ACTION PLAN 2018-19

(April-2018 to March- 2019)

TO BE PRESENTED AT

ANNUAL ACTION PLAN WORKSHOP OF KVKs OF GUJARAT

ORGANIZED BY

DIRECTOR, ATARI ZONE-VIII, ICAR, PUNE

PREPARED/COMPILED By

Dr. K. P. Baraiya, Senior Scientist & Head

Smt. A. K. Baraiya, Scientist

KRISHI VIGYAN KENDRA

JUNAGADH AGRICULTURAL UNIVERSITY

JAMNAGAR - 361 006

GUJARAT

ANNUAL ACTION PLAN (April-2018 to March- 2019)

KRISHI VIGYAN KENDRA

JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra Millet Research Station, JAU Airforce Road, Opp. Digjam Mill Jamnagar- 361 006	(0288) 2710165	(0288) 2710165	kvkjamnagar@jau.in kvkjamnagar@gmail.com	www.jau.in 7827712

* ICT lab was established centrally at University Headquarter, JunagadhAgricultrual University, Junagadh. As a part of ICT on KVK is also established.

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

Address	Telephone		E-mail	Web address
	Office	FAX		
Junagadh Agricultural University, Junagadh – 362 001 (Gujarat)	PBX 2672080-90	(0285) 2672653	dee@jau.in	www.jau.in

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. K. P. BARAIYA	Senior Scientist & Head Krishi Vigyan Kendra Junagadh Agricultural University, Airforce Road, Opp. Digjam Mill Jamnagar- 361 006	9427980032	kvkjamnagar@gmail.com kvkjamnagar@jau.in

1.4. Year of sanction:

ZARS (KVK) 2001, LetterNo.F.No. 18(4)/99-NATP Dated October 31st, 2001

ICAR (KVK) 2004, LetterNo.F.No. 8(1)/2002-AE-II(Pt.) Dated February 5th, 2004

1.5. Staff Position (as on 31stMarch, 2018)

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Current Grade Pay		
1	Senior Scientist & Head	Dr. K.P. Baraiya	Plant Protection	37400-67000	9000	17.08.2006	
2	Scientist	Shri S. H. Lakhani	Crop Production	15600-39100	6000	30.03.2015	
3	Scientist	Vacant	Plant Protection	15600-39100	6000		
4	Scientist	Vacant	Horti./ Ag. Engg	15600-39100	6000		
5	Scientist	Shri P. S. Gorfad	Extension Education	15600-39100	6000	27.6.1994	
6	Scientist	Dr. J. N. Thaker	Fisheries	15600-39100	6000	31.08.2006	

7	Scientist	Smt. A. K. Baraiya	Home Science	15600-39100	7000	17.08.2006	
8	Farm Manager	Shri H. S. Godhani	Agril. Ent.	39900-126600	-	19.09.2015	38090/-
9	Programme Assistant	Shri S. N. Galani	Pl. Breeding	39900-126600	-	14.2.2012	
10	Computer Programmer	Shri C. P. Padhiyar	Computer Operator	39900-126600	-	29.12.2008	
11	Accountant / Superintendent	Shri B. H. Joshi	Adm.	39900-126600	-	11.6.2008	
12	Stenographer		Adm.	19900-63200			
13	Driver	Vacant	Supt.	19900-63200		-	
14	Driver	Shri. D.M. Chauhan	Supt. (Fix)	19900-63200		9.10.2007	
15	Supporting staff	Shri B. B. Bamaniya	Supt.	14800-47100		01.11.2014	
16	Supporting staff	Shri P. S. Damor	Supt.	14800-47100		1.09.2006	

1.6. Total land with KVK (in ha) : 20.44 ha

Sl. No.	Item	Area in hectare(s)*
1	Under Building and Road	2.00
2	Under Demonstration units	0.70
3	Under crops	12.00
4	Orchard	3.50
5	Agro-forestry	0.24
6	Others (Farm Pond & Channels)	2.00
	Total	**20.44**

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Sourceof funding	Stage					
			Complete			Incomplete		
			Comp-letion Date	Plinth area (Sq.m)	Expen-diture (Rs.)	Star-ting Date	Plinth area (Sq.m)	Status of const-ruction
1.	Administrative Building	KVK	15-8-11	550	5500000			
2.	Farmers Hostel	KVK	15-8-11	305	3000000			
3.	StaffQuarters (6)	KVK	15-8-11	400	4000000			
4.	Demonstration Units of vegetable	KVK + ATMA	31-3-07	-	-	-	-	-
5	Poly House	RKVY	31-3-09	320	281602	-	-	-
6	Net House	RKVY	31-3-09	150	64498	-	-	-
7	Training Hall	RKVY	20-2-10	190.99	1395800	-	-	-
8	Process Plant	RKVY	20-2-10	197.31	1536400	-	-	
9	Implement shed	RKVY	11-2-10	77.33	297800	-	-	-
10	Rain Water harvestingsystem	KVK	31-3-2007	26m×26m (2 Ponds)60m×60m (1 Pond)	999000	-	-	-
11	Fencing	-	Not	Available	-	-	-	-

