

ICAR-ATARI, Pune
DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2018-19
(1st April 2018 to 31st March 2019)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra Navsari Agricultural University Athwa Farm, Surat Dist. Surat, Gujarat-395007	(0261) -2655565	(0261) 2668045 pp	kvksurat@nau.in	www.nau.in kvk.icar.gov.in

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	www.nau.in

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. J. H. Rathod	0261 655565	8128686 720	hariom.janaksinh@gmail.com

1.4. Year of sanction: 2012

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 GP	Date of joining	
1.	Senior Scientist and Head	Dr. J. H. Rathod	Entomology	37400-67000	9000	16.11.16	Temporary (137610)
2.	Scientist	Dr. R. K. Patel (Ento.)	Extension Education	15600-39100	7000	01.02.19	Temporary (77411)
3.	Scientist	Dr. H. C. Parmar	Veterinary Science	15600-39100	7000	02.04.12	Temporary (88441)
4.	Scientist	Prof. S. J. Trivedi	Agronomy	15600-39100	7000	01.06.18	Temporary (83304)
5.	Scientist	Prof. B. B. Panchal	Horticulture	15600-39100	6000	20.01.17	Temporary (57132)
6.	Scientist	Smt. G. J. Bhimani	Home Science	15600-39100	7000	05.02.16	Temporary (75158)
7.	Scientist	Dr. S. K. Chawda	Crop protection	15600-39100	7000	02.04.13	Temporary (68870)
8.	Farm manager	Mr. A. T. Patel	--	39900	00	12.07.12	Temporary (47559)
9.	Computer Programmer	Mr. C. G. Lad	--	39900	00	01.08.15	Temporary (47559)
10.	Prog. Assistant	Mr. Y. D. Patel	--	41100	00	10.08.15	Temporary (48935)
11.	Accountant/ Superintendent	Mrs. B. C. Patel	--	9300-34800	4200	1.07.17	Temporary (53045)
12.	Stenographer	Mrs. J. M. Verma	--	19950 Fix	--	19.08.15	Temporary (19950)
13.	Driver	Vacant	--	--	--	--	--
14.	Driver	Vacant	--	--	--	--	--
15.	Supporting staff	Vacant	--	--	--	--	--
16.	Supporting staff	Vacant	--	--	--	--	--

1.6. Total land with KVK (in ha) :

S. No.	Item	Area (ha)
1	Under Buildings	1.69
2.	Under Demonstration Units	1.00
3.	Under Crops	6.12
4.	Horticulture	-
5.	Pond	--
6.	Others if any	--

1.7. Infrastructural Development:**A) Buildings**

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	--	--	--	--	--	--	--
2.	Farmers Hostel	--	--	--	--	--	--	--
3.	Staff Quarters (6)	--	--	--	--	--	--	--
4.	Demonstration Units (2)	--	--	--	--	--	--	--
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 (Tata)	2012	599999	220000	Working
Tractor	2012	549900	1027(h)	Working

C) equipment & AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Cultivator	2012-13	22500	Working
Plough	2012-13	22500	Working
Lenovo Computer with printer- 4	2015-16	162816	Working
Canon printer- 4	2015-16	34704	Working
Canon Copier machine	2015-16	47565	Working
Multi- media projector-2	2015-16	103691	Working
DSLR Camera	2015-16	39555	Working
Digital camera	2015-16	10305	Working
Multicrop Thresher	2016-17	180000	Working

Rotavetor	2016-17	67210	Working
Disc Harrow	2016-17	95000	Working
Multicrop seed cum fertilizer drill	2016-17	42000	Working
Bund former	2016-17	18000	Working
Cage wheel	2016-17	30450	Working
Ridger (with danti)	2016-17	13125	Working
Hydraulic luggage box	2016-17	16800	Working
V Ditcher	2016-17	12600	Working
Plank	2016-17	32550	Working
RO water purifier with cooler	2016-17	78000	Working
Mrida Parikshak Soil Testing minilab-kit	2016-17	86000	Working
A/C-2	2016-17	80,000	Working
Tractor mounted sprayer	2018-19	13806	Working
Brush cutter	2018-19	24632	Working

1.8. Details SAC meeting conducted in the year

Proceeding of 7th Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Surat held on 20/03/2019 at 02:30 p.m., at KVK, Surat

The Seventh Scientific Advisory Committee Meeting of Krishi Vigyan Kendra, NAU, Surat was held at KVK, Surat on 20th March, 2019 to review the progress made by KVK during last year (1-4-2018 to 19-03-2019) and to discuss the future action plan for the next year (April-2019 to March-2020). The meeting was inaugurated by Dr. C. J. Dangaria, Honorable Vice Chancellor, NAU, Navsari and Chairman of Scientific Advisory Committee, KVK, Surat. Dr. J. H. Rathod, Member Secretary & Senior Scientist and Head, Krishi Vigyan Kendra, Surat welcomed the dignitaries, committee members, farmers and other invitees. He presented the overall activities and achievements done by the KVK during the last year. Scientists also presented the discipline wise achievements made by them. Activities done by KVK, Surat was appreciated by the house and congratulated the Senior Scientist and Head and his team for addressing the key issues as per the need of the farmers of Surat district. The Action Plan for the next year was also presented before the house with special reference to focus on tribal.

Mr. N. G. Gamit, Deputy Director of Agriculture (Extension), Surat gave emphasis on doubling of farmers income and suggested to organize programme in collaboration with ATMA project and line department, Surat.

Mrs. Vikasben Desai, Technical Director, UHCRCE, Surat suggested to organize more training programme on kitchen garden in urban area.

Mr. Ramanbahi Patel (Jani), chairman, APMC, Surat gave his valuable suggestions regarding farmers related different activities and emphasized on value addition in agricultural commodities. He offered the training hall of APMC for training programme of farmers.

Dr. G. R. Patel, Director of Extension Education, NAU, Navsari appreciated the performance of KVK and emphasized to increase participation of farm women in different activities.

Hon. Vice Chancellor and Chairman of the committee, Dr. C. J. Dangaria gave very positive remarks on KVK activities and focused on value addition in different commodities. He suggested to take recently released varieties of crops for demonstration. He emphasised on use

of local breed of cow and goat. He advised to create awareness among farmers about different departmental and banking schemes.

7.1 Approval of the minutes of Sixth Scientific Advisory Committee.

The action taken report of the minutes of Sixth SAC meeting (Held on 19-03-2018) was presented before the house and it was approved by the Scientific Advisory Committee.

7.2 Progress made by KVK during April 2018 to March 2019

Senior Scientist and Head and the Scientists of the KVK, NAU, Surat presented the report on progress made by KVK, for the period of April-2018 to March 2019. The committee was satisfied with the activities and achievements made by the KVK.

7.3 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 which was approved by the house. However, few suggestions were made by the house to strengthen the action plan.

7.3.1	Organize trainings on doubling of farmer's income in collaboration with ATMA and Line department Surat
7.3.2	Give demonstration of sesame GT-5 recent release variety for summer season
7.3.3	Give demonstration of green gram of GM-6 variety
7.3.4	Give demonstration of pigeonpea of GT-104 variety
7.3.5	Give demonstration of Soyabean NAU Variety KDS-344
7.3.6	Give demonstration of Novel plus
7.3.7	Give more emphasize on value addition trainings.
7.3.8	Give emphasize on Surati Goat
7.3.9	Awareness regarding Gir cow and desi cow
7.3.10	Give demonstration of Solar Cooker
7.3.11	Aware farmers about departmental Schemes and Bank Scheme/ subsidy in different programs
7.3.12	Organize farmers awareness training programme about soil health in Olpad taluka and increase soil sample testing
7.3.13	Give emphasize on impact study

The meeting was ended with vote of thanks by Dr. H. C. Parmar, Scientist, Animal Husbandry, KVK, NAU, Surat.

**Senior Scientist and Head
Krishi Vigyan Kendra
Athwa Farm, Surat**

**Vice – Chancellor and Chairman SAC
Navsari Agricultural University
Navsari**

Following members and invitees were remained present in 7th Scientific Advisory Committee meeting.

1	Dr. C. J. Dangaria	Hon. Vice Chancellor, NAU, Navsari	Chairman
2	Dr. G. R. Patel	Director of Extension Education, NAU, Navsari	Member
3	Dr. K.B. Sankat	Representative, Professor and Head, Department of Agronomy, NMCA, NAU, Navsari	Member
4	Dr. V. K. Parmar	Associate Professor, Department of Horticulture, NMCA, Navsari	Member
5	Dr. N. B. Patel	Research Scientist, LRS, NAU, Navsari	Member
6	Mr. N. K. Gabani	Project Director, ATMA, Surat	Member
7	Mr. V. I. Patel	Representative, District Agricultural Officer, Surat	Member
8	Mr. P. G. Malavia	Representative, Deputy Director of Horticultural, Surat	Member
9	Dr. Anil R. Chinchmalatpure	Head, CSSRI (ICAR), RRS, Bharuch	Member
10	Dr. S. T. Tejani	Representative, Deputy Director of Animal Husbandry, Surat	Member
11	Mrs. Priti S. Shah,	Representative, Deputy Engineer, WALMI, Surat	Member
12	Shri. Manojbhai Patel	Agri Entrepreneur, Village: Shekhpur, Surat	Member
13	Mrs. Vajaben Vasantbhai Vasava,	Progressive Woman Farmer, Village:Chitlada, Taluka:Umarpada, Surat	Member
14	Mrs. Nishaben S. Chaudhary	Chairmen, SHG, Village: Parvat, Taluka: Mandvi, Surat	Member
15	Dr. J. H. Rathod	Senior Scientist and Head, KVK, Surat	Member Secretary
16	Mr. Ramanbhai N. Patel (Jani)	Chairman, APMC, Surat	Special Invitee
17	Mr. N. G. Gamit	Deputy Director of Agriculture (Extension) Surat	Special Invitee
18	Mr. Rajak A. Vohara	Representative, Project Director, District Watershed Development Unit, Surat	Special Invitee
19	Mr. Rasik Jethwa,	Lead District Manager, Bank of Baroda, Surat	Special Invitee
20	Mr. B. G. Chaudhary,	Director, Baroda Swarojgar Vikas Sansthan (RSETI, Surat)	Special Invitee
21	Dr. Vikas Desai,	Technical Director, Urban Health and climate Resilience Center of Excellence, Surat	Special Invitee
22	Shri Ramsingbhai Chaudhri	Representative, Cooperative Leader, Village: Moritha, Taluka: Mandvi ,	Special Invitee
23	Dave Asha R.	Vice-President, SGPC, Surat	Special Invitee
24	Miss Avni Raval	Team leader, Reliance Foundation, Surat	Special Invitee
25	Mr. Ramkumar Singh	Director, Yantra Vidhalay, Suruchi Trust, Bardoli	Special Invitee

