		Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions,Method Demonstration <i>etc.</i>
9	Mushroom Cultivation		--	Mushroom Cultivation	Mushroom Cultivation	--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions,Method Demonstration <i>etc</i>
10	Vegetables, Pulses, Fruits	No use of improved farm implements for women drudgery reduction, Lack of awareness regarding nutritional kitchen garden	--	Use of Twin Wheel Hoe weeder, paddy thresher and winnowing fan to reduce women drudgery, Kitchen gardening	Drudgery reduction technologies for farm women, Organic Kitchen gardening, Value addition in fruits and vegetables	--	Field visit, FLD visit, Field Day, Film show, FLD meeting, Farm women meeting, Publication, Agri.Exhibitions, Method demonstration, <i>etc.</i>
11	Farm women , rural youth (female) and children	Malnutrition, iron deficiency Anemia, Sickle cell Anemia, poor economic status	--	Kitchen gardening	Health & nutrition for vulnerable groups, Nutritional deficiencies & its control measures, Nutritional garden, Fruits & vege. preservation, Eco-	--	Mahila shibir, Field visit, FLD visit, Field Day, Film show, FLD meeting, Farm women meeting, Ex-trainee meeting, Publication, Agri.Exhibitions, Method demonstration , Newspaper coverage, Swachchhata Abhiyan, Celebration of days reg. farm women , Guest lecture <i>etc.</i>

Sl. No	Crop/ Enterprise	Identified Problem	Interventions				Extension activities
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of training for extension personnel if any	
					friendly bag making		
12	Vermicomposting	No use of vermicompost	--	Vermicomposting	--	--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, Method Demonstration <i>etc.</i>
13	Goat	Infestation of parasites	--	Narrow-spectrum Anthelmintic for Fluke in goat	Management practices for higher milk production in dairy animals, Backyard Poultry and goatery, Management of infectious diseases in dairy animals, Feeds and fodder management in dairy animals	--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, Method Demonstration <i>etc.</i>
14	Buffalo	For ration balancing in cattle, repeat breeding due to mineral deficiency,	Effect of Compound cattle feed on milk production of buffalo	Infertility management in surati buffalo, Probiotic supplementation in dairy animals, Correction of negative energy balance in buffaloes		--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, Method Demonstration <i>etc.</i>
15	Cattle	Mastitis due to bacterial infection, lower digestibility of feed & fodder		Saaf kit for prevention of mastitis in milking animals		--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, Method Demonstration <i>etc.</i>
16	Backyard Poultry	Lower egg production	--	Scientific feeding by layer mash	Backyard Poultry Management	--	Field visit, Field Day, diagnostic visit, FLD visit, Khedut shibirs, News paper coverage, Exhibitions, Method Demonstration <i>etc.</i>

3.2. Technology Assessment and Refinement

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management	-	-	-	-	1	-	-	1	-	2
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	1	-	-	-	-	1
Integrated Crop Management	-	-	1	-	1	-	-	-	-	2
Integrated Disease Management	-	-	-	-	-	-	-	-	-	-
Small Scale Income Generation Enterprises	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Resource Conservation Technology	-	-	-	-	-	-	-	-	-	-
Farm Machineries	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Value addition	-	-	-	-	-	-	-	-	-	-
Drudgery Reduction										
Storage Technique	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Total	-	-	1	-	3	-	-	1	-	5

A2. Abstract on the number of technologies assessed in respect of livestock enterprises

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-
Nutrition Management	1	-	-	-	-	1
Disease of Management	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-
Small Scale income generating	-	-	-	-	-	-

enterprises						
TOTAL	1	-	-	-	-	1

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management	Mango	Use of organic inputs and Scientific cultural practices	10	10	0.20
	--	--	--	--	--
Varietal Evaluation	--	--	--	--	--
	--	--	--	--	--
Integrated Pest Management	Okra	Phronone Trap	10	10	0.10
	--	--	--	--	--
Integrated Crop Management	Gram	GG-3	6	6	0.25
	Okra	45 X 30 cms	6	6	0.25
Integrated Disease Management	--	--	--	--	--
	--	--	--	--	--
Small Scale Income Generation Enterprises	--	--	--	--	--
	--	--	--	--	--
Weed Management	--	--	--	--	--
	--	--	--	--	--
Resource Conservation Technology	--	--	--	--	--
	--	--	--	--	--
Farm Machineries	--	--	--	--	--
	--	--	--	--	--
Integrated Farming System	--	--	--	--	--
	--	--	--	--	--

Seed / Plant production	--	--	--	--	--
	--	--	--	--	--
Value addition	--	--	--	--	--
	--	--	--	--	--
Drudgery Reduction	--	--	--	--	--
	--	--	--	--	--
Storage Technique	--	--	--	--	--
	--	--	--	--	--
Mushroom cultivation	--	--	--	--	--
	--	--	--	--	--
Total	-	-	32	32	0.80

B.2. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds	--	--	--	--
Nutrition management	Buffalo	Compound cattle feed and Mineral Mixture	20	20
Disease management	--	--	--	--
Value addition	--	--	--	--
Production and management	--	--	--	--
Feed and fodder	--	--	--	--
Small scale income generating enterprises	--	--	--	--
		Total	20	20

C1.Results of Technologies Assessed

Crop/enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	*Data on the parameter	Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8	9	10	11	12
Okra	Irrigated	Improper sowing method and closer spacing	Plant geometry in okra	6	Sowing method and Spacing in Okra	i. 30X5 ii. 45X30	Plant height, no. of branches, no. of leaves and yield attributing characters	9738 kg/ha	In spacing 45x230 cm gave higher yield and quality pod production	More spacing reduce between Row to row and plant to plant spacing for more yield and quality in winter season	In Tapi district okra grown in winter season due to that less growth, in that situation if reduce spacing in plant to plant will increase yield and quality of okra pod

OFT result:

Yield and yield attributing characters

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha)	Net Return (Profit) in Rs. /ha	BC Ratio
13	14	15	16	17	18
Technology option 1 (Farmer's practice) 30x5-10 cm	Farmers	9738	kg/ha	141470	1.67
Technology option 2 (Recommended 45x30 cm)	Navsari Agricultural University, Navsari	11747	kg/ha	186363	2.14

Growth parameters

Treatments		Plant height (cm)		No. of leaves		No. of branches	
		30 DAP	60 DAP	30 DAP	60 DAP	30 DAP	60 DAP
T1	30x5	15.04	23	3.95	6.47	2.56	3.58
T2	45x30	14.45	36.44	6.03	7.17	2.88	5.14

*Data on the parameter

C2. Details of On Farm Trial for assessment

1.	Title of Technology Assessed	:	Plant geometry in Okra (Conclude)
2.	Problem diagnose/defined	:	Improper sowing method and closer spacing
3.	Details of technologies selected for assessment	:	i. 30X5 ii. 45X30
4.	Source of technology	:	Navsari Agricultural University, Navsari
5.	Production system thematic area	:	Sowing method and Spacing in Okra
6.	Performance of the Technology with performance indicators	:	Results showed that under 45X30 cm spacing recorded maximum plant height, no. of leaves and no. of branches (30&60 DAP) as well as highest No. of picking 35, yield (11747 kg/ha), B:C ratio (2.14), compared to spacing 30X5 cm no. of picking 30 , yield (9738 kg/ha) and B:C ratio (1.67)
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques	:	Higher income due to increase number of branches, no. of pods, yield and quality of pods as well as reduce cost of pesticides.
8.	Final recommendation for micro level situation	:	In 45X30 cm spacing recorded highest yield of okra in <i>Rabi</i> season and black soils of Tapi district
9.	Constraints identified and feedback for research	:	Due to lack of technical know- how, farmers are not adopting this technology in <i>Rabi</i> season.
10.	Process of farmers participation and their reaction	:	During this trial, six farmers were randomly selected for OFT with two different spacing (45x30 and 30x5 cm) options. Visits were made every fifteen day and the fields were monitored. The data collected included vegetative growth and yield parameters. It was found that the spacing option with 45x30 cm yielded higher return. Some of the farmers have started to adopt proper spacing..

C1.Results of Technologies Assessed

Crop/ enterprise	Farmin g situatio n	Problem Diagnosed	No. of trials	Techn ology Assess ed	Data on insect- pest parameter		Producti on (q/ha)	Cost of Cultivatio n (Rs./ha)	Gross return (Rs./ha)	Net Return (Profit) (Rs./ha)	BC Ratio	Feedback from the farmer
					% damage d shoots	% damag ed fruits						
Okra (Rabi 16- 17)	Irrigated	Injudicious use of health hazardous agro chemicals	5	T1	12.6	13.4	112.4	107500	337200	229700	3.13	Pheromone trap technology is an ecofriendly pest management component and effectively manage the shoot & fruit borer
				T2	8.5	09.8	116.4	104800	349200	244400	3.33	

* No. of farmers

Technology Assessed	Production per unit (q/ha)	Cost of Cultivation (Rs./ha)	Gross production (Rs./ha)	Net Return (Profit) (Rs./ha)	BC Ratio
T1 – Farmers practices as injudicious and indiscriminate use of chemical pesticides	112.4	107500	337200	229700	3.13
T2- Installation of pheromone traps @ 60 traps/ha	116.4	104800	349200	244400	3.33

Conclusion: T-2 showed highest production of okra (116.4 q/ha) with higher net return (Rs. 244400.00) and highest BC ratio (1:3.33) as compared to T-1. From the results it is concluded that, T-2 found to be best technology for effectively management of shoot & fruit borer in okra.

C 2 Details of On Farm Trial for assessment

1. **Title** : Assessment of pheromone trap technology for mass trapping of *Earias vitella* Fabricius in Okra
2. **Problem diagnose/defined** : Injudicious use of health hazardous agro chemicals
3. **Details of technologies selected for assessment /refinement** : T1– Farmers practices as injudicious and indiscriminate use of chemical pesticides
.T2- Installation of pheromone traps @ 60 traps/ha
4. **Season** : *Rabi* – 2018-19
5. **Source of technology** : Anand Agril. University, Anand
6. **Production system thematic area** : --
7. **Thematic area** : IPM
8. **Performance of the Technology with performance indicators** : Technology gave higher BC ratio (3.33)
9. **Final recommendation for micro level situation** : Use of pheromone trap is an ecofriendly pest management technology in okra
10. **Constraints identified and feedback for research** : --
11. **Process of farmers participation and their reaction** : Appreciate the technology and ready to adopt

C1. Results of Technologies Assessed (Second Year)

Enterprise	Farming Situations	Problem definition	Title of OFT	No. of Trials	Technology Assessed	Parameters of Assessment	Data on Parameters		Results of Assessment	Feedback from the farmers	Any Refinement needed	Justification for refinement
							Milk Production	Daily Cost of feeding				
1	2	3	4	5	6	7	8		9	10	11	12
Livestock	Imbalanced feeding	Imbalanced feeding leads to increased cost of feeding with Lower Productivity	Effect of Compound cattle feed on milk production of buffalo	20 Farmers	T1	Milk production and Dairy feeding cost	5.6	134.87	T-2 Found Better results with Lower cost of feeding	Decreased the cost of feeding with increased the production	--	--
					T2		5.9	124.45				

Cont...

Technology assessed	Source of Technology	Production	Unit	Net Return (Profit) in Rs. Per day	BCR ratio
13	14	15	16	17	18
T1 – It will consist of six animals and fed with farmer's practice (raw materials like cotton seed cake, guar bhardo and maize cake etc.)	Farmers Practices	5.6	Daily Milk production In liters	88.28	1.65
T2- It will consist of six animals and will be fed with concentrate (Sumul Dan) and mineral mixture as per recommendations on basis of milk production for ninety days.	ICAR & NDDB	5.9		110.30	1.89

Farmers Feedback:

- Milk production is increased with production of Cattle feed
- Milk production cost reduce and saved money

C2. Details of On Farm Trial for assessment

1	Title of Technology Assessed	Effect of Compound cattle feed on milk production of buffalo
2	Problem Definition	Nutritional Imbalance reduces the productivity and increased the cost of production
3	Details of technologies selected for assessment	T1 –Six animals and fed with farmer’s practice (raw materials like cotton seed cake, guar bhardo and maize cake etc.) T2- Six animals and will be fed with concentrate (Sumul Dan) and mineral mixture as per recommendations on basis of milk production for ninety days.
4	Source of technology	ICAR & NDDB
5	Production system and thematic area	Nutritional Management
6	Performance of the Technology with performance indicators	Milk production and Dairy feeding cost
7	Feedback, matrix scoring of various technology parameters done through farmer’s participation / other scoring techniques	This type of trial will help to promote compound cattle feed and ration balancing
8	Final recommendation for micro level situation	Balanced compound cattle feed increased nutritional balanced
9	Constraints identified and feedback for research	-NIL- and feedback for research is increased cost of feeding
10	Process of farmers participation and their reaction	Appreciate the technology and ready to adopt

3.3 FRONT LINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2018-19 and recommended for large scale adoption in the district

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	Paddy-GNR-6	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir,Farmers scientist interaction, News paper coverage	23	110	45
2	Paddy-GAR-13	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	61	335	165
3	Paddy-NAUR-1	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	45	206	91
4	Paddy-GNRH-2	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	35	150	65
5	Paddy-Purna	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	59	310	185
6	Pigeonpea	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	53	208	109
7	Sugarcane	ICM	Improved variety	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	15	55	20
8	Mango cv. Kesar	INM	Effect of Novel organic Liquid nutrient in mango	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction,News paper coverage	25	85	30
9	Brinjal cv. Gulabi Palitana	INM	Effect of Novel organic Liquid nutrient and bio fertilizers in Brinjal	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction, News paper coverage	55	160	33
10	Okra- Samrat	INM	Effect of Novel organic Liquid nutrient	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction, News paper coverage	70	540	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
			and bio fertilizers in okra				
11	Watermelon Cv. Patanegra	INM	Effect of Novel organic Liquid nutrient and bio fertilizers in watermelon	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction, News paper coverage	10	22	15
12	Indianbean cv. GNIB-21	ICM	New and high yielding variety of Indianbean	FLDs Training, Field visit,Field day,Khedutshibir, Farmers scientist interaction, News paper coverage	21	72	10
13	Tomato cv. Arka Rakshak	ICM	New and high yielding variety of Tomato	FLDs Training, Field visit,Field day, Khedutshibir,Farmers scientist interaction, News paper coverage	5	20	3
14	Plug nursery of vegetables	ICM	Plug nursery for vegetable seedlings	Front line demonstration, success story, popular article and field days as well as exposure vist	15	30	10
15	Okra cv. Samrat	ICM	Plant geometry in okra	FLDs Training, Field visit,Field day,Khedutshibir,Farmers scientist interaction, News paper coverage	33	570	145
16	Paddy	IPM	Pheromone Trap, Scirpolure, Ethion, <i>Becillus thuriengensis</i> , Monocrotophos, Mancozeb	Training, FLDs,FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Scientist visit to farmers field, Plant health clinic, telephonic helpline etc	58	180	78
17	Cotton	IPM	Pheromone traps, Pectinolire, Trichoderma, <i>Becillus Thuriengensis</i> ,Mencozeb 75% WP, Spinosad	Training, FLDs,FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Scientist visit to farmers field, Plant health clinic, telephonic helpline etc	34	130	58
18	Brinjal	IPM	Pheromone traps, Yellow sticky traps, <i>Metarhizium</i>	Training, FLDs,FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Scientist visit to farmers field, Plant health clinic, telephonic	25	135	48

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
			<i>anisoplea</i> , <i>Lecanicillium lacani</i> , <i>Trichoderma</i>	helpline etc			
19	Okra	IPM	Pheromone traps, Yellow sticky traps, <i>Metarhizium</i> <i>anisoplea</i> , <i>Lecanicillium lacani</i> , <i>Trichoderma</i>	Training, FLDs,FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Scientist visit to farmers field, Plant health clinic, telephonic helpline etc	30	185	78
20	Cucurbits	IPM	Fruit fly (Cue lure) trap	Training, FLDs,FLD visit, Field Visit, Diagnostic visit, Method Demonstration, Scientist visit to farmers field, Plant health clinic, telephonic helpline etc	25	110	32

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

B. Details of FLDs implemented during 2018-19 (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	Paddy-GNR-6	ICM	Improved Variety	<i>Kharif-2018</i>	15	15	25	-	25	
2	Paddy-GAR-13	ICM	Improved Variety	<i>Kharif-2018</i>	10	10	25	-	25	
3	Paddy-NAUR-1	ICM	Improved Variety	<i>Kharif-2018</i>	5	5	15	-	15	
4	Paddy-GNRH-2	ICM	Improved Variety	<i>Kharif-2018</i>	15	15	60	-	60	
5	Paddy-Purna	ICM	Improved Variety	<i>Kharif-2018</i>	1.5	1.5	6	-	6	
6	Paddy -Hybrid (6444,312,Kabir)	IPDM	Pheromone traps, Scirpolure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	<i>Kharif-2018</i>	4	4	10	-	10	
	Pulses									
7	Pigeonpea-Vaishali	ICM	Improved Variety	<i>Kharif-2018</i>	5	5	15	-	15	
8	Pigeonpea	IPM	Pheromone traps, Helilure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i>	<i>Kharif-2018</i>	4	4	10		10	
9	Chickpea	IDM	<i>Trichoderma</i>	<i>Rabi 2018</i>	4	4	10		10	
	Vegetable crops									
10	Indian bean cv. GNIB-21	ICM	New and high yielding variety	<i>Late – Kharif-2018</i>	2.0	2.0	37	0	37	
11	Mango cv. Kesar	INM	Effect of Novel organic Liquid	<i>Rabi-2019</i>	2.0	2.0	09	01	10	

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	
			Fertilizer in mango							
12	Little gourd cv. GNLG-1	INM	Effect of Novel organic Liquid Fertilizer in little gourd	<i>Rabi-2019</i>	2.0	2.0	10	0	10	
13	Brinjal (Hybrid 143)	IPDM	Pheromone traps, Leucinlure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	<i>Kharif-2018</i>	4	4	10	-	10	
14	Ridgegourd	IPDM	Pheromone traps, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	<i>Kharif-2018</i>	2	2	10	-	10	
15	Okra- Hybrid	IPM	Pheromone Trap, Ervilture, yellow sticky traps, <i>Trichoderma</i> , emamectin benzoate, neem oil	<i>Rabi-2018</i>	4	4	16	-	16	
	Sugarcane									
16	Sugarcane-CON-13073	ICM	Improved Variety	Rabi-2017	1.5	1.5	7	-	7	
	Cotton									
17	Cotton	IPDM	Pheromone traps,	<i>Kharif-2018</i>	4	4	10	-	10	

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	
			<i>Pectinolure, Beauveria bassiana, Metarhizium anisopla, Lecanicillium lacani, Pseudomonas</i>							

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					
Paddy-GNR-6	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	15 th June to 15 th July,2017	15 th Sept. to 10 th Oct.,2017		
Paddy-GAR-13	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	15 th June to 15 th July,2017	15 th Sept. to 10 th Oct.,2017		
Paddy-NAUR-1	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	15 th June to 15 th July,2017	15 th Sept. to 10 th Oct.,2017		
Paddy-GNRH-2	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	15 th June to 15 th July,2017	15 th Sept. to 10 th Oct.,2017		
Paddy-Purna	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	15 th June to 15 th July,2017	15 th Sept. to 10 th Oct.,2017		
Pigeonpea-Vaishali	Kharif-2018	Irrigated	Medium Black	L	M	H	Fallow	1 st July to 20 th July,2017	5 th Dec. to 25 th Jan.,2018		
Sugarcane-CON-13073	Rabi-2017	Irrigated	Medium Black	L	M	H	Paddy	15 th Oct. to 15 th Nov.,2017	15 th Jan. to 15 th Feb.,2018		
Indian bean cv. GNIB-21	<i>Late – Kharif-2018</i>	Irrigated	Medium black	L	M	H	Paddy	October-2018	Continue		
Mango cv. Kesar	<i>Rabi-2019</i>	Irrigated	Medium black	L	M	H	--	8-12 year old	Continue		
Little gourd cv. GNLG-1	<i>Rabi-2019</i>	Irrigated	Medium black	L	M	H	Paddy	March-2018	Continue		
Paddy - Hybrid (6444,312,Ka bir)	<i>Kharif-2018</i>	Irrigated	Medium black	L	M	H	Fallow	15 th June to 15 th July, 2018	15 th Sept. to 10 th Oct.,2018		
Pigeonpea (Vaishali)	<i>Kharif-2018</i>	Rainfed	Medium Black	L	M	H	Fallow	15 th July to 30 th July, 2018	1 st Jan. to 30 th Jan., 2019		
Gram (GJG-3)	<i>Rabi-2018</i>	Rainfed	Medium Black	L	M	H	Paddy	15 th Oct. to 15 th Nov., 2018	15 th Feb. to 15 th Mar.,2019		
Brinjal-	<i>Kharif-2018</i>	Irrigated	Light shallow	L	M	H	Fallow	15 th June to	15 th Sept. 20 th		

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					
(Hybrid-143)			& Medium black					15 th July, 2018	Oct.,2018		
Ridge gourd-Hybrid (Pallavi-Sangrow)	<i>Kharif-2018</i>	Irrigated	Light to Medium Black Soil	L	M	H	Fallow	15 th June to 10 th July, 2018	5 th August 20 th Oct.,2018		
Okra- Hybrid	<i>Rabi-2018</i>	Irrigated	Medium black	L	M	H	Paddy	1 st Dec. to 15 th Dec.,2018	15 th Jan., to 15 th March, 19		
Cotton-G.Cot.Hy-8 (BG-II)	<i>Kharif-2018</i>	Rainfed	Heavy Black Soil	L	M	H	Fallow	15 th May to 15 st June, 2018	25 th Nov.15 th Dec, 2018		

Technical Feedback on the demonstrated technologies

Sr. No.	Feedback
1	GNRH-2 rice hybrid variety is high yielding new variety.
2	High yielding new variety of Sugarcane CON-13073 gave high return compare to old varieties
3	New variety of Indian Bean GNIB-21 gave higher yield and quality as well as high returns compare to local varieties
4	Awsame result in growth, yield and quality of watermelon, brinjal and okra by the foliar application of novel organic liquid fertilizer and drenching of Biofertilizers (azotobactor, PSB & potash mobilizer)
5	Tomato cv. Arka Rakshak gave higher yield in Tapi district
6	Gall like symptoms found in okra.