12	Threshing floor	-	Not	Available	-	-	-	-
13	Farm godown	-	Not	Available	-	-	-	-
14	ICT lab	-	Not	Available	-	-	-	-
15	Other	-	Not	Available	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Totalkms. Run	Presentstatus
Toyota Quallis (GJ-10G 433)	2004-05	490200	463568	Working (it is required to be rightup)
Hero Honda splender (bike) GJ-10 BB-1634	2010-11	46475	20547	Working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Presentstatus
Captain Mini Tractor	2001-02	166125	Working
Telephoneline	2001-02	19850	Working
Multi tool carrier complete set	2001-02	6500	Working
Photocopier	2001-02	125000	Working
Over headprojector	2001-02	17600	Working
Computer	2002-03	29500	Working
HP Laser printer	2002-03	20390	Working
U.P.S. (3 KVA)	2002-03	38000	Working
Spectrophotometer	2005-06	89160	Working
Flame photometer	2005-06		Working
Physicalbalance	2005-06	10640	Working
Chemicalbalance	2005-06	100000	Working
Water distillation still	2005-06	96118	Working
Kieldahi digestion and distillation	2005-06	49644	Working
Shaker	2005-06	80080	Working
Grinder	2005-06		Working
Refrigerator	2005-06	16772	Working
Oven	2005-06	30550	Working
Hot plate	2005-06		Working
Aspee tractor mounted sprayer	2006-07	32000	Working
Air assisted blower type sprayer	2009	98750	Working
Laptop computer (HCL)	2009	47500	Working
Digital camera (Nikon)P-90 12.1	2009	24300	Working
Cotton stalk shredder	2008-09	121000	Working
Groundnut digger-tractor operated	2009	78500	Working
Cultivator cum rotavator	2009	90000	Working
Groundnut decorticator	2009	95850	Working
Multi crop thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar-tractor operator	2009	44000	Working
EPBX System	2012	44000	Working
Vertical Autoclave	2012	78190	Working
Laminar Airflow	2012	127440	Working
Electronic Balance (200 gm)	2012	12600	Working
EC/ Conductivity meter	2012	6300	Working
Portable pH Meter	2012	6300	Working

Compound microscope	2012	4410	Working
Trinocular microscope	2012	112000	Working
Digital temperature & humidity indicator cum controller	2012	34750	Working
Digital TDS meter	2012	3985	Working
Research centrifuse with accesaries	2012	42480	Working
Stabilizer	2012	10440	Working
Hot air oven	2012	41580	Working
BOD incubator	2012	46305	Working
Digital camera SLR (Canon)	2012	44750	Working
AC 1.5 tonn	2012	45990	Working

1.8. A). Details SACmeeting conducted in the year

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken
1.	01-10-2005	21	-	-
2.	07-10-2006	30	-	-
3.	02-11-2007	31	-	-
4.	17-10-2008	30	-	-
5.	14-09-2009	33	-	-
6.	29-4-2010	35	-	-
7.	07.04.2011	37	-	-
8.	10.04.2012	32	-	-
9.	02.04.2013	37	-	-
10.	27.12.2013	26	-	-
11.	21.02.2015	25	-	-
12.	29.01.2016	22	-	-
13.	25.10.2016	27	-	-
14.	12.04.2018		As below	As below

Suggestions made by committee members during presentation of 14th SAC is as under:

1.	Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh& Chairman of the SAC suggested following points. ➢ Study the economics and required area for FLD on *raft*culture preparation. ➢ Arrange FLD on sea weed liquid for pomegranate cultivation. ➢ Emphasis on doubling the farmers income during training thought out the year. ➢ Emphasis on value addition in pomegranate and groundnut. ➢ Arrange FLD on Matting disrupter technique for pink ball worm in cotton crop. ➢ Arrange FLD on *Metarhizium* for the management of whitegrub groundnut crop. ➢ Train the pomegranate farmers for "*bahar"* management, removal of water shoots and canopy management. ➢ Prepare list of organic certified farmers. ➢ Detail study on sea weed production technology and present it. ➢ Arrange field day on pen culture technique.
2.	Dr. V. P. Chovatiya, Director of Research, JAU, Junagadh pointed out ➢ Arrange training on value addition of Ajwain, Chikori and other spice crop.