26	Dr. P. Thomodaran	Director (I/c), Regional Fodder Station, Post: Dhamrod, Tal: Mangrol, Surat	Special Invitee
27	Dr. M. C. Patel	Research Scientist (Cotton), Main Cotton Research Station, NAU, Surat	Special Invitee
28	Dr. B. K. Davda	Research Scientist (Sorghum), Main Sorghum Research Station, NAU, Surat	Special Invitee
29	Dr. R. M. Patel	Principal & Dean, Aspee Shakilam Biotechnology Institute, NAU, Surat	Special Invitee
30	Mr. N. K. Patel	Horticulture Officer, Surat	Invitee
31	Miss Arachna Joshi	FLCC officer, Bank of Baroda, Surat	Invitee
32	Mr. Ashvinkumar Joshi	Reliance Foundation, Surat	Invitee
33	Mr. Amitbhai G. Chaudhari	BoD, Farmers Seed Production Company, Reliance Foundation, Surat	Invitee
34	Mr. Rakesh Vasava	Reliance Foundation, Surat	Invitee
35	Mrs. Ramaben Singh	Yantra Vidhalay, Suruchi Trust, Bardoli	Invitee
36	Mr. Balvinder Singh	Regional Fodder Station, Post: Dhamrod, Tal: Mangrol, Surat	Invitee
37	Mr. S. Y. Solanki	Farm Assistant, RFS, Post: Dhamrod, Tal: Mangrol, Surat	Invitee
38		All 6 Scientists, KVK, Surat	

2. DETAILS OF DISTRICT

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

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

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

a) Soil type

Taluka (AES)	Soil texture	Rainfall (mm)	Crops	Features
(AES-1) Mandvi (30%), Mangrol (40%), Umarpada	Hilly and highly undulating fine texture, highly erosive	< 1100	Paddy, Maize, Cotton, Sorghum, Pulses	Highly erosive Shallow to medium in depth Poor permeability Low to medium N & P content
(AES-2) Bardoli, Choryasi (75%), Kamrej, Palasana, Surat and Mahuva	Leveled, deep, fine textured	> 1450	Sugarcane, Paddy, Sorghum, Pulses, Orchards	Poor drainage Water logging Very poor permeability Poor soil physical condition Low to medium in N & P content

(AES-3) Mandvi (70%), Mangrol (60%), Olpad (70%)	Deep to medium black	1000 – 1250	Sorghum, Pulses, Paddy, Cotton, Oil Seeds	Moderate to severe erosive Poor soil fertility Poor irrigation facility
(AES-4) Choryasi (25%), Olpad (30%)	Coastal plain, deep, fine texture, salt affected	900-1000	Paddy - Cotton, Sorghum, Pulses, Wheat	High salt accumulation Poor soil physical condition High water table Water logging condition

b) Topography

S. No.	Agro ecological situation	Characteristics
1	(AES-1)	Hilly and highly undulating fine texture, highly erosive
2	(AES-2)	Leveled, deep, fine textured
3	(AES-3)	Deep to medium black
4	(AES-4)	Coastal plain, deep, fine texture, salt affected

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Inceptisols	Inceptisols are found on the hilly areas as well as along the hill slopes. These soils are shallow to moderately deep and highly eroded. Their texture varies from loamy to clay. Their water holding capacity is moderate. They are moderate to high in nitrogen, low in phosphoric acid and high in potash content.	
2	Vertisols	Vertisols are found in the midlands and flood plains. These soils are very deep and silty to clay in texture. Their water holding capacity varies with clay content. These soils crack on drying and have poor drainage characteristics. These are moderate in nitrogen, low to medium in phosphoric acid and high in potash content	
3	Coastal saline soils	The soils are sandy clay loam to clay in texture. The soil reaction varies with situation ranging from neutral to highly alkaline. These soils are normally medium in fertility.	

2.4. Area, Production and Productivity of major crops cultivated in the district (2018-19)

2.4.1 Field Crops cultivated in the district

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

Source: DAO, Surat.

2.4.2 Fruit crops cultivated in the district

Crop	Area (Ha.)	Production (MT)	Productivity (MT)
Mango	9577	88970.33	9.29
Sapota	2200	24442.00	11.11
Citrus	95	856.90	9.02
Ber	8	24.00	3.00
Banana	8705	610220.50	70.10
Guava	82	966.78	11.79

Pomegranate	50	537.50	10.75
Papaya	865	52522.80	60.72
Other	261.8	1937.46	7.40
Total	21843.8	780478.27	35.73

Source: DDH, Surat

2.4.3 Vegetable Crops in the district

Crop	Area (Ha.)	Production (MT)	Productivity(MT)
Brinjal	5390	107530.50	19.95
Okra	12045	165618.75	13.75
Cabbage	873	16936.20	19.40
Tomato	1691	41260.40	24.40
Clusterbean	1532	12118.12	7.91
Cow Pea	1596	19630.80	12.30
Pointed Gourd	3621	81472.50	22.50
Tindola	665	6650.00	10.00
Bitter Gourd	307	5771.60	18.80
Bottle Gourd	347	6523.60	18.80
Ridge Gourd	81	1522.80	18.80
Papadi	301	2829.40	9.40
Valol	255	2422.50	9.50
TOTAL (Major Crops)	28704	470287.17	16.38

Source: DDH, Surat

Area and Production of other Vegetable Crops in the district

Crop	Area (Ha.)	Production (MT)	Productivity(MT)
Watermelon	45	450.00	10.00
Kankoda	190	1615.00	8.50
Yam	915	13725.00	15.00
Beet	213	2928.75	13.75
Carrot	86	877.20	10.20
Radish	458	7213.50	15.75
Chilly-Salad	507	7605.00	15.00
Chilli-Dry (Green Chilli)	150	237.00	1.58
Turmeric	241	4964.60	20.60
Other	2805	39616.05	14.12
Total	31509	509903.22	16.18

Source: DDH, Surat

2.4.4 Flower Crops in the district

Crop	Area(Ha.)	Production (MT)	Productivity(MT)
Galadiya	40.50	370.98	9.16
Rose	198.00	1892.88	9.56
Marigold	515.00	5180.90	10.06
Lily	130.00	1287.00	9.90
Mogra	7.00	30.10	4.30
Others	190.00	1740.40	9.16
TOTAL	1080.50	10502.26	9.72

Source: DDH, Surat

2.4.5 Spices Crops in the district

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

Source: DDH, Surat

2.5. Weather data (2018-19)

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
April 2018	00	37.4	24.6	71.0	60.0
May 2018	23	38.6	25.4	72.0	60.0
June 2018	58	35.8	24.7	90.0	63.0
July 2018	777	29.7	24.5	96.0	85.0
August 2018	217	32.0	23.8	90.0	84.0
September 2018	98	33.3	24.4	86.0	71.0
October 2018	0	33.8	27.0	79.0	69.0
November 2018	0	35.1	18.0	72.0	64.0
December 2018	0	28.9	10.8	75.0	62.0
January 2019	0	29.4	9.7	73.0	57.0
February 2019	0	31.5	16.7	68.5	63.75
March 2019	0	35.87	20.12	68.25	61.75

Source: MCRS, Surat

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

Category	Population	Production	Productivity
Cattle			
Crossbred	289402	134000	7.9 liters
Indigenous	289402	44000	3.8 liters
Buffalo	300282	192000	4.6 liters
Sheep	1936	-	-
Goats	150464	5000	-
Pigs			
Crossbred	94000	-	-
Indigenous	68000	-	-
Rabbits	-	-	-
Poultry			
Hens	204000	55100	-
Desi	10000	-	-
Category		Production (Q.)	Productivity
Fish (Reservoir)	5	10414	-

Source: DAH, Surat

2.7. Details of Operational area / Villages

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problems identified	Identified Thrust Areas
	Mahuva	<ol style="list-style-type: none"> 1. Umra 2. Vasrai 3. Dhundhesa 4. Vadia 	Paddy, Sugarcane, Pointed gourd, Okra, Brinjal, Vegetables, Mango Crop production-Horticulture-Livestock	<ol style="list-style-type: none"> 1. The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2. Okra, brinjal and creepers are important crops but the productivity is very low, problem of insect pests and disease No technical knowhow regarding green house net house technology and crops Lack of technical knowhow about mango orchards plantation and management. 3. High use of water in canal command area and water scarcity in hilly area 4. Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides High incidence of wilt and parval vine borer in pointed gourd. 5. Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management 6. Lack of knowledge of small scale agricultural base enterprises, value addition etc. 7. Drudgery reduction through improved hand tools. 	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3. Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6. Imparting skill oriented training to the tribal women for sustaining their livelihood. 7. Promotion of small scale farm mechanization in tribal area.

	Mandvi	<ol style="list-style-type: none"> 1. Amba 2. Parvat 3. Uteva 4. Titoi 	<p>Paddy, Sugarcane, Brinjal, Okra, Cluster bean , Vegetables, Pulses, Soybean, Groundnut</p> <p>Crop production- Horticulture- Livestock</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Brinjal and okra are important crops but the productivity is very low, problem of insect pests and disease</p> <p>No technical know how regarding green house net house technology and crops</p> <p>Lack of technical knows how about mango orchards plantation and management.</p> <p>3.High use of water in canal command area and water scarcity in hilly area</p> <p>4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides High incidence of wilt and fruit and shoot borer in brinjal</p> <p>5.Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management</p> <p>6.Lack of knowledge of small scale agricultural base enterprises, value addition etc.</p> <p>7.Drudgery reduction through improved hand tools.</p>	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, sugarcane, Soybean 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6 .Imparting skill oriented training to the tribal women for sustaining their livelihood. 7. Promotion of small scale farm mechanization in tribal area.
--	--------	--	---	---	--

	Umarpada	<ol style="list-style-type: none"> 1. Kadvali 2. Kadavidadra 3. Vadpada 4. Khotarampura 	<p>Paddy, Brinjal, Okra, Cotton, Pulses, Soybean, Groundnut</p> <p>Crop production - Livestock</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Indian bean is an important crops but the productivity is very low, problem of insect pests and disease</p> <p>Lack of technical knowhow about orchards plantation and management.</p> <p>3. Water scarcity in rabi / summer due hilly area</p> <p>4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy vegetables etc, No use of bio fertilizers 5.Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management Large no of non descript animals</p> <p>6. Lack of knowledge of small scale agricultural base enterprises, value addition etc. 7. Drudgery reduction through improved hand tools.</p>	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, cotton, sorghum, pigeon pea 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6 .Imparting skill oriented training to the tribal women for sustaining their livelihood. 7. Promotion of small scale farm mechanization in tribal area.
--	----------	---	--	--	---

	Mangrol	<ol style="list-style-type: none"> 1. Balethi 2. Mandan 3. Ghodbar 	<p>Paddy, Sorghum, Cotton, Pulses, Groundnut</p> <p>Crop production- Livestock</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Okra, brinjal and creepers are crops but the productivity is very low, problem of insect pests and disease No technical knowhow regarding net house technology and crops Lack of technical knowhow about plantation and management. 3.Water scarcity in hilly area and rain fed farming 4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides High incidence of wilt and parval vine borer in pointed gourd.</p> <p>5.Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management</p> <p>6. Lack of knowledge of small scale agricultural base enterprises, value addition etc. 7. Drudgery reduction through improved hand tools.</p>	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, cotton, sorghum 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6 .Imparting skill oriented training to the tribal women for sustaining their livelihood. 7. Promotion of small scale farm mechanization in tribal area.
--	---------	---	--	--	---

	Olpad	<ol style="list-style-type: none"> 1. Mandroi 2. Bhatgam 	<p>Paddy, Sugarcane, Pointed gourd, Okra, vegetables</p> <p>Crop production-Livestock</p>	<p>1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation</p> <p>2. Okra and creepers are important crops but the productivity is very low, problem of insect pests and disease No technical knowhow regarding green house net house technology and crops Lack of technical knowhow about fruit crops cultivation.</p> <p>3.High use of water in canal command area and salinity problem in coastal area</p> <p>4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides High incidence of wilt and parval vine borer in pointed gourd.</p> <p>5. Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management</p> <p>6. Lack of knowledge of small scale agricultural base enterprises, value addition etc.</p>	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6 .Imparting skill oriented training to the tribal women for sustaining their livelihood.
--	-------	--	---	--	---