Farmers' reactions on specific technologies

Sr. No.	Feedback
1	Soybean: Pods are non shattering in nature clearly indicated the less post harvest losses, Pods are set in bunch type habit resulted higher productivity

2	Paddy: NAUR-1: Early maturity and lodging problems were also observed Purna: Suitable for drilled paddy. Also perform in TP, Less incidence of insect pest was observed. GNRH-2 : Good for dual purpose ie for Chapati and rice
3	Sugarcane variety CON-13073 gave higher yield as well as higher return compare to old varieties of sugarcane
4	Application of Novel Organic Liquid Nutrient and drenching of Biofertilizers (azotobactor, PSB & potash mobilizer) in watermelon reduce nutritional deficiency as well as disease & pest attack
5	GNIB-21 variety of Indian bean gave higher number of tillering (10-12) and no. of pods per tiller (15-18)
6	Foliar application of Novel Organic Liquid Nutrient reduce flower drop and increase yield in chilli, brinjal, okra and creeper vegetables
7	Lack of availability of quality seeds of high yielding varieties of watermelon, muskmelon, brinjal, chilli, okra and cucurbitaceous crops
8	Indian bean Cv. GNIB-21 gave good result in terms of yield and quality as well as price compare to KATARGAM papadi variety.
9	Novel organic liquid fertilizer application two time at flowering and fruit setting stage gave high fruit setting and yield in Mango.
10	Severe infection of viral disease in cucurbits
11	Pheromone trap technology in brinjal gave good results
12	'NAUROJI' Fruitfly traps produced by NAU, Navsari performed best at farmers field
13	Severe resurgence of whitefly in vegetables and pulse crops

Extension and Training activities under FLD

Sl. No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	30	6/4/2018, 9/4/2018, 22/5/2018, 23/5/2018, 23/5/2018, 29/5/2018, 30/5/2018, 1/10/2018, 3/10/2018, 5/10/2018, 3/10/18, 3/10/18, 5/10/18, 5/10/18, 6/10/18, 9/10/18, 9/10/18, 9/10/18, 9/10/18, 16/10/18, 20/10/18, 4/12/2018, 4/1/2019, 8/1/2019, 17/1/2019, 13/2/2019, 13/2/2019, 19/2/2019, 19/2/2019, 7/3/2019	1735	-
2	Farmers Training	22	15-16/5/18, 21-24/5/18, 4/6/18, 13/6/18, 22/6/18, 25/6/18, 4/8/18, 9/8/18, 21/8/18, 7/9/18, 16/10/18, 19/10/18, 22/10/18, 26/10/18, 2/11/18, 2/11/18, 26-27/11/18, 29/11/18, 5/1/19, 7/1/19, 16/1/19, 25/3/19	845	-
3	Media coverage	7	16/4/18, 11/6/18, 24/9/18, 26/9/18, 8/10/18, 9/10/18, 13/10/18	--	-

4	Training for extension functionaries	8	21-22/6/18, 25/7/18, 26/7/18, 10/8/18, 14-15/12/18, 8/1/19, 18-19/1/19, 5-6/2/19	344	-
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C. Performance of Frontline demonstrations

Frontline Demonstrations on Oilseed crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
						High	Low	Average										
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Front Line demonstration on pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
						High	Low	Average										
Pigeonpea-	ICM	Improved Variety	Vaishali	15	5	8.0	5.0	6.5	4.5	44.44	12500	36888	24388	2.95	12500	25538	13038	2.04
Pigeonpea	IPM	Pheromone traps, Helilure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i>	Vaishali	10	4	6.6	5.2	6.2	5.5	12.72	17000	28250	11520	1.66	16500	25300	8800	1.53
Gram	IPDM	Pheromone traps, Helilure, <i>Metarhizium anisoplaea</i> , Trichoderma	GG-3	10	4	17.5	13.8	15.5	13.4	15.67	20400	62000	41600	3.03	19000	53600	34600	2.82

FLD on Other crops

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												
Cereals																			
Coarse Rice																			
Paddy-GNR-6	ICM	Improved Variety	25	15	35	23	28	21	33.33			32500	65520	33020	2.02	32500	44100	11600	1.36
Paddy-GAR-13	ICM	Improved Variety	25	10	42	29	35	26	34.61			32500	81900	49400	2.52	32500	54600	22100	1.68
Paddy-NAUR-1	ICM	Improved Variety	15	5	35	26	30.3	24	26.25			32500	72150	39650	2.22	32500	50400	17900	1.55
Paddy-GNRH-2	ICM	Improved Variety	60	15	38	24	27	23	17.39			32500	63180	30680	1.94	32500	53820	21320	1.66
Paddy-Purna	ICM	Improved Variety	6	1.5	24	17	21.2	15	41.33			22500	49608	27108	2.2	20500	31500	11000	1.53
Paddy	IPDM	Pheromone traps, Scirpolure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	10	4	46.5	35.5	39.6	34.5	14.78	-	-	33500	56245	24045	1.68	31500	48300	16800	1.53
Millets																			
-																			
Horticulture																			
Vegetables																			
Indian bean cv. GNIB-21	ICM	New and high yielding variety	37	2															
Mango cv. Kesar	INM	Effect of Novel organic Liquid Fertilizer in mango	10	2	-----Continue-----														
Little gourd cv. GNLG-1	INM	Effect of Novel organic Liquid Fertilizer in little gourd	10	2	-----Continue-----														
Brinjal	IPDM	Pheromone traps, Leucinlure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	10	4	220.6	196.4	209.2	182.5	14.63	-	-	80700	261537	180837	3.24	85200	228125	142925	2.68

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												
Ridgegourd	IPDM	Pheromone traps, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	10	2	391	323	351	310	13.22	-	-	91250	526500	435250	5.77	96500	465000	368500	4.82
Okra	IPDM	Pheromone Trap, Ervilture, yellow sticky traps, <i>Trichoderma</i> , emamectin benzoate, neem oil	16	4	140.4	118.5	132.5	106.5	24.41	-	-	105000	397500	316200	3.78	108000	319500	211500	2.95
Commercial crops																			
Sugarcane-CoN-13073	ICM	Improved Variety	7	1.5	95	65	81	63	28.57	-	-	57500	194400	136900	3.38	57500	151200	93700	2.62
Cotton	IPDM	Pheromone traps, Pectinolure, <i>Beauveria bassiana</i> , <i>Metarhizium anisoplaea</i> , <i>Lecanicillium lacani</i> , <i>Pseudomonas</i>	10	4	15.4	10.5	13.4	11.8	13.55	-	-	27150	73755	46605	2.72	30500	64900	33400	2.13

FLD on Livestock

Category	Thematic area	Name of the technology demonstrated	No. of animals	No. of Units (Animal / Poultry/ Birds, etc)	Major parameters (Kg Body weight gain)		% change in major parameter	Other parameter		Economics of demonstration (Rs.)				Economics of check (Rs.)					
					Demon	Check		Demon	Check	Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR		
															
Cattle																			
Prevention of mastitis in HF cow	Diseases Management	Saaf Kit	15	1 saaf kit	10	7	100	--	--	80.35	300	219.65	3.73	71	150	79	2.11		

Prevention of mastitis in HF cow	Diseases Management	Saaf Kit	30	1 saaf kit	--Results Awaited--													
Buffalo																		
Buffalo	Fertility management	Tico bolus (Clomiphen & minerals) for infertility cure	20	20	151	54	81.06	--	--	4774.12	6118.08	1343.95	1.28	10892.2	7579.00	3313.20	0.70	
Buffalo	Nutrition management	Bypass fat @ 50 gm /day for 60 days (Oral route)	20	20	7.3	8.6	16.79	--	--	80.35	340.35	260.00	4.24	71.35	290.06	218.71	4.07	
Buffalo Calf																		
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dairy																		
Probiotic supplementation in dairy animals	Feeding Management	Probiotic powder	15	1 kg	8.2	7	16.59	--	--	80.35	325.79	245.44	4.05	71.35	278.20	206.85	3.90	
Poultry																		
Poultry Feeding	Feeding Management	Layer mash feed	25	40 Kg Layer mash	--Results Awaited--													
Sheep & Goat																		
Narrow spectrum Anthelmintic drugs - Goat	Disease Management	Narrow spectrum Anthelmintic drugs	10	1 (Bolus)	2.1	0.7	34.05	--	--	16000	25000	9000	1.56	15000	22500	7500	1.5	
Vaccination																		
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Feed back:

Goat

- Incidence of diarrhea had been reduce
- Mortality was also less and get improvement in growth rate

Goat- Farmers Feedback:	Buffalo - Farmers Feedback:
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<ul style="list-style-type: none"> • Reduce mortality and fast growth rate in kids • Early achieved market weight 	<ul style="list-style-type: none"> • Animal was became pregnant within month after treatment • Feed and fodder expenses has been reduce
Dairy Animals Farmers Feedback: <ul style="list-style-type: none"> • Increased fat and SNF as well as milk production • Got more milk sale price at dairy 	Buffalo Farmers Feedback: <ul style="list-style-type: none"> • Milk fat had been increased • Farmers had get the good sale rate at dairy

FLD on Fisheries –Nil–

FLD on Other Enterprises

Category	Name of the technology demonstrated	No. of Farmer	No. of units	Major parameters		% change in major parameter	Other parameter		Economics of demonstration (Rs.) or Rs./unit				Economics of check (Rs.) or Rs./unit				
				Demo	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)	
Oyster Mushroom																	
Oyster Mushroom	Oyster Mushroom cultivation	25	25	10 kg	--	--	--	--	400	2000	1600	5:1	--	--	--	--	
Button Mushroom																	
Apiculture																	
Maize Sheller																	
Value Addition																	
Vermi Compost																	
Vermicompost (Rabi-Summer: 2018-19)	Preparation of Vermicompost with use of vermibed	10	10	-- Continue --													

Sericulture															

FLD on Women Empowerment –Nil--

FLD on Farm Implements and Machinery

Name of the implement	Crop	Technology demonstrated	No. of FW	Season	Major parameters	Field observation (output/man hour)		% change in major parameter	Labor reduction (man days) (man-h/ha)				Cost reduction (Rs./ha/day)	
						Demo	Check		Threshing		Weeding		Labour***	
									Demo	Check	Demo	Check	Demo	Check
Twin wheel hoe weeder* for weeding	Vege./ Pulses	Women drudgery reduction	50	Summer: 2018	-Field observation -Labour requirement -Cost of operation	0.012 ha (0.096ha/day)	0.0084 ha (0.067ha/day)	42.85 %	-	-	83	119	1780	2670
Paddy Thresher**	Paddy	Women drudgery reduction	6 SHGs/ women Groups	Kharif: 2018	-Field observation -Labour requirement -Cost of operation	276 Kg	62.5 Kg	341.6 % (4.41 times more)	-- under progress --					
Twin wheel hoe weeder* for weeding	Vege./ Pulses	Women drudgery reduction	50	Rabi- Summer: 2018-19	-Field observation -Labour requirement -Cost of operation	-- continue --								
Winnowing fan	concerned crops	Women drudgery reduction	10 SHGs/ women Groups	Rabi- Summer: 2018-19	-Field observation -Labour requirement -Cost of operation									

*Twin wheel hoe weeder is recommended by CIAE, Bhopal

**Paddy thresher is recommended by AAU, Anand

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

Farm women's reaction:

1. Twin wheel hoe weeder and Paddy thresher increases working efficiency in short period of time i.e. time saving as compared to local sickle/ traditional method.
2. Twin wheel hoe weeder and Paddy thresher reduces fatigue, muscle stress, wrist pain and pain in shoulders as compared to local sickle/ traditional method.
3. Farm women like Twin wheel hoe weeder because it avoids the bending/squatting posture that is generally adopted in traditional method of weeding.
4. Additional benefit of earthing up with weeding by use of Twin wheel hoe weeder as compared to local sickle.

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

D. Performance of Cluster Frontline Demonstrations (CFLD)

CFLD on Oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut																		
Groundnut (Summer-2018)	ICM	Improved Variety	TG 37 A	75	30	20.6	14.5	18.50	14.00	32.14	38200	97125	58925	2.54	38200	73500	35300	1.92
Groundnut (Kharif-2018)	ICM	Improved Variety	TG 37 A	20	7.14	21.3	13.47	17.28	11.37	34.2	30500	86400	55900	2.83	29500	56850	27350	1.92
Groundnut (Summer 19)	ICM	Improved Variety	TG 37 A	50	20	--Continue--												
Sesamum																		
Sesame (Summer-2018)	ICM	Improved Variety	GT-3	23	6	5.9	4.1	3.63	2.35	54.47	13500	32670	19170	2.42	13500	21150	7650	1.57
Sesame (Summer-19)	ICM	Improved variety	GT-3	25	10	--Continue--												
Mustard																		
Mustard (Rabi-18)	ICM	Improved Variety	GDM-4	50	20	--Continue--												
Niger																		
Linseed																		
Sunflower																		

Soybean																		
Soybean (Kharif-2018)	ICM	Improved Variety	NRC 37	8	24	12.55	8.27	12.55	8.27	34.1	14500	42670	24425	2.94	13500	28118	7945	2.08
Castor																		

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

** BCR= GROSS RETURN/GROSS COST

CFLD on Pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Pigeonpea																		
Blackgram																		
Greengram																		
Greengram (Summer-2018)	ICM	Improved Variety	Meha	50	20	7.9	6.5	7.5	6.4	28.38	12500	39188	26688	3.13	13000	33440	22040	2.57
Greengram (Summer-2019)	ICM	Improved Variety	Meha	50	20	--Continue--												
Chickpea																		
Chick pea (Rabi-2018)	ICM	Improved Variety	GG-3	50	20	13.5	9.5	10.59	8.2	29.15	18000	42360	24360	2.35	16000	32800	16800	2.05
Fieldpea																		
Lentil																		

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

** BCR= GROSS RETURN/GROSS COST

3.4 Training Programmes

Farmers' Training including sponsored training programmes (On campus)

Thematic area	No. of courses	Participants																		
		Others			SC/ST			Grand Total												
		Male	Female	Total	Male	Female	Total	Male	Female	Total										
I Crop Production																				
Weed Management	1	0	0	0	1	29	30	1	29	30										
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	5	0	0	0	114	74	188	114	74	188										
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0										
Integrated nutrient management	2	0	0	0	34	16	50	34	16	50										
Production of organic inputs	0	0	0	0	0	0	0	0	0	0										
Others (pl specify) PPV & FRA	0	0	0	0	0	0	0	0	0	0										
Total	8	0	0	0	149	119	268	149	119	268										
II Horticulture																				
a) Vegetable Crops																				
Production of low value and high valume crops	1	0	0	0	28	2	30	28	2	30										
Off-season vegetables	1	0	0	0	0	50	50	0	50	50										
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) Organic Farming	0	0	0	0	0	0	0	0	0	0
Total (a)	2	0	0	0	28	52	80	28	52	80
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	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	1	0	0	0	36	0	36	36	0	36
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	36	0	36	36	0	36
c) Ornamental Plants										
Nursery Management	1	0	0	0	15	15	30	15	15	30
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)	1	0	0	0	15	15	30	15	15	30
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
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	4	0	0	0	79	67	146	79	67	146
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	37	5	42	37	5	42
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	37	5	42	37	5	42
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	3	0	0	0	16	109	125	16	109	125
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	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	4	0	0	0	14	125	139	14	125	139
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0	0	0
Others (pl specify) Income generation activities for empowerment of rural women	1	0	0	0	0	21	21	0	21	21
Total	8	0	0	0	30	255	285	30	255	285
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	45	38	83	45	38	83
Integrated Disease Management	1	0	0	0	21	0	21	21	0	21
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) Mushroom Cultivation	4	0	0	0	34	47	81	34	47	81
Total	8	0	0	0	100	85	185	100	85	185
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
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) Scientific cultivation of gram and oil seed crops	3	0	0	0	111	123	234	111	123	234
Total	3	0	0	0	111	123	234	111	123	234
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	32	0	0	0	506	654	1160	506	654	1160

Farmers' Training including sponsored training programmes (Off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	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	2	0	0	0	19	37	56	19	37	56
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	0	0	0	0	0	0	0	0	0	0
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	1	0	0	0	0	21	21	0	21	21
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	3	0	0	0	19	58	77	19	58	77
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	1	0	0	0	13	19	32	13	19	32
Off-season vegetables	2	0	0	0	15	47	62	15	47	62
Nursery raising	2	0	0	0	18	58	76	18	58	76

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)	5	0	0	0	46	124	170	46	124	170
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	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										
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)	5	0	0	0	46	124	170	46	124	170
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	0	0	0	0	0	0	0	0	0	0
Poultry Management	1	0	0	0	0	25	25	0	25	25
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	1	0	0	0	16	4	20	16	4	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	2	0	0	0	16	29	45	16	29	45
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	0	0	0	0	0	0	0	0	0	0
Design and development of low/minimum cost diet	1	0	0	0	0	18	18	0	18	18
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	1	0	0	0	0	21	21	0	21	21
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	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	2	0	0	0	6	74	80	6	74	80
Others (pl specify) Income generation activities for empowerment of rural women	1	0	0	0	0	30	30	0	30	30
Total	5	0	0	0	6	143	149	6	143	149
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	10	26	36	10	26	36
Integrated Disease Management	0	0	0	0	0	0	0	0	0	0
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	10	26	36	10	26	36
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
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	1	0	0	0	8	22	30	8	22	30
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	1	0	0	0	8	22	30	8	22	30
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	17	0	0	0	105	402	507	105	402	507

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

Thematic area	No. of	Participants
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	courses	Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management	1	0	0	0	1	29	30	1	29	30
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	2	0	0	0	19	37	56	19	37	56
Nursery management	0	0	0	0	0	0	0	0	0	0
Integrated Crop Management	5	0	0	0	114	74	188	114	74	188
Soil & water conservatioin	0	0	0	0	0	0	0	0	0	0
Integrated nutrient management	3	0	0	0	34	37	71	34	37	71
Production of organic inputs	0	0	0	0	0	0	0	0	0	0
Others (pl specify) PPV & FRA	0	0	0	0	0	0	0	0	0	0
Total	11	0	0	0	168	177	345	168	177	345
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops	2	0	0	0	41	21	62	41	21	62
Off-season vegetables	3	0	0	0	15	97	112	15	97	112
Nursery raising	2	0	0	0	18	58	76	18	58	76
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) Organic Farming	0	0	0	0	0	0	0	0	0	0
Total (a)	7	0	0	0	74	176	250	74	176	250
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	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	1	0	0	0	36	0	36	36	0	36
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	36	0	36	36	0	36
c) Ornamental Plants										
Nursery Management	1	0	0	0	15	15	30	15	15	30
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)	1	0	0	0	15	15	30	15	15	30
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
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	9	0	0	0	125	191	316	125	191	316
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	37	5	42	37	5	42
Poultry Management	1	0	0	0	0	25	25	0	25	25
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	1	0	0	0	16	4	20	16	4	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	3	0	0	0	53	34	87	53	34	87
V Home Science/Women empowerment										

Household food security by kitchen gardening and nutrition gardening	3	0	0	0	16	109	125	16	109	125
Design and development of low/minimum cost diet	1	0	0	0	0	18	18	0	18	18
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	1	0	0	0	0	21	21	0	21	21
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	0	0	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	4	0	0	0	14	125	139	14	125	139
Rural Crafts	0	0	0	0	0	0	0	0	0	0
Women and child care	2	0	0	0	6	74	80	6	74	80
Others (pl specify) Income generation activities for empowerment of rural women	2	0	0	0	0	51	51	0	51	51
Total	13	0	0	0	36	398	434	36	398	434
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	4	0	0	0	55	64	119	55	64	119

Integrated Disease Management	1	0	0	0	21	0	21	21	0	21
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) Mushroom Cultivation	4	0	0	0	34	47	81	34	47	81
Total	9	0	0	0	110	111	221	110	111	221
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

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	1	0	0	0	8	22	30	8	22	30
WTO and IPR issues	0	0	0	0	0	0	0	0	0	0
Others (pl specify) Scientific cultivation of gram and oil seed crops	3	0	0	0	111	123	234	111	123	234
Total	4	0	0	0	119	145	264	119	145	264
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	49	0	0	0	611	1056	1667	611	1056	1667

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

Nursery Management of Horticulture crops										
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	1	16	2	18	6	1	7	22	3	25
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	0	0	0	0	0	0	0	0	0	0
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) Health & Nutrition	1	0	0	0	3	23	26	3	23	26
TOTAL	2	16	2	18	9	24	33	25	26	51

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
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	2	7	8	15	49	22	71	56	30	86
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	0	0	0	0	0	0	0	0	0	0
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	1	0	0	0	34	21	55	34	21	55
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	7	8	15	83	43	126	90	51	141

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
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	3	23	10	33	55	23	78	78	33	111
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	0	0	0	0	0	0	0	0	0	0
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	1	0	0	0	34	21	55	34	21	55

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) Health & Nutrition	1	0	0	0	3	23	26	3	23	26
TOTAL	5	23	10	33	92	67	159	115	77	192

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

Productivity enhancement in field crops	1	23	1	24	35	13	48	58	14	72
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	1	33	34	1	33	34
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	1	15	0	15	14	11	25	29	11	40
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) Organic farming, Dairy farming	4	15	0	15	105	43	148	120	43	163
TOTAL	7	53	1	54	155	100	255	208	101	309

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
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)	1	5	0	5	23	7	30	28	7	35
TOTAL	1	5	0	5	23	7	30	28	7	35

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

Productivity enhancement in field crops	1	23	1	24	35	13	48	58	14	72
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	1	33	34	1	33	34
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	1	15	0	15	14	11	25	29	11	40
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)	5	20	0	20	128	50	178	148	50	198
TOTAL	8	58	1	59	178	107	285	236	108	344

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	8	0	0	0	146	104	250	146	104	250
Commercial production of vegetables	3	0	0	0	76	42	118	76	42	118
Production and value addition	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0
Methods of protective cultivation	0	0	0	0	0	0	0	0	0	0
Others (mushroom cultivation)	2	0	0	0	11	40	51	11	40	51
Total	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

Processing and value addition	1	0	0	0	34	0	34	34	0	34
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Farm machinery	0	0	0	0	0	0	0	0	0	0
Farm machinery, tools and implements	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	0	0	0	0	0	0	0	0	0	0
Livestock production and management	6	0	0	0	64	190	254	64	190	254
Animal Nutrition Management	0	0	0	0	0	0	0	0	0	0
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
Others (pl. specify)	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Home Science	0	0	0	0	0	0	0	0	0	0
Household nutritional security	0	0	0	0	0	0	0	0	0	0
Economic empowerment of women	0	0	0	0	0	0	0	0	0	0
Drudgery reduction of women	1	0	0	0	0	51	51	0	51	51
Others (pl. specify) Entrepreneurship development of farmers/Youth	1	0	0	0	36	0	36	36	0	36
Total	0	0	0	0	0	0	0	0	0	0
Agricultural Extension	0	0	0	0	0	0	0	0	0	0
Capacity Building and Group Dynamics	1	0	0	0	30	0	30	30	0	30
Others (pl. specify) Gender Sensitization	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	23	0	0	0	397	427	824	397	427	824

Name of sponsoring agencies involved: ATMA-Tapi, ATMA-Navsari, ATMA-Patan, FTC-Deesa, SPARSH-Songadh, Shakti NGO- Songadh, Help A Child of India-Ahwa, DAO-Tapi, FTC-Vyara, Gujarat Matikam Kalakari Ane Rural Technology Sansthan-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) Disease management in animals	1	0	0	0	8	9	17	8	9	17
Total	1	0	0	0	8	9	17	8	9	17
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
Income generation activities										
Vermicomposting	1	0	0	0	0	35	35	0	35	35
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	1	0	0	0	0	30	30	0	30	30
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.	1	25	8	33	0	0	0	25	8	33
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	3	25	8	33	0	65	65	25	73	98
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	4	25	8	33	8	74	82	33	82	115

Details of trainings organized under ASCI

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Organic Farming	1	0	0	0	8	12	20	8	12	20
Mushroom cultivation	1	0	0	0	7	13	20	7	13	20
TOTAL	2	0	0	0	15	25	40	15	25	40

3.5 Extension Programmes

Activities	No. of programmes	No. of farmers			No. of Extension Personnel	TOTAL
		Male	Female	Total		
Advisory Services	677	7429	4268	11697	22	11719
Diagnostic visits	31	48	13	61	8	69
Field Day	30	696	1039	1735	25	1760
Group discussions	27	178	679	857	9	866
Kisan Ghosthi	3	60	100	160	2	162
Film Show	68	436	1121	1557	12	1569
Self Help Groups	2	2	35	37	0	37
Kisan Mela	2	740	2779	3519	24	3543
Exhibition	4	1296	5057	5406	43	5449
Scientists' visit to farmer's field	41	86	47	133	0	133
Plant/Animal health camps	59	140	23	163	5	168
Farm Science Club	0	0	0	0	0	0
Ex-trainees Sammelan	3	6	96	102	0	102
Farmers' seminar/workshop	5	160	314	474	8	482
Method Demonstrations	98	708	1369	2077	12	2089
Celebration of important days						
International Yoga Day (21/6/2018)	1	1	33	34	0	34
Celebration of ICAR Foundation Day (16/7/2018)	1	65	35	100	0	100
Van Mahotsav (25/7/2018)	1	2	40	42	4	46
"Women Fortnight" (6/8/2018)	1	0	119	119	2	121
" Sadbhavna Divas" (20/7/2018)	1	10	2	12	2	14
National Nutrition Week-2018 (1 to 7 Sept., 2018)	1	0	55	55	3	58
Swachhata Pakhwada (1 to 15 Sept., 2018)	1	21	94	115	2	117
Swachchhata Abhiyan (15/9/18 to 2/10/18)	1	260	766	1026	2	1028
World Food Day (16/10/2018)	1	19	42	61	1	62
Vigilance Awareness Week-2018 (29/10/18 to 3/11/2018)	1	57	78	135	1	136
Women in Agriculture Day (4/12/2018)	1	4	47	51	3	54
Kisan Diwas (23/12/2018)	1	30	44	74	5	79
Swachchhata Pakhawada (16-31/12/2018)	1	89	286	375	3	378
National Productivity Day on oil seed & pulse (12-17/2/2019)	1	37	79	116	4	120
Special day celebration						
World Environment Day (5/6/2018)	1	52	33	85	2	87
Mahila Kisan Divas (15/10/2018)	1	0	80	80	3	83
Agriculture Education Day (3/12/2018)	1	21	46	67	2	69
World Soil Day (5/12/2018)	1	30	45	75	15	90
International Women's Day (8/3/2019)	1	0	71	71	2	72
Exposure Tour	14	144	303	447	3	450
TOTAL	1082	12827	19238	32065	229	32294
Others (pl. specify)						
Guest lecture	66	2806	4410	7216	35	7251
Farmer's visit to KVK	142	1384	2404	3788	58	3846
<i>Khedut shibir</i>	12	620	2186	2806	15	2821
<i>Mahila shibir</i>	2	33	144	177	3	180
Pashupalan Shibir	3	148	303	451	2	453
Farmers-Scientists Interaction	3	49	56	105	1	106
Extension literature distributed	40	438	962	1400	9	1409
Total	268	5478	10465	15943	123	16066
GRAND TOTAL	1349	18305	29703	48008	352	48360

Details of other extension programmes

Particulars	Number
Electronic Media (CD/DVD)	0
Extension Literature (Folder)	34
News paper coverage	32
Popular articles	13
Radio Talks	0
TV Talks	1
Animal health camps (Number of animals treated)	108
Others (pl. specify)	
Book chapter	6
Research papers	3
Research paper abstracts	5
Total	94

(Annexure –II is attached)

: Mega Event :

One day workshop on Entrepreneurship Development through Mushroom Cultivation

“One day workshop on Entrepreneurship Development through Mushroom Cultivation” was organized on April 9th, 2018 in collaboration with KVK, Tapi, Forest Department-Tapi and Ambedkar Vanvasi Kalyan Trust, Tapi. The main purpose of the programme is to disseminate the mushroom cultivation technology among tribal farmers of the district. Hon.Deputy Conservator of Forest, Shri. Anandkumar remain present and guide farmers about importance mushroom. Different topics viz., scope of mushroom cultivation in South Gujarat, different mushroom species commercially cultivated in India, health importance of mushroom, cultivation practices of Oyster mushroom was covered. Moreover, method demonstration on paddy straw cutting and its chemical sterilization procedure, bag filling/inoculation of mushroom spawn with sterilized paddy straw , care and maintenance during mushroom cultivation was also carried out. Different films of successful mushroom growers were also showed to farmers. Total 114 farmers and farm women were actively participated during the programme.