	➢ Action taken report should quantify and give details. ➢ Arrange training on stem borer infestation inwheat. ➢ Give information about weather and technical suggestion on precaution measures through SMS. ➢ Arrange training on *kharif* crop production technology, IPM and IDM during second quarter instead of first quarter. ➢ Arrange training on organic farming and bio-fertilizer and recycling of farm waste during first quarter instead of second quarter. ➢ Arrange FLD in clusters in ATIC scheme. ➢ Arrange cluster FLD on groundnut variety GJG-22 instead of GG-20.
3.	Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh advice that ➢ Analyze maximum soil and water sample at KVK Soil Testing Laboratory. ➢ Arrange demonstration at KVK farm for production and use of *Jivamrut.*
4.	Dr. M. D. Khanpara, Research Scientist (Pearl Millet), Pearl Millet Research Station, JAU, Jamnagar suggested to arrange OFT on cotton picking kit.
5.	Shri C. O. Lashkari, Deputy Director of Horticulture, Jamnagar & Devbhumi Dwarka suggested for arrange training on pomegranate in collaboration with Horticulture Department.

2. DETAILS OF DISTRICT

The district of Jamnagar is lies in North Saurashtra Agro climatic zone(VI) with an area of 35.02 lakh hectare land. The total geographical area of entire district (21.8 – 22 ON, 69.0 – 70.7 E) occupies 14125 km^2 i.e. 14.125 lakh ha area in the west of Gujarat state. The climate is arid (80%) and semi arid (20%) with a meanmoistureindex of 67.5. About 95 to 98% of annual rainfall comes during the monsoon month of June to October, July and August being the rainiest months. The co-efficient of variation ranges between 50 and 82%. The annual potentialevapo-transpiration ranges between 1500 and 1650mm, three times the precipitation, resulting in no flow in the ephemeral channels for the most of the year. The district is a water scarcity area droughts are common in this region draughts of moderate to severeintensity occur once in 2 to 3 years. Although the integrateddrainagesystemfrom the story/rocky/gravelly surfaces and torrential nature of precipitation generate 40 to 60% of rainfall as runoff, steeper slopes and absence of checks allow the water to quickly flow to the sea. Being is hard rock terrain, the groundwater potential is very low, is already over exploited and mined, resulting in either the saline water ingress in the costal aquifers, or drying up of the ground water up to a depth of 100m. Consequently a need for holistic approach to water resourcedevelopmentin the district. Wind velocity prevailing in the district is higher order (14.1 km) ha on an annual averagebasisdue to sea coast area.

According tophysiographically, majorportion of the area in the district have an altitude ranging between 25 to 150 meters, which consists ten taluka having gentle slope to moderate slope. The district is

marked by radicaldrainage pattern. Deccantrap basalt occupies a major part of the district. The Quaternary formations includemilliolite, limestone, alluvium and Geolian sediments. The dominantland forms are colluvial plains and rocky uplands. Low hills occur in the southern part of district and are dissected by numerous large and small seasonal streams, most of which drain towards north and form potential drainage basins. The district is characterized by shallow, black soil and coastal alluvial soils with large variations in depth, texture, structure salinity, and water erosion. Nearly two third area of the district is under cultivation. The major factors of land degradationareaccelerated water erosion and Salinization.

Basic information of operational district, Jamnagar and Devbhumi Dwarka:

Sr. No.	Details	JAMNAGAR		DEVBHUMI DWARKA	
1	Total geographical area	6.075 lakh ha.		4.07509 lakh ha.	
2	Totalcultivablearea	4.32 lakh ha.		2.52 lakh ha.	
3	Netcultivatedarea	3.53 lakh ha.		2.38 lakh ha	
4	Totalareaunder forest	0.43 lakh ha.		0.1736 lakh ha	
5	Totalirrigatedarea	0.939 lakh ha.		0.23092 lakh ha.	
6	Number of holdings	1.44 lakh		1.17 lakh	
7	Averageannual rainfall	550 mm.		550 mm.	
8	Soiltype	Medium black		Medium black	
9	Totalnumber of villages	419 (8 city)		280 (8 city)	
10	Totalpopulation	13.89 lakh (2011)		7.48 lakh (2011)	
	(a) Male	7.18lakh .		3.84lakh .	
	(b) Female	6.71 lakh		3.64lakh .	
11	Literacypercentage	Rural	Urban	Rural	Urban
	a. Male	86.95	79.55	76.14	80.74
	b. Female	76.22	62.18	55.41	61.36
12	Number of talukas	6 (Six),		4 (Four)	
		Jamnagar		Jamkhambhalia	
		Dhrol		Jamkalyanpur	
		Jodiya		OkhaMandal (Dwarka)	
		Kalavad		Bhanvad	
		Lalpur			
		Jamjodhpur			