	Kamrej	<ol style="list-style-type: none"> 1. Karjan 2. Choryasi 	<p>Sugarcane, Banana, Paddy, Vegetables</p> <p>Crop production-Horticulture-Livestock</p>	<ol style="list-style-type: none"> 1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2. Banana is an important crop but the problem of insect pests and disease No technical knowhow regarding green house net house technology and crops 3.High use of water in canal command area problem of water logging 4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in banana 	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM.
--	--------	--	---	--	---

	Bardoli	<ol style="list-style-type: none"> 1. Balda 2. Rajvad 3. Afva 	<p>Paddy, Sugarcane, Banana, Brinjal, Okra, Vegetables</p> <p>Crop production- Horticulture- Livestock</p>	<ol style="list-style-type: none"> 1. The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2. Okra and creepers are important crops but the productivity is very low, problem of insect pests and disease No technical knowhow regarding green house net house technology and crops Lack of technical knowhow about fruit crops cultivation. 3. High use of water in canal command area and salinity problem in coastal area 4. Lack of knowledge about Insect pests and diseases and their management and nutrient management in crops like paddy sugar cane, okra, creepers etc, Injudicious use of fertilizers and pesticides High incidence of wilt and parval vine borer in pointed gourd. 5. Low milk productivity High calf mortality Problem of anoestrus Lack of awareness about Feeds and fodder management 6. Lack of knowledge of small scale agricultural base enterprises, value addition etc. 	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. Paddy, sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3. Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Increasing milk production by dissemination of latest technologies. 6. Imparting skill oriented training to the tribal women for sustaining their livelihood.
--	---------	--	--	--	--

	8.Choryasi	<ol style="list-style-type: none"> 1. Bhatha 2. Bhatpor 3. Budia 	<p>Paddy, Pointed gourd, Sorghum, Vegetables</p> <p>Crop production-Livestock</p>	<ol style="list-style-type: none"> 1.The productivity of crop is very low due to lack of technical knowhow regarding its scientific cultivation 2.No technical knowhow regarding green house net house technology and crops 3.High use of water in canal command area problem of water logging 4.Lack of knowledge about Insect pests and diseases and their management and nutrient management in banana 	<ol style="list-style-type: none"> 1. Increase productivity of major crops e.g. sugarcane 2. Dissemination of production technology of fruits and vegetables and their post harvest management as well promotion of precision farming. 3.Management of natural resource, including salinity management 4. Popularize eco-friendly crop production with special reference to IPDM & INM. 5. Imparting skill oriented training to the tribal women for sustaining their livelihood.
--	------------	---	---	---	--

2.8. Priority thrust areas:

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

3. TECHNICAL ACHIEVEMENTS

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

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
5	5	35	35	74	78	380	393

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
24	55	720	1831	75	7190	329	24837

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
20	36.50	0	0

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 of villages	Prioritized problems in these crops/ enterprise	Extent of area (ha/No.) affected by the problem in the district	Name of Cluster Villages identified for interventions	Interventions (OFT, FLD, Training, extension activity etc.)*
1	Paddy, Sugarcane, Pointed gourd, Okra, Brinjal, Vegetables, Mango Crop production- Horticulture-Livestock	Use of local variety High seed rate, Imbalance use of fertilizers, No use of bio fertilizer	--	Umra Vasrai Dhundhesa Vadia	OFT, FLD, Training, extension activity
2	Paddy, Sugarcane, Brinjal, Okra, Cluster bean, Vegetables, Pulses, Soybean, Groundnut Crop production- Horticulture-Livestock	Use of local variety in brinjal Imbalance use of fertilizers in crops No use of bio- fertilizers No knowledge about post harvest management and processing Low technical know house regarding green house/ net house and production technology	--	Amba Parvat Uteva Titoi	OFT, FLD, Training, extension activity
3	Paddy, Brinjal, Okra, Cotton, Pulses, Soybean, Groundnut Crop production – Livestock	Lack of knowledge about disease and insect pest management. Injudicious use of pesticides Lack of knowledge about Bio-fungicides	--	Kadvali Kadavidadra Vadpada Khotarampura	OFT, FLD, Training, extension activity
4	Paddy, Sorghum, Cotton, Pulses, Groundnut Crop production- Livestock	Poor dairy management Large number of non-descript animals with low milk production Poor availability of fodder in	--	Balethi Mandan Ghodbar	OFT, FLD, Training, extension activity

		<p>hilly area. Poor cultivation of fodder crops High calf mortality due to poor management</p>			
5	<p>Paddy, Sugarcane, Pointed gourd, Okra, vegetables</p> <p>Crop production-Livestock</p>	<p>In hilly area problem of water conservation In middle canal command area due to excess irrigation problems of water logging and salinity In coastal area salinity problem</p>	--	Mandroi Bhatgam	OFT, FLD, Training, extension activity
6	<p>Sugarcane, Banana, Paddy, Vegetables</p> <p>Crop production-Horticulture-Livestock</p>	<p>Imbalance use of fertilizers lack of awareness about use of bio-fertilizers</p>	--	Karjan Choryasi	OFT, FLD, Training, extension activity
7	<p>Paddy, Sugarcane, Banana, Brinjal, Okra, Vegetables</p> <p>Crop production-Horticulture- Livestock</p>	<p>Lack of knowledge about value addition of locally available materials Lack of knowledge, skills regarding various small scale agricultural based enterprises</p>	--	Balda Rajvad Afva	OFT, FLD, Training, extension activity
8	<p>Paddy, Pointed gourd, Sorghum, Vegetables</p> <p>Crop production-Livestock</p>	<p>Imbalance use of fertilizers lack of awareness about use of bio-fertilizers</p>	--	Bhatha Bhatpor Budia	OFT, FLD, Training, extension activity

3.2. Technology Assessment

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
Integrated Pest Management	--	--	--	--	--	1	--	--	--	1
Integrated Disease Management	1	--	--	--	--		--	--	--	1
Total	1	--	--	--	--	2	--	--	--	3

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

Thematic areas	Cattle	Poultry	Piggery	Rabbitry	Fisheries	TOTAL
Nutrition Management	1	--	--	--	--	1
Production and Management	1	--	--	--	--	1
TOTAL	2	--	--	--	--	2

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	Assessment of enrich banana sap for yield and quality of mango	3	5	2
Integrated Pest Management	Banana	Assessment of effective methodology for the management of Banana Pseudo stem weevil	3	5	2
Integrated Disease Management	Paddy	Assessment of fungicide for the management of grain discoloration in paddy	3	5	2
Total			9	15	6

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
Nutrition management	cows	Use of Chealated minerals in the diet of crossbred HF cows (Converted into FLD)	3	10
Production and management	cows	Reduction of Calving Interval in Cross bred cow. (Converted into FLD)	3	10
Total			6	20

C1.Results of Technologies Assessed

C2. Details of each On Farm Trial

Crop Protection

OFT 1:

Title: Assessment of effective methodology for the management of Banana Pseudo stem weevil
Year 2018

Technology Option	No. of trials	% Infestation	Yield (Kg/ha)	BCR
T ₁ - Farmers method (Spraying of Chlorpyriphos on pseudostem)	5	1.93	573.5	3.32
T ₂ -Longitudinal Split stem traps (25 traps/0.2 ha) swabbed with Beauveria (20 gm/trap) (NRC, Banana)		1.43	694.7	4.16

Conclusion: Among both the treatments longitudinal split stem traps (25 traps/0.2 ha) swabbed with Beauveria (20 gm/trap) shows 1.43 per cent infestation while farmers method (Spraying of chlorpyriphos on pseudostem) shows 1.93 per cent infestation. Yield and BCR of T₂ is also higher as compare to T₁.

OFT 2: Assessment of fungicide for the management of grain discoloration in paddy

Problem: Low productivity and deterioration in quality of grain

Objective: To reduce the loss in yield and quality of Paddy

Intervening point: Management of grain discolouration problem in paddy

Season/Year: Kharif 2018-19

Crop: Paddy

Village :Umra, **Block :**Mandvi

Plot size :1 acre

No. of Replication : 5 (farmers)

Treatments:

T₁: Farmers practices (No use of fungicide)

T₂: Three spray of Propiconazole 25 EC 0.025% (10 ml/ 10 lit. water). First spray before initiation of disease and second and third spray after 10 days' interval (Recommendation: Main Rice Research Station, NAU, Navsari, Year: 2015)

Result:

No. of OFT	Area acre	Average yield (q/ha)			Average cost		Average Gross Income		BCR	
		T1	T2	% increase	T1	T2	T1	T2	T1	T2
5	1	3350	3750	11.94	29500	31000	73700	82500	2.50	2.66

Horticulture:

OFT: 3

Assessment of enrich banana sap for yield and quality of mango

Technology Option	No. of trials	Yield (t/ha)	BCR
T ₁ : Farmers method	5	8.90	4.09
T ₂ : Spraying of 1.5 % banana sap at flowering and pea stage		11.92	5.80

Animal Husbandry:

On Farm Test: 4

Title	:	Use of Chelated minerals in the diet of crossbreed HF cows
Objective	:	Increase milk production and reduce service period
Location	:	Mandvi and Mahuva Block
Treatments	:	T ₁ :Feeding of locally available feeds and fodders T ₂ : T ₁ + Chelated minerals @ 30 gm/cow/day for 120 days
No. of beneficiaries	:	10
Season	:	Rabi
Observations	:	Milk production, Fat percentage and service period
Source of technology	:	NDDDB, Anand

Results:

Parameters	T1	T2	Difference	% Increase
Milk Yield (L)	11.033±2.12	12.060±2.34	1.186	9.7
Fat %	3.85±.20	4.09±0.18	0.24	5.8
4% FCM	10.764±1.94	12.219±2.42	--	--
Body Weight (Kg)	376.46	369.28	--	--
Post partum estrus (D)	146	102	--	--

On Farm Test: 5

Title	:	Reduction of Calving Interval in Cross bred cow.
Objective	:	To Reduce Inter-calving period
Location	:	Mandvi and Mahuva Block
Treatments	:	T1 : Farmers practice (No feeding of mineral mixture) T2: Mineral mixture @ 50 g./head/day + deworming + Herbal Hormone catalyst (Prajna Tablets) @ 3 tablets / day / animal for 3 Days.
No. of beneficiaries	:	10
Season	:	Rabi
Observations	:	Post partum estrus and Calving
Source of technology	:	NDDDB, Anand

Results:

Parameter	Major Parameters		% change in major parameter
	Demonstration	Check	
Animal coming in Estrus (I)	9 (10)	6 (10)	20.72 % reduced calving Interval
Animal become Pregnant (I)	8 (10)	4 (10)	
Calving Interval (D)	459	579	

3.3. FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year (2017-18) and popularized during 2018-19 and recommended for large scale adoption in the district