Celebration of World honey bee day

‘World Honey Bee Day-20th May’ celebration was organized at KVK, Tapi in collaboration with ATMA, Tapi and Sahyadri Honey Hut, Soldhara (Dist.Navsari) on May 18th, 2018 at KVK, Vyara. During the programme different session viz., importance of honey for health and honey bee in Agriculture, different types of bee species, Apiculture (honey bee rearing) technology etc were covered. Moreover, one session on Interaction with farmers with a progressive farmer, Shri. Ashokbhai Patel, Village-Soldhara, Dist. Navsari who got success in Apiculture was also arranged. During Programme method demonstration on identification of different castes of honey bees, care and maintenance of Honey Bee Hive, Installation of bee frame, Handling of bee frame with bees, honey extraction etc were also carried out. Total 105 farmers, farm women and rural youth were actively participated.

Interface meeting of innovative farm women

KVK, Vyara has organized Interface meeting of innovative farm women in collaboration with KVK, Navsari on 18th June, 2018 at KVK campus. Total 111 innovative farm women were actively participated in meeting. Innovative farm women of both districts

gave own feedback in meeting like herbal hair oil & masala business, mushroom cultivation, adoption of scientific technology in agriculture, kitchen gardening, chocolate, ice-cream preparation and value added products from fruits & vegetables etc. Dr. C.J.Dangariya, Hon. Vice Chancellor, NAU, Navsari and Dr. G.R.Patel, Director of Extension Education, NAU, Navsari were also present in meeting and gave valuable guidance to all innovative farm women. Senior Scientist & head and Scientist (Home Science) of KVK, Tapi & Navsari gave technical guidance to all farm women.

Interaction of Hon'ble PM with farmers through webcasting

The interaction of Hon'ble PM with farmers through webcasting was organized at KVK-Vyara on June 20th, 2018. Total 149 farmers and farm women of Tapi district were participated. The Hon'ble PM was emphasized on skill development training, value addition, SHC, post harvest technology and marketing of agriculture produce. He was also interacted with the farmers of Maharashtra, M.P., Rajasthan, West Bengal, Karnataka etc. He also emphasized on doubling the farmers income by 2022.

Animal Treatment Camp

Dairy animal Infertility Camp was organized by KVK Tapi during Kharif-2018 in different villages of Vyara and Songadh Taluka with collaboration with Veterinary College, NAU, Navsari and Gujarat Livestock Development Board, Gandhinagar. During the camp, repeat breeding cases were treated by Dr. C. T. Khasatiya, Dr Sanjay Parmar and supplied area specific mineral mixture under adaptive trials by KVK. In these camps, Dr. Pramod Kumar Verma, the head of KVK gave guidance. All these activities were carried out by Dr. Jignesh Movaliya, a Scientist (Animal Science), KVK, Vyara.

Interaction of Hon'ble PM with members of SHGs and women groups

Interaction of Hon'ble PM with members of SHGs and women groups was organised on 12th July, 2018 at KVK-Vyara. Total 46 farm women were remained present and viewed the programme.

Mahila shibir on “Entrepreneurship development through mushroom cultivation”

Mahila shibir on “Entrepreneurship development through mushroom cultivation” was organized at KVK, Tapi in collaboration with ATMA Tapi, District Agricultural Officer, Tapi during 7th August, 2018. Total 119 farm women were participated. Oyster mushroom cultivation technology with film show and method demonstration was also organized.

Exposure tour and Interface meeting of innovative farm women of Tapi & Narmada district

KVK, Tapi has organized exposure tour for innovative farm women on 8th August, 2018 at KVK, Dediapada. Total 29 farm women visited KVK campus and KVK farm. KVK, Dediapada has organized interface meeting of innovative farm women in collaboration with KVK, Tapi on 8th August, 2018. Total 60 progressive farm women (29 farm women from Tapi district) were actively participated in meeting. Progressive farm women of both districts gave own feedback in meeting like herbal hair oil, eco-friendly bag making, decorative articles from coconut fibres, Khakhara making, sewing work, adoption of scientific technology in agriculture, kitchen gardening, health and value added products from fruits & vegetables, organic farming etc. Dr. C.J.Dangariya, Hon. Vice Chancellor, NAU, Navsari and Dr. G.R.Patel, Director of Extension Education, NAU, Navsari were also present in meeting and gave valuable guidance to all innovative farm women. Senior Scientist & head and Scientist (Home Science), Scientist (Agril Extension), Scientist (Animal Science) of KVK, Tapi & Narmada were present and gave technical guidance to all farm women.

Khedut Shibir on Integrated Management of Cotton Pink Bollworm

Khedut Shibir on ‘Integrated Management of Cotton Pink Bollworm’ was organized by KVK, Tapi at Taluka Seva Sadan, Nizer on 18th September, 2018. Total 85 farmers were actively participated. Marks of identification of pink bollworm, different life stages, nature of damage, integrated management technology etc. were discussed. Method demonstration on installation of pheromone trap technology in nearby cotton field was also organized.

Innovative Farmers' Meet

“Innovative Farmers' Meet on Doubling Farmers' Income” was organised under the presidentship of Smt. Smruti Irani ji, Hon'ble Minister (Textiles), GOI at KVK-Vyara on 21/09/2018. Shri Jaydrathsinh Parmar, Hon'ble Agriculture Minister (State), GOG, Shri Prabhubhai Vasava, Hon'ble MP-23, Bardoli, Shri Mohanbhai Dhodiya, Hon'ble MLA-Mahuva, Shri Mohammad Sahid, Hon'ble Secretary (Agri.), GOG, Shri N. K. Damor (IAS), Hon'ble Collector-Tapi, Dr. Lakhansing, Hon'ble Director-ATARI, Pune were present along with other department officials.

Smt. Smruti Irani ji, first visited the Farmers' Stall viz., SSI technology in Sugarcane by Bhavik Bhakta, village-Ambach Ta. Valod, Herbal Hair oil by Smt. Induben Gamit, Village-Kapura Ta. Vyara, Eco-friendly bag making by SHG of Zankhari village of Vyara Taluka and Bardipada village of Dolvan taluka, Preparation of doormats and other decorative items from coconut coir by SHG of Dolara village of Vyara taluka, Krishi Vigyan Kendra, NAU, Vyara and other NAU's & many other such stalls. She also interacted with farm women at different stalls.

Dr. P. D. Verma, Senior Scientist & Head, KVK, Vyara presented the detail activities carried out by KVK for doubling farmers' income. In this session, Shri Ghanshyambhai Patel, Progressive farmer from Bahurupa village of Kukarmunda taluka said that the KVK has been doing excellent work for farmers in interior parts of the district. Benefits of different Government Schemes were also taken by the farmers through KVK. Smt. Jayaben Chaudhari farm woman of Unchchamala village ta. Vyara said that KVK has given technical guidance for animal husbandary. She expressed her gratitude to KVK for giving support in adverse condition. Now She is earning good income from animal husbandary. Smt. Induben Gamit, Village-Kapura Ta. Vyara said that our SHG has taken training on preparation of herbal hair oil. She started preparing and selling herbal hair oil and she earned about Rs. 80,000/- since January-2018. Smt. Vinaben Gamit, farm woman of Dolara village of Vyara taluka said that our SHG has taken training on Preparation of doormats and other decorative items from coconut coir. 4 farm women among this SHG have started making these items and earned Rs. 4000-6000/-.

During Farmers' meets Dr. C. J. Dangaria, Hon'ble Vice Chancellor, NAU, Navsari welcomed all the dignitaries and briefed the activities done by KVK-Vyara. He said that KVK-Vyara has got Best KVK awards at Zonal level among 79 KVKs of Gujarat, Maharashtra & Goa. Shri Prabhubhai Vasava, Hon'ble MP-23, Bardoli said that KVK-Vyara is doing great work in benefits of farming community. He emphasized on ‘Per Drop, More Crop’, Organic Farming, Value Addition *etc.* Shri Jaydrathsinh Parmar, Hon'ble Agriculture Minister (State), GOG, said that Government has taken so many initiatives for farmers. He said that KVK-Tapi is doing efforts for increasing farmers' income through different technologies. He said that Government has taken steps for achieving more prices for their agriculture products.

Smt. Smruti Irani ji, Hon'ble President of this programme congratulated KVK-Tapi for getting Best KVK Award and Cashless KVK Award. She elaborated the various schemes launched by Government of India for farmers. She emphasized that farmers' should take advantage of these schemes. She said that farmers' income is increased during the last four years. She said that KVK-Tapi has doing excellent work for doubling farmers' income by imparting training on mashroom cultivation, organic farming, IPDM in different crops, Capacity building, skill development *etc.* She congratulated the support given by KVK-Tapi to farm women. She personally congratulated to Smt. Induben Gamit, Village-Kapura, Ta. Vyara, and after hearing Smt. Jayaben Chaudhari's story of Village-Unchchamala, Ta. Vyara she expressed her gratitude towards KVK- Tapi for their humanitarian attitude. She also felicitated 10 farm women with shawl for their excellent work in field of agriculture and allied sector. She praised the whole KVK Tapi team for their hard work.

Lastly, vote of thanks was given by Dr. P. D. Verma, Senior Scientist & Head, KVK, Vyara. Total 1048 farmers and farm women and officials of line departments, NGOs of Tapi district had participated in the programme.

Farmers' Day on Paddy

Farmers' Day was organised at RRRS, NAU, Vyara in collaboration with RRRS, Vyara on 29th September, 2018. Hon'ble VC, NAU, Navsari Dr. C. J. Dangaria, Director of Research Dr. S. R. Chaudhary and other scientists from NAU, Navsari were remained present. Total 351 farmers and farm women were actively participated in the programme.

Fall Armyworm Awareness Programme

Awareness Programme on newly introduced invasive pest fall armyworm was organized by KVK, Tapi at village Batvada, Block: Songadh during 4th October, 2018. Total 35 farmers and farm women were actively participated. Information regarding identification of fall armyworm, its life stages, nature of damage and integrated management practices were furnished by KVK, Scientists.

Krishi Mela

Krishi Mela was organised in collaboration with FTC-Tapi, ATMA-Tapi & KVK-Tapi at FTC-vyara on 29th -30th December, 2018. Hon'ble MP-Bardoli Shri Prabhubhai Vasava, Collector-Tapi Shri N. K. Damor, Deputy Director of Agriculture- Surat Shri Nitinbhai Gamit, members of District Panchayat was remained present. Total 3168 farmers were actively participated in the Krishi Mela.

3.6 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-18)	GAR-13	--	27.50	85800	410
		Gurjari	--	48.72	136360	776
	Paddy (Kharif-18)	GNR-6	--	15.80	44240	252
		Gurjari	--	14.00	39200	224
		Jaya	--	29.10	83808	464
		GNR-7	--	31.50	98280	504
		GNR-3	--	27.50	79200	440
	GAR-13	--	52.50	168000	840	
Oilseeds	-	-	-	0	0	0
Pulses	Gram (Rabi-Summer-17-18)	GG-3	--	11.50	80500	46
	Green Gram (Summer-18)	Meha	--	2.00	18000	14
	Kharif-2018	Vaishali	-	1.77	15930	55
Commercial crops	-	-	-	0	0	0
Vegetables	-	-	-	0	0	0
Flower crops	-	-	-	0	0	0
Spices	-	-	-	0	0	0
Fodder crop seeds	-	-	-	0	0	0
Fiber crops	-	-	-	0	0	0
Forest Species	-	-	-	0	0	0
Others	-	-	-	0	0	0
Total				261.89	849318	4025

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	-	-	-	-	-	-
Vegetable seedlings	Tomato-Abhinav		--	13072	16312	984
	Brinjal-Sungrow - 143		--	56040	42772.5	822
	Chilli-Eagle		--	23385	22765	195
	Bitter gourd-Racer		--	3128	12512	63
	Little gourd-GNLG-1		--	4814	48140	800
	Pointed gourd-GNPG-1		--	88	880	16
	Broccoli-		--	2795	2795	28
	Cauliflower -Doctor		--	5600	4200	29
	Cabbage-Puma		--	1500	1125	15
	Bottlegourd-Anokhi		--	5051	14343	33
	Ridgegourd-Aarti		--	150	525	6
	Sponge gourd- Alok		--	150	525	6
	Moringa	--	--	100	1500	12
	Marigold-PKM-1	--	--	780	780	3
	Dragon	--	--	8	400	4
			Total-A	116661	169575	3016
Fruits	Cashew	Vengurla-4		3	150	2
	Mango	Sonpari-Approach Grafting	--	50	33075	94
		Kesar-Approach Grafting	--	590		
		Rajapuri-Approach Grafting	--	20		
		Dasheri-Approach	--	69		

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
		Grafting				
		Alphanso-Approach Grafting	--	60		
		Neelphanso-Approach Grafting	--	94		
		Ratna-Approach Grafting	--	27		
		Sindhu-Approach Grafting	--	15		
		Totapuri-Approach Grafting	--	20		
		Total-B		948	33225	96
Ornamental plants						
Medicinal and Aromatic	-	-	-	-	-	-
Plantation	-	-	-	-	-	-
Spices	-	-	-	-	-	-
Tuber	-	-	-	-	-	-
Fodder crop saplings	-	-	-	-	-	-
Forest Species	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total (A + B)				117612	202950	3114

Production/supply of Bio-Products

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilizers	<i>Azotobactor</i>	138 lit	16560	138
	Posphorus Solubilizing Bacteria	139 lit	16680	139
	Potash Mobilizing Bacteria	137 lit	16440	137
	Novel Organic banana sap	599 lit	77870	530
	Azospirilum	50 lit	6000	50
Bio-pesticide	Pseudomonas	56 lit	3920	53
Bio-fungicide	Tricoderma	24 kg	2880	24
Bio Agents	-	--	0	0
Others	Vermicompost	68397kg	376184	250
	Vermis	97 kg	29100	51
	Pheromone Traps	505 no.	31410	48
Total			577044	1420

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	-	-	-	-
Others (Pl. specify)	-	-	-	-
Piggery				
Piglet	-	-	-	-
Others (Pl. specify)	-	-	-	-
Fisheries				
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Total	-	-	-	-

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

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	Details of Publications are given in Annexure-II		03
Technical reports		22	
News letters		13	
Technical bulletins		0	
Popular articles		0	
Extension literature (Folder)		34	
Others (Pl. specify)			
Research paper abstracts		09	
Book chapter		06	
Newspaper coverage		32	
TOTAL			119

C. Details of Electronic Media Produced

S. No.	Type of media (CD / VCD / DVD/ Audio-Cassette)	Title of the programme	Number
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D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

SUCCESS STORIES:

Name of KVK: Tapi, Gujarat

1. Anjanaben Gamit- Successful Women Entrepreneur in Mushroom cultivation

1	Name	Anjanaben Nileshbhai Gamit
2	Address:	Village:Nani Chikhali, Block: Vyara
3	Education	Diploma (Civil Engineering)
4	Mobile no.	9898916768
5	Age	31
6	Total land	6 bigha
7	Crops Cultivated	Sugarcane, Brinjal, Mango, Watermelon
8	Situation analysis/Problem statement:	<p>Mushrooms can play an important role in contributing to the livelihoods of rural & peri-urban dwellers, through food security & income generation. Mushroom cultivation can represent a valuable small-scale enterprise option.</p> <p>Civil Engineer (Diploma) lady Mrs. Anjanaben Gamit, building/construction is her occupation. She is extremely talented, hard worker & skilled lady. It was one dream of Mrs. Anjanaben Gamit to do something without land/marginal land for securing livelihood in general and tribals particular. She wanted to be independent and carve out and identify for herself. Meanwhile, she read an article on Oyster Mushroom cultivation published by Krishi Vigyan Kendra- Tapi in Agro-Sandesh dated 20th February, 2017. Then she visited KVK and decided to go for Mushroom cultivation under the guidance of KVK Tapi and joining KVK, proved to be a boon for her.</p>
9	Plan, Implement and Support:	<p>She joined 4 days (19.09.2017 to 22.09.2017) skill development training programme at KVK, Tapi and decided to initiate the mushroom cultivation at available resources/low cost. Consequently, near his home there was a parking shed and she had decided to grow mushroom production at small scale in this parking shed. KVK, Vyara has been supported her for paddy straw cutting at chaff cutter demonstration unit.</p> <p>All the inputs viz., spawn (mushroom seed), polythene bags, seeds and chemicals (Carbendazim & formalin) has been supplied by KVK, Tapi. Follow up visit, diagnostic visit has also been made by Scientists of KVK-Tapi</p> <p>Description of Technology</p> <p>Use of quality spawn, specific method of substrate sterilization and mushroom bed preparation, harvesting techniques</p> <p>Dissemination process Training, method demonstration, establishment of small scale mushroom production unit, monitoring & feedback</p>

10	Outcomes:	<p>She started Mushroom cultivation first time in October 2017 and harvest about 140 kg Mushroom with a value of Rs.28000/- in a simple small low cost shed (Size 15' x 10') within three months .(Table 1)</p> <p>This encouraging results motivated her to start mushroom cultivation on regular basis and design a structure (Size 30' x 20') (Table 2) based on one time expenditure. This year from July to November 2018 she could harvest total 840 kg of Musroom with a value of Rs. 139210 within five months. The average per month net income is Rs. 27842 (Table 3). She was benefitted in a good way. Therefore its clear with the adoption of Mushroom cultivation, she proved her dream true and enough to convey a message to secure livelihood in tribal areas without land /marginal land.</p> <p>Marketing: Based on demand she packed 100 to 200 gram packet and sold in Vyara town with the help of Anganwadi workers and teachers. That approach makes marketing very easy.</p>
11	Impact:	<p>The results of her success, farmers of nearby villages and also the interested people visited mushroom unit. Mrs. Anjanaben has motivated other farmers to adopt the mushroom farming technology. She also feels delighted when other farmers in the area visit their home to see her endeavor. She inspired and facilitated many farmers to start mushroom farming. Due to outstanding contribution in Mushroom cultivation, Mrs. Anjanaben also honoured by Smt. Smriti Irani, Hon. Union Textile Minister, Govt. of India at KVK, Tapi during 21st Sept., 2018. KVK, Vyara has also prepared his success story and published in Annual report of 2017-18.</p>

Table-1 Economics of first time mushroom cultivation by Mrs. Anjanaben in small structure (15'x10')

SN	Cost of Cultivation (Rs.)		Total Production	Gross Income (Rs.)	Net Income (Rs.)
1	Paddy straw	800	140 kg	28000 (Rs.200/kg)	22060
2	Sugarcane Bagas	300			
3	Polythene bags (Rs.4 per bag)	420			
4	Spawn	2900			
5	Formaline	520			
6	Carbendazim	200			
7	Other	800			
8	Total	5940			

Table 2: Details of expenditure for preparation of well designed *pucca* mushroom house

SN	Particulars	Cost of Cultivation (Rs.)
1	Mushroom house (Shed- 30' x 20')	40,000
2	Bamboos for preparation of side wall and racks	22,000
3	Spray pumps, gunny bags	7,000
4	Sprinkler/Fogger system	15,000
5	Irrigation Tank with motor	7,000
6	Tubs and drums	4,500
7	Others	4,500
	Total (A)	1,00,000

Table 3: Economics of mushroom cultivation in newly well designed *pucca* mushroom house (30'x20') prepared by Mrs.Anjanaben

SN	Particulars with Cost of Cultivation (Rs.)		Total Production	Gross Income (Rs.)	Net Income (Rs.) within 5 months
1	Paddy straw 3150 nos. (Rs. 3/- per)	9,450	840 kg	2,94,000 (Rs.350/kg)	1,39,210
2	Sugarcane Bagas 1.5 ton	3,700			
3	Polythene bags 1260 no. (Rs.4 per bag)	5,040			
4	Spawn (210 kg @ 120/- per kg)	25,200			
5	Formaline 50 lit @ 100/- per lit	5,000			
6	Carbendazim 4 kg @ 600/- per kg	2,400			
7	Other	4,000			
8	Total (B)	54790			
	Total Production cost (A+B)	154790			

2. Success story of CFLDs –Gram- Shri Karshanbhai Ramanbhai Gamit

Crop and variety	Gram and GG-3
Name of farmer & Address	Shri Karshanbhai Ramanbhai Gamit (Tribal Farmer) Village: Zankhari, Block-Vyara,Dist.-Tapi
Background information about farmer field	Land is medium black with low in N, medium in P, high in K content. Use own FYM. Generally avoid irrigation management.
Details of technology demonstrated	<ol style="list-style-type: none"> 1. Seed of Improved variety GG-3 2. Sowing method : Ridge & Furrow method (45-60 X 10-15 cms) with Paired row 3. Seed Treatment (Bavistin @ 3 gm/kg seed) 4. Recommended basal dose of fertilizer (20:40:00 NPK kg/ha)
Institutional Involvement	Technical guidance & seeds of improved variety-GG-3
Success Point	Wilt resistant variety, less water requirement

	(2 irrigation)
Farmer Feedback	Good yielding, less incidence of insect-pest & disease, bold seeded variety
Outcome Yield (q/ha)	
- Demonstration	11
- Potential yield of variety/technology	16.50
- District average	8.00
- State average	11.50

The non-availability of good quality seeds of high-yielding varieties in the desired quantities is the major problem of Tapi District. It has been observed that scarcity of irrigation water at later/critical stage is one of the major reasons for low productivity. Besides, poor economic status of the tribal farmers inhibits them to purchase major input like fertilizers as well as to perform important operation timely. So, KVK-Tapi has conducted CFLDs on chick pea in 20 ha area and given to 50 numbers of farmers in Tapi. Most of the farmers in Tapi district were sowing chick pea through broadcasting and using local variety. So, we had given improved variety and suggested ridges and furrow method with paired row sowing. Also promote the basal dose of fertilizers. Among all the farmers Shri Karshanbhai Ramanbhai obtained 11.00 Q/ha with improved technology module ie Seed of Improved variety GG-3, Sowing method : Ridge & Furrow method (45-60 X 10-15 cms) with Paired row, Seed Treatment (Bavistin @ 3 gm/kg seed), Recommended basal dose of fertilizer (20:40:00 NPK kg/ha). However, In previous year his gram yield was to the tune of 4.0 q/ha only.