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

S. No	Farming system/enterprise			
1	Crops	Cereals	:	Pearl millet, Sorghum, Wheat, Maize
		Pulses	:	Greengram, Blackgram, Chickpea, pigeonpea
		Oilseeds	:	Groundnut, Sesamum, Castor, Mustard,
		Cash crops	:	Cotton,
		Spices and condiments	:	Cumin, Fennel, Coriander, ajwan, Ishabgul
		Vegetables	:	Onion, garlic, potato, chilli, binjal, tomato, cauliflower, Cowpea, cabbage, okra, peach, cucurbits etc
		Horticulture	:	Chiku, pomegranate, lemon (Citrus), Jamun, Aonla, guava, custard apple, papaya, coconut, ber, Almond, Banana, Dragon fruit, Drum stick
		Floriculture	:	Rose, merry gold, vevanti, etc
		Other Crops	:	Chikori, Fenugreek, Mulberi neem
2		Bullocks and cows		

	Live stock	Buffaloes		
		Sheep		
		Goats		
		Horse and camel		
		Poultry		
		Others animals		
3.	Fishery	340 km coastal belt		4832 tonnes fish production

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

S. No	Agro-climatic Zone	Characteristics
Zone–VI	North Saurashtra	The influence area of North SaurashtraAgroclimatic Zone is spread among five districts *viz*., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 talukas in all. The influence area of the zone lies between 21°-02' to 23°-16' North Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the Ahmedabad district and ncoastal part of Bhavnagar district, on the South by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arebian sea. The North Saurashtra region which comprises the peninsular part of Gujarat has low to medium rainfall and shallow to medium black soils and also coastal saline alluvial soils. In this Agro-climatic zone, cotton (Bt), groundnut, pearlmillet, wheat are the major crops which contribute considerably to the economy of the state. In Saurashtra, among this zone taking in to consideration the rainfall pattern, the topography, soil characteristics, the climate and the cropping pattern have been identified in Gujarat. The North Saurashtra zone have five main / sub station cum testing centre of University like Dry Farming Research Station with KVK, Targhadia (Rajkot District), Main Millet Research Station with KVK, Jamnagar, Oilseeds Research Station (Sesamum, Mustard, Sunflower) with KVK, Amreli, Dry Farming Research Station, Nanakandhasar, (Surendranagar District) and Dry Farming Research Station, Jamkhambhalia (Jamnagar District).

b) Topography
Agro – Ecologicalsituation in the District

The advent of southwest monsoon greatly influences seasonal patterns of rainfall distribution in the district. Thus, meanannual rainfall provides useful comparison of agriculturalpotential of a given situation in the district. The mean rainfall in the district 539.17mm

The physiography of entireregion of district is more or less flat. However, the region is undulating with slopes having little hillyareasfrom 25 to150 metersPhysicalfeatures of the area vary from flat landto150 meters above meansea level. Most of the area falls in the range of 25m to 150m above mean sea level.

Based on the soilsurveyinformation of the zone, the soils of the district hence been broadly classified in tofine categories Available information about the properties of these soils and their textures has been considered. The types of soils categories are as under: -

Shallow black soils
Medium black soils
Saline alkali soils
Costal alluvial soils
Hilly soils

While delineating the zoneintodistrict agro ecological situations, there major factors including varioussoil types, altitude and the rainfall patterns have primarily been considered. The district can be delineated into five agro ecological situations.

Although, each of the situations has rainfed and irrigated condition, but irrigationhas not been considered in identification of the agro ecological situations. While deciding the major crops, cropping patterns and constraints in production, mention has been made of both these conditions one or the other agro ecological situation occurs in the influencearea of the district. The fact that this does not preclude the existence of more than one agro ecological situations within the same area.

Sl. No.	Agro EcologicalSituation	Soiltexture	Altitude	Principal crops	Specialfeatures	Approximate area (000ha)	Taluka included	Characteristics
AES-1	Shallow Black soils with 500-600 mm Rainfall	Sandy clay loam to clayey	75 – 150	Groundnut, wheat, sorghum, pearlmillet	Well drained soils with rapid permeability	124	Kalawad, Jamjodhpur, Bhanvad, Okha	Moisturestress, temperature stress
AES-2	Shallow Black soils with 600-700 mm Rainfall	Clayey	75 – 150	Groundnut, wheat, sorghum, pearlmillet	Slightly well drained soils with rapid permeability	180	Part of Kalyanpur, Jamnagar, Jamkhambhalia, Lalpur, Dhrol, Jodia	Moisturestress, temperature stress
AES-3	Coastal Alluvial soils with 300-400 mm Rainfall	Clayey loam to clayey	50	Groundnut, pearlmillet, sorghum, chickpea	Low nitrogen and phosphus	181	Jodia, part of Okha, Jamkhambhalia, Kalyanpur& Jamnagar	Salt affected salinity
AES-4	Coastal Alluvial soils with 500-700 mm Rainfall	Silt clay	25-50	Groundnut, pearlmillet, sorghum, chickpea	Low nitrogen and phosphorus	299	Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka	Salt affected salinity
AES-5	Coastal Alluvialshallow black soils	Sandy loam	0-25	Sorghum, Pearlmillet,	Aridclimate	31	Okha	Known salinityforgenus ephedra