S. 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
Cereal crops							
1	Paddy (NAUR -1)	ICM	New variety	FLDs	20	540	210
2	Paddy (GNR - 3)	ICM	New variety	FLDs	50	1200	500
3	Paddy (GAR -13)	ICM	New variety	FLDs	30	800	350
4	Paddy (Purna)	ICM	New variety	FLDs	10	250	100
5	Paddy	IPDM	New variety	FLDs	50	1400	530
6	Paddy (GNRH-1)	ICM	New variety	FLDs	10	95	50
Other crops							
1	Cotton (G cot hy-10)	ICM	New variety	FLDs	12	105	30
Oilseed and Pulses crops							
1	Pigeonpea (BDN 711)	ICM	New variety	FLDs	25	125	60
2	Green gram (Meha)	ICM	New variety	FLDs	45	250	120
3	Soybean (NRC 37)	ICM	New variety	FLDs	70	350	160
4	Soybean (JS 335)	ICM	New variety	FLDs	40	230	120

Horticulture crops							
1	Banana	INM	INM	FLDs	20	90	40
2	Mango	IPM	--	FLDs	60	320	150

B. Details of FLDs implemented during 2018-19

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
FLDs of KVK										
Cereal crops										
1	Paddy (GAR -13)	ICM	New variety	<i>Kharif -18</i>	5	5	12	0	12	--
2	Paddy (GNRH-1)	ICM	New variety	<i>Kharif -18</i>	10	10	25	0	25	--
3	Paddy (GNR - 6)	ICM	New variety	<i>Kharif -18</i>	5	5	12	0	12	--
4	Paddy	IPDM	-	<i>Kharif - 18</i>	4	4	10	0	10	--
Oilseed and Pulses crops										
1	Pigeonpea (BDN 711)	ICM	New variety	<i>Kharif -18</i>	8	8	20	0	20	--
2	Soybean (JS-95-60)	ICM	New variety	<i>Kharif -18</i>	5	5	12	0	12	--
Other crops										
1	Cotton (G cot- Hy-12 Bt)	ICM	New variety	<i>Kharif -18</i>	5	5	12	0	12	--
Horticulture crops										
1	Banana	INM	INM	<i>Kharif -18</i>	4	4	0	10	10	--
2	Banana	IPDM	IPDM	<i>Kharif -18</i>	4	4	0	10	10	--
3	Brinjal	INM	INM	<i>Rabi -18</i>	4	4	0	10	10	--
4	Brinjal	IPDM	IPDM	<i>Rabi -18</i>	4	4	0	10	10	--
5	Pointed Gourd	INM	INM	<i>Kharif -18</i>	4	4	0	10	10	--
6	Pointed Gourd	IPDM	IPDM	<i>Kharif -18</i>	4	4	0	10	10	--
7	Okra	IPDM	--	<i>Summer-19</i>	4	4	10	0	10	--

8	Mango	IPM	--	Summer-19	4	4	10	0	10	
9	Indianbean	ICM	--	Rabi - 18	4	4	10	0	10	
Animal Husbandry										
1	Cow HF	Nutritional Management	Mineral Mixture +Deworming tab	--	--	--	20	0	20	--
2	Calf	Nutritional Management	Concentrate + MM + Deworming Tab	--	--	--	20	0	20	--
3	Cow HF	Disease Management	Mastitis prevention antibacterial Spray	--	--	--	20	0	20	--
4	Cow / Buffalo	Disease Management	Ectoparasitic infestation Treatment	--	--	--	20	0	20	--
Home Science										
1	Wheel hoe	Drudgery deduction	Labour saving	Rabi-18	--	--	20	0	20	--
2	Kitchen garden kit	Nutrition Management	Seed & Seedling	Rabi-18	--	--	100	0	100	--
					78	78	333	60	393	
FLDs of Other Agency										
Crop production										
NFSM										
1	Gram	ICM	New variety + ST+INM	Rabi -18	30	30	75	0	75	--
2	Greengram	ICM	New variety+ ST+INM+INM	Summer- 19	30	30	75	0	75	--
NMOOP										
1	Soyabean	ICM	New variety	Kharif -18	20	20	50	0	50	--
2	Sesame	ICM	New variety+ ST+INM+INM	Summer -18	20	20	50	0	50	--
3	Groundnut	ICM	New variety+ ST+INM	Summer- 18	20	20	50	0	50	--
TSP – ICAR (Mega Seed)										
1	Indian Bean (NPS 1)	ICM	Seed	Rabi – 18	2	2	25	0	25	-

Adaptive Trials										
1	Paddy (GNR – 3)	ICM	New variety	<i>Kharif-18</i>	108	108	0	270	270	--
2	Paddy (GNR-6)	ICM	New variety	<i>Kharif-18</i>	56	56	140	0	140	--
3	Paddy (GAR –13)	ICM	New variety	<i>Kharif-18</i>	28	28	0	70	70	--
4	Paddy (GRH-2)	ICM	New variety	<i>Kharif-18</i>	02	02	05	0	05	--
5	Soybean (JS-95-60)	ICM	New Variety	<i>Kharif-18</i>	20	20	50	0	50	--
6	Pigeon pea (BDN-711)	ICM	New variety	<i>Kharif-18</i>	16	16	40	0	40	--
7.	Pigeon pea (Vaishali)	ICM	New variety	<i>Kharif-18</i>	20	20	49	0	49	--
8	Sugarcane (CoN13073)	ICM	New Variety	<i>Rabi-18</i>	0.5	0.5	4	0	4	--
9	Milch Cow	Nutritional Management	Mineral mixture + Deworming	<i>Rabi – 18</i>	--	--	100	0	100	--
10	Calf growth promoter	Nutritional Management	Calf growth promoter	<i>Rabi – 18</i>	--	--	25	0	25	--
11	Cow/Buffalo	Disease Management	Ectoparasitic infestation Treatment- Liquid gel	<i>Rabi – 18</i>	--	--	50	0	50	--
12	Sorghum	Fodder Management	Fodder	<i>Rabi-18</i>	1.2	1.2	10	0	10	--
13	Kitchen garden	Nutrition management	Vegetable seedlings & seeds	<i>Rabi-18</i>	--	--	100	0	100	--
14	Wheel hoe	Drudgery deduction	Labour saving	<i>Rabi-18</i>	--	--	45	0	45	--
Total					373.7	373.7	943	270	1283	--
Grand Total					451.7	451.7	1276	330	1676	

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	Kharif	Irrigated	Medium black	Low	Medium	High	Sunnhamp	23-07-2018 to 31-07-2018	09-12-2018 to 15-12-2018	1173	43

Technical Feedback on the demonstrated technologies

S.N.	Crop	Technology demonstrated	Feed back
1	Paddy	GAR-13	1.Good rice quality-medium slender 2.Moderately Resistant to BLB/Insect & Pests
2	Paddy	GNRH-1	1. High in yield. 2.Low incidence of Insect pest
3	Paddy	GNR-6	1. High Yield 2. Early to mid late maturing. 3.Low incidence of Insect- pest & disease.
4	Pigeonpea	BDN-711	1.Yellow flower, 2.Early Maturing 3.More no. of seeds(4)/pod 4. Moderately Resi. to SMV/Wilt 5. Preferred for vegetable purpose.
5	Pigeonpea	Vaishali	1.Red flower 2.Resistant to Pests & disease
6	Soybean	JS – 95-60	1.Moderate yield 2.Early maturing 3. Moderately Resistant to Pest & disease
8	Cotton	G.Cot.Hy-12(Bt)	1.Early maturing 2. Suitable for Rain fed condition also. 3.Less sucking pests
9	Gram	GG-5	1.Medium sized brown colour seed. 2.Moderate Yield with moderately resistant to Wilt & Stunt diseases

10	Paddy	IPDM	<ol style="list-style-type: none"> 1. Increase in yield by decreasing infestation of pest at earlier stages in field. 2. Pheromone trap helps farmer to monitor pest in field. 3. Low intensity of BLB and other diseases. 4. Low incidence of grain discolouration
11	Banana	IPDM & INM	<ol style="list-style-type: none"> 1. Less incidence of wilt 2. Less infestation of weevil in the field. 3. Increase in yield, quality of bunch
12	Brinjal	IPDM	<ol style="list-style-type: none"> 1. Less incidence of wilt and other diseases 2. Less infestation of Brinjal fruit and shoot borer and sucking pest 3. Reduce the cost of cultivation by decreasing the use of pesticide
13	Brinjal	INM	<ol style="list-style-type: none"> 4. Increase in yield and quality of fruit 5. Decrease use of chemical fertilizers
14	Okra	IPDM	<ol style="list-style-type: none"> 6. Less infestation of Okra fruit and shoot borer and sucking pest 7. Reduce the cost of cultivation by decreasing the use of pesticide 8. Minimize the number of spray 9. Farmers are habituate to use botanical and organic pesticides in place of hazardous chemical pesticide.
15	Parvar	INM	<ol style="list-style-type: none"> 1. Increase yield and quality of fruits 2. Increase fruit setting ratio
16	Parvar	IPDM	<ol style="list-style-type: none"> 1. Less incidence of wilt and nematodes. 2. Decrease pollination problem due to awareness regarding botanicals in place of chemical pesticides among farmers.
17	Cow - HF Cross- Mastitis	Antibacterial Udder Spray	<ol style="list-style-type: none"> 1. Reduce mastitis cases
18	Calf rearing- Calf-Dan	Calf / Nutritional Management	<ol style="list-style-type: none"> 1. Increase the growth rate 2. Reduced the parasitic problems 3. Improve health condition
19	Cow - HF Cross	Anti Parasitic solution-Gel application on back of animals	<ol style="list-style-type: none"> 1. Reduce Parasitic Infestation 2. Reduce Skin Problems
20	Cow- all Breed- Mineral Mixture	Nutritional management	<ol style="list-style-type: none"> 1. Increase the milk yield 2. Reduce service period
21	Wheel Hoe	Drudgery reduction	<ol style="list-style-type: none"> 1. Reduced the labour cost and Time saving 2. Increase the work efficiency

Farmers' reactions on specific technologies

S. No	Feed Back
1	The problem of pointed gourd vine borer and nematodes are increasing day by day in Mandvi and Mahuva block of Surat district. Effective IPM module should be developing.
2	IPDM module for the management of Banana pseudo stem and wilt should be developing.
3	Compatibility study on use of Novel fertilizer with other organic or chemical should be done to cut down the cost of cultivation.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organised	Date	Number of participants	Remarks
1	Field days	6	17-05-2018, 09-01-2019, 06-02-2019, 08-02-2019	241	-
2	Farmers Training	9	11,19,20,26/06/2018, 18/12/18, 22,23/10/19	267	-
3	Media coverage	24		-	-
4	Training for extension functionaries	1	28-29/09/2018	45	-

C. Performance of Frontline Demonstrations

Frontline demonstrations on Oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo					Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Soybean	ICM	New variety	JS-95-60	50	20	13.04	6.63	8.69	7.55	15.10	15250	26070	10820	1.71	17000	22650	5650	1.33

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

** BCR= GROSS RETURN/GROSS COST

Frontline Demonstration on Pulse crops

Crop	Thematic Area	Technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% 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	ICM	variety	BDN-711	20	8	14.00	10.50	11.40	10.25	8.50	15250	47880	32630	3.14	17000	43050	26050	2.53
	ICM	New variety	GNP-2	13	6.5	13.80	10.85	11.50	10.82	6.20	15000	46000	31000	3.01	16800	43280	26480	2.58
Greengram	ICM	New variety	GAM-5	13	5	6.98	4.50	6.00	5.26	14.10	16500	33000	16500	2.00	16500	28930	12430	1.75