Performance of technology vis-à-vis Local check (Increase in productivity and returns)

Specific Technology	Yield (q/ha)	Gross cost (Rs/ha)	Gross income (Rs/ha)	Net income (Rs/ha)	B:C ratio
Farmer practices	4.0	10500	21600	11100	2.06
Demonstration	11.0	18400	59400	41000	3.23
% Increase	175				

The results showed that there is 175 per cent yield increased as compared to previous year yield . Net income was also increased from Rs. 11,100/- to Rs. 41,000/- with B:C ratio 3.23 clearly indicated the importance of improved technology module demonstrated under CFLD under NFSM Pulses.

Due to live contact, constant follow up, motivation and well communication of Scientists of Krishi Vigyan Kendra, Vyara and FLDs significant result, this technology is getting momentum among the tribal farmers of Tapi district. The standard of living of the farmers who benefitted by this technology has also been increased.



Field of Shri Karshanbhai R. Gamit with Ridges & Farrow cum pair row method



Crop Condition – Chickpea (Gram) – Variety – GG-3

3. Mr. Sanjaykumar a purposeful seed producer of Pigeonpea

1	Name	Mr. Sanjaykumar G. Kosada
2	Address:	Village:Tichakiya, Block: Vyara
3	Education	Master in Physical Education
4	Mobile no.	9879071219
5	Age	52
6	Total land	0 acre
7	Land on lease	2.5 acre
8	Area under Pigeonpea	2.5 acre (<i>Kharif-2017</i>)
9	Situation analysis/Problem statement:	<p>Seed is a vital component for harvesting good yields from any crop by way of ensuring optimum plant population, proper crop health and growth. In pulses, quality seed supply always remains a major constraint limiting production and productivity. Pulses are known as cheap source of protein for largely agrarian population worldwide, particularly in India. Realizing importance of protein from plant sources, the consumption is becoming more popular in different parts of the globe. Accordingly, demand for pulses has gone up internationally. To make India self-sufficient in pulses production through productivity enhancement, availability of quality seed needs special attention of the policy makers and researchers. There is need of about 25- 30 lakh quintals of quality seed every year to achieve 30% seed replacement rate to enhance production and productivity of these crops.</p> <p>Mr. Sanjaykumar, working as a Professor in arts and commerce college, Vyara. He has no land. But he takes land of his friend on lease. Consequently, he made contact to KVK, Scientist and heard about the seed production</p>

		programme and decided to join with KVK.
10	Plan, Implement and Support:	<p>Government of India is fully aware of its responsibility to increase quality seed supply in major pulse growing regions of the country. Department of Agriculture, Cooperation and Farmers Welfare (DAC&FW), Ministry of Agriculture and Farmers Welfare, Government of India (GoI) has approved project namely “Creation of seed hubs for increasing indigenous production of pulses in India” under the aegis of Indian Council of Agricultural Research (ICAR) for increasing supply of quality seeds to boost pulses production and productivity. Krishi Vigyan Kendra, Vyara is one of the Seed Hub center under this project. KVK, Vyara has been started seed production of pulse crops viz., pigeonpea, chickpea and greengram in kharif, rabi and summer season, respectively.</p> <p>Mr. Sanjaykumar joined the training programme on quality seed production at KVK, Tapi. KVK, supplied 15 kg foundation seed of pigeonpea-variety-BSMR 853 locally known as <i>Vaishali</i>. All the pre-requisites viz., registration procedure of seed producer; field inspection in collaboration with Seed Certification agency, regular monitoring visit, conduction of different extension activities viz., field visit, diagnostic visit, field day etc were also followed by KVK.</p>
11	Technology adopted	<ul style="list-style-type: none"> ➤ Adoption of the right agronomic package of practices ➤ Followed the need based plant protection measures ➤ Followed the field inspection and certification procedures without deviation in collaboration with KVK, and Gujarat Seed Certification Agency
12	Output	<p>At initial stage (up to branching and flower initiation) crop growth was found good. But, during December 2017, due to <i>Okhi Cyclone</i> effect crop was severely damaged. With the regular monitoring of KVK scientist and efforts of Sanjaykumar crop had withstand the <i>okhi cyclone</i> effect. Mr. Sanjaykumar invested Rs. 25500 as total cost of cultivation and he produced 1720 kg seed production. Out of which 128 kg seed kept for own consumption and for sowing in next season. KVK, Vyara had bought all the seeds as per the price (Rs. 6000/- per quintal) finalized by Gujarat Seed Certification Agency, from Sanjaykumar under Seed Hub Project. By this way, he got net income of Rs. 77,700/-.</p> <p>The Government has declared the seed price @ 60.00/ kg for this year. Had they produced the commercial grain crops, and sold as grain only, they would have received @ 42.50/ kg only. Thus by going for seed production, Sanjaykumar earned almost 41 per cent more rate of the pigeonpea by selling these seeds. The total revenue for the Sanjaykumar was 1,03,200/- while as grain, their revenue would have been Rs.73,100/- only.</p>
13	Impact:	Mr. Sanjaykumar was fully satisfied by this seed production programme. He also urged to nearby farmers to join with KVK for seed production programme.

Table: Economics of seed production by Mr. Sanjaykumar

Cost of Cultivation (Rs.)	Sold as seed (Kg)	Kept as seed and own consumption (Kg)	Total Production (Kg)	Price (Rs./Qt)	Gross income (Rs.)	Net income (Rs.)
25500	1592	128	1720	6000	1,03,200	77,700

Minimum support price of Pigeonpea (Kharif 2017)	Rs. 4250/- per Qt
Price fixed by Gujarat Seed Certification Agency	Rs. 6000/- per Qt



Sanjaykumar



Regular monitoring visit by KVK, scientist



General view of the seed plot




Proper plant spacing



Okhi Cyclone effect during December, 2017

CASE STUDIES:**Name of KVK: Tapi, Gujarat****Case study 1: Mushroom Cultivation - Acts as a boon for Vegetable vender, Sh. Hemantbhai Chaudhari**

1	Name	Sh. Hemantbhai Narsinghbhai Chaudhari	
2	Address:	Village:Ghodchit, Block: Songadh	
3	Education	10 th	
4	Mobile no.	7575056115	
5	Age	27 years	
6	Total land	2.5 bigha	
7	Crops Cultivated	Brinjal, Clusterbean, leafy vegetables viz., palak, corainder	
8	Situation analysis/Problem statement:	<p>Since long time Sh.Hemantbhai Chaudhari, was practicing traditional practice of cultivating cereal crops namely paddy as kharif crop and gram as Rabi crop. The income from these crops was not sufficient to supplement his family livelihood in a sustainable manner. He was searching for other means of income generation from land and resources available with him. He started to grow vegetables viz., okra, brinjal and some leafy vegetables. Initially he has been sold all of his produce in nearby Vyara market. But, he has been not satisfied with the vegetable merchants in Vyara market as he not get sufficient price of his produce. So, he has been started retail door to door selling all of his own produce without the help of any middleman. Now he is well known 'Vegetable Vendor'. By this way, he gets maximum profit of his own produce. When, there is no any vegetables production from his own land, he brought vegetables from Vyara market and sold it to nearby villages on his bike. In the mean time he was in contact with his friend Mr. Sunilbhai Gamit, who has been cultivated, the mushroom cultivation with the technical guidance of KVK, Vyara and immediately Mr. Hemantbhai came to know about the existence of Krishi Vigyan Kendra, Vyara.</p>	
9	Plan, Implement and Support:	<p>KVK, Vyara has been regularly conducted training programme on mushroom cultivation and also established a live demonstration unit. Mr. Hemantbhai visited to KVK, Vyara and takes the technical guidance of mushroom cultivation and decided to grow mushroom at available resources/low cost. In his home, he prepared a rack in 10 x 10 ft area with the help of available resources i.e. bamboo stick. All the inputs viz., spawn (mushroom seed), polythene bags, and chemicals (Carbendazim & formalin) were supplied by KVK, Vyara. He also regularly visited to mushroom demonstration unit at KVK, Vyara and receiving technical guidance from the concern scientist. He also in live contact with the KVK scientist on telephone for guidance.</p>	
10	Outcomes:	<p>He commenced mushroom cultivation by using 3 kg spawn. He used all available resources for preparation of mushroom rearing house without any non-recurring expenditure (physical costs). He had invested Rs.740.00 which yielded her 18 kg fresh oyster mushroom from 3 kg spawn. For market he used door to door retail selling and got Rs. 280/- per kg. Finally he</p>	

		got net profit of Rs. 4300. By this way, he also purchased 5 kg more spawn and other material for mushroom cultivation.
11	Impact:	Now, Mr. Hemantbhai is confident about to grow/ cultivate mushroom and fully satisfied with cultivation practices as he getting maximum income without any additional expenditure. He became a role model to other farmer in his village as well as other villages. Other neighboring farmers also visited to his mushroom unit. He also feels delighted when other farmers in the area visit their home to see their endeavor.

Table-1: Economics

SN	Cost of Cultivation (Rs.)		Total Production	Gross Income	Net Income
1	Paddy straw 60 x 3	180	18 kg	5040	4300
3	Polythene bags (15 no) (Rs.4 per bag)	60			
4	Spawn 3 kg	360			
5	Formaline 1 lit	100			
6	Carbendazim 50 gm	50			
8	Total	750			



KVK Vyara, supplied all the inputs for Mushroom cultivation



Mr. Hemantbhai regularly visited to mushroom demonstration unit established by KVK



Mushroom rearing unit prepared by Hemantbhai in his home



Mr. Hemantbhai-Vegetable vendor- door to door supplier of vegetables and mushroom on his bike



Guidance given by KVK, Scientist through Diagnostic and monitoring visit

Case study 2: Mushroom Cultivation-A Viable Income Generating Unit for Livelihood Security among tribal farmers

Situation analysis/Problem statement:

Diversification in any farming system imparts sustainability. Mushrooms are one such component that not only impart diversification but also help in addressing the problems of quality food, health and environment related issues. One of the major areas that can contribute towards goal of conservation of natural resources as well as increased productivity is recycling of agro-wastes including agro industrial waste. Paddy is the major food grain crop in India as well as in Gujarat. So, large amount of paddy straw has also been produced. During PRA survey it was found that, farmer's mainly using paddy straw as food for animals. Utilizing these wastes for growing mushrooms can enhance income and impart higher level of sustainability in this region as well as in whole country.

The demand is good and the conditions for growing mushroom, including weather, are ideal but the number of persons engaged in the cultivation of mushroom is very few. This has become a source of concern to farm observers in general and horticulturists in particular here. Experts are of the view that the South Gujarat is one of the best places in India for the cultivation of *Pleurotus sp.* popularly known as the Oyster mushroom. Pointing out that the Oyster mushroom was the most popular variety all over the world. The two major requirements for mushroom cultivation are paddy/wheat straw and spawn and if proper care is taken in their preparation one could be more or less certain of achieving optimum yields with financially satisfying results.

Plan, Implement and Support:

By considering the present situation, Krishi Vigyan Kendra, Vyara have been made an effort to disseminate mushroom cultivation technology through various extension activities in different villages of Tapi district. KVK, Tapi gave technical guidance through training programmes (on/off/vocational) to increase awareness about “**Mushroom cultivation**” among farmers. During training programme, KVK mainly gave emphasis on judicious use of paddy straw to sustain productivity, scope of mushroom cultivation in Gujarat etc. Film show on mushroom cultivation technology (oyster, milky and button), success stories of mushroom growers were also carried out. Method demonstration on selection of paddy straw, cutting of paddy straw and sterilization of paddy straw were carried out during training. Demonstration unit of mushroom cultivation was also established at KVK. After acquiring training from KVK, Vyara, the kit consisting of mushroom spawn, sterilizing chemical-formalin, and fungicide-Carbendazim were also supplied to interested trainees. Initially, farmers were hesitating in adopting this technology due to non-availability of market. But with constant encouragement, KVK, Tapi is successful in building up confidence in them. Besides, KVK Tapi was planned Front Line Demonstrations on mushroom cultivation to motivate the farmers. KVK, Tapi conducted 25 FLD's during 2018-19. A training programme on Oyster mushroom cultivation was arranged and inputs were supplied to all the 25 participants. Constant follow up visit were also carried out by the concern scientist regularly to diagnose problem during cultivation.

Details of inputs supplied

SN	Particular	Quantity	Cost (Rs)
1	Mushroom spawn	2 kg	250.00
2	Formalin	400 ml	50.00

3	Carbendazim 50 WP	100 gm	50.00
4	Plastic bags	10 no.	50.00
	Total		400.00

Output:

No. of Farmers	Average Yield (kg)	Economics of demonstration (Rs./demon.)			
		Gross Cost	Gross Return	Net Return	BCR
25	10 kg	400	2000	1600	5:1

Area per Demonstration: 100 sq.ft.

Prevailing market price of mushroom: Rs. 200.00 per kg

Mushroom growing unit consisting of approximately 100 sq ft area. Each mushroom growing kit was comprised of Rs. 400. Mushroom kit consisting of 2 kg spawns, 400 ml formalin, 100 gm carbendazim and 10 no. of plastic bags. All the farmers were successfully cultivated oyster mushroom in their own growing unit. Average 10 kg of mushroom was produced from 2 kg spawn. Prevailing market price of Rs. 200 per kg of mushroom was obtained by each grower. By this way, Gross return of Rs. 2000 and net return of Rs. 1600 was obtained. Average 30 percent of produce was consumed by each grower and remaining was sold to others or in market.

Impact:

Sr. No.	Farmer's Feedback
1	Fresh mushroom available –for their own consumption
2	Mushroom cultivation- a simple production technology can be adopted as source of additional income with agriculture and dairy farm

By the principle of '*Seeing is Believing*', most of the other nearby farmers has been adopting this technology without any hesitation. By the co-operation of mushroom growers at village level this technology was spreads horizontally in Tapi district.

Case study: Mushroom Cultivation-A Viable Income Generating Unit for Livelihood Security



On Campus training programme



Method demonstration and kit distribution



Post monitoring and tracking



Case study 3: Entrepreneurship development of tribal farm woman through preparation of Herbal hair oil

1. Name of Tribal Farm woman : Gamit Induben Ramanbhai
2. Village : Kapura
3. Block, District & State : Vyara, Tapi, Gujarat
4. Age : 51 yrs
5. Contact Number : 9727016634
6. Membership details : KVK Self Help Group, Shivshakti Trust, Khedut Co-operative society, ATMA
7. Activities of Tribal Farm woman : Works regarding Agriculture & Animal Husbandry, Household work
8. Land holding : 1.0 *Vigha* (0.24ha)
9. Month & Year of Vocational Training on preparation of Herbal Hair Oil : 16-18, March'2017
10. Training and technical guidance : Scientist(Home Science), Krishi Vigyan Kendra, NAU, Vyara, Tapi
11. Materials/ raw materials used for Herbal Hair Oil preparation : Coconut oil, Gingelly seed oil, Castor oil, Amla, Bottle gourd, *Bhrungraj*, *Brahmi*, various Ayurvedic *Churan* (*Jatamasi*, *Vaj*, *Nagarmoth*, *Jethimadh*, *Anantmul*,), *Jaran*, Alovera, Hibiscus, Neem leaves, Henna leaves
12. Total Income by selling Herbal hair oil : App. Rs. 90,000/- (starting from Jan.'18 to continue...)
13. Marketing arrangement : Use of local market/ religious contact/ social contact/ SHG members/ Agri.fair/ Tribal fair etc.

Note: *Smt.Smruti Irani, Hon'ble Minister for Textiles, Govt. of India, New Delhi visited KVK, Tapi, Gujarat on 21st September, 2018 and appreciated Induben's work & felicitated her with shawl. Smt.Smruti Iraniji shared her inspiring story on social media also.*

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

- Following are the innovative methodology or innovative technology of Transfer of Technology developed and used during the year:
 1. Accessibility of mushroom spawn
 2. Plug tray nursery
 3. Accessibility of novel organic novel liquid nutrient
 4. Accessibility of phoromone trap/ sticky trap

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

Sl. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	All crops	3 kg of Jathropa leaves is taken in 20 liters of water and boiled at a temperature of 60 to 70 ⁰ C until it becomes 5 liters. Take 250 ml and add it to 15 liters and spray.	For controlling sucking pests
2.	All crops	Farmers are using mixture of cow dung, urine and buttermilk for the control of sucking pest.	For controlling sucking pests

3.	Cotton	One farmer used black ants for the control of cotton insect pests. For the purpose, the used to put jaggery at the base of plant (5-10) grams) and release black ants which are reared in tank.	To control cotton pests
4.	Okra	Growing okra in winter with high seed rate and closer spacing	To get more number of tender fruits per plant which fetch more prices in market.
5.	Pulse crops	Use of ash for storage of Tur, Beans, Gram	To control storage gram pests
6.	Jowar	Use of dry neem leaves for sorghum storage	To control storage gram pests
7.	Animal	Use of wild plants with sand and pest it on neck of the animal	To control HAEMORRHAGIC SEPTICEMIA (HS)

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

A. Practicing Farmers

- a) PRA
- b) group discussion
- c) eye to eye contact and eye observation

B. Rural Youth

- a) Group discussion with youth at the time of field visit
- b) Feed back from Agricultural schools
- c) Feed back from BRS/MSW/MRS Colleges
- d) Feed back from NGOs

C. In-service personnel

- a) Discussion with extension workers, line department officials, field extension functionaries and NGOs staff along with feedback of SAC, ZREAC and Scientific community.

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

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

For FLD:

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

5.3. Field activities

- i. Name of villages identified/adopted with block name (from which year) – **As per Serial No. 2.7**
- ii. No. of farm families selected per village : **25**
- iii. No. of survey/PRA conducted : **12**
- iv. No. of technologies taken to the adopted villages: **8 (As per Serial No. 3.3-B)**
- v. **Name of the technologies found suitable by the farmers of the adopted villages: 8 (As per Serial No. 3.3-B)**
- vi. **Impact (production, income, employment, area/technological– horizontal/ vertical): Impact is given in Serial No. 13.C**

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

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

Sl. No.	Taluka	Name of the block	Name of the village	whether benchmark survey of the villages are done or not
1	Vyara	Vyara	Dolara	Yes
2			Zankhari	Yes
3			Nani Chikhali	Yes
4	Songadh	Songadh	Bedi	Yes
5			Amla	Yes

6. LINKAGES

A. Functional linkage with different organizations

Sl.No.	Name of organization	Nature of Linkage
1.	Dept. of Agriculture	Participation * <i>Khedut Shibir/Krishi Mela</i> * Soil Health Card * Extension Activities
2.	Dept. of Horticulture	Participation * <i>Khedut Shibir</i> * Extension Activities, NHB & NHM
3.	ATMA (Tapi/Navsari/Kheda/Vadodara/Narmada)	Participation * <i>Khedut Shibir / Mahila Shibir</i> * Extension Activities * Training Programmes, FLDs
4.	Main Cotton Res. Station, NAU, Surat	Collaboration – FLD on Cotton IPM Mission in Nizar block
5.	Main Water Management Research Unit, NAU, Navsari	Collaboration – FLD on Soil & Water management, Greenhouse, Drip Irrigation
6.	Research Stations, NAU	Participation – Extension activities, Seeds – FLDs & OFT
7.	FTC, Vyara	Joint implementation – Farmers visit and guest lectures, Farmer’s Fair, Trainings
8.	Govt. of Gujarat	Collaboration – <i>Krishi Mahotsav</i> , ATMA Convergence
9.	State Bank of India / Bank of Baroda	SHG work – Finance for entrepreneurship-development
10.	Integrated Child Development Services	For technical guest lecture for ICDS Training Centre
11.	RSETI, Vyara	Organizing Self Employment Training for Farm women & organic farming programmes
12.	DIC, Vyara	For Agro-based industries trainings and finance to the needy clientele.
13.	NAU, Navsari	For Technical products, technical guidance and supports.
14.	DGR, Junagadh	For Technical guidance and FLDs input
15.	SEWA, Vyara	For Training Programmes, Extension activities

Sl.No.	Name of organization	Nature of Linkage
		& technical support
16.	<i>JIVAN DEEPAADIVASI MAHILA BACHAT ANE DHIRAN KARNARI SAHAKARI MANDALI, Bardipada</i>	For Trainings, FLDs, extension activities
17.	Dr. Ambedkar Vanvasi Kalyan Trust, Surat	Trainings, FLD, Seed distribution
18.	<i>GUJARAT MATIKAM KALAKARI ANE RURAL TECHNOLOGY SANSTHAN-Bajjipura</i>	Vocational training/ Skill development training for rural youth and farm women
19.	<i>TAPI RACHANATMAK TRUST, Vyara</i>	For Trainings, FLDs, extension activities
20.	<i>UTTHAN MAHILA BACHAT ANE DHIRAN KARNARI SAHAKARI MANDALI, Vyara</i>	For Trainings, FLDs, extension activities
21.	BIAF Foundation-Vyara	Training Programme and Extension Activities
22.	Kamdhenu University-Gandhinagar	Training Programme and Extension Activities
23.	SPARSH-Songadh	Training Programme and Extension Activities
24.	Help A Child of India-Ahwa	Training Programme and Extension Activities

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

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Adaptive Trials	2013-14	State	
Cluster FLDs on Oil Seeds	2015-16	ICAR	
Cluster FLDs on Pulses	2015-16	ICAR	
FLS Under TSP-DGR, Junagadh	2015-16	ICAR	
Sub Mission on Agriculture Mechanization		State	
Seed Hub Project	2015-16	ICAR	
TSP-Mega Seed	2015-16	State	
PMFBY	2015-16	ICAR	
Sankalp se Sidhhi	2017-18	ICAR	

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes/No

If yes, role of KVK in preparation of SREP of the district?

KVK provides full technical support as and when necessary.

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)

01	Meetings	Review meeting of KVK-ATMA, Krishi Kalyan Mela-2018 Programe, Planning for Krishi Mela, AGB Meeting, World Soil Heath Day, Training of STRY Planning for Training for farmers, extension activities	6	5	
02	Research projects	--	--	--	
03	Training programmes	Training on Scientific cultivation of Kharif & Rabi crops, IPDM, Value addition in fruits & vegetables, Organic farming	2	9	--
04	Demonstrations	--	--	--	--
05	Extension Programmes				
	KisanMela	Doubling farmers' income	1 (2418 farmers)	0	
	Technology Week	-	0	0	
	Exposure visit	Wthin district	2 (1124 farmers)	1 (56 farmers)	
	Exhibition	-	0	4	
	Soil health camps	--	0	0	
	Animal Health Campaigns	--	0	0	
	Others (Pl. specify)	Animal Husbandry Field Visit, Vegetable Crops and Rose Plantation Visit, Demo Plot field visit, Farmers award (BAFA) related	20 (102 farmers)	12 (58farmers)	
		Kisan Gosthi	2 (848 farmers)	2 (1876 farmers)	
	Diagnostic visit	0	8 (38 farmerrs)		
	farmers Scientist Interaction	1 (375 farmers)	73 (farmers)		
	Capacity Building	1 (1160 farmers)	1 (160 farmers)		
	Farm School	1 (25 farmers)			

06	Publications				
	Video Films		0	0	
	Books		0	0	
	Extension Literature		0	0	
	Pamphlets		0	0	
	Others (Pl. specify)		0	0	
07	Other Activities (Pl. specify)				
	Watershed approach		0	0	
	Integrated Farm Development		0	0	
	Agri-preneurs development		0	0	

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

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Constraints if any

E. Nature of linkage with National Fisheries Development Board –NIL-

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks

F. Details of linkage with RKVY –NIL-

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks

7. Convergence with other agencies and departments: Activities may be specified under DAESI, YCMOU study centres and Others: --NIL--

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	Yes/No
	Brief report in this regard	Detail is given on page no. 94

9. Farmers Field School (FFS)

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.	Brief report
	-NIL-	-NIL-	-NIL-	-NIL-

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

Sr. No.	Feedback
1	GNRH-2 rice hybrid variety is high yielding new variety.
2	High yielding new variety of Sugarcane CON-13073 gave high return compare to old varieties.
3	New variety of Indian Bean GNIB-21 gave higher yield and quality as well as high returns compare to local varieties.
4	Awsame result in growth, yield and quality of watermelon, brinjal and okra by the foliar application of novel organic liquid fertilizer and drenching of Biofertilizers (azotobactor, PSB & potash mobilizer),
5	Tomato cv. Arka Rakshak gave higher yield in Tapi district.
6	Gall like symptoms found in okra.