	with 300-400 mm Rainfall	toclay loam		Groundnut, Sesamum				seacoast very rich in Alghlflor and fanner of economic importance.

2.3 Soil type

As the geographical formation of Saurashtra is to volcanic origin, the soils are generally desiredfrom basaltic rock known as Daccan trap. This is the commonest rock in India and due to its extensive occurrence in south is called "Daccan Traps". In many parts, they6 have flat top features and hence, are also known as plateau basalt. The trap rocks, which occupy a large part of western cost of India, is also covering North Saurashtra zone. The most common colour of the trap rock in the region is dark grey. On weathering, trap rock form a ferruginous gravelly material known as murrum, which under lie-soil formed in situ. Soils, thus derived are either brown red in colour or regular, the black soil. In district black or brown colour is predominant. The soils are shallow to moderately deep. The detailed soil survey information for the soils of Jamnagardistrict are as under.

S. No	Soiltype	Characteristics	Area in ha
1	Shallow black soils	These soils have developed from basaltic trap especially from granite and gneiss parent materials. They light grey in colour. Taxonomically, they are classified as *Ustorthents* and *Ustochrepts*. Soils depth varies for cm to 45 cm. They are gravelly but mainly they are sandy clay loam to clayey in texture. The clay on tent in surface soil varies from 20% to 77.49% and calcium carbonate content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly sub angular blocky and occasionally crumb. Since these soils lack district profile layering and are shallow, capacity to retain moisture is not sufficient. The soils are neutral to alkaline in reaction p^H ranges from 7.3 – 8.4) and from fertility point of view, these are medium in available nitrogen, low to medium in available phosphorus and adequate in availability of potash.	124000 ha (Kalawad, Jamjodhpur, Bhanvad, Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, KHambhaliya& Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murrum (Unconsolidated material of decomposed trap and limestone) is generally found in sub soil layer. The drainage does not pose any problem, because of porous sub soil layer. Morphologically, the profile of these soils has A-C horizon characteristics, having moderate sub angular blocky structure. They are plastic and sticky and hard in consistency on drying. The colour of these soils varies from very dark brown to light grey. Taxonomically, these soils are classified as *Ustochrepts* in *Inceptisol* order. The soils are dominated by smectite group of clay minerals which give to mild cracking in dry season, due to which these are further classified as *Vertic – Ustochrepts* at sub group level. The soils are clay loam to clayey in texture. The souls are highly retentive of moisture because higher percentage of clay content. The percentage of clay content in the surface varies from 31.79 to 73.27 per cent, while no definite trend of clay content in different horizon of the profile is observed.	180000 ha (Part of Kalyanpur, Jamnagar, Jamkham-bhalia, Lalpur, Dhrol, Jodia)