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

** BCR= GROSS RETURN/GROSS COST

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	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 (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Paddy-GAR-13	ICM	New variety	12	5	50.25	38.40	44.03	41.00	7.40			28600	88060	59460	3.08	29150	82000	52850	2.81
Paddy-GNRH-1	ICM	New variety	25	10	48.60	33.23	44.22	42.01	5.25			28500	61908	33408	2.17	30250	58814	28564	1.94
Paddy-GNR-6	ICM	New variety	12	5	53.00	46.05	48.77	44.70	9.10			28700	68278	39578	2.38	30500	62580	32080	2.05
Paddy	IPDM	-	10	4	42.10	35.40	37.55	32.10	16.98			30500	75100	44600	2.46	28700	64200	35500	2.24
Oilseed and Pulses crops																			
Pigeonpea (BDN 711)	ICM	New variety	20	8	14.00	10.50	11.40	10.25	8.50			15250	47880	32630	3.14	17000	43050	26050	2.53
Soybean (JS-95-60)	ICM	New variety	12	5	13.04	6.63	8.69	7.55	15.10			15250	26070	10820	1.71	17000	22650	5650	1.33
Other crops																			
Cotton-G.Cot.Hy-12 Bt	ICM	New variety	12	5	19.80	16.40	19.63	18.50	6.10			38200	88335	50135	2.31	39650	83250	43600	2.10

Horticulture crops																			
Banana	INM and IPDM	INM and IPDM	10	4	735.00	585.00	620.00	550.0	12.73			95000	372000	277000	3.916	92500	330000	237500	3.568
Brinjal	INM	INM	10	4	185.10	146.75	156.70	145.1	7.99			55000	189607	134607	3.447	57200	175571	118371	3.069
Pointed Gourd	INM	INM	10	4	180.23	152.36	142.02	135.1	5.12			127000	355050	228050	2.796	120500	337750	217250	2.803
Brinjal	IPDM	IPDM	10	4	191.00	145.10	161.55	143.5	12.54			55500	195475.5	139975.5	3.522	56800	173695.5	116895.5	3.058
Pointed Gourd	IPDM	IPDM	10	4	184.55	155.10	145.50	130.5	11.49			130000	363750	233750	2.798	123000	326250	203250	2.652
Mango	IPM	--	10	4	83.70	64.55	66.10	62.00	6.61			30500	99150	68650	3.251	30000	93000	63000	3.100
Okra	IPDM	--	10	4	195.20	141.75	161.25	140.2	14.97			46500	193500	147000	4.161	50700	168300	117600	3.320
Indianbean	ICM	--	10	4	34.56	27.98	28.45	22.6	25.61			31500	102420	70920	3.251	29110	81540	52430	2.801
TSP – ICAR (Mega Seed)																			
Indian Bean (NPS 1)	ICM	Seed	25	2	32.55	26.82	28.22	22.85	23.50			32000	98770	66770	3.09	28500	79975	51475	2.81

* Economics worked out based on total cost of production per unit area and not on critical inputs alone. ** BCR= GROSS RETURN/GROSS COST

FLD on Livestock

Use of mineral mixture + De-worming:

Category	Thematic area	Name of the Technology Demonstrated	No. of Farmer	No. of Units	Major Parameters		% change in major parameter
					Demo.	Check	
Cow	Nutrition Management	Mineral Mixture 40 mg per Day and De-worming 3 g Tablet	20	20	Avg. milk yield (L/Day)	Avg. milk yield (L/Day)	13.30
					9.92 (20)	8.60 (10)	
					Service Period (Days)	Service Period (Days)	34
					102 (19)	156 (8)	

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

Prevention of mastitis by teat Spray:

Category	Thematic area	Name of the Technology Demonstrated	No. of Farmer	No. of Units	Major Parameters		% change in major parameter
					Demonstration	Check	
Cow	Preventive Measures	Mastitis prevention by Teat Spray Visprayk [®]	20	20	No. of Incidence	No. of Incidence	50% reduction of cases
					4 (20)	4(10)	

Prevention of Ectoparasite:

Category	Thematic area	Name of the Technology Demonstrated	No. of Farmer	No. of Units	Major Parameters		% change in major parameter
					Demonstration	Check	
Cow	Prevention / Treatment of Ectoparasite	Parasites prevention by Liquid application on back of animal Poron [@]	20	20	No. of Incidence	No. of Incidence	66% reduction of cases
					2 (20)	6(10)	

Scientific calf rearing:

Parameters	De-worming + calf Dan up to six months		Farmers method	
	3 Month	6 Month	3 Month	6 Month
Calf No.	20		10	
Av. Body Wt. (Kg)	61.95±5.3	86.6±4.19	52.7±6.9	73.9±6.9
% Increase	14.9	14.66	-	-

Feed back

Sr. No.	Technology	Animals	Feedback reported
1	Mineral Mixture	Cow	➤ Increase the milk yield ➤ Reduce service period
2	Teat spray Antiseptic Solution	Cow	➤ Reduce mastitis cases
3	Ectoparasitic solution application on back of animals	Cow	➤ Reduce parasitic infestation
4	De-worming and Dan to calf	Calf	➤ Increase the growth rate ➤ Reduced the parasitic problems ➤ Improve health condition

FLD on Fisheries: Nil**FLD on Other Enterprises: Nil****FLD on Farm Implements and Machinery: Nil**

FLD on Women Empowerment:

FLD on Use of Wheel Hoe for weeding to reduce women drudgery

Crop	Thematic area	Name of the Technology Demonstrated	No. of Farmer	Major Parameters	Field observation Output/Man hr (ha/hr)		% change in major parameter	Labour saving during weeding (Man-hr/ha)		Cost reduction** (Rs./ha/day)	
					Demo.	Check		Demo	Check	Demo	Check
Vegetables & Pulses	Drudgery reduction	Twin Wheel Hoe*	20	1.Field capacity(ha/hr) 2.Labour requirement(Man hr/ha) 3.Cost of operation	0.012 (0.096ha/day)	0.0081 (0.065ha/day)	48.14	84	124	1869	2759

*Twin wheel hoe technology recommended by CIAE, Bhopal-MP

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

Feed back:

1. Reduced the labour cost and Time saving
2. Increase the work efficiency

FLD on Other Enterprise: Kitchen Gardening

No. of Demonstration: 100

Area: 1 Guntha/demo.

Season: Rabi-2018

Name of Enterprise	Crop yield (Kg.) per demonstration							
	Chilli	Cabbage	Brinjal	Cauliflower	Cow pea	Indian Bean	Okra	Tur
1	2	3	4	5	6	7	8	9
Kitchen Garden	2.8	8.1	15.3	8.6	4.1	5.9	12.5	7.3

Crop yield (Kg.) per demonstration				Total Production (Kg.)	Average rate (Rs./Kg)	Gross return (Rs.)	
Tomato	Radish	Spinach	Bottle gourd			Before FLD	After FLD
10	11	12	13	14	15	16	17
3.0	4.9	4.5	7.8	84.80	30	1050	2544 along with Domestic consumption

Feed Back:

1. Kitchen gardening gives continuous supply of fresh vegetables.
2. Income is generated by selling extra vegetables grown in kitchen garden.
3. Farm women are not applying any pesticides in kitchen garden so they get organic vegetables.

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 (Summer-2019)	ICM	Improved Variety + Seed Treatment +INM	TG-37A	50	20	19.40	13.04	16.65	15.25	9.18	39000	76590	37590	2.00	38500	70150	31650	1.82
Sesamum (Summer-2019)	ICM	Improved Variety + Seed Treatment +INM+IPM	GT-4	50	20	6.79	4.67	5.87	5.02	17.00	18600	38155	19555	2.05	17400	32630	15230	1.87
Soybean (Kharif-2018)	ICM	ICM	JS 95-60	50	20	14.60	6.69	7.71	6.66	15.69	16906	26755	9849	1.6	16906	23136	6230	1.37

* Economics 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										
Chickpea (Rabi-18-19)		Improved variety+Seed Treatment+INM	GG-5	75	30	11.72	7.56	8.74	7.36	18.75	18312	38456	20144	2.10	18012	32384	14372	1.80
Greengram (Summer-2019)		Improved variety+Seed Treatment+INM+IPM	GAM-6	75	30	7.09	4.96	6.11	5.20	17.50	16500	33605	17105	2.04	15900	28600	12700	1.80

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

** BCR= GROSS RETURN/GROSS COST

Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	1	0	0	0	12	11	23	12	11	23
Poultry Management	1	0	0	0	12	13	25	12	13	25
Piggery Management										
Rabbit Management										
Animal Nutrition Management	2	0	0	0	5	69	74	5	69	74
Disease Management	2	0	0	0	11	60	71	11	60	71
Feed & fodder technology	1	0	0	0	0	25	25	0	25	25
Production of quality animal products	1	0	0	0	25	0	25	25	0	25
Others (pl specify)										
Total	8	0	0	0	65	178	243	65	178	243
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	0	0	0	54	54	0	54	54
Design and development of low/minimum cost diet	1	0	0	0	0	24	24	0	24	24
Designing and development for high nutrient efficiency diet	1	0	0	0	0	29	29	0	29	29
Minimization of nutrient loss in processing										
Processing and cooking										
Gender mainstreaming through SHGs										
Storage loss minimization techniques										
Value addition	2	0	0	0	0	63	63	0	63	63
Women empowerment										
Location specific drudgery reduction	1	0	0	0	0	25	25	0	25	25

Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	25	19	13	32	330	440	770	349	453	802

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Weed Management										
Resource Conservation Technologies										
Cropping Systems										
Crop Diversification										
Integrated Farming										
Micro Irrigation/irrigation										
Seed production	1	0	0	0	25	0	25	25	0	25
Nursery management										
Integrated Crop Management	5	0	0	0	141	13	154	141	13	154
Soil & water conservatioin										
Integrated nutrient management										
Production of organic inputs										
Others (pl specify)										
Total	6	0	0	0	166	13	179	166	13	179
II Horticulture										
a) Vegetable Crops										
Production of low value and high valume crops										
Off-season vegetables										
Nursery raising	4	34	60	94	66	2	68	100	62	162

addition										
Others (pl specify)										
Total (e)	0	0	0	0	0	0	0	0	0	0
f) Spices										
Production and Management technology										
Processing and value addition										
Others (pl specify)										
Total (f)	0	0	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants										
Nursery management										
Production and management technology										
Post harvest technology and value addition										
Others (pl specify)										
Total (g)	0	0	0	0	0	0	0	0	0	0
GT (a-g)	6	53	73	126	74	20	94	127	93	220
III Soil Health and Fertility Management										
Soil fertility management										
Integrated water management										
Integrated Nutrient Management										
Production and use of organic inputs										
Management of Problematic soils										
Micro nutrient deficiency in crops										
Nutrient Use Efficiency										
Balance use of fertilizers										
Soil and Water Testing										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
IV Livestock Production and Management										
Dairy Management	1	0	0	0	12	11	23	12	11	23
Poultry Management	1	0	0	0	12	13	25	12	13	25
Piggery Management										
Rabbit Management										
Animal Nutrition	3	0	0	0	25	74	99	25	74	99