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

Crop production:

1	Early variety in hybrid rice should be developed.
---	---

Horticulture:

Sr. No.	Technical Feedback
1	Yellow Vein Mosaic Virus resistant and High Yelding variety of okra should be developed.
2	Gall like symptoms found in okra. So, remedies should be provided.
3	urgent need for recommendation of quantity and schedule of waste decomposer
4	There is urgent need to release recommendations on herbal plant pesticides for management of pest and diseases in relation to organic farming

Plant Protection:

Sr. No.	Technical Feedback
1	Recommendation should be made on herbal plant pesticide

2	Okra is the major vegetable crop in Tapi district & farmers use chemical pesticide injudiciously and indiscriminately. So, research should be made on Non-pesticidal module against pest and diseases in this ecosystem.
---	--

Animal Science:

Sr. No.	Technical Feedback
1	Still need to be improvement in cost of production for compound cattle feed
2.	Increased the efficiency of available fodder utilizations
3	How to recovered milk production losses by infectious diseases <i>like</i> mastitis

Home Science:

Sr. No.	Technical Feedback
1	
2	
3	
4.	

11. Technology Week celebration during 2018-19 Yes/No, If Yes

Period of observing Technology Week: From 21/01/19 to 27/02/19

Total number of farmers visited : 548

Total number of agencies involved : 2

Number of demonstrations visited by the farmers within KVK campus: 548

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies/Shibir	6	398	Low cost technology in horticultural crops, Sickle cell anemia & its control measures, Importance of bio-fertilizers, Entrepreneurship development through mushroom cultivation, Advanced technology in dairy farming, Mahila shibir on water & soil management
Lectures organized	12	398	As per above
Exhibition	3	398	Bio fertilizers, Plug tray nursery, Mushroom cultivation
Film show	3	398	Low cost technology in horticultural crops, Mushroom cultivation, Dairy farming
Fair	--	--	--
Farm Visit	6	398	Visit to KVK indructional units at KVK-Tapi
Diagnostic Practicals	0	0	
Supply of Literature (No.)	0	0	
Supply of Seed (q)	0	0	--
Supply of Planting materials (No.)	0	0	--
Bio Product supply	0	0	--

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
(Kg)			
Bio Fertilizers (q)	0	0	--
Supply of fingerlings	0	0	--
Supply of Livestock specimen (No.)	0	0	--
Total number of farmers visited the technology week	--	548	--
Others	0	0	

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

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
---	--	--	--

B. Major area coverage under alternate crops/varieties

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

C. Farmers-scientists interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
--	--	--	--
Total	--	--	--

D. Animal health camps organized

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

E. Seed distribution in drought hit states

State	Crops	Quantity	Coverage	Number
-------	-------	----------	----------	--------

		(qtl)	of area (ha)	of farmers
--	--	--	--	--
Total	--	--	--	--

F. Large scale adoption of resource conservation technologies

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

G. Awareness campaign

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

13. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Reduction of infertility in cases in cattle by use of Estrus synchronizing Hormone (Prostaglandin F2 alpha) and mineral mixture	100	70	400.00	2320.00
Bypass fat feeding to buffaloes for increasing fat% in milk	150	80	32.50	89.00
Better growth rate of calves by concurrent use of mineral mixture and deworming.	90	80	282.00	412.00
IPM in Cotton	325	70	48850	61300
IPM in Paddy	250	65	28560	37985
IPM in Okra	300	60	243940	313610
IPM in Brinjal	140	65	164495	232655
INM in Brinjal	200	60	195000	260000
INM in Okra	220	65	220000	280000
New Crop Cauliflower	50	50	135000	155000
Plant geometry in okra	100	50	220000	246000
INM through Fertigation in papaya	50	45	308000	355000

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

B. Cases of large scale adoption

Sr. No.	Crop/ Enterprise	Thematic Area	Large scale adoption (%) in adopted villages	
			Before KVK	After KVK
1	Pigeon pea	New Variety	15	85
2	Gram	Irrigation Management	10	87
3	Groundnut	Land Configuration	12	65
4	Paddy	ICM	18	83
5	Soybean	INM	18	88
6	Okra	INM	8	58
7	Brinjal	INM	20	79
8	Tomato	New Variety (ICM)	10	44
9	Cauliflower	New crop	00	4
10	Cotton	IPM	37	55
11	Paddy	IPM	35	67
12	Kitchen Garden	Household food security by kitchen garden	25	78
13	Urea treatment to Paddy Straw	Nutrition Management	20	67
14	By pass fat feeding	Feed Management	15	62

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

Based on In-service training programme, On and Off campus training programme, KVK-Tapi has conducted following studies:

1. Attitude of Village Extension Workers towards ICT apparatus for exploring agricultural information

Investigator:

1. Dr. C. D. Pandya, Scientist (Extn), KVK, NAU, Vyara, Dist. Tapi
2. Dr. P. D. Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi

Objectives:

1. To study the personal profile of the respondents.
2. To study the attitude of Village Extension Workers towards ICT apparatus for exploring agricultural information.

Research methodology:

Ex-post-facto research design was followed. All Village Extension Workers of Tapi district was selected purposively. The scale developed by Moulik (1965), Supe (1969), Silvakumar (1988) and Pandya (2010) was used with slight modification for measuring the personal profile and structure schedule was also developed for measuring some variables. The scale developed by Bhuvra (2016) was used with slight modification for measuring the attitude of Village Extension Workers towards ICT apparatus. Online survey was used for collecting information from Extension Workers of Tapi district. Among 72 Village Extension Workers, 69 responses were received. All the responses were tabulated and analysed in light of the objectives. Frequency, Percentage, Mean, Standard Deviation were used for getting the precise result.

RESULTS AND DISCUSSION

The discussions on results obtained from the present study are presented after appropriate statistical analysis. The results are described in various dimensions under following as follows in the light of objectives of study:

1. Personal profile of the respondents
2. To study the attitude of Extension Workers towards ICT apparatus for exploring agricultural information

1. PERSONAL PROFILE OF THE RESPONDENTS

The data regarding profile of Village Extension Workers were analyzed and presented in the following sequence.

1.1 Age

Physical and psychological development of an individual is related to his age. This influences on the interest and needs of an individual. It also plays a vital role in the response to new ideas and practices. The respondents were asked to indicate their age in completed years. The data were grouped into three categories *viz.*; (i) young age (up to 35 years), (ii) middle age (36 to 50 years) and (iii) old age (above 50 years). The data collected about their age are presented in table 1.

Table 1: Distribution of respondents according to their age

n-69			
S.N.	Age groups	Frequency	Per cent
1	Young age	55	79.72
2	Middle age	07	10.14
3	Old age	07	10.14

It is evident from table 1 that majority (79.72 per cent) of the respondents were in the young age group while equal proportion (10.14 per cent) belonged to middle and old age groups.

It is clear from the data that the majority (79.72 per cent) of the respondents found in young age group. This infers that more of them were recruited in nearby years in their department.

1.2 Education

Generally, education is availed by the people to bring desired changes in their behaviour. It is considered as primary requirement in the society which may helps to understand technology. Information in regards was collected and classified into three categories *viz.*; (i) Diploma (ii) graduation (Bachelor degree) and (iii) postgraduation (Master degree). The collected data are shown in table 2.

Table 2: Distribution of respondents according to their education

n=69			
S.N.	Education	Frequency	Per cent
1	Diploma	18	26.09
2	Graduate	23	33.33
3	Postgraduation	28	40.58

It is apparent from the table 2 that majority (40.58 per cent) of the respondents were postgraduate followed by 33.33 per cent and 26.09 per cent of them had graduate and diploma level of education.

This infers that the young age could be responsible for this outcome.

1.3 Gender

Gender can be operationalized as to which sex the respondent belongs. The collected information in regards was grouped into two categories *viz.*, (i) male and (ii) female. The collected data about gender are presented in table 3.

Table 3: Distribution of respondents according to their gender

n=69			
S.N.	Categories of Gender	Frequency	Per cent
1	Male	50	72.46
2	Female	19	27.54

The data presented in table 3 reveals that majority (72.46 per cent) of the respondents was male and remaining (27.54 per cent) were female.

1.4 Service experience

Several reviews depicts that the length of service experience of an individual plays a significant role in the decision making process. It also helps to develop an ability among the employees to face varied situations while performing the jobs. Information in regards was collected and grouped into three categories viz., (i) lower (up to 3 years), (ii) medium (4 to 18 years) and (iii) higher (above 18 years) service experience. The data in this regards are presented in table 4.

Table 4: Distribution of respondents according to their service experience n=69

S.N.	Level of service experience	Frequency	Per cent
1	Lower service experience	51	73.92
2	Medium service experience	11	15.94
3	Higher service experience	07	10.14

The data showed in table 4 indicates that nearly three fourth (73.92 per cent) of the respondents had lower level of service experience followed by 15.94 and 10.14 per cent of them had medium and higher level of service experience

The possible reason for this finding might be that the majority of respondents newly recruited in the service.

1.5 Annual income

In present study an annual income is termed as the total amount received by the Village Extension Workers during the year. The respondents were asked about their income. According to their responses, they were classified into three groups viz.; (i) low annual income (up to Rs. 2,50,000/-), (ii) medium annual income (Rs. 2,50,001 to 5,00,000/-) and (iii) high annual income (above Rs 5,00,000/-). Data regarding the annual income of employees are presented in table 5.

Table 5: Distribution of respondents according to their annual income n=69

S.N.	Level of annual income	Frequency	Per cent
1	Low level of annual income	47	68.12
2	Medium level of annual income	15	21.34
3	High level of annual income	07	10.14

The data presented in table 5 reveals that majority (68.12 per cent) of the respondents belonged to low category of annual income followed by 21.34 and 10.14 per cent of them belonged to medium and high categories of annual income.

In context to study, it can be said that the service experience of respondents in their organization plays significantly for such result.

1.6 Source of information

Information is being considered as a message and availed by the individual for it best use. In present study how many times an employee has tried to get information from different resource was asked. The collected information were categorized as; (i) rarely assess (up to 16 score), (ii) frequently assess (17 to 22 score) and (iii) regularly assess (above 22 score). Data regarding the source of information are presented in table 6.

Table 6: Distribution of respondents according to their source of information n=69

S.N.	Level of source of information	Frequency	Per cent
1	Rarely assess	23	33.33
2	Frequently assess	33	47.83
3	Regularly assess	13	18.84

Mean- 19

SD-3

It is evident from the table 6 that nearly half (47.83 per cent) of the respondents had frequently accessed the information followed by 33.33 and 18.84 per cent of them had rarely and regularly accessed the information.

It infers that the respondents have considered the importance of information and their sources to equip themselves to accomplish their responsibility as well as to sustain in their situation.

1.7 Training received

The importance of training is requires to build up the professional competence as well as communication capabilities. Training received during their services helps the employees to perform their job than the untrained. The data in regards was collected and classified as; (i) training not received, (ii) one training received and (iii) two or more training received. The data in this regard are presented in table 7.

Table 7: Distribution of respondents according to their training received n=69

S.N.	Level of training received	Frequency	Per cent
1	No training received	20	28.99
2	One training received	30	43.48
3	Two or more training received	19	27.53

It is apparent from the table 7 that nearly two-fifth (43.48 per cent) of the respondents of had received one training on ICT followed by 28.99 per cent and 27.53 per cent of them had not received any training and two or more training received on ICT.

These results might be due to their excessive work load in their service or may get scanty opportunity for ICTs to training.

1.8 Innovative proneness

It refers to the behavioural pattern of an individual which enhance the employee's interest or desire to seek such changes in performing their job and are ready to introduce such changes for their best performance. The data in this regards were categories viz.; (i) lower innovative proneness (up to 10 score), (ii) moderate innovative proneness (11 to 14 score) and (iii) higher innovative proneness (above 14 score). The data are presented in table 8.

Table 8: Distribution of respondents according to their innovative proneness n=69

S.N.	Level of innovative proneness	Frequency	Per cent
1	Lower innovative proneness	11	15.94
2	Moderate innovative proneness	50	72.47
3	Higher innovative proneness	08	11.59

Mean- 12

SD-2

It is evident from the table 8 that nearly three-fourth (72.47 per cent) of the respondents had moderate level of innovative proneness followed by 15.94 and 11.59 per cent of them had lower and higher level of innovative proneness.

This might be due to their higher educational level, better level of understanding about responsibilities towards their job and such behaviour to adopt new technologies for better performance and enough knowledge to utilize available mass media.

1.9 Scientific orientation

Scientific orientation is characterized by the belief in science and scientific approaches to overcome their routine difficulties in the service. The data in this regard were collected from the respondents and grouped into three categories viz., (i) low (up to 13 score), (ii) medium (14 to 17 score) and (iii) high level of scientific orientation (above 17 score). The data in regards are presented in table 9.

Table 9: Distribution of respondents according to their scientific orientation n=69

S.N.	Level of scientific orientation	Frequency	Per cent
1	Low scientific orientation	08	11.59
2	Medium scientific orientation	55	79.71
3	High scientific orientation	06	8.70

Mean- 15

SD- 2

It is apparent from the table 9 that majority (79.71 per cent) of the respondents had medium level of scientific orientation followed by 11.59 per cent and 8.70 per cent of them had low and high level of scientific orientation.

This might be due to respondents' belief which reflects in results under the present study as well as in their interest towards persuaded job.

1.10 Accessibility

Accessibility refers to an ability to access the ICTs apparatus by the Village Extension Workers under the present study. It influences the work efficiency of an individual. It was studied in terms of the ICTs apparatus may accessible or not accessible. Data in this regard were collected and converted in frequency and percentage in table 10.

Table 10: Distribution of respondents according to their accessibility to ICTs apparatus n=69

S.N.	ICTs apparatus	Accessible	Not Accessible
1	Radio	58 (84.06)	11 (15.94)
2	Television	67 (97.10)	02 (2.90)
3	Telephone	55 (79.71)	14 (20.29)
4	Mobile	69 (100)	00 (0.00)
5	Computer	42 (60.87)	27 (39.13)
6	Internet	67 (97.10)	02 (2.90)
7	e-mail	50 (72.46)	19 (27.54)
8	Search engine	65 (94.20)	04 (5.80)
9	Agricultural Portals	67 (97.10)	02 (2.90)
10	Video Conferencing	05 (7.25)	64 (92.75)
11	Digital Camera	23 (33.33)	46 (66.67)
12	Social media	63 (91.30)	06 (8.70)

(Figures in parentheses indicate percentage)

It is evident from the table 10 that all (100.00 per cent) the respondents had the accessibility of ICTs apparatus like mobile followed by television, internet, agricultural portals (97.10 per cent), search engine (94.20 per cent), social media (91.30 per cent), radio (84.06 per cent), telephone (79.71 per cent), e-mail (72.46 per cent), computer (60.87 per cent) and digital camera (33.33 per cent) while majority (92.75 per cent) of them hadn't accessibility for video conferencing followed by digital camera (66.67 per cent), computer (39.13 per cent), e-mail (27.54 per cent), telephone (20.29 per cent), radio (15.94 per cent), social media (8.70 per cent), search engine (5.80 per cent), television, internet and agricultural portals (2.90 per cent).

1.10.1 Overall accessibility

All the data in this regard were grouped into three categories viz., (i) lower accessibility (up to 8 score), (ii) moderate accessibility (9 to 11 score) and (iii) higher accessibility (above 11 score). The data in regards are presented in table 11

Table 11: Overall accessibility to ICTs apparatus by the respondents n=69

S.N.	Level of accessibility	Frequency	Percentage
1	Lower accessibility	13	18.84
2	Moderate accessibility	45	65.22
3	Higher accessibility	11	15.94

Mean- 9.9

SD-1.8

It is apparent from the table 11 that nearly two third (65.22 per cent) of the respondents found in the category of moderate level of accessibility followed by 18.84 per cent and 15.94 per cent of them were found in the lower and higher level of accessibility of ICTs apparatus.

This infers that the respondent's education and knowing the importance of time factor in their profession force them to be aware about the accessing of ICTs apparatus for exploring agricultural information.

1.2. ATTITUDE OF THE EMPLOYEES TOWARDS ICTS APPARATUS

Attitude was conceptualized as positive or negative feelings of Village Extension Workers towards the use of ICTs apparatus for exploring the agricultural information. The information in regards was collected from the respondents and grouped as; (i) less favourable

attitude (up to 58 score), (ii) favorable attitude (59 to 72 score), and (iii) more favorable attitude (above 72 score). The data in this respect are presented in table 12.

Table 12: Distribution of respondents according to their attitude **n-69**

S.N.	Level of attitude	Frequency	Percentage
1	Less favourable attitude	16	23.19
2	Favourable attitude	42	60.87
3	More favorable attitude	11	15.94

Mean- 65

SD- 7

The data presented in table 12 reveals that majority (60.87 per cent) of the respondents had favourable attitude towards ICTs apparatus followed by 23.19 per cent and 15.94 per cent of them had less favourable and more favourable attitude towards ICTs apparatus.

This might be due to that the respondents perceived the spectrum of advantages of ICTs apparatus in job along with its role in exploring agricultural information for performing their activities.

Conclusion:

From above going discussion, it could be concluded that majority of the respondents were in the young age group, were postgraduate, was male, had lower level of service experience, belonged to low category of annual income, had frequently accessed the information, had received one training on ICT, had moderate level of innovative proneness, medium level of scientific orientation, had the accessibility of ICTs apparatus *like* mobile, moderate level of accessibility and had favourable attitude towards ICTs apparatus.

2. Adoption of “Novel” organic liquid nutrient in fruits and vegetable crops in Tapi district

- Objective:**
- To study the Selected characteristics of the respondents
 - To study the extent of adoption of Novel organic liquid fertilizer in vegetable and fruit crops
 - To examine the relationship between dependent and independent variables

Investigators: Dr. P.K.Modi, Scientist (Horticulture), KVK, NAU, Vyara, Dist. Tapi
 Dr. S.M.Chavan, Scientist (Plant Protection),KVK, NAU, Vyara, Dist.-Tapi
 Dr. P.D.Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi

Methodology

The study was conducted in Tapi district. Total 100 farmers was selected those who trained/purchased/FLD’s on Novel organic liquid fertilizer purposively from KVK. Adoption was measured with the help of teachers made interview schedule. 1 score was given for adoption and 0 score was given for non adoption. The data was analyzed with appropriate statistical tools such as frequency, percentage, Mean, SD, correlation co-efficient *etc*
 Selected

RESULTS AND DISCUSSION:

Profile of Respondents:

The profile of respondents is given below.

Table 1: Distribution of tribal women according to their characteristics

n=100

Sr.No.	Characteristics	No. of Respondents	Per cent
1.1	Age		
a	Young age (below 35 yrs)	36	36.00
b	Middle age (35 to 50 yrs)	59	59.00
c	Old age (above 50 yrs)	5	05.00
1.2	Education		
a	Illiterate	8	8.00
b	Primary	20	20.00
c	Secondary	21	21.00

Sr.No.	Characteristics	No. of Respondents	Per cent
d	Higher Secondary	30	30.00
e	Diploma	4	4.00
f	Graduate	13	13.00
G	Post graduate	4	4.00
1.3	Occupation		
A	Agriculture	11	11.00
B	Agriculture with Animal husbandry	87	87.00
C	Agriculture with service	0	0
D	Agriculture with other enterprise	2	2.00
E	Agriculture with service and other enterprise	0	0
1.4	Land Holding		
1	0.10-1.00 ha	40	40.00
2	1.00-2.00 ha	37	37.00
3	2.00-4.00 ha	13	13.00
4	>4.00 ha	10	10.00
1.5	Training		
1	Acquired	67	67.00
2	Not acquired	33	33.00

The data in Table 1.1 revealed that 59.00 per cent of the farmers belonged to middle age group followed by 36.00 and 05.00 per cent belonged to young age and old age group respectively.

It is evident from Table 1.2 that 8.00 per cent of the farmers were illiterate and 20.00 per cent of the farmers had education up to primary school, followed by secondary school (21.00 per cent), higher secondary school (30.00 per cent), diploma (4.00 per cent), graduate (13.00 per cent) and post graduate (4.00 per cent).

The data of Table 1.3 indicated that majority (87 per cent) of farmers doing agriculture with animal husbandry.

The data portrayed in Table 1.4 indicated that majority (77.00 per cent) of the farmers having land upto 2 ha.

The information presented in Table 1.5 revealed that more than 66 per cent farmers acquired training however remaining 33 per cent were not received training.

Table 2: Distribution of farmers according to level of knowledge of NOLF

n=100

Level of Knowledge	No. of Respondents
Low (<13)	13
Medium (13 to 17)	66
High (>17)	21

Mean:15.39

SD: 2.20

It is clear from the results of Table-2 that majority (66 per cent) of the farmers having medium level of knowledge about the use of novel organic liquid fertilizer. Whereas, 13 per cent and 20 percent farmers having low and high level knowledge respectively.

Table 3: Distribution of farmers according to level of adoption of NOLF n=100

Level of adoption	No. of Respondents
Low (<11)	24
Medium (11 to 13)	55
High (>13)	21

Mean:11.74

SD: 1.74

It is evident from the data inferred in Table-3 that majority (76 per cent) of the farmers having medium to high level adoption. However, only 24% of the farmers were in the low level of adoption.

Table 4: Practice wise extent of adoption

n-100

S.No.	Selected practices	Adoption (%)
1	Dose 1% in vegetables	76
2	Dose 2% in fruit crops	59
3	Application @ vegetative stage	45
4	Application @ flowering stage	62
5	Application @ fruiting stage	81
6	Before flowering stage in mango	5
7	Flowering stage mango	17
8	Pea stage in mango	10
9	Used for nutrient requirements (Macro and micro both (10 nutrients - N P K Ca Mg Ca S Cu Mn Zn & B)	100
10	Used for hormones requirement (GA ₃ and Cytokinin)	100
11	Method of application (Spray)	100
12	Used for reduce flower bud drop	85
13	Used for quality improvement	78
14	Used in okra	100
15	Used in Watermelon	67
16	Used in Clusterbean	35
17	Used in Brinjal	42
18	Used in creeper vegetables	30
19	Used in mango	32

An effort was also made to know the practice wise extent of adoption about the Novel Organic Liquid Fertilizer. The practices namely used for nutrient and hormones requirements as well as method of application were adopted by all the respondents. However, practices regarding doses and stages of application (fruiting stage) were also adopted by the farmers in the tune of 76 and 81 percent respectively. It was interesting to note that the use of NOLF was proffered by all the farmers in okra crop followed by watermelon.