		The chemical composition of these soils is neutral to alkaline reaction (p^H7.4 to 8.9). Calcium is the dominant exchangeable cation followed by magnesium. The soils are generally low to medium in available nitrogen, phosphorus and adequately supplied with potassium. The calcium carbonate contents various from 5.26 to 20.36 per cent in these soils.	
3.	Saline alkali soils	Saline alkali souls are extensively distributed on the coastal are3a as well as inlands. These soils are located in the districts of Jamnagar (Jodia, part of Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils are originated as a result of higher water table, low rainfall and high evaporation losses during summer months resulting into upward movement of salts, poor drainage, use of saline ground water and ingress of sea water (in coastal areas). The souls are classified as *Fluvaquents, Halaquents,* and*Haplaquents* (Entisol): *Haplaquents* and *Haptaquepts* in order – *Inceptisol.* Texturally these soils vary from sandy loam to clay. The degree of salinity and alkalinity is also highly variable. In Jamnagar district, the saline and alkaly soils are widely distributed mainly termed as coastal soil. The soils are sandy loam to clay loam in texture. The EC varies from 1.54 to 38.6 m.mhos/cm and ESP ranges from 9.2 to 74.64% in surface soil. The p^H varies from 7.6 to 9.00 in surface soils and normally calcareous in nature. Most of these soils are low to medium in available nitrogen and phosphorus and high in available potash.	181000 ha (Jodia, part of Okha, Jamkhambhalia, Kalyanpur& Jamnagar)
4.	Costal alluvials oils	these soils are located in the district of Jamnagar consisting Kalyanpur, Jodia and Jamnagar, Jamkhambhadia, Lalpur, Dwarka (OkhaMandal) and Dhrol, talukas. These soils are sandy clay loam to clay in texture. These soils are also affected with salts and are saline sodic in nature. The surface soil varies from 1.54 to 38.6 m.mhos/cm in Electrical conductivity, and from 9.2 to 74.64 in Exchangeable sodium percentage. The soil reaction varies with situation ranging from moderately alkaline or highly alkaline (p^H 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as *Halaquents* and *Haplaquents* – Entisol and *Helaquepts* and *Hapdaquents* in Inceptisol order.	299000 ha (Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka)
5.	Hilly soils	These soils occur in some parts Bhanvad and Jamjodhpurtalukas of Jamnagar district. Because of the steep slope and erosion, the profile is not developed. These soils are developed because of weathering of parent materials existing basaltic trap limestone and sand stone. These soils are shallow to moderately deep and are coarse to find in their texture. The texture varies from loamy sand to clay loam to clay. They have under composed rock fragments and are low in fertility status. These soils are placed in to *Ustorthents* and those near foothills and valley are comparatively deeper can be placed under *Ustochrepts*and can be classified under estisol and *Inceptisol* orders respectively.	31000 ha (Some part of Bhanvad and Jamjodhpur)

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
	Oilseeds			
1	Groundnut	378335	5675025	15
2	Sesamum	6280	22608	3.6
3	Castor	7375	192487.5	26.1
4	Soybean	8	140	17.5

	Total Oilseeds	**391998**		
	Cash Crops			
5	Cotton	180440	4150120	23
6	sugarcane	150	7500	50
	Total Cash Crops	**180590**		
	Food Grain			
7	Wheat	58600	1881060	32.1
8	Pearlmillet	3520	46112	13.1
9	Sorghum	8100	85050	10.5
10	Maize	2850	20520	7.2
	Total Food Grains	**73070**		
	Pulse Crops			
11	Greengram	4185	23436	5.6
12	Blackgram	2910	17867.4	6.14
13	Cowpea	285	1071.6	3.76
14	Pigeon pea	175	1925	11
15	Moothbean	360	1512	4.2
16	Chickpea	31300	350560	11.2
17	Cluster bean	75	1406.25	18.75
18	Other pulses	15	0	
	Total Pulses	**39305**		
	SPICES AND CONDIMENTS			
19	Cumin	4300	36550	8.5
20	Fenugreek	90	1410	15.7
21	Coriander	2300	33350	14.5
22	Ajwan	5015	42630	8.5
24	Chilli	1550	29450	11.9
25	Garlic	600	47700	79.5
	Total spices	**13855**	**191090**	
	VEGETABLE		0	
27	Onion	200	40800	204.0
28	Potato	100	14650	146.5
29	Brinjal	1755	324680	185.0
30	Tomato	2355	701790	298.0
31	Cauliflower	97	14250	146.9
32	Cowpea	788	58940	74.8
33	Cabbage	811	136570	168.4
34	Okra	2790	200880	72.0
37	Cucurbits	1445	236110	163.4
38	Cluster bean	4524	436570	96.5
39	Other vegetable	160	17680	110.5
	Total Vegetable	**15025**	2182920	
	FRUIT CROPS		0	
40	Chiku	249	28810	115.7
41	Pomegranate	565	50290	89.0
42	Citrus	257	19040	74.1
44	Aonla	35	2100	60.0
45	Guava	12	520	43.3
46	Custard apple	65	4910	75.5
47	Papaya	483	301880	62.5
48	Coconut	505	42470	84.1
49	Ber	351	33270	94.8
50	Kharek	91	4550	50
51	Banana	44	19360	440.0
52	Mango	470	28670	61.0
53	Cashew nut	4	40.0	10.0
54	Other fruits	177	13890	78.5

55	**Total Fruits**	**3308**	549800	
56	**FLOWERS**		0	
57	Rose	66	6150	93.2
58	Merry gold	140	11450	81.8
60	Jasmine	3	260	86.7
62	Lilly	2	170	85.0
63	Other flowers	165	14650	88.8
	Total flowers	**376**	32680	
	OTHER CORPS		0	
64	Chikori	50	4325	86.5
65	Palma Rosa	43	5375	125
	Total Other crops	**93**		
	Fodder crops			
67	Lucern	1105	132600	120
68	Sorghum	16660	2499000	150
69	Maize	2910	0	
	Total Fodder crops	**20675**		