Seed Production										
Planting material production										
Bio-agents production										
Bio-pesticides production										
Bio-fertilizer production										
Vermi-compost production										
Organic manures production										
Production of fry and fingerlings										
Production of livestock feed and fodder										
Production of Fish feed										
Mushroom Production										
Apiculture										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
X CapacityBuilding and Group Dynamics										
Leadership development										
Group dynamics										
Formation and Management of SHGs										
Mobilization of social capital										
Entrepreneurial development of farmers/youths										
WTO and IPR issues										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
XI Agro-forestry										
Production technologies										
Nursery management										
Integrated Farming Systems										
Others (pl specify)										
Total	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	40	134	133	267	497	481	978	631	614	1245

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Nursery Management of Horticulture crops										
Training and pruning of orchards										
Protected cultivation of vegetable crops										
Commercial fruit production										
Integrated farming										
Seed production										
Production of organic inputs										
Planting material production										
Vermi-culture										
Mushroom Production										
Bee-keeping										
Sericulture										
Repair and maintenance of farm machinery and implements										
Value addition	1	0	39	39	0	0	0	0	39	39
Small scale processing										
Post Harvest Technology										
Tailoring and Stitching										
Rural Crafts										
Production of quality animal products										
Dairying										
Sheep and goat rearing										
Rabbit farming										
Poultry production										
Ornamental fisheries										
Composite fish culture										
Freshwater prawn culture										
Shrimp farming										
Cold water fisheries										
Fish harvest and processing technology										
Fry and fingerling rearing										
Any other- Capacity build-up training										
TOTAL	1	0	39	39	0	0	0	0	39	39

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

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

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Productivity enhancement in field crops										
Integrated Pest Management										
Integrated Nutrient management										
Rejuvenation of old orchards										
Protected cultivation technology										
Production and use of organic inputs										
Care and maintenance of farm machinery and implements										
Gender mainstreaming through SHGs										
Formation and Management of SHGs										
Women and Child care										
Low cost and nutrient efficient diet designing	1	0	0	0	0	45	45	0	45	45
Group Dynamics and farmers organization										
Information networking among farmers										
Capacity building for ICT application										
Management in farm animals										
Livestock feed and fodder production										
Household food security										
Any other (pl.specify)										
TOTAL	1	0	0	0	0	45	45	0	45	45

Vermicomposting										
Production of bio-agents, bio-pesticides, bio-fertilizers etc.										
Repair and maintenance of farm machinery and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total	0	0	0	0	0	0	0	0	0	0

Details of trainings organized under ASCI- Nil

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
TOTAL										

3.5. Extension Programmes

Nature of Extension Activity	No. of activities	Beneficiaries		
		Male	Female	Total
Advisory Services/ Telephone	1987	1466	854	2320
Diagnostic visits	66	139	46	167
Field day	6	145	96	241
Kisan Gosthi	18	1631	914	2345
Khedut Shibir	8	342	179	411
Kisan Kalyan Mahotsav participation	1	576	437	1013
Mahila Shibir	4	15	377	392
SHG Mahila meeting	3	0	71	71
Farmers Seminar	2	205	215	420
Film Show	51	957	1068	2025
Method Demonstration	16	210	203	413
Group Meeting	28	462	214	676
Special programme	6	229	606	835
Special day celebration	7	806	405	1211
Lectures delivered as resource persons	41	1922	1170	3246

Newspaper coverage	16	-	-	-
Exhibition participation	3	4301	3790	8091
Scientist visit to farmers field	39	308	191	499
Farmers visit to KVK	324	194	130	324
Exposure visit	2	14	32	46
Swachchha Bharat Pakhavada	2	503	302	805
Pashupalan Shibir	6	1000	704	1706
Animal health camp	4	Animals treated		220
Total	2640	15425	12004	27477

Details of other extension programmes

Particulars	Number
Electronic Media (CD./DVD)	0
Extension Literature	12
Newspaper coverage	24
Popular articles	2
Radio Talks	1
TV Talks	0
Others (pl. specify)	0
Total	39

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	GNR-3	--	27.50	85800	55
	Paddy	NAUR-1	--	5.00	15600	40
	Paddy	GNR-5	--	2.00	6240	16
Oilseeds	--	--	--	--	--	--
Pulses	--	--	--	--	--	--
Total						

Production of Planting Materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Commercial	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
Vegetable seedlings	-	-	-	-	-	-
	-	-	-	-	-	-
	-	-	-	-	-	-
Total						

Production of Bio-Products: Nil

Bio Products	Name of the bio-product	Quantity	Value (Rs.)	No. of Farmers
		Kg		
Bio Fertilisers	-	-	-	-
	-	-	-	-
Bio-pesticide	-	-	-	-
	-	-	-	-
Bio-fungicide	-	-	-	-
	-	-	-	-
Bio Agents	-	-	-	-
	-	-	-	-
Others	-	-	-	-
Total	0	0	0	0

Production of livestock materials: Nil

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals	-	-	-	-
Cows	-	-	-	-
Buffaloes	-	-	-	-
Calves	-	-	-	-
Others (Pl. specify)	-	-	-	-
Poultry	-	-	-	-
Broilers	-	-	-	-
Layers	-	-	-	-
Duals (broiler and layer)	-	-	-	-
Japanese Quail	-	-	-	-
Turkey	-	-	-	-
Emu	-	-	-	-
Ducks	-	-	-	-
Others (Pl. specify)	-	-	-	-
Piggery	-	-	-	-
Piglet	-	-	-	-
Others (Pl. specify)	-	-	-	-
Fisheries	-	-	-	-
Indian carp	-	-	-	-
Exotic carp	-	-	-	-
Others (Pl. specify)	-	-	-	-
Total	0	0	0	0

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

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

B. Literature developed/published

Item	Title	Authors name	Number
Research papers	Functional Observational Battery (FOB) in toxicological pathology	Prasad, M. C. and Parmar, H. C. (2018).	Presented in National Pathology Congress, S K Nagar on 23-25 Oct., 2018.
	Studies on hemato-biochemical alteration on induced beta cyfluthrin toxicity in Wistar rats	Parmar H.C. , Raval J.K., Vihol P.D., Patel J.M, and Kalyani I.H. (2018).	Presented in National Pathology Congress, S K Nagar on 23-25 Oct., 2018.

	Effect of Supplementation of Chelated Minerals on Growth Performance of Buffalo Calves	Parmar H.C. , Raval J.K., Vihol P.D., Patel J.M, and Kalyani I.H. (2019).	Presented in National Conference of ISBD, Navsari on 17-19 January, 2019.
	Haemato-biochemical study: Induced Beta Cyfluthrin Repeated Toxicity with Reversal on Wistar Rats.	Parmar H.C. , Raval J.K., Patel J.M., Vihol P.D. and Kalyani I.H. (2018).	Int.J.Curr.Microbio.App.Sci. 8(3):112-123.
	Effect of Sowing dates on growth,yield and economics of sorghum (<i>Sorghum bicolor</i> Moench) genotypes	L.H.saini, S.J.Trivedi ,B. K.Davda and A.K.Saini(2018)	Journal of Pharmacognosy and Phytochemistry, 7(5):535-538.
	Integrated Weed Management in Sorghum under south Gujarat.	L. H. Saini, S. J. Trivedi , B.K.Davda and A.K.Saini(2018)	Journal of Pharmacognosy and Phytochemistry, 7(5):510-513.
Technical reports	AGRESCO, ZREAC, SAC, AAP, APR, MPR, QPR	--	Periodically
News letters	--	--	--
Technical bulletins	--	--	--
Popular articles	“Sarir ma pani ni agatyata”	G. J. Bhimani,	Krushi Vigyan, Feb-2019 Krushi Jivan, March-2019
Extension literature	<ol style="list-style-type: none"> 1. S.J.Trivedi, Dr.S.K.Chavada, Dr.J.H.Rathod and Amit.T.Patel. (2018-19). <i>Chana ni vaignanik kheti padhhati</i>, NAU, Pub. No. 115/2018-19. 2. S.J.Trivedi, Dr.S.K.Chavada, Dr. J.H.Rathod and Amit.T.Patel (2018-19). <i>Mag ni vaignanik kheti padhhati</i> (2018-19) 114/2018-19. 3. S.J.Trivedi, Dr.S.K.Chavada, Dr. J.H.Rathod and Amit.T.Patel. (2018-19). <i>Adad ni vaignanik kheti padhhati</i>. NAU. Pub. No. 138/2018-19. 4. S.J.Trivedi,Dr.S.K.Chavada,Dr.J.H.Rathod,Prof.B.B.Panchaand Amit.T.Patel. (2018-19). <i>Tal ni vaignanik kheti padhhati</i> NAU. Pub. No. 116/2018-19 5. S.J.Trivedi,Dr.S.K.Chavada and Dr.J.H.Rathod. (2018-19). <i>Unalu magfali ni vaignanik kheti padhhati</i>. NAU. Pub. No. 137/2018-19. 6. H.C. Parmar, J. K. Movaliya, J. H. Rathod. (2018-19). Gay-Bhesona Pasu Mate Pashu Aahar. NAU. Pub. No. 117/2018-19. 7. H.C. Parmar, J. K. Movaliya, J. H. Rathod. (2018-19). Broiler Marghano Ucher ane Mavjat. NAU. Pub. No. 118/2018-19. 8. G. J. Bhimani and J. H. Rathod. (2018-19). Tamata ma Mulya Vardhan. NAU. Pub. No. 119/2018-19 9. G. J. Bhimani and J. H. Rathod. (2018-19). Unek Guno thi Bharpur Ambala. NAU. Pub. No. 120/2018-19 10. G. J. Bhimani and J. H. Rathod. (2018-19). Samtol Aahar. NAU. Pub. No. 121/2018-19 11. G. J. Bhimani and J. H. Rathod. (2018-19). Keri ma Mulya Vardhan. NAU. Pub. No. 122/2018-19 12. G. J. Bhimani and J. H. Rathod. (2018-19). Balako ne aapo Postik Aahar. NAU. Pub. No. 123/2018-19 		

C. Details of Electronic Media Produced

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

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs: The Success Stories / Case Studies need not be restricted to the reporting period). At this point please give titles of the success stories/ case studies. Detailed case study documents may be given at the end as an Annexure.

Success Story: 1

Economic empowerment of Women Farmer through animal Husbandry

Name: Jamanaben Maganbhai Nakum

Village: Toked (Kadvali Faliya)

Age: 45 years

Education: 2 std.

Size of land holding: 15 Vigha

Motivation factor: Family

Source of information: KVK, SUMUL & Line Department

Farm Details:

Total herd strength: 27 Gir cows, 2- Heifer, 7 – Female calf, 2 – Male calf.

Total Milk Production: 44000 L (Last year)

Rate: Rs. 80 per L

Gross Income: /- 2,50,000/- per Month

Details of Progress:

- The herd strength is total 27 Gir cows including 18 lactating and 9 dry cows.
- Animal rearing through Low cost Farm Investment (Kaccha Farm).
- Provide open area ranching for all cows during full day time.
- 3 Ha Land use for the green fodder production and some dry fodder throughout the year
- Fodder cultivation cost Rs. 21000 per Months including Seeds, fertilizers and Labour of cultivation.
- Dry fodder approx. 30 tones @ Rs. 5000 purchased from outside, its cost near about 1.5 lakhs.
- Cost of concentrate (1 kg per maintenance + 0.500 kg per Litre milk) per cow is approx. Rs. 70000 per month
- Labour Cost is approx. Rs. 29000 per month in the farm. It's including daily farm activities and fodder cutting from the cultivated land.
- Cost of Medicine and supplemental feed is approx. 1500 per month in the farm
- Cost of transportation and customer door step distribution is approx. 36000 per month
- Animal purchased cost monthly repayment is Rs. 30000 per month
- Very excellent retail selling chain in Surat city area and got price of the milk is Rs. 80 per litre at customer door step.
- Highest Milk production per cow is 12 Litre / day
- Average production 4.8 litre per cow per day in the farm.
- Average Age of First Calving is 38 months
- The average calving interval is 15 months in the farm.