Table 5: Relationship between independent variables and dependent variables of NOLF users

n=100

Sr.No.	Independent variables	Correlation co-efficient (r)
		Adoption
X ₁	Age	-0.02607
X ₂	Education	0.32342*
X ₃	Land holding	0.01883
X ₄	Occupation	0.04628
X ₅	Training	0.65592**
X ₆	Knowledge	0.83701**

*** Significant at 5 per cent level of probability (0.1965)**

The data portrayed in Table 5 indicated that education, training and knowledge were significantly associated with the adoption of NOLF by the farmers. However, Age, Occupation and land holding were not significantly associated.

CONCLUSIONS:

It is clearly indicated from the results of this study that majority of the farmers had young to middle aged, educated upto primary to higher secondary. Agriculture and animal husbandry were the main occupation, having land upto 2 ha.. Majority of farmers belongs to medium to high level of knowledge and adoption. Out of selected 6 independent variables 3 variables namely education, training and Knowledge were significantly associated with adoption.

On the basis of findings, it is clear that there must be intensive efforts to provide proper training to accelerate the rate of adoption. Not only that different programmes *i.e.* khedut shibir, field day *etc.* also be organized to create the awareness among the farmers about the importance of NOLF.

3. Knowledge of tribal women about different types of Anemia

Objectives:

1. To study the profile of respondents.
2. To study the nutritional knowledge of tribal women regarding different types of Anemia.
3. To examine the relationship between dependent & independent variables.
4. To study the level of knowledge of tribal women regarding different types of Anemia.

Investigators:

1. Prof. Arti N. Soni, Scientist (Home Science), KVK, NAU, Vyara, Dist. Tapi
2. Dr. P.D.Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi

Background information:

Tribal people are the most conservative, orthodox and superstitious which effect their growth and development in all walks of life particularly for women (Rajihari, 2008). Tribal diets are different from entire population as they include certain common foods and different manner (Mittal,2006). Nutritional anemia is a major health problem of women in tribal areas. The sickle cell anemia is commonly found in tribal community of south Gujarat. Tribal women's health is varies because of such factors like local disease prevalence, health related behavior, women education *etc.* Knowledge plays an important role for achieving desired results. Nutritional knowledge has great importance for improving dietary behavior and good health. Thus, the present study was conducted to know the nutritional knowledge of tribal women regarding different types of anemia.

Research methodology:

The study was conducted in purposively selected Vyara block of Tapi district. From Vyara block, five villages were selected purposively. From each village, 20 tribal women were selected randomly making total size of 100. The data was collected through personal interview method and set of 15 questions of nutritional knowledge regarding different types of Anemia were used. One score was given for each correct answer and zero was given for wrong answer or if no answer was given by tribal women. The data was analyzed with appropriate statistical tools such as frequency, percentage, Mean, SD, correlation co-efficient *etc.*

RESULTS AND DISCUSSION:

Profile of Respondents:

The profile of respondents is given below.

Table 1: Distribution of tribal women according to their characteristics n=100

Sr.No.	Characteristics	No. of Respondents	Per cent
1.1	Age		
a	Young age (below 35 yrs)	30	30.00
b	Middle age (35 to 50 yrs)	66	66.00

Sr.No.	Characteristics	No. of Respondents	Per cent
c	Old age (above 50 yrs)	04	04.00
1.2	Education		
a	Illiterate	20	20.00
b	Primary	31	31.00
c	Secondary	23	23.00
d	Higher Secondary	18	18.00
e	Diploma	00	00.00
f	Graduate	07	07.00
G	Post graduate	01	01.00
1.3	Family Education	(395)	
a	Illiterate	76	19.24
b	Primary	144	36.45
c	Secondary	70	17.72
d	Higher Secondary	62	15.69
e	Diploma	08	02.02
f	Graduate	30	07.59
g	Post graduate	05	01.26
1.4	Family type		
a	Joint	74	74.00
b	Nuclear	26	26.00
1.5	Family size		
a	1 to 2 members	04	04.00
b	3 to 4 members	28	28.00
c	5 to 6 members	56	56.00
d	7 to 8 members	04	04.00
e	Above 8 members	08	08.00
1.6	Occupation		
a	Agriculture	38	38.00
b	Agriculture with Animal husbandry	50	50.00
c	Agriculture with service	07	07.00
d	Agriculture with other enterprise	02	02.00
e	Agriculture with service and other enterprise	03	03.00
1.7	Annual income		
a	Below Rs.50,000	82	82.00
b	Rs.50,001 to Rs.1,00,000	10	10.00
c	Rs.1,00,001 to Rs.1,50,000	05	05.00
d	Rs.1,50,001 to Rs.2,00,000	00	00.00
e	Above Rs.2,00,000	03	03.00

The data in Table 1.1 revealed that majority of tribal women (66.00 per cent) belonged to middle age group followed by 30.00 and 04.00 per cent belonged to young age and old age group respectively.

It is evident from Table 1.2 that 20.00 per cent of the tribal women were illiterate and 31.00 per cent of the tribal women had education up to primary school, followed by secondary school (23.00 per cent), higher secondary school (18.00 per cent), graduate (7.00 per cent) and post graduate (1.00 per cent).

The data of Table 1.3 indicated that 19.24 per cent of the family members were illiterate and 36.45 per cent of the family members had education up to primary school followed by 17.72, 15.69, 7.59 per cent of them had education up to secondary school, higher

secondary school and graduate respectively while 2.02 and 1.26 per cent of family members had education up to diploma and post graduate respectively.

The data portrayed in Table 1.4 indicated that majority (74.00 per cent) of the respondents had joint family followed by 26.00 per cent had nuclear family.

The information presented in Table 1.5 revealed that more than half (57.00 per cent) of the respondents having a family of 5 to 6 members followed by 28.00 and 8.00 per cent had 3 to 4 members and above 8 members respectively while equal i.e. 4.00 per cent of them had 1 to 2 members and 7 to 8 members in their families.

The data presented in Table 1.6 revealed that half (50.00 per cent) of the respondents had agriculture with animal husbandry followed by agriculture (38.00 per cent) as their main occupation while 7.00, 3.00 and 2.00 per cent of them engaged in agriculture with service, agriculture with service & other enterprise and agriculture with other enterprise respectively.

The data portrayed in Table 1.7 indicated that majority (82.00 per cent) of the respondents had annual income upto Rs.50,000 while 10.00, 5.00 and 3.00 per cent of them had Rs.50,001 to 1,00,000, Rs.1,00,001 to 1,50,000 and above Rs.2,00,000 annual income respectively.

Table 2: Information regarding Sickle cell Anemia from respondents n=100

Sr.No.	Details	Numbers
1	Families having Sickle cell Anemia	12
2	Family members having Sickle cell Anemia	26
3	Family members having Sickle cell trait (50%)	21
4	Family members having Sickle cell disease (100%)	05

The data of Table 2 indicated that 12.00 per cent of respondents had total 26 no. of sickle cell anemic family members. From total 26 family members 21 and 5 no. of members were suffering from sickle cell trait (50%) and sickle cell disease (100%) respectively.

Table 3: Distribution of tribal women according to Social participation n=100

Sr.No.	Categories*	No. of Respondents	Per cent
1	<i>Gram Panchayat</i>	05	05.00
2	Milk co-operative society	55	55.00
3	SEWA co-operative society	01	01.00
4	Farmers club	08	08.00
5	<i>Mahila Mandal</i>	32	32.00
6	<i>Bhajan Mandal</i>	01	01.00
7	<i>Sakhi Mandal/ Self Help Group</i>	61	61.00
8	<i>Samaj Sangathan</i>	01	01.00
9	Non-Govt. organization	08	08.00
10	No participation	06	06.00

*Multiple responses

The data presented in Table 3 revealed that 61.00 and 55.00 per cent of the respondents had participated in *Sakhi Mandal/ Self Help Group* and Milk co-operative society respectively. The data also indicated that 32.00 per cent of the respondents had participated in *Mahila Mandal* and very less participation i.e. 8.00 and 5.00 per cent in Farmers club & NGOs and *Gram Panchayat* respectively whereas 6.00 per cent of them had no any type of social participation.

Table 4: Source of information about different types of Anemia**n=100**

Sr.No.	Source of information*	No. of Respondents	Per cent
1	Health Department	17	17.00
2	Primary Health Centre/ Community Health Centre	20	20.00
3	ASHA workers	17	17.00
4	Aanganwadi workers	07	07.00
5	Krishi Vigyan Kendra	21	21.00
6	Health camp	05	05.00
7	Co-operative Society	04	04.00
8	Folder/ Leaflet/ Poster/ Magazine/Book	07	07.00
9	Newspaper	12	12.00
10	Radio	01	01.00
11	Television	14	14.00
12	Progressive women	11	11.00
13	Friends/ Neighbors	15	15.00
14	No information	46	46.00

***Multiple responses**

The data portrayed in Table 4 indicated that majority (46.00 per cent) of the respondents had no any type of information regarding anemia while 21.00, 20.00 and 17.00 per cent of the respondents had gained information about anemia from KVK, PHC/CHC and ASHA workers/ Health department respectively. The data also indicated that 15.00, 14.00, 12.00, 11.00 per cent of the respondents had gained information from friends/neighbors, Television, Newspaper, progressive women respectively and 7.00 per cent of tribal women had gained information about anemia from Aanganwadi workers and Folder/ Leaflet/ Poster/ Magazine/Book respectively.

Knowledge of tribal women about different types of Anemia

The results of the study were presented in following table.

Table 5: Knowledge of tribal women about different types of Anemia**n=100**

Sr. No.	Nutritional Practices	Knowledge	
		No. of Respondents	Per cent
1	A deficiency of iron produces the Anemia disease in human beings.	75	75.00*
2	Symptoms of Anemia	73	73.00*
3	Sickle cell Anemia is a recessive genetic disease.	71	71.00*
4	Shepu leaves, rice flakes, dates, watermelon are rich sources of iron.	66	66.00*
5	Age of normal RBC is about 120 days in human body.	59	59.00*
6	Anemia (Megaloblastic) is caused by deficiencies of vitamin B ₁₂ and folic acid in body.	51	51.00#
7	Iron deficiency anemia resulting from chronic intestinal blood loss due to hookworm infection.	51	51.00#
8	Vitamin-C helps for absorption of dietary iron in body.	42	42.00#
9	Iron, Protein & vitamin-C rich diet should be consumed for preventing Anemia.	41	41.00#
10	Types of Sickle cell Anemia	34	34.00@
11	Hemoglobin is made up of iron and protein.	31	31.00@
12	Vitamin-B ₁₂ and Folic acid is responsible for formation of Red Blood Cell.	27	27.00@

Sr. No.	Nutritional Practices	Knowledge	
		No. of Respondents	Per cent
13	Diagnosis of fetus regarding Sickle cell Anemia during pregnancy.	27	27.00@
14	The normal range of Hb for women is 12-14 gm%	24	24.00@
15	Causes of Sickle cell Anemia	12	12.00@

Mean:45.6

SD:6.36

* = Maximum knowledge # = Moderate knowledge @ = Least knowledge

The data presented in Table 5 revealed that the tribal women had maximum knowledge about five selected nutritional practices that is 75.00, 73.00 and 71.00 per cent of the respondents knew that 'A deficiency of iron produces the Anemia disease in human beings, symptoms of Anemia and Sickle cell Anemia is a recessive genetic disease' respectively. Knowledge about iron rich foodstuff and age of normal RBC were high. About four of the selected nutritional practices were moderately known to the tribal women. This included 'Vitamin B₁₂ and folic acid deficiency disease, iron deficiency anemia is caused by hookworm infection, Vitamin-C helps for iron absorption and iron, protein & vitamin-c rich diet should be consumed for preventing anemia.' The data indicated that the tribal women had low knowledge about six selected nutritional practices. This included 'Causes of sickle cell anemia, normal range of Hb for women, diagnosis and types of sickle cell anemia, formation of RBC and Hb.'

Table 6: Relationship between independent variables and dependent variables of tribal women

n=100

Sr.No.	Independent variables	Correlation co-efficient (r)
		Knowledge
X ₁	Age	0.0294
X ₂	Education	0.2987*
X ₃	Family type	0.0027
X ₄	Family size	-0.0800
X ₅	Occupation	0.0981
X ₆	Annual income	0.1172
X ₇	Social participation	-0.0135
X ₈	Source of information	0.3194*

* Significant at 5 per cent level of probability (0.1965)

The data portrayed in Table 6 indicated that education and source of information were significantly associated with the knowledge of the tribal women about different types of anemia.

Table 7: Distribution of tribal women according to level of knowledge

n=100

Level of Knowledge	No. of Respondents	Per cent
Low (<6)	29	29.00
Medium (6 to 8)	45	45.00
High (>8)	26	26.00

Mean:6.82

SD:0.707

The information presented in Table 7 revealed that 74.00 per cent of the tribal women

had low to medium level of nutritional knowledge about different types of anemia. However, 26.00 per cent of the tribal women had high level of knowledge.

Conclusions:

It is clearly indicated from the results of this study that majority of the tribal women had middle aged, educated upto primary and secondary, in joint family, 5 to 6 members in their family, engaged in agriculture with animal husbandry, annual income upto Rs.50,000 and participated in *Sakhi Mandal*/ Self Help Group and Milk co-operative society. Majority of the tribal women had low to medium level of nutritional knowledge about different types of anemia. The independent variables namely education and source of information were significantly correlated with the knowledge of the tribal women about different types of anemia. On the basis of findings, awareness programmes and training programmes on different types of anemia esp. sickle cell anemia should be organized by health department. Besides, KVKs and other line department should also be arranged programmes for tribal adolescent girls and women to aware about nutritional knowledge among tribal community.

4. Impact of Training programme

4.1. Title of In-service Training: Different types of Anemia & its control measures

S.N.	Technical practices	No. of Trainees	Knowledge of Field workers (Percent)	
			Before Training	After Training
1	Iron is an essential element for the formation of Haemoglobin of red cells of blood.	34	17.64	76.44
2	Sign & Symptoms of Anemia		88.23	94.08
3	Folic acid and Vitamin-B ₁₂ are responsible for formation of RBC.		26.47	79.38
4	Vitamin-C helps for absorption of dietary iron in body.		41.17	64.68
5	Mostly Anemia is seen in women (between 15to 45 yrs age) and children.		41.17	88.20
6	Iron, Protein & vitamin-C rich foodstuff are useful for preventing Anemia.		41.17	44.10
7	Sprouted pulses are the best source of vitamin-C.		17.64	88.20
8	Iron is available in green leafy vegetables.		47.04	61.74
9	Soybean is a rich source of protein.		41.17	79.38
10	1 gm fat gives 9.0 Kcal. energy.		05.88	61.74
11	Goiter is caused by iodine deficiency in body.		32.34	82.32
12	Vitamin-A is essential for good vision.		47.04	55.86
13	Scurvy disease is caused by deficiency of vitamin-C in body.		02.94	44.10
14	Age of normal RBC is about 120 days in human body.		38.22	85.26
15	Diagnosis of fetus reg. Sickle cell Anemia		14.70	47.04
16	Types of Sickle cell Anemia		08.82	49.98
17	Causes of Sickle cell Anemia		08.82	61.74
18	Control measures of Sickle cell Anemia		55.86	67.62
Average			32.02	68.44

4.2. Title of Training: Human Leptospirosis and its control measures

Sr. No.	Technical practices	No. of Trainees	Knowledge of tribal farm women (Percent)	
			Before Training	After Training
1	Leptospirosis disease is seen in human being during monsoon season in south Gujarat.	46	87.23	100.00
2	Leptospirosis disease, first detected in Gujarat in the year 1994.		09.14	93.23
3	Leptospirosis disease is mostly seen in the month of August to September.		83.23	97.61
4	Leptospirosis disease occurs in peoples who are working in agriculture and Animal husbandry sector.		64.85	87.61
5	Causes of Leptospirosis disease		04.00	66.09
6	Sign and Symptoms of Leptospirosis disease		25.14	87.61
7	Control measures of disease		06.00	62.95
		Average	39.94	85.01

4.3. Title of Training: Kitchen gardening

Sr. No.	Technical practices	No. of Trainees	Knowledge of tribal farm women (Percent)	
			Before Training	After Training
1	Daily requirement of vegetables in balanced diet.	30	23.33	86.87
2	Major nutrients available in vegetables.		66.66	83.33
3	Iron is available in green leafy vegetables.		76.66	86.87
4	Fruit fly trap is used for IPM in cucurbitaceous vegetables.		10.00	40.00
5	Citrus fruits & vegetables are rich source of Vitamin-C.		53.33	73.33
6	Effect on human health by using excess amount of chemical fertilizers and pesticides in Agri. crops.		66.65	96.67
7	Vitamin-A is essential for good vision.		40.00	83.33
8	In addition to minerals & vitamins, protein is also available in drumstick as compared to other vegetables.		56.67	96.67
9	Deficiency of iron produces the Anemia disease in human beings.		33.33	96.67
10	Calcium is essential for building and maintaining bones & teeth and green leafy vegetables are rich source of calcium.		43.33	100.00
		Average	47.00	84.37

4.4 Title of Training: Health and Nutrition for vulnerable groups

Sr. No.	Health and Nutritional aspects	No. of Trainees	Knowledge of tribal farm women (Percent)	
			Before Training	After Training
1	Daily requirement of vegetables in balanced diet.	26	30.76	100.00
2	1 gm fat gives 9.00K.Cal.energy.		07.69	76.92
3	Kwashiorkor disease is caused by protein deficiency in children.		15.38	73.07
4	Fruit fly trap is used for IPM in cucurbitaceous vegetables.		15.38	65.38
5	Sprouted pulses are the best source of vitamin-C.		30.76	84.61
6	Effect on human health by using excess amount of chemical fertilizers and pesticides in Agri. crops.		61.53	88.46
7	Normally human (adult at rest) takes 15 breaths in one minute.		19.23	96.15
8	In addition to minerals & vitamins, protein is also available in drumstick as compared to other vegetables.		46.15	92.30
9	Iron is available in green leafy vegetables.		57.69	92.30
10	Calcium is essential for building and maintaining bones & teeth and green leafy vegetables are rich source of calcium.		57.69	88.46
11	Soybean is a rich source of protein.		46.15	96.15
12	Folic acid and Vitamin-B ₁₂ are responsible for formation of RBC.		11.53	50.00
13	According to WHO, vitamin-C is an essential for adequate absorption of iron in body.		38.46	65.38
14	Normally lifespan of human Red Blood Cell is approximately 120 days.		53.84	100.00
15	Probiotic foods		42.30	73.07
16	Leptospirosis disease, first detected in Gujarat in the year 1994.		23.07	80.76
17	Prenatal testing for sickle cell disease during pregnancy.		15.38	50.00
18	Causes of sickle cell anemia		42.30	96.15
19	Leptospirosis disease is seen in human being during monsoon season in south Gujarat.		23.07	100.00
20	Combination of cereals & pulses is rich source of complete protein which is useful for preventing malnutrition in children		53.84	96.15
		Average	34.61	83.27

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
April 2018	1	10167	-NIL-
May 2018	1	10167	-NIL-
June 2018	6	10167	-NIL-
July 2018	11	10167	-NIL-
August 2018	6	10167	-NIL-
September 2018	1	10167	-NIL-
October 2018	3	10167	-NIL-
November 2018	3	10167	-NIL-
December 2018	0	0	-NIL-
January 2019	0	0	-NIL-
February 2019	0	0	-NIL-
March 2019	0	0	-NIL-

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
KVK, NAU, Vyara, Dist.Tapi	Text only	15	0	0	1	14	2	32
	Voice only	--	--	--	--	--	--	--
	Voice & Text both	--	--	--	--	--	--	--
	Total Messages	15	0	0	1	14	2	32
	Total farmers Benefitted/Message	10167	--	--	--	--	--	-

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Plug Tray Nursery	2012	0.25	Different variety of Vegetables & fruit crops	vegetable seedlings	117609	154786	202800	

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals	20-21/2/18	28-29/5/18	0.6	GAR-13	CF	27.50	13843	85800	
	15-21/2/18	27-28/5/18	0.9	Gurjari	CF	48.72	19467	136360	
	13-18/7/2018	9-11/10/2018	0.60	GNR-6	CF	15.80	15244	44240	
	22-23/7/2018	14-15/11/2018	0.24	Gurjari	CF	10.60	6097	39200	
	17/7/2018	5-6/11/2018	0.39	Jaya	CF	29.10	9908	83808	
	10-16/7/2018	11-13/11/2018	0.90	GNR-7	CF	31.50	22866	98280	
	17-18/7/2018	20-22/10/2018	0.71	GNR-3	CF	27.50	18039	79200	
	5-16/7/2018	1-4/11/2018	1.17	GAR-13	CF	52.50	29726	168000	
Pulses	20-22/12/18	6-10/3/18	1.01	GG-3	CF	11.50	8900	80500	
	16/3/18	31/5/18 to 7/6/18	0.53	Meha	CF	2.00	2400	18000	
	5/9/17	5/4/18	Border	Vaishali	CF	1.77	90	15930	
Oilseeds	--	--	--	--	--	258.49	--	849318	--
Fibers	--	--	--	--	--	--	--	--	--
Spices & Plantation crops									
Floriculture	--	--	--	--	--	--	--	--	--
Fruits	2010-11	May-2018	2.0	Kesar, Rajapuri, Dasher, Aamrapali	Fruit	Auction	47800	100101	
	--	--	--	--	--	--	--	--	--

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

Sl. No.	Name of the Product	Qty	Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Vermi Compost	68397 kg	197500	376184	benefitted to 250 farmers

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

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

E. Utilization of hostel facilities

Accommodation available (No. of beds): 32

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018	0	0	--
May 2018	0	0	--
June 2018	0	0	--
July 2018	0	0	--
August 2018	36	30	--
September 2018	19	15	--
October 2018	0	0	--
November 2018	0	0	--
December 2018	27	30	--
January 2019	10	30	--
February 2019	30	2	--
March 2019	0	0	--

F. Database management

S. No	Database target	Database created
1	Whole District	175 villages

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

Amount sanction (Rs.)	Expenditure (Rs.)	Details of infrastructure created / micro irrigation system etc.	Activities conducted					Quantity of water harvested in '000 litres	Area irrigated / utilization pattern
			No. of Training programmes	No. of Demonstrations	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
--NIL--									

16. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	--	--	--	--	--	--	--
With KVK	State Bank of India	Vyara	0532	NAU KVK's A/c	10716339605	394002013	SBIN0000532
	State Bank of India	Vyara	0532	NAU KVK's Revolving Fund A/c	10716339616	394002013	SBIN0000532
	State Bank of India	Vyara	0532	Seed Hub DAC Funded Project	37145711223	394002013	SBIN0000532
	State Bank of India	Vyara	0532	Senior Scientist & Head, KVK, Vyara	37145729116	394002013	SBIN0000532

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

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	Pay & Allowances	86.00	86.00	80.15
2	Traveling allowances	1.28	1.28	1.44
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	18.50	18.50	18.48
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)			
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		105.78	105.78	100.07
B. Non-Recurring Contingencies				
1	Works	1.10	1.10	1.10
2	Equipments including SWTL & Furniture	10.95	10.95	18.94
3	Vehicle (Four wheeler/Two wheeler, please specify)	8.00	8.00	
4	Library (Purchase of assets like books & journals)	--	--	--
TOTAL (B)		20.05	20.05	19.95
C. REVOLVING FUND				
GRAND TOTAL (A+B+C)		125.83	125.83	120.02

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

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 2016 to March 2017	53747	1272574	1087909	238412
April 2017 to March 2018	238412	1454898	1215698	477612
April 2018 to March 2019	477612	1889048.49	1140066	1226594

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Dates
Dr. S. M. Chavan	Scientist (Plant Protection)	Training of Trainers (TOT) of skill development	EEL,AAU, Anand	25-29/9/2018

Note: Another information on Seminar/Workshop/Meeting is given in Annexure-II

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

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

S.N.	Name of adopted village	Block	District	Name of activity
1	Nani Chikhali	Vyara	Tapi	-PRA Survey -FLDs was given (detail is given below)

FLD on Kitchen Gardening (Rabi-Summer: 2018-19) under Nutri-sensitive Agril. Research and Innovations prog.