* Source : DAO, &Dy.Dir.Hort., Jamnagar

2.5. Weather data (January-17 to March-18)

Weekly mean Weather data-at Jamnagar during-2017									
Week No	**Temp. °c**		**R.H.%**		**WS**	**BSS**	**Eo**	**Rain**	**Rainy**
	Max	**Min**	**I**	**II**	**(kmph)**	**(hrs)**	**(mm)**	**(mm)**	**Days**
1-J	27.6	14.2	89	48	3.5	8.5	3.1		
2	23.9	11.2	64	33	6.6	9.0	3.7		
3	25.0	14.2	65	41	7.5	8.7	4.0		
4	26.6	14.5	76	41	5.4	9.0	4.0		
5	28.8	13.6	86	38	4.8	9.7	4.0		
6-F	25.6	10.7	77	26	6.7	9.8	3.9		
7	30.9	17.6	71	34	5.9	8.7	5.3		
8	31.6	16.9	80	27	7.1	10.1	5.5		
9	32.7	16.0	78	23	5.2	10.3	5.8		
10-M	31.0	18.0	83	32	9.1	9.7	5.7		
11	31.7	15.8	70	19	6.3	9.5	6.1		
12	33.4	21.0	87	31	9.5	9.8	6.6		
13	35.1	22.3	90	33	9.6	9.9	7.2		
14-A	35.0	22.8	80	33	11.1	10.0	7.4		
15	39.1	20.6	61	12	7.4	10.6	8.9		
16	36.9	23.7	86	35	12.8	10.7	8.8		
17	35.0	24.2	84	49	13.0	10.2	8.3		
18	36.4	24.8	86	36	12.1	10.2	8.8		
19-M	37.4	25.8	83	41	12.4	11.1	9.2		
20	36.2	27.2	81	52	14.7	10.7	9.3		
21	35.2	27.6	81	57	15.8	10.1	9.2		
22	37.6	28.9	78	52	14.4	7.9	9.8		
23-J	37.0	28.0	81	50	12.0	9.7	9.5	15.1	2
24	36.5	28.4	71	55	19.2	10.5	9.2		
25	35.8	28.3	78	55	16.3	6.5	8.6	2.5	1
26	33.7	26.3	91	72	8.5	3.9	6.3	159.1	6
27-J	33.0	27.5	84	61	16.3	2.7	5.5	5.5	1
28	31.7	25.9	88	75	15.5	3.8	5.3	100.0	4
29	30.0	25.9	95	86	9.5	2.4	4.2	211.5	5
30	28.7	26.1	90	87	12.9	0.0	4.2	19.5	2
31	31.4	26.0	88	74	12.7	3.4	4.4	1.0	
32-A	31.7	25.6	88	75	9.0	3.2	4.4	14.5	2
33	31.7	26.1	85	67	12.5	7.1	4.8		
34	30.7	25.4	91	80	7.9	5.1	4.3	38.0	3
35	30.6	24.6	94	78	10.1	4.5	4.3	129.5	3
36-S	31.4	24.7	90	66	6.9	7.6	4.5	1.0	
37	33.1	25.5	86	64	5.9	8.1	5.0		

38	32.2	25.8	88	68	8.3	5.7	4.7		
39	32.5	23.1	86	61	5.5	9.1	5.0		
40-O	33.9	23.8	85	54	5.3	9.3	5.5		
41	35.9	24.7	85	49	3.9	7.2	5.6		
42	36.1	23.8	92	46	4.3	9.3	4.7		
43	33.9	21.6	90	42	4.9	9.5	4.6		
44	33.8	18.9	69	30	3.4	9.3	4.7		
45-N	32.3	18.3	69	40	3.8	8.5	4.5		
46	30.5	17.4	69	40	5.3	7.7	4.2		
47	27.9	14.8	64	34	5.7	8.4	4.2		
48	29.2	13.9	81	32	3.3	9.1	4.2		
49-D	25.0	16.6	81	55	7.1	3.7	3.7		
50	26.3	13.9	82	41	5.5	7.4	3.6		
51	26.1	15.4	66	37	7.3	5.2	3.6		
52	27.3	11.5	74	26	4.3	9.1	3.4		
1-J	25.9	10.9	80	27	3.8	9.1	3.1		
2	26.7	15.1	70	35	5.7	6.4	3.7		
3	28.7	13.9	86	34	4.5	9.1	3.4		
4	26.6	12.5	90	26	4.3	9.1	3.3		
5	28.2	13.3	86	29	4.2	9.1	3.6		
6-F	27.6	14.9	80	31	4.3	7.6	3.8		
7	29.2	15.5	72	26	6.4	9.1	4.3		
8	31.3	17.9	95	29	5.4	8.9	4.5		
9	34.0	18.8	71	25	21.7	32.6	5.8		
10-M	33.0	18.2	85	24	6.9	10.0	6.4		
11	32.2	17.8	90	32	8.2	10.0	6.3		
12	32.7	21.0	80	28	9.1	9.7	7.0		
13	38.6	21.9	78	18	8.5	10.0	9.4		
Mean	**32.0**	**21.3**	**81**	**48**	**8.7**	**7.9**	**5.7**	**697.2**	**29**
Highest	**39.1**	**28.9**	**95**	**87**	**19.2**	**11.1**	**9.8**		
Lowest	**23.9**	**10.7**	**61**	**12**	**3.3**	**0.0**	**3.1**		

* Source: Meteorological observatory, Millet Research Station, JAU, Jamnagar

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

Category	Population	Production	Productivity
Cattle	349229	2475.2 qtl. total milk	
Crossbred			8.585 lit/day
Indigenous			3.375 lit/day
Buffalo	209616		4.451 lit/ha
Sheep	232530	295.16 lakh kg wool	
Crossbred			
Indigenous			
Goats	173022		0.274 lit/ha
Pigs		290097.9 Qtl meat	
Crossbred			
Indigenous			
Poultry	38041	12.77 lakh eggs	
Hens			
Desi			
Improved			
Horse &	410		
Camels	2260		
Donkey	2577		
Total Milk			
Total egg			
Total wool			

Category	Area	Production	Productivity
Fish			
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

Source: Assistant Directorate of Fishries, Jamnagar

2.7 Details of Operational area/ Villages (2018-19 to 2020-21)

Sl No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	**Jamnagar**	Chandragadh, Khojaberaja, Lothiya, Nani Banugar, Suryapara	Cotton, groundnut, sesamum, castor, greengram, wheat, Gram, cumin, mustard, Vegetable, Soyabean, flowers, live stock, fisheries	Heavy infestation of sucking pest in cotton, stem rot disease & whitegrub in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	- ICM in major crops of the district - Organic crop production - Introudction of new crop - Recycling of farm waste - Populirization of MIS - Motivation of fishries cultivation - Soil Reclamation - Farm women empowerment - Farm mechanization
2	**Kalyanpur**	Gadhka, Patelka, Haripar, Juvanpur, Jampar			

2.8 Priority thrust areas

Sl. No	Crop/ Enterprise	Thrust area
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ Whitegrub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micronutrient management in wheat
2.	Organic farming	Enhancement of organic farming through improved technologies
3.	Farm waste/ organic matter	Recycling of farm waste through composting, vermicompost, green manuring, etc.
4.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
5.	Soil	Reclamation of saline & alkaline soils
6.	Farm Women	Farm women empowerment by training in value addition, handi crafts, and small scale enterprises
7.	Fisheries	Fish Farming
8.	Improved Implements	Popularization of the mechanized technological know how
9.	Plant protection	Pinkboll worm in cotton and white grub in groundnut,
10	Horticultural area	Enhancement of pomegranate, datepalm, draganfruit,
11.	Storage facility	Requirement of storage techniques and value addition in farm produce
12.	Water conservation & use of Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques

3. TECHNICAL PROGRAMME

3.1.A. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
10	37	262	710

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
33	825	506	56306

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (Nos)	Soil Samples
(5)	(6)	(7)	(8)
10	500	0	550

3.1. B. Operational areas details proposed during 2018-19

S. No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	Groundnut	Whitegrub, Stemrot Nutrional deficiency	300000 ha.	Chandragadh, Khojaberaja, Lothiya, Nani Banugar, Suryapara, Gadhka, Patelka, Haripar, Juvanpur, Jampar	OFT, FLD and Training
2	Chilli	Thrips, Curling of leaves, nutritional deficiency	1500 ha	- " -	OFT, FLD and Training
3	Garlic	Puple blotch, wireworm, yellowing, tip burning	600 ha	- " -	OFT, FLD and Training
4	Sesame	Leaf webber, mite, blight, stem rot, root rot, yellowing	12000 ha.	- " -	OFT, FLD and Training
5	Wheat	Stem borer, Termite, nutritional deficiency,	58000 ha	- " -	OFT, FLD and Training
6	Vegetabe mittens (Okra, Brinjal)	Drudgery reduction, cut & wounds, skin hardness, blisters and abrasions,	2790 ha	- " -	OFT, FLD and Training
7	Animal Husbandry	Due to inadequate nutrients in the daily ration, the % fat in milk and productivity of the animal decreased hence, financial loss.	Majority farmers (350000)	- " -	OFT