Year	Production (L)	Gross (Lakh.)	Expenses (Lakh)	Net profit (Lakh)
2016-17	30000	21.00	15.60	5.40
2017-18	36000	28.80	17.28	11.52
2018-19	44000	35.20	20.24	14.96

Success Story: 2

Economic empowerment of tribal farmer through animal Husbandry

Name: Hashmukhbhai Ambubhai Chaudhari

Village: Umara (Chaudhari Faliya)

Age: 45 years

Education: 10 std.

Size of land holding : 7 Vigha

Motivation factor: Father

Source of information: KVK, SUMUL & Line Department

Farm Details:

Total herd strength: 7 Buffaloes, 2- Heifer buffaloes, 1 – Female buffalo calf.

Total Milk Production: 26 L per day

Rate: Rs. 32/-

Income: 25,000/- per Month

Details of Progress:

In 2012 – only 2 buffaloes with 4-5 L milk production per day.

Working as agricultural labor and income is very less.

Expenditure in year 2018-19

Sr. No.	Item	Rs.
1	Concentration	1,80,000
2	Green Fodder (Cultivation as well as purchase)	20,000
3	Dry Fodder (cultivation as well as Purchase)	15,000
4	Miscellaneous cost (Animal Treatment, Utensils, Kaccha shed repairing etc.)	10,000
	Total	2,75,000

Income in year 2016-17

Sr. No.	Item	Rs.
1	Milk Production : Avg. production of 6 buffalo 7 Liters per day – 1880 Liters per lactation per animal	4,21,120
2	Farm Yard Manure (FYM) Half Manure used in own farm for cultivation	35,000
	Total	4,56,120

Note: - He has also benefited of Heifer cow 1-2 per 2 year i.e. in income 60,000/- to 1,00,000/- per 2 years.

Net Profit per Month

Total Income per year	Total Expenditure per year	Total Profit
3,71,000/-	2,75,000	4,56,120
Income per year: 2,31,120/-		

Success Story: 3

Economic empowerment of tribal and land less labor through animal Husbandry

Name: Hinaben Manharbhai patel

Village: Umara (Patel Faliya)

Age: 36 years

Education: 10 std.

Size of land holding : 1 Vigha

Motivation factor: Less Income

Source of information: KVK, SUMUL & Line Department

Farm Details:

Total herd strength: 5 Cows, 3 – Female calf.

Total Milk Production: 22 L per day

Rate: Rs. 28/-

Income: 15000/- per Month

Details of Progress:

In 2012 – only 1 cow with 5-6 L milk production per day.

Working as agricultural labor and income is very less.

Expenditure details:

Economics of three years

Sr. No.	Item	2016-17	2017-18	2018-19
		Rs.	Rs.	Rs.
Expenditures				
	No. of Cows + Heifer	5+1	5+2	7+2
1	Concentration	1,05,000	1,80,000	2,76,000
2	Green Fodder (Cultivation as well as purchase)	10,000	12,000	20,000
3	Dry Fodder (cultivation as well as Purchase)	10,000	10,000	18,000
4	Miscellaneous cost (Animal Treatment, Utensils, Kaccha shed repairing etc.)	7,000	8,000	10,000
	Total	1,32,000	2,10,000	3,24,000
Income				
1	Milk Production : Avg. production 2900 Liters per lactation – 1 st year 3300 Liters per lactation – 2 nd year 3400 Liters per lactation – 3 rd year	3,02,400	4,22,000	6,66,400
2	Farm Yard Manure (FYM) Half Manure used in own farm for cultivation	20,000	25,000	35,000
	Total	3,22,400	4,47,000	7,01,400

Income in year 2016-17

Net Profit per year

2016-17	2017-18	2018-19
Rs. 1,90,400	Rs. 2,37,000	Rs. 3,77,400

Success Story: 4

Successful Spices making Entrepreneur by tribal woman

1. **Name:** Mrs Chaudhari Sharmilaben Harsingbhai
2. **Father's Name:** Harsingbhai M. Chaudhari
3. **Address of correspondence:** To, Gam talav (Khurd)

Post. Fulwadi
Ta. Mandvi Dist. Surat – 394 160
Mobile No.: 6353019008

4. **Adhar No.:** 5843 2560 9595
5. **Formal / Informal Education:** 9th STD Pass
6. **Area of innovation:** Mix farming
7. **Innovations adopted in Farming (List only) :**

1. SIRA – in Paddy crop, New varieties of seed – pigeon pea and sugarcane

1. Nursery

We sold seedlings of Ambla, Moringa, Medicinal Plants, Tomato, Chilli and Brinjal etc. to the village farmers and got income 10-15 thousand every year.

2. Cattle Rearing (Cattle Farm)

We have been facilitated to purchase 21 HF cows under the scheme of the Forest Department and Mahila Sanman Yojana in our village farmers and our SHG members. Initially 75-80 litres of milk produced from whole village but after that 400-420 litres of milk were produced by farmers in the village dairy co-operative and our SHG members were earned 1.5 lakhs in a year.

3. Vermicompost

This year produced 12 tons of Vermi compose and selling got income Rs. 60 000/- .

4. Gobar gas

We established 43 portable unit of gobar gas in Gamtalav village under forest department and 100 units under 'Dinbandhu scheme' in villages like Kalamkui, Namankuva, Pichervan, Gamtalav, Ratoti and Ghodbar. Farmers have been saved cutting of tree from jungle and time of women in engaged with tree cutting after establishment of Gobar gas unit at her home for preparing daily food.

5. Sauchalay (Latrine) construction

Under the scheme of Swachh Bharat Abhiyan, we constructed total 72 units in villages of Umarkhadi and Gamtalav.

6. Cattle Shed construction

Total 10 Unit in nearby villages under scheme of TSP (Sathvav, Kalamkui, Gamtalav)

7. Extension activities

I trained more than 500 women on Spice making, Papad Making, Vermicompost preparation, Nursery etc. in Bardoli, Mangrol, Umarpada and Mandvi blocks of Surat district.

8. Helpful and benefited to local villagers

- i. Giving knowledge about various government schemes and benefited to them.
- ii. Helps in opening bank accounts, Job cards and various social security schemes

9. Spices making Entrepreneur

We started after training of spice making from Krishi Vigyan Kendra, Surat in 2013-14. But first year did not get profit from the selling of spices. Then after second and third year were make well planning and have been sold spices packets in various Krishi Mela, Local harts and nearby villages. We have earned Rs. 20-35 thousands respectively. Then we have got grinding machine (Chakki) from the forest department in scheme and we earned more near about 0.8 – 1.0 lakh per year. Last year we got some space (shop) on state highway road side from the forest department so that we have got market and where selling spices like Garam Masala, Chatt Masala, Pavbhaji Masala, Sambhar Masala, Turmeric Powder, Chilli Powder, Coriender Powder, Chattanis, Seasonal Pickels and Papad from Rice and Nagli etc. and also sold honey after procuring from the local farmers producers. In all we earned net profit near about 2.5-3.0 lakhs in a year.

Now we want to expand theses on organic products of various spices and we think 20-25 women will get employment from this spice making business and we make a Brand on organic spices products.

Field crops - Paddy

Year	Production (Kg)	Gross Income (Rs.)	Expenses (Rs.)	Net profit (Rs.)
1	800	20000	8000	12000
2	900	22500	9000	13500
3	1200	32400	12000	20400
4	1400	35000	14000	21000
5	1400	37800	15000	22800

Field crops – Pigeon pea

Year	Production (Kg)	Gross Income (Rs.)	Expenses (Rs.)	Net profit (Rs.)
1	120	4800	1000	3800
2	150	6750	1200	5550
3	150	6300	1000	5300
4	160	7200	900	6300
5	200	9000	1200	7800

Live stock

Year	Production (Litre)	Gross Income (Rs.)	Expenses (Rs.)	Net profit (Rs.)
1	1180	30680	21180	9500
2	1950	50700	35500	15200
3	3500	94500	66200	28300
4	3550	99400	67600	31800
5	3850	107800	75700	32300

Vermicompost :

Year	Production (tons)	Gross Income (Rs.)	Expenses (Rs.)	Net profit (Rs.)
1	2	10000	800	9200
2	5	25000	1000	24000
3	10	50000	1000	49000
4	12	60000	1500	58500
5	12	60000	1500	58500

Total Income from Agriculture, livestock and Vermi

Year	Gross Income (Lakhs)	Expenses (Lakhs)	Net profit (Lakhs)
1	0.65	0.31	0.34
2	1.04	0.46	0.58
3	1.83	0.80	1.03
4	2.01	0.84	1.17
5	2.14	0.93	1.21

10 Productivity Levels achieved in major income generating activities during the last five years**Any others – Entrepreneur – Spices powder**

Year	Gross Income (Lakhs)	Expenses (Lakhs)	Net profit (Lakhs)
1	0.30	0.23	0.08
2	0.70	0.53	0.18
3	2.00	1.50	0.50
4	5.00	3.25	1.75
5	7.00	4.55	2.45

11 Any spread effect on Fellow Farmers

Due to requirement of raw material for the spices, more than 8 farmers to start cultivation of chilli, Turmeric Coriander and its purchased by me for making spices.

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

Technology transfer – Novel, Bio-fertilizers and Waste decomposer

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

Sr. No.	Crop/ Enterprise	ITK Practiced	Purpose of ITK
1	Caster	Soak seed with sour butter milk overnight to control the catter piller in caster crop and may be used in other crops too.	Plant Protection
2	Paddy	Removed of tips in Paddy and other seedlings to enhance drought tolerance and also sustained to water logging/ flowing condition.	Agronomy
3	Cattle	Using smoke of Honey comb in treating post partum udder edema in cattle.	Animal Science
4	Cattle	Using hot sand cover with cloth in treating post partum udder edema in cattle.	Animal Science

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

A. Practicing Farmers

- Group discussion
- Power point presentation
- Method demonstration

B. Rural Youth

- Group discussion
- Power point presentation
- Method demonstration

C. In-service personnel

- Group discussion
- Power point presentation
- Method demonstration

5.2. Indicate the methodology for identifying OFTs/FLDs – As per methodology mentioned in table 2.7

5.3. Field activities – As mentioned in Table No. 2.7 and 3.1 B

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

Name of State	Name of KVK	Name of Village	Whether survey completed (Yes/No)
State A (Gujarat)	Surat	Vadia	Yes
		Balda	Yes
		Umargot	Yes
		Parvat	Yes
		Ghodbar	Yes

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
ATMA	Training, Exhibitions, Best ATMA Award Participation
Line departments (Horticulture & Agriculture	Training and Shibir
Animal Husbandry	Pasupalan Shibir
NABARD	Trainings, FLD distribution
Ambuja Cement Foundation	Trainings, Shibir, Special Day Celebration
Forest	Trainings, Shibir
Reliance foundation	Trainings, Shibir