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farm women	No. of Units	Average Yield (Kg)		% change in yield	Economics of demonstration (Rs./demon.)				Economics of check (Rs./demon.)						
					De mo	Che ck		Gross Cost	Gross Return	Net Return	BC R (R/C)	Gross Cost	Gross Return	Net Return	BC R (R/C)			
Seeds & seedlings of vegetables alongwith Vermicom post, yellow sticky trap & fruitfly trap	Household food security by kitchen gardening	Nutritional Kitchen garden	20	20	-- Continue--													

Area per demonstration: 500 sq.ft.

Critical input supplied: Tomato, Brinjal, Chilli, Little gourd, Cauliflower, Palakh, Fenugreek, Coriander, Beetroot, Radish, Indian bean, Ridge gourd, Bottle gourd, Sponge gourd, Bitter gourd, Okra, Pumpkin, Cow pea, Vermicompost, Yellow sticky trap & Fruitfly trap

- VATICA: --NIL--

- Seed Hub: “Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India”

1. Name of KVK: Krishi Vigyan Kendra, Tapi

2. Physical Progress:

Season & Year	Crop	Target of Seed Production (q)	Achievement in Seed Production (q)	Variety with year of release	Seed producing centres/Farmer's Field	Area (ha)	Class of seed produced (F/S, C/S)
<i>Kharif, 2016-17</i>	Pigeonpea	150	178.5	BSMR 853 (2007)	Farmers field	20	C/S
<i>Rabi, 2016-17</i>	Chickpea	200	153.6	GJG-3 (2010)	Farmers field	20	C/S
<i>Summer, 2016-17</i>	Greengram	150	151.2	Meha (2007)	Farmers field	20	C/S
<i>Kharif, 2017-18</i>	Pigeonpea	300	137.5*	BSMR 853 (2007)	Farmers field	25	C/S
<i>Rabi, 2017-18</i>	Chickpea	200	207.5	GJG-3 (2010)	Farmers field and KVK Farm	23	C/S
<i>Summer, 2017-18</i>	Greengram	300	224.0 [@]	Meha (2007)	Farmers field and KVK Farm	20	C/S
<i>Kharif, 2018-19</i>	Pigeonpea	300	Seed collection is in process	BSMR 853 (2007)	Farmers field	25	C/S
<i>Rabi, 2018-19</i>	Chickpea	400	Harvesting is in process	GG-5 (2017)	Farmers field and KVK Farm	20	C/S
<i>Summer, 2018-19</i>	Greengram	300	Crop is standing	GM-6 (2017)	Farmers field and KVK Farm	20	TF

*Quality seed production was not obtained during *Kharif* 2017 as crop was severely affected by *Okhi cyclone* in December-2017.

[@]Due to scarcity of water in summer season (2018) and crop was affected due to pre-monsoon rain

3. Financial Progress:

Year	Fund allocated (Rs.)		Fund received (Rs.)		Expenditure (Rs.)		Unspent balance (Rs.)	Remarks
	Infrastructure	Revolving Fund	Infrastructure	Revolving Fund	Infrastructure	Revolving Fund		
2016-17	50,00,000	30,00,000	50,00,000	30,00,000	0	0	80,00,000	
2017-18	-	70,00,000	-	36,00,000	35,00,000	4,48,002	76,51,998	
2018-19	-	-	-	34,00,000	6,55,200	9,05,644	94,91,154	
Total	50,00,000	100,00,000	50,00,000	100,00,000	41,55,200	13,53,646	94,91,154	

4. Infrastructure Development:

Item	Progress	Remarks
Seed processing unit	Purchasing of seed processing machinery has been completed and their installation is in process and will be completed as soon as roofing and plaster work of seed storage structure/godown is completed	
Seed storage structure	Roofing and Plaster work is remaining	

- Others (if any): --NIL--

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

19.1 FLDs under TSP-NRCG, Junagadh:

Sr. No.	Season	Crop	Technology Demonstrated	Variety	Local Check	No. of farmers	Area (ha)	Average production (q/ha)		Percent increase
								Demon	Local Check	
1	Summer-2018	groundnut	Improved Variety	TAG-37 A	J-11	40	15	18.6	12.9	30.14

Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
Gross Cost	Gross Return	Net Return	BCR	Gross Cost	Gross Return	Net Return	BCR
33500	74400	40900	2.22	32000	51600	19600	1.61

19.2 FLD on Other enterprises: Kitchen Gardening (Kharif:2018) under Adaptive trial

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farm women	No. of Units	Average Yield (Kg)		% change in yield	Economics of demonstration (Rs./demon.)				Economics of check (Rs./demon.)			
					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	Household food security by kitchen gardening	Organic Kitchen garden	80	80	78	45	73.33	300	2340	2040	7.80	200	1350	1150	6.75

Area per demonstration: 200 sq.ft.

Critical input supplied: Tomato, Brinjal, Chilli, Cluster bean, Okra, Cow pea, Palakh, Bottle gourd, Bitter gourd, Little gourd, Ridge gourd, Sponge gourd, Vermicompost

Feedback of Farm women:

1.	Before Demonstration, tribal farm women were growing only three to four vegetable crops in their backyard but after demonstration they are growing different types of vegetable crops through kitchen gardening in scientific way.
2.	Kitchen gardening gives continuous supply of fresh vegetables at lower cost which gives

	daily nutritious diet.
3.	Tribal farm women are not applying any chemical fertilizers and pesticides in kitchen garden, so they produce organic vegetables.

19.3 Activities carried out under Protection of Plant Varieties and Farmers Rights

Programmes	Number	No. of Participants
Training cum Awareness programme on Protection of plant varieties and farmers right	25/04/2017 26/03/2018	97
Exhibition	2	97
Village covered	Participate farmers of 3 villages of Vyara & Dolvan taluka i.e Jankhari, Lakhali, Dolara, Amaliya, Bardipada, Jamaliya	97
VIP's invited in programme		
Literature Distribution (folder)	1	97
How many times the photos / news events uploaded on the website	2	

19.4 Adaptive trials:

PLAN SCHEME Annual Development Progress Report (Period: 01-04-2018 to 31-03-2019)

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

)A) Financial Progress :					(Rs. Lakhs)
Sr. No.	Item	Total Grant Allotment for Year 2018-19	Expenditure 1-04-2018 to 31-03-2019	Puls (+) Minus (-)	Reason for Puls (+) Minus (-)
1	2	3	4	5	6
1	Pay	-	-	-	-
2	Recurring	7.0	6.99	+ 0.00013	-
3	Non-Recurring	-	-	-	-
4	Civil	-	-	-	-
	Total :	7.0	6.99	+ 0.00013	

(B) Physical Progress and Achievement:	
Objectives of Scheme	Physical Progress / Achievement against each objective
1. To strengthen the university technologies	- Improved seeds of different varieties of paddy, Cotton, pigeonpea, chickpea, Indian bean, green gram were disseminated among tribal farmers of Tapi district (Total no. Of demonstrations 589) - Kitchen garden kits were also distributed to 50 farmers.

		<ul style="list-style-type: none"> - Mango grafts were also distributed to 90 farmers - Different non-pesticidal management inputs viz, Trichoderma, fruit fly traps of cue-lure and methyl eugenol were also distributed to farmers (details as per below) - 200 demonstration on Mineral mixture were also distributed 			
(C) Detail information of Demonstrations:					
SN	Technology	Crop	Variety	No. of demon.	No. of Beneficiaries
1	Improved seed	Paddy	GNR-3	4	4
2	Improved seed		GNR-6	10	10
3	Improved seed		GAR-13	53	53
4	Improved seed		NAUR-1	50	50
5	Improved seed		Purna	2	2
6	Improved seed		GRH-2	25	25
7	Improved seed	Cotton	G.Cot.Hy.-8 BG-II	10	10
8	Improved seed		G.Cot.Hy.-10 BG-II	5	5
9	Improved seed		G.Cot.Hy.-12 BG-II	5	5
10	Improved seed	Pigeon pea	Vaishali	235	235
11	Improved seed	Chick pea	GJG-3	63	63
12	Improved seeds (Certified)	Greengram	Meha	10	10
13	Improved seeds (TF)	Greengram	Meha	5	5
14	Improved seed	Chick pea	GJG-3	82	82
15	Improved seed	Indian Bean	GNIB-22	30	30
16	Plantation of fruit crops	Mango		90	90
17	Kitchen Garden	-	-	50	50
18	Mineral Mixture	For Dairy animals	-	200	200
19	Layer mesh	Backyard poultry	-	25	25
19	Fruit fly trap (Cue lure)	Cucurbit crops	-	25	25
20	Fruit fly trap (Methyl Eugenol)	Mango	-	25	25
21	<i>Trichoderma</i>	Chick pea & Okra	-	25	25
Total				1029	1029

Feedback:

1.	All the improved varieties of different crops performed best at farmer's field.
2.	'NAUROJI' fruit fly trap of both cue-lure for cucurbits and methyl eugenol for mango also performed best
3.	Awareness among farmers regarding kitchen garden has been increased day by day.

19.5 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.) 2.Prof.Arta N.Soni (Home Science.) 3.Dr.S.M.Chavan(Pl.Prot.) 4.Dr.M.R.Gami(Crop Prod.)	1.Dolara	Vyara	Tapi	Completed
		2.Zankhari	Vyara	Tapi	Completed
		3.Bardipada	Dolvan	Tapi	Completed
		4.Jamaliya	Dolvan	Tapi	Completed
		5.Ukhaldia	Songadh	Tapi	Completed

Table 2: Activities carried out up to 31st March, 2019 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	25	78	8	256	ICM in groundnut	1	1
					Vermicomposting	1	6
					ICM in gram	1	39
					New variety of Indian bean GNIB-21	1	17
					Use of paddy thresher to reduce drudgery of farm women	1	30
					Use of winnowing fan to reduce women drudgery	1	40
					Infertility management in surati buffalo	1	2
					Correction of negative energy balance in mehsani buffalo	1	1
					IPDM in okra	1	15
Effect of novel organic nutrient in mango	1	1					
					Total	10	158

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	12	210	640	32	25	67	9.8	158

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	-Sickle cell anemia	-Lack of knowledge about	-Balanced diet from locally available	18

Team	Linkages created with Other departments/agencies (furnish name)	Problem diagnosed		Awareness created	
		General problem	Agriculture problem	Subject matter	No. of farmers
	-JEEVANDEEP MAHILA MANDAL, Bardipada -RSETI, Vyara -AAU, Anand -GUJARAT MATIKAM KALAKARI & Rural Tech. Insti., Bajipura	- Leptospirosis -Irregular supply of electricity	crop production, fruits & vege. preservation, insect-pest identification & their mgt. -Heavy load of pesticides in vege. -Low irrigation facility -Lack of awareness about organic farming -Drudgery of farm women in Agri. practices	food material -Preparation of different types of masala -PM Kisan Yojna -Drudgery reduction technologies for farm women during farm operations -Scientific cultivation pulse crops -Mushroom cultivation	15 20 70 39 20

Table 3: Any other activity carried out up to 31st March, 2019

Team	Name of activity	No. of farmers
1	2	3
Team 33	Celebration of different days-3	60
	Farmers visit to KVK	145
	Method demonstration paddy straw cuttings and its chemical sterilization, waste decomposer, plug nursery preparation of horticultural & sugarcane crops, herbal pesticide, mango garfing, preparation of vermicompost, use of paddy thresher to reduce women drudgery, Grinding of masala in pulvarizer machine	189
	Diagnostic Visit	03
	Field Day-3	81

19.6 Awards:

Sr. No.	Date of Received	Place	For What	Subject	Name of Staff
1	27/4/2018	AAU-Anand	Oral Presentation	Adoption of fruits & vegetable preservation technology by tribal farm women of Tapi district. Abstract published in Souvenir of National Seminar on " Extension strategies for doubling the farmers' income for livelihood security" organised by SEEG & AAU-Anand at AAU-Anand during 26-27/4/2018.	Arti. N. Soni P. D. Verma Dipal N. Soni

2	5-7/5/2018	MPKV, Rahuri	Best Presentation Award	Annual Progress report	Dr. P. D. Verma
3	30/5/2018	Chennai	Outstanding excellence and remarkable achievements in research and publication	Best Young Scientist Award By IRDP Group of Journal, Chennai	Dr. S. M. Chavan
4	26/6/2018	KRSHI Go VIDHYA AAU-Anand	Subject of Dairy, Food processing & Home Science	Best Article Award (First rank) for the year 2017-18 Article: Fal ane shakbhaji parirakshan technology na upyog dwara aadivasi mahila sashktikaran - Year:70(4), August-2017	Arti. N. Soni P. D. Verma Dipal N. Soni
5	22/1/2019	NAU, Navsari	Young Scientist Award	Awarded for meritorious services in Entomology	S M Chavan
6	7/3/2019	IARI-New Delhi	Innovative farmer award	Organic Farming	Jigar P. Desai Siker (Valod)

19.6 Assigned duties by Director of Research, NAU, Navsari :-Survey on invasive insect pest, fall army worm, *Spodoptera frugiperda*

Fall Armyworm (FAW), or *Spodoptera frugiperda*, is an insect that is native to tropical and subtropical regions of the Americas. In the absence of natural control or good management, it can cause significant damage to crops. It prefers maize, but can feed on more than 80 additional species of crops, including rice, sorghum, millet, sugarcane, vegetable crops and cotton. FAW was first detected in Central and Western Africa in early 2016 and has quickly spread across virtually all of Sub-Saharan Africa. In May 2018, it was first observed in Karnataka state of Maharashtra and confirmed its present status India. ICAR also announced the pest alert of this pest in India. Based on this, Hon. Director of Research, NAU, Navsari assigned duties to carried out pest infestation survey of FAW. In August, we carried survey of this pest. But, initially we could not found its infestation. But, in last week of August and first week of September we found severe infestation of this pest in Maize crop. Immediately, we collect insect sample and sent it for identification. The insect was identified as *Spodoptera frugiperda* by NBAIR, Bangalore.

Table 1: Details of survey report on invasive pest-Fall army worm, *Spodoptera frugiperda* in Tapi district

S N	Crop	Approximate area	crop stage	GPS location	Village	Block	District	Status of pest
1	Soybean	1.5 ha	Pod formation	21 ⁰ 09'55.3" N 73 ⁰ 43'58.4" E	Sakarda	Uchchhal	Tapi	Not observed
2	Soybean	0.8 ha	Flowering	21 ⁰ 10'15.6" N 73 ⁰ 45'19.8" E	Bhintbudrak	Uchchhal	Tapi	Not observed
3	Sorghum	1.5 ha	Vegetative (Fully	21 ⁰ 11'00.8" N	Manekpur	Uchchhal	Tapi	Not observed

S N	Crop	Approximate area	crop stage	GPS location	Village	Block	District	Status of pest
			emerged leaves)	73 ⁰ 46'50.3" E				ed
4	Sorghum	1 ha		21 ⁰ 12'29.7" N 73 ⁰ 48'10.9" E	Babarghat	Uchchhal	Tapi	Not observed
5	Paddy	0.2ha	Tillering	21 ⁰ 16'58.3" N 73 ⁰ 50'20.9" E	Vadgam	Uchchhal	Tapi	Not observed
6	Paddy	0.3 ha	Tillering	21 ⁰ 16'56.9" N 73 ⁰ 50'27.6" E	Vadgam	Uchchhal	Tapi	Not observed
7	Paddy	0.3 ha	Tillering	21 ⁰ 16'57.8" N 73 ⁰ 50'26.4" E	Vadgam	Uchchhal	Tapi	Not observed
8	Maize	0.4 ha	flowering and cob development	21 ⁰ 16'58.3" N 73 ⁰ 50'20.9" E	Vadgam	Uchchhal	Tapi	Not observed
9	Maize	0.3 ha	Five leaf stage	21 ⁰ 18'20.2" N 73 ⁰ 55'14.4" E	Karod	Uchchhal	Tapi	Not observed
10	Maize	0.5 ha	Kernel development	21 ⁰ 18'20.2" N 73 ⁰ 55'14.4" E	Karod	Uchchhal	Tapi	Not observed
11	Maize	0.4 ha	Kernel development	21 ⁰ 18'34.4" N 73 ⁰ 55'09.2" E	Karod	Uchchhal	Tapi	Not observed
12	Soybean	3 ha	Pod formation	21 ⁰ 28'50.9" N 74 ⁰ 07'37.9" E	Velda	Nizer	Tapi	Not observed
13	Cotton	2.0 ha	Flower bud formation	21 ⁰ 31'28.3" N 74 ⁰ 07'23.1" E	Fulvadi	Kukarmunda	Tapi	Not observed
14	Maize	0.75 ha	Grain filling	21 ⁰ 28'12.4" N 74 ⁰ 07'10.0" E	Kvelde	Nizer	Tapi	Not observed
15	Drilled Paddy+Sorghum	0.8 ha	Milky grain stage + Flowering	21 ⁰ 27'57.5" N 73 ⁰ 99'17.5" E	Borde	Nizer	Tapi	Not observed

S N	Crop	Approximate area	crop stage	GPS location	Village	Block	District	Status of pest
16	Cotton	0.4 ha	Flower bud formation	21 ⁰ 27'57.4" N 74 ⁰ 04'35.2" E	Borde	Nizer	Tapi	Not observed
17	Cotton	0.4 ha	Flowering commences	21 ⁰ 25'10.0" N 73 ⁰ 02'20.8" E	Borde	Nizer	Tapi	Not observed
18	Cotton	0.4 ha	Flowering commences	21 ⁰ 26'12.2" N 74 ⁰ 00'23.9" E	Raygadh	Nizer	Tapi	Not observed
19	Sorghum+ drilled Paddy + pigeonpea	0.8 ha	Leaves fully emerged+ tillering+ branching	21 ⁰ 10'00.2" N 73 ⁰ 41'07.0" E	Virpore	Vyara	Vyara	Not observed

Table 2: Pest population data (Per 20 plants) of Fall army worm, *Spodoptera frugiperda* and other observed pests, natural enemies on different crops in Tapi district

S N	Crop	Village	Block	Pest population of <i>S. frugiperda</i> (Avg. of 20 plants)			Percent infestation	Remarks	
				No. of egg masses	No. of larvae	No. of infested plants		Any other pests infestation	Natural enemies population (Avg. of 20 plants)
1	Soybean	Sakarda	Uchchhal	0	0	0	0	Hairy caterpillar (5%)	-
2	Soybean	Bhintbudrak	Uchchhal	0	0	0	0	-	-
3	Sorghum	Manekpur	Uchchhal	0	0	0	0	Stem borer, <i>Chilo</i> sp. (15%)	LBB 1.75
4	Sorghum	Babarghat	Uchchhal	0	0	0	0	Stem borer, <i>Chilo</i> sp. (10%)	LBB 2.4
5	Paddy	Vadgam	Uchchhal	0	0	0	0	-	-
6	Paddy	Vadgam	Uchchhal	0	0	0	0	-	-
7	Paddy	Vadgam	Uchchhal	0	0	0	0	-	-
8	Maize	Vadgam	Uchchhal	0	0	0	0	-	LBB 2.2
9	Maize	Karod	Uchchhal	0	0	0	0	-	LBB 1.9

S N	Crop	Village	Block	Pest population of <i>S. frugiperda</i> (Avg. of 20 plants)			Per cent infestati on	Remarks		
				No. of egg mass es	No. of larv ae	No. of infest ed plant s		Any other pests infestati on	Natural enemies populati on (Avg. of 20 plants)	
										1 0
1 1	Maize	Karod	Uchchhal	0	0	0	0			LBB 2.8
1 2	Soybean	Velda	Nizer	0	0	0	0	Hairy caterpill ar (10%)	-	
1 3	Cotton	Fulvadi	Kukarmu nda	0	0	0	0	-		LBB 0.35
1 4	Maize	Kvelde	Nizer	0	0	0	0	Stem/co rn borer, <i>Chilo</i> sp. (15%)		LBB 2.4
1 5	Drilled Paddy+ Sorghu m	Borde	Nizer	0	0	0	0	-	-	
1 6	Cotton	Borde	Nizer	0	0	0	0	One egg mass of <i>Spodopt era</i> <i>litura</i> @		LBB 0.55
1 7	Cotton	Borde	Nizer	0	0	0	0	Mealybu g (10%)		LBB 0.5
1 8	Cotton	Raygadh	Nizer	0	0	0	0	-		LBB 0.4
1 9	Sorghu m+ drilled Paddy + pigeonp ea	Virpore	Vyara	0	0	0	0	-	-	

LBB- Lady Bird Beetle

@ One hatched (not freshly laid) egg mass of *Spodoptera* sp. was observed and collected it for further rearing in laboratory. This collected egg mass was already hatched, but only 10-11 first instar larvae was hatched at the time collection (see photographs). Moreover, it was noted that, as per the morphological characters of early instar larva of *Spodoptera frugiperda*, the collected larvae was different (not matched with the characters of *S. frugiperda*). That means this species was different or regular i.e. *S. litura*.

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & Farm women	49	611	1056	1667
Rural youths	5	115	77	192
Extension functionaries	8	236	108	344
Sponsored Training	23	397	427	824
Vocational Training	6	48	107	155
Total	91	1407	1775	3182

2. Front Line Demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	251	117.14	--
Pulses	385	73	--
Cereals	141	50.5	--
Vegetables	93	16	--
Other crops	17	5.5	--
Hybrid crops	--	--	--
Total	887	262.14	
Livestock & Fisheries	135	--	
Other enterprises (Home Science)	185	--	
Total	320		
Grand Total	1207	262.14	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	6	47	47
Livestock	1	20	20
Various enterprises	0	0	0
Total	7	67	67
Technology Refined			
Crops	0	0	0
Livestock	0	0	0
Various enterprises	0	0	0
Total	0	0	0
Grand Total	7	67	67

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	1443	48287
Other extension activities	98	--
Total	1541	48287

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	17	5	--	--	9	16	47
	Voice only	--	--	--	--	--	--	--
	Voice & Text both	--	--	--	--	--	--	--
	Total Messages	17	5	--	--	9	16	47
	Total farmers Benefitted/Message	9547	--	--	--	--	--	-

5. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	258.49	849318
Planting material (No.)	117609	202800
Bio-Products (kg)	1119 lit/ 68518 kg/ 505 no.	577044
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

6. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	564	225600
Water	7	350
Plant	55	0
Total	626	225950

7. HRD and Publications

Sr. No.	Category	Number
1	Workshops	5
2	Conferences	2
3	Seminar	4
4	Meetings	11
5	Trainings for KVK officials	3
6	Visits of KVK officials	1
7	Book published	0
8	Training Manual	0
9	Book chapters	6
10	Research papers	3
11	Lead papers	0
12	Seminar papers	0
13	Extension folder	34
14	Proceedings	1
15	Award & recognition	6
16	On going research projects	3

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

Annexure-I

**Proceeding of Sixteenth Scientific Advisory Committee Meeting of
Krishi Vigyan Kendra, NAU, Vyara held on 16/03/2019
at 3:30 pm 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. A. Kataria	Member	Assistant Research Scientist, LRS, NAU, Navsari
7	Mr. Prafulbhai R. Chaudhari	Member	Project Director, ATMA-Tapi, Vyara
8	Mr. S.B.Gamit	Member	District Agriculture Officer, Department of Agriculture, District Panchayat, and Project Director, ATMA-Tapi, Vyara.
9	Mr. Nikunj Patel	Member	Deputy Director of Horticulture, Tapi district, Vyara
10	Dr. C. M. Rana	Member	Deputy Director of Animal Husbandry, District Panchayat, Tapi District, Vyara
11	Mr. Samir Ardesana	Member	Assistant Director (Fisheries), Near CRPF Campus, Ukai, Dist. Tapi
12	Mr. Ghanshyambhai S. Patel	Member Progress farmer	At & Po. Bahurupa Ta. Kukarmunda
13	Jayaben Mahendrabhai Chaudhari	Member Progress farm women	At & Po. Unchchamala Ta. Vyara
14	Mr. Kantibhai Desai	Member	Agri-Entrepreneur, Sardar Agro Centre, APMC, Vyara

15	Rubinaben Somabhai Gamit	Invitee Member	President, SHG, At & Po. Zankhari Ta. Vyara
16	Shri Pravinbhai Gamit	Invitee Member	APMC, Vyara, Dist. Tapi
17	Smt. Shantaben Kalidas Gamit	Invitee Member	Progressive Women Farmer, At. Bedi, Ta. Songadh, Dist. Tapi
18	Shri D.T.Desai	Invitee Member	Patidar Agro Centre, APMC, Vyara
19	Mr. Dharmesh Vani	Invitee Member	Press Reporter-Gujarat Raksha, Vyara
20	Mr. Anup Bhatt	Invitee Member	Press Reporter-Dhabkar & Sandesh News TV
21	Shri Narendrasinh R. Rahevar	Invitee Member	Ambedkar Vanavasi Kalyan Trust-Surat
22	Shri Manshukhabhai Somabhai Gamit	Invitee Member	Progress Farmer & Resource Person-KVK, At & Po. Nani Chikhali, Ta. Vyara
23	Smt. Lilaben Gamit	Invitee Member	Progressive Women Farmer, Member of GSSC Ltd., Gandhinagar, Extension Council-NAU, Navsari At. Bedi, Ta. Songadh, Dist. Tapi
24	Shri J. A. Chotaliya	Invitee Member	LDM, Bank of Baroda, Vyara
25	Dr. C. D. Pandya	Special invitee	Scientist (Extension), KVK, Vyara
26	Pro. Arti. N. Soni	Special invitee	Scientist (Home Science), KVK, Vyara
27	Dr. S. M. Chavan	Special invitee	Scientist (Plant Protection), KVK, Vyara
28	Dr. P. K. Modi	Special invitee	Scientist (Horticulture), KVK, Vyara
29	Dr. J. K. Movaliya	Special invitee	Scientist (Animal Science), KVK, Vyara
30	Dr. M. R. Gami	Special invitee	Scientist (Crop Production), KVK, Vyara

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

Sr. No.	Name and Designation	Members/ Invitees
1	Hon. Director - ATARI, Zone-VIII, ICAR, Pune, Maharashtra	Member
2	Dr. Anilbhai Chinchmalatpure, Principal Scientist & Head, Indian Soil Salinity Institute, ICAR-Bharuch	Member
3	Mr. Vilas Save, DDM, NABARD-Surat & Tapi	Member

Dr. P. D. Verma, Member Secretary and Senior Scientist & Head welcomed all the members of the house and agenda wise meeting was proceed with the permission of Chairman and Hon'ble Vice Chancellor Dr. C. J. Dangaria.

16.1	Approval of minutes of Fifteenth Scientific Advisory Committee.
	The action taken on the minutes of Fifteenth Scientific Advisory Committee Meeting of KVK, Vyara held on 12 th March, 2018 was presented by Senior Scientist and Head and approved by the house.
16.2	Progress made by KVK during 01-02-2018 to 28-02-2019.
	Dr. P. D. Verma, Senior Scientist and Head, KVK, NAU, Vyara and all scientists presented the report on progress made by KVK, Vyara for the period of 01-02-2018 to 28-02-2019 and it was accepted by the house.
16.3	Action plan for the period of April-2019 to March-2020.
	Discussion was made on the Action Plan for the period of April-2019 to March-2020 presented by Senior Scientist and Head, KVK, NAU, Vyara which was approved with following suggestions.
16.3.1	Sesame variety GJT-5 released by JAU should be taken in Front Line Demonstration.
16.3.2	Green gram variety GM-6 also should be taken in Front Line Demonstration.
16.3.3	Varietal Front Line Demonstration on Paddy - GNR-7 should be taken.
16.3.4	Procedure for accreditation of mango orchard should be initiated.
16.3.5	Varieties released by SAUs should be taken in Front Line Demonstrations of vegetable crops.

As no any more points remained to be discussed, with the permission of Chairman, the meeting was ended with vote of thanks.

**Member Secretary
&
Senior Scientist & Head
Krishi Vigyan Kendra,
NAU, Vyara**

**Chairman
&
Vice Chancellor
Navsari Agricultural University
Navsari**

Annexure-II

1. Extension Literature (Folders)

Sr. No.	Subject	Name of Authors
1	Saksham Khedut, Samrudhdha Bharat	Dr. J. K. Movaliya, Dr. P. D. Verma
2	Nutritional Gardening	Prof. Arti N. Soni, Dr. P. D. Verma
3	Mahilao mate khetikaryama shram ghateteva upyogi ojaro/yanthro	Prof. Arti N. Soni, Dr. P. D. Verma
4	Padurog (Anemia) ane tene atkavavana upayo	Prof. Arti N. Soni, Dr. P. D. Verma
5	Soybenni ghargaththu banavato	Prof. Arti N. Soni, Dr. P. D. Verma
6	Aadivasi samajma sicklecell anemia vishe jagruti lavia	Prof. Arti N. Soni, Dr. P. D. Verma
7	Leptosyrosis	Prof. Arti N. Soni, Dr. P. D. Verma
8	padurog (Anemia) ane tene atkavavana upayo	Dr. M. R. Gami, Dr. P. D. Verma
9	Bij ane teni mavjat	Dr. M. R. Gami, Dr. P. D. Verma
10	Chanani vigyanik kheti	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
11	Chomasu dangarma dharuuchher	Dr. M. R. Gami, Dr. P. D. Verma
12	Chomasu khetima aayojannu mahatva	Dr. M. R. Gami, Dr. P. D. Verma
13	Fangavel bijthi dangarnu vavetar	Dr. M. R. Gami, Dr. P. D. Verma
14	Divelani vaigyanik kheti padhdhati	Dr. M. R. Gami, Dr. P. D. Verma
15	Talnu utpadan vadharva unalu magfalinu vaigyanik padhdhatithi vavetar karia	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
16	Kharsani-Ramtalni Kheti	Dr. M. R. Gami, Dr. P. D. Verma
17	Dakshin Gujaratna agatyana pakoma nindan niyantran vyavsthapan	Dr. M. R. Gami, Dr. P. D. Verma
18	Oran dangarni kheti	Dr. M. R. Gami, Dr. P. D. Verma
19	Tuvernigalyanik kheti padhdhati	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
20	Rayni vaigyanik kheti padhdhati	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
21	Jamin ane panima pruththakaran karavo, khetima vadhu aavak melvo	Dr. M. R. Gami, Dr. P. D. Verma
22	Soybenni kheti	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
23	Shrdini sudharel kheti padhdhati	Dr. M. R. Gami, Dr. P. D. Verma
24	Talni aadhunik kheti padhdhati	Dr. M. R. Gami, Dr. C. D. Pandya Dr. P. D. Verma
25	Sendriy khetima poshaktatvonu vyavsthapan: Khatar/vermicompost banavat ane mahatva	Dr. M. R. Gami, Dr. P. D. Verma
26	Varsadi khetima jal sangrahnun mahatva	Dr. M. R. Gami, Dr. P. D. Verma
27	Ghauni kheti padhdhati	Dr. M. R. Gami, Dr. P. D. Verma
28	Kapasma gulabi eyalnu sankalit vyavasthapan	Dr. S. M. Chavan, Dr. P. D. Verma Dr. P. K. Modi
29	Khedutna khetare vividha jaivik jantinashako banavavani padhdhati	Dr. S. M. Chavan, Dr. P. D. Verma Dr. P. K. Modi
30	Khetima pakshionu mahatva	Dr. S. M. Chavan, Dr. P. K. Modi Dr. P. D. Verma

Sr. No.	Subject	Name of Authors
31	Dangarni jivato ane tenu vyavasthapan	Dr. S. M. Chavan, Dr. P. K. Modi Dr. P. D. Verma
32	Dangarni rogo ane tenu vyavasthapan	Dr. S. M. Chavan, Dr. P. K. Modi Dr. P. D. Verma
33	Tuvern jivato ane tenu vyavasthapan	Dr. S. M. Chavan, Dr. P. K. Modi Dr. P. D. Verma
34	Tuvern rogo ane tenu vyavasthapan	Dr. S. M. Chavan, Dr. P. K. Modi Dr. P. D. Verma

2. News paper coverage

S.N.	Subject, News Paper & Date
1	Krishi Vigyan Kendra, Vyara Khate Mashroomni Kheti Vishe Ek Divasiy Karyashala Yojay, GUJARAT RAKSHA, Dated: 16/4/2018
2	Krishi Vigyan Kendra, Vyara Khate aatarrashtriy madhmakhi divas ni ujavani , GUJARAT RAKSHA, Dated: 28/5/2018
3	Krishi Vigyan Kendra, Vyara khate "Vaigyanik padhdhatithi nafakarak bakrapaln kravani padhdhati " vishe seminar yojayo. GUJARAT RAKSHA, Dated: 11/6/2018
4	Krishi Vigyan Kendra, Vyara khate Tapi ane Navsari jillani pragatishil mahilaoni interface meeting yojay. GUJARAT RAKSHA, Dated: 25/6/2018
5	Krishi Vigyan Kendra, Vyara khate "Pandurog (Anemia) ane sarvar" vishay par be divsiy In-Service talim yojay. GUJARAT RAKSHA, Dated: 2/7/2018
6	Jilla Lokvigyan Kendra, Tapi dwara Haripura, Vyara khate jillano National Science seminar spardha ujavayo. GUJARAT RAKSHA, Dated: 23/7/2018
7	Vyara Krishi Vigyan Kendra khate 'Sendriy Kheti' ange talim yojay. DHABKAR, Dated: 4/8/2018
8	K.V.K. Vyara khate "Sendriy Kheti" vishay upar gram-sevakoni In-Service talim yojay. GUJARAT RAKSHA, Dated: 6/8/2018
9	Amba game KVK, Vyara dwara pashupalan shibir yojay. GUJARAT RAKSHA, Dated: 3/9/2018
10	Krishi arthvyavstha j deshni arthvyavstha ne sudradha kare. SANDESH, Dated: 21/9/2018
11	Vyara ma khedut sabhama Smruti Irani hajar rahiya. GUJARAT SAMACHAR, Dated: 22/9/2018
12	Vyara na Keishi Vigyan Kendra ma khedutoni aavak bamni karva ange seminar yojayo. GUJARAT MITRA. Dated: 22/9/2018
13	Aayushman bharaat yojna hethal 50 karod labharthione aavari levase. Smruti Irani., GUJARAT GARDIAN, Dated: 22/9/2018
14	Vyara khate khedutoni aavak bamni karva ange seminar yojayo. DHABKAR, Dated: 22/9/2018
15	Aayushman bharaat yojna vishwani sauthi moti swasthya yojna banase: Kendriya Mantri. GUJARAT RAKSHA, Dated: 22/9/2018
16	KVK Vyara dwara Nizar khate kapasma gulabi eyalna sankalit vyavasthapan visheni khedut shibir yojay. GUJARAT RAKSHA, Dated: 22/9/2018
17	Chhupa dushman jem nukshan karti gulabi eyalnu niyantran jaruri: Dr. Chavan. SANDESH, Dated: 26/9/2018
18	Krishi Vigyan Kendra, Vyara ane Baroda Swarojgar Vikas Santhan, Vyara dwara pashupalan ane alasiya khatarni banavat vishay par 10 divasiy vyavsayik talim yojay. GUJARAT RAKSHA, Dated: 01/10/2018
19	Krishi Vigyan Kendra Vyara ma khedut din-v- dangar pak parisamvadnu aayojan.

	GUJARAT RAKSHA, Dated: 8/10/2018
20	Vyara Krishi Vigyan Kendra ma kheduto a mushroomni kheti mate talim lidhi. SANDESH, Dated: 9/10/2018
21	Vyara Krishi Vigyan Kendra dwara sanklit rog-jivat vyavsthapan ange margadarshan. SANDESH, Dated: 13/10/2018
22	Videshi aakramak pinchhade char tapkavali lashkari eyal (FAW) jivat vishe jagrukta karyakram. GUJARAT RAKSHA, Dated: 15/10/2018
23	Krishi Vigyan Kendra, Vyara khate Mahila Kisan Divas ni ujavani. GUJARAT RAKSHA, Dated: 22/10/2018
24	Krishi Vigyan Kendra, Vyara dwara Navi Kachali game ek masno kaushlya vikas talim karyakram yojayo. GUJARAT RAKSHA, Dated: 22/10/2018
25	Kisan Diwas ni Ujavani. GUJARAT SAMACHAR, Dated: 29/12/2018
26	KVK, Vyara khate Kisan Diwas ni Unjavani. GUJARAT RAKSHA, Dated: 31/12/2018
27	Vyara na Krishi Vigyan Kendra khate Kisan Diwas ni Ujavani karay. DHABKAR, Dated: 29/12/2018
28	Navsari Krishi University Samlagna Krishi Vigyan Kendra panvadi dwara Jilla Lok Vigyan Kendra Vyara na sahyog thi Virpur shalama Swachchhata abhiyan yojayo. GUJARAT RAKSHA, Dated: 07/01/2019
29	Krishi Vigyan Kendra, Vyara dwara Technology Saptah ni Ujavani karvama avi. GUJARAT RAKSHA, Dated: 04/02/2019
30	Krishi Vigyan Kendra, Vyara dwara "sherdi ni vaigyanik kheti padhdhati" upar In-Service talim yojay. GUJARAT RAKSHA, Dated: 21/01/2019
31	Kheduto aarthik rite samridhdha bane tevo sarkarno prayas. SANDESH, Dated: 25/02/2019
32	Aarthik rite sadhdhar thava vaigyanik padhdhati thi nafakarak kheti karvi padse: Ishwar Patel. GUJARAT GARDIAN, Dated: 24/02/2019

3. Popular articles

S.N.	Subject, News Paper/Magazine, Date
1	Dr. J. K. Movaliya, Dr. P. D. Verma, Dr. H. C. Parmar (April-2018). Gay-Bhensana poshan mate pashuaaharni char sutriy vyavastha. KRISHI GO VIDHYA (12):18-20
2	Pravinkumar Modi, Dr. C. D. Pandya (April-2018). Tunkagalama Vadhu Utpadan aapati papayani kheti. SANDESH NEWS paper, Dated: 9/4/2018
3	Dr. J. K. Movaliya, Dr. P. D. Verma (June-2018). Bakara palan vyavsay sathe sankdayel pashupalko a dhyan ma rakhava jevi babato. AGRO SANDESH , Dated:4/6/2018, Page No. 8
4	Dr. J. K. Movaliya, Dr. P. D. Verma (July-2018). Silage-Chomasa ma malta lila ghaschara no sangrah. SANDESH , Dated:2/7/2018,
5	Dr. J. K. Movaliya, Dr. P. D. Verma (August-2018). Ek vishes khorakthi pashuoma doodnu utpan vadharva mate total mishrit rashan. KRISHI JIVAN , Page no. 9-10
6	Dr. S. M. Chavan (27 August-2018). Vatavaranna ferfar ane khetima avata badlavthi kapasma gulabi eyalno updrav. AGRO-SANDESH , Dated: 27/8/2018
7	Dr. C. D. Pandya (8/10/2018). Kheti tatha aarogya mate nuksankarak underna niyantran mate kheduto a janava jevi babato. AGRO-SANDESH , Dated: 8/10/18
8	Dr. S. M. Chavan (29/10/2018).Makaina pakma dakhil thayel navi videshi jivat fall army worm thi pakne bachavo. AGRO-SANDESH , Dated: 29/10/18
9	Dr. S. M. Chavan (29/10/2018).Khedut Mitro, jano makaina pakma dakhil thayel navi videshi aakramak jivat " punchhade char tapkavali lashkari eyal" vishe . AGRO-SANDESH , Dated: 29/10/18
10	Dr. Pravinkumar Modi, Dr. Sachin M. Chavan, Dr. P.D. Verma. (Dec.,2018). Safal Varta-Papadini navi jat GNIB-21. KRISHO GO VIDHYA , 8:42
11	Dr. Pravinkumar Modi, Dr. Sachin M. Chavan, Dr. P.D. Verma. (Dec.,2018). Safal Varta-Papadini navi jat GNIB-21 apanavine khedutoni aavak bamni thay.. KRISHI JIVAN :32

12	Dr. Sachin M. Chavan, Dr. Pravinkumar Modi, Dr. P.D. Verma. (Jan.,2019). Mushroom ni kheti- Laghu udhyog, Krishi Vigyan, Anka-12, Page No. 29
13	Dr. Sachin M. Chavan, Dr. P. K.Modi, Dr. P.D. Verma. (March.,2019). Successful women entrepreneur in mushroom cultivation. KRISHI JIVAN, Page No. 12-13

4. TV Talks

Sr. No.	Date	Place	Subject	Resource person
1	12/6/2018	DD GIRNAR	Vermicompost kheti	Dr. P. K. Modi

5. Chapters published in various local publications

Year	Name of Book	Subject/Chapter	Authors
2018	MASALA PAKO	Mari masalani Vividh Banavato	Dipal N. Soni, Rita R. Patel, Arti N. Soni
2018	Dairy Udhyog	Bal Poshan Mate Matanu Doodh	Dipal N. Soni, Arti N. Soni, Priti V. Thakkar
2018	Dairy Udhyog	Bal Poshan Mate Pshuonu Doodh	Arti N. Soni, Dipal N. Soni, Priti V. Thakkar
2018	Dairy Udhyog	Magfali ane soyabeanna danamathi vanasptijanya doodh	Dipal N. Soni, Arti N. Soni
2018	Dairy Udhyog	Nariyel (Shreefal)nu Amrut Saman Doodh	Dipal N. Soni, Arti N. Soni
2018	Vruksho ni vaigyanik kheti	Vansa na resano textile udhyog ma upyog	Dipal N. Soni, Arti N. Soni

6. Research papers

1	S.M.Chavan, K.G.Patel (March-2018). Morphological basis of resistance in rice against yellow stem borer, Scirpophaga incertulas (Walker). <i>Indian Journal of Entomology</i> , 80(1):27-35
2	Chavan S. M., Patel K. G. (2018). Biochemical basis of resistance in rice varieties against yellow stem borer, Scirpophaga incertulas. <i>Indian Journal of Entomology</i> , 80(3):1074-1079 NAAS rating:4.5
3	Soni Arti N., Verma P. D., Soni Dipal N. (2018). Adoption of fruits and vegetable preservation technology by tribal farm women of Tapi district. <i>Gujarat Journal of Extension Education</i> , 29(I): 9-15 NAAS: 3.86

7. Research paper abstracts

1	Arti N. Soni, P. D. Verma, Dipal N. Soni (April-2018). Fruits and vegetable preservation technologies: Viable option to empower tribal farm women. Abstract published in Souvenir of National Seminar on " Extension strategies for doubling the farmers' income for livelihood security" organised by SEEG & AAU-Anand at AAU-Anand during 26-27/4/2018. Page No. 158
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2	Arti N. Soni, P. D. Verma, Dipal N. Soni (April-2018). Adoption of fruits & vegetable preservation technology by tribal farm women of Tapi district. Abstract published in Souvenir of National Seminar on " Extension strategies for doubling the farmers' income for livelihood security" organised by SEEG & AAU-Anand at AAU-Anand during 26-27/4/2018. Page No. 170
3	J K Movaliya, P D verma (Jan-2019) Role of Bypass fat in milk production of bufaaloes during ISBD-2019 conference at Navasri
4	S M Chauvan, P K Modi and P D Verma (Jan-2019) Pesticides use pattern of okra growers in controlling insects -pests and diseases in Tapi district of Soth Gujarat during National smposium in NAU Navasti'

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

Sr. No.	Date	Place	Subject	Resource Person
1	12/4/2018	ATIC-NAU, Navsari	KVK review meeting attended	Arti N. Soni, Nirav N. Makani
2	12/4/2018	ATIC-NAU, Navsari	21st Quarterly Convergence meeting	Arti N. Soni, Nirav N. Makani
3	24/4/2018	Narayangaon KVK, Pune	One day workshop on "Farming System for Nutrition Approach	Dr. S. M. Chavan
4	24/4/2018	Shree Ram Krishna Hall, 4th floor, Near Makai Pool, Surat	National seminar on "Agri Food Processing connect through Prime Minister Kisan Sampada Yojna"	Shri N. N. Makani
5	26-27/4/2018	AAU-Anand	National Seminar on "Extension strategies for doubling the farmers' income for livelihood security" organised by SEEG & AAU-Anand during 26-27/4/2018	Arti N. Soni,
6	1-2/6/2018	AAU-Anand	State level workshop on "Doubling farmers' income by 2022- A strategic initiative"	Dr. C. D. Pandya
7	16-21/7/2018	EEI-Anand	ICT applications and use of M-kishan portals in agriculture & allied fields	Dr. J. K. Movaliya
8	8/8/2018	Dediapada	Interface meeting of innovative farm women of KVK-Tapi & KVK-Narmada	Dr. P. D. Verma, Dr. C. D. Pandya, Dr. J.K.Movaliya, Arti N. Soni
9	8/8/2018	Dediapada	Review meeting of KVKs	Dr. P. D. Verma, Dr. C. D. Pandya, Dr. J.K.Movaliya, Arti N. Soni
10	11/9/2018	KVK-Waghai	Interface meeting of innovative farm women of KVK-Tapi & KVK-Narmada	Arti N. Soni
11	11/9/2018	KVK-Waghai	Review meeting of KVKs	Arti N. Soni

12	25-29/9/18	EEI-Anand	Attended 3 days training on "Training of Trainers (TOT) of skill development jointly organised by ATARI, Pune, ASCI and EEI, AAU, Anand	Dr. S.M.Chavan
13	29/9/18	SDAU, Sardar Krishinagar	Attended seminar on "Plant protection in horticultural crops in North Gujarat"	Dr. S.M.Chavan
14	11/10/18	SSK,NAU, Navsari	29th ZREAC meeting	Dr. C. D. Pandya, Dr. J.K.Movaliya
15	11/10/18	SSK,NAU, Navsari	23rd KVK-ATMA convergence meeting	Dr. C. D. Pandya, Dr. J.K.Movaliya
16	11/10/18	SSK,NAU, Navsari	KVK review meeting	Dr. C. D. Pandya, Dr. J.K.Movaliya
17	25/10/18	ASAI,NAU,Surat	Seminar on "Bagayati pako ma sajiiv kheti"	Dr. P. K. Modi
18	26/10/18	GDMI, Gandhinagar	Workshop on Awareness about forecasting by IMD for Agromet Advisory Services	Shri N. N. Makani
19	7-9/12/18	Sanosara (Bhavnagar)	Workshop on "CFLDs on Pulses & Oilseeds Organised by ATARI-Pune	Dr. C. D. Pandya
20	1-10/10/18	PDKV, AKOLA	Short course training on solar energy	Dr. P. D. Verma
21	24-25/10/18	Surat	National conference on human and animal driven equipment	Dr. P. D. Verma
22	12-13/1/19	Nandurbar	National Conference on alliance for seed reliance	Dr. P. K. Modi
23	27-30/1/19	Narayan Gaon-pune	Master trainers workshop	Dr. P. D. Verma

9. On going research projects:

Sr. No.	Title of Research Study	Investigators
1	Perception of the farmers towards plug tray nursery	1. Dr. P.D.Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi 2. Dr. C.D.Pandya, Scientist (Extn), KVK, NAU, Vyara, Dist. Tapi 3. Dr. P.K.Modi, Scientist (Horticulture), KVK, NAU, Vyara, Dist. Tapi
2	Adoption of improved dairy husbandry practices by the tribals of Tapi District	1. Dr. P.D.Verma, Senior Scientist & Head, KVK,NAU, vyara 2. Dr. J. K. Movaliya, Scientist (Animal Husnabdry), KVK, NAU, Vyara 3. Dr. C.D.Pandya, Scientist (Extn), KVK, NAU, Vyara, Dist. Tapi
3	Adoption of Novel organic liquid fertilizer in fruits and vegetable crops in Tapi district.	1. Dr. P.K.Modi, Scientist (Horticulture), KVK, NAU, Vyara, Dist. Tapi 2. Dr.S. M. Chavan, Scientist (Plant Protection), KVK, NAU, Vyara. Dist. Tapi

Sr. No.	Title of Research Study	Investigators
		3. Dr. P.D.Verma, Senior Scientist & Head, KVK, NAU, Vyara, Dist. Tapi

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