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.)
--	--	--	--

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district: --

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	Meetings	8	8	--	--
02	Research projects	--	--	--	--
03	Training programmes	13	13	--	--
04	Demonstrations	--	--	--	--
05	Extension Programmes	23	23	3	--
	Kisan Mela	1	1	--	--
	Technology Week	--	--	--	--
	Exposure visit	--	--	--	--
	Exhibition	1	1	--	--
	Soil health camps	--	--	--	--
	Animal Health Campaigns	--	--	--	--

	Others (Pl. specify) Best innovative Farmers Award, Women Empowerment Day, Soil Health Day	21	21	3	--
06	Publications				
	Video Films	--	--	--	--
	Books	--	--	--	--
	Extension Literature	--	--	--	--
	Pamphlets	--	--	--	--
	Others (Pl. specify)	--	--	--	--
07	Other Activities (Pl. specify)				
	Watershed approach	--	--	--	--
	Integrated Farm Development	--	--	--	--
	Agri-preneurs development	--	--	--	--

D. Give details of programmes implemented under National Horticultural Mission

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

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

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: --

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
1	Have you conducted Farm Innovators meet in your district?	No

9. Farmers Field School (FFS)

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

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

S.N.	Crop	Technology demonstrated	Feed back
1	Paddy	GAR-13	<ul style="list-style-type: none"> ➤ Good rice quality-medium slender ➤ Moderately Resistant to BLB/Insect & Pests
2	Paddy	GNRH-1	<ul style="list-style-type: none"> ➤ High in yield. ➤ Low incidence of Insect pest
3	Paddy	GNR-6	<ul style="list-style-type: none"> ➤ High Yield ➤ Early to mid late maturing. ➤ Low incidence of Insect- pest & disease.
4	Pigeonpea	BDN-711	<ul style="list-style-type: none"> ➤ Yellow flower ➤ Early Maturing ➤ More no. of seeds(4)/pod ➤ Moderately Resi. to SMV/Wilt ➤ Preferred for vegetable purpose.
5	Pigeonpea	Vaishali	<ul style="list-style-type: none"> ➤ Red flower ➤ Resistant to Pests & disease
6	Soybean	JS – 95-60	<ul style="list-style-type: none"> ➤ Moderate yield ➤ Early maturing ➤ Moderately Resistant to Pest & disease
8	Cotton	G.Cot.Hy-12(Bt)	<ul style="list-style-type: none"> ➤ Early maturing ➤ Suitable for Rain fed condition also. ➤ Less sucking pests
9	Gram	GG-5	<ul style="list-style-type: none"> ➤ Medium sized brown colour seed. ➤ Moderate Yield with moderately resistant to Wilt & Stunt diseases
10	Paddy	IPDM	<ul style="list-style-type: none"> ➤ Increase in yield by decreasing infestation of pest at earlier stages in field. ➤ Pheromone trap helps farmer to monitor pest in field. ➤ Low intensity of BLB and other diseases. ➤ Low incidence of grain discolouration
11	Banana	IPDM & INM	<ul style="list-style-type: none"> ➤ Less incidence of wilt ➤ Less infestation of weevil in the field. ➤ Increase in yield, quality of bunch
12	Brinjal	IPDM	<ul style="list-style-type: none"> ➤ Less incidence of wilt and other diseases ➤ Less infestation of Brinjal fruit and shoot

			<ul style="list-style-type: none"> ➤ borer and sucking pest ➤ Reduce the cost of cultivation by decreasing the use of pesticide
13	Brinjal	INM	<ul style="list-style-type: none"> ➤ Increase in yield and quality of fruit ➤ Decrease use of chemical fertilizers
14	Okra	IPDM	<ul style="list-style-type: none"> ➤ Less infestation of Okra fruit and shoot borer and sucking pest ➤ Reduce the cost of cultivation by decreasing the use of pesticide ➤ Minimize the number of spray ➤ Farmers are habituate to use botanical and organic pesticides in place of hazardous chemical pesticide.
15	Parvar	INM	<ul style="list-style-type: none"> ➤ Increase yield and quality of fruits ➤ Increase fruit setting ratio
16	Parvar	IPDM	<ul style="list-style-type: none"> ➤ Less incidence of wilt and nematodes. ➤ Decrease pollination problem due to awareness regarding botanicals in place of chemical pesticides among farmers.
17	Cow - HF Cross-Mastitis	Antibacterial Udder Spray	<ul style="list-style-type: none"> ➤ Reduce mastitis cases
18	Calf rearing- Calf-Dan	Calf / Nutritional Management	<ul style="list-style-type: none"> ➤ Increase the growth rate ➤ Reduced the parasitic problems ➤ Improve health condition
19	Cow - HF Cross	Anti Parasitic solution-Gel application on back of animals	<ul style="list-style-type: none"> ➤ Reduce Parasitic Infestation ➤ Reduce Skin Problems
20	Cow- all Breed-Mineral Mixture	Nutritional management	<ul style="list-style-type: none"> ➤ Increase the milk yield ➤ Reduce service period
21	Wheel Hoe	Drudgery reduction	<ul style="list-style-type: none"> ➤ Reduced the labour cost and Time saving ➤ Increase the work efficiency

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

1. The problem of pointed gourd vine borer and nematodes are increasing day by day in Mandvi and Mahuva block of Surat district. Effective IPM module should be developing.
2. IPDM module for the management of Banana pseudo stem and wilt should be developing.
3. Compatibility study on use of Novel fertilizer with other organic or chemical should be done to cut down the cost of cultivation.

11. Technology Week celebration during 2018-19: Nil

Period of observing Technology Week: From _____ to _____
Total number of farmers visited : --
Total number of agencies involved : --
Number of demonstrations visited by the farmers within KVK campus: --

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	--	--	--
Lectures organized	--	--	--
Exhibition	--	--	--
Film show	--	--	--
Fair	--	--	--
Farm Visit	--	--	--
Diagnostic Practicals	--	--	--
Supply of Literature (No.)	--	--	--
Supply of Seed (q)	--	--	--
Supply of Planting materials (No.)	--	--	--
Bio Product supply (Kg)	--	--	--
Bio Fertilizers (q)	--	--	--
Supply of fingerlings	--	--	--
Supply of Livestock specimen (No.)	--	--	--
Total number of farmers visited the technology week	--	--	--

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

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 (qtl)	Coverage of area (ha)	Number 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)
--	--	--	--	--

B. Cases of large scale adoption- full cases may be given at the end as Annexure. (Please furnish detailed information for each case and)

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

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			
May			
June	2	4235	
July			
August	1	2567	
September	1	3753	
October	1	5876	
November	1	5275	
December			
January 2019			
February			
March			

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marketing	Aware-ness	Other enterprise	Total
Surat	Text only	4235	6320	11151	-	-	-	21706
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	2	2	2	-	-	-	6
	Total farmers Benefitted	4235	6320	11151	-	-	-	21706

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

A. Performance of demonstration units (other than instructional farm including value added products)

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
--	--	--	--	--	--	--	--	--	--

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

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	-	-	-	-	-	-	-	-	-
Pulses	-	-	-	-	-	-	-	-	-
Oilseeds	-	-	-	-	-	-	-	-	-
Fibers	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
Floriculture									
Fruits									
Vegetables									
Others (specify)									

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	
--	--	--	--	--	--

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	
--	--	--	--	--	--	--	--

E. Utilization of hostel facilities: Not applicable

Accommodation available (No. of beds):

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
April 2018			
May 2018			
June 2018			
July 2018			
August 2018			
September 2018			

October 2018			
November 2018			
December 2018			
January 2019			
February 2019			
March 2019			

F. Database management:

S. No	Database target	Database created
--	--	--

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 Demonstration s	No. of plant materials produced	Visit by farmers (No.)	Visit by officials (No.)		
--	--	--	--	--	--	--	--	--	--

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
ICAR KVK A/C	State Bank of India	Surat, Gujarat	09166	Current A/c	32212880883	395002022	SBIN0009166
REMOVING FUND A/C	State Bank of India	Surat, Gujarat	09166	Saving A/c	33390210202		SBIN0009166

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	92,00,000		88,51,650
2	Traveling allowances	1,01,000		87,787
3	Contingencies			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)			
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)		11,00,000	10,97,146
B. Non-Recurring Contingencies			
1	Works	2,75,000	2,75,000
2	Equipments including SWTL & Furniture		
3	Vehicle (Four wheeler/Two wheeler, please specify)		
4	Library (Purchase of assets like books & journals)		
TOTAL (B)			
C. REVOLVING FUND			
GRAND TOTAL (A+B+C)		106,76,000	103,11,583

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	1.90	2.48	2.92	1.47
April 2017 to March 2018	1.47	7.92	6.43	2.96
April 2018 to March 2019	2.96	10.24	6.03	7.17

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
Prof. B. B. Panchal,	Scientist (Horticulture)	Training on PRA tools and Techniques for SREP development	NAU, Navsari	15-17 November, 2018
Prof. B. B. Panchal,	Scientist (Horticulture)	CAFT training on New Innovations in Improvement of Vegetable Crops	Dr. Y. S. Parmar University of Horticulture and Forestry, Nauni, Himachal Pradesh	03-26 Sep., 2018
Prof. S. J. Trivedi,	Scientist (Agronomy)	New Frontiers in Agri. Resource augmentation and utilization	G. B. Panthnagar Uni. of Agri. and Technology Panthnagar – 263145 (UK)	5-25 Sept., 2018

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

- **Pro SOIL**
- **NARI (Please indicate the name of one adopted village and give the activities carried over on nutri sensitive agriculture)**
- **VATICA**
- **Seed Hub**
- **Others (if any)**

19. Please include any other important and relevant information which has not been reflected above

APR SUMMARY

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	40	631	614	1245
Rural youths	1	0	39	39
Extension functionaries	1	0	45	45
Sponsored Training	13	383	119	502
Total	55	1014	817	1831

2. Frontline demonstrations

Enterprise	No. of Farmers	Area (ha)	Units/Animals
Oilseeds	162	65	--
Pulses	170	68	--
Cereals	59	24	--
Vegetables	115	38	--
Other crops	12	5	--
Hybrid crops	--	--	--
Total	518	200	
Livestock & Fisheries	80	-	80
Other enterprises	120	-	120
Total	200	-	200
Grand Total	718	200	918

3. Technology Assessment

Category	No. of Technology Assessed	No. of Trials	No. of Farmers
Technology Assessed			
Crops	3	3	15
Livestock	2	2	20
Other	-	-	-
Total	5	5	35

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	2640	27477
Other extension activities	39	-
Total	2679	27477

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						Total
		Crop	Livestock	Weather	Marketing	Awareness	Other enterprise	
Surat	Text only	4235	6320	11151	-	-	-	21706
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	2	2	2	-	-	-	6
	Total farmers Benefitted	4235	6320	11151	-	-	-	21706

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	34.5	107640
Planting material (No.)	-	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value Rs.
Soil	0	0
Water	0	0
Plant	0	0
Total		

8. HRD and Publications

Sr. No.	Category	Number
1	Workshops	-
2	Conferences	2
3	Meetings	32
4	Trainings for KVK officials	2
5	Visits of KVK officials	-
6	Book published	-
7	Training Manual	-
8	Book chapters	-
9	Research papers	5
10	Lead papers	1
11	Seminar papers	2
12	Extension folder	12
13	Proceedings	1
14	Award & recognition	-
15	On going research projects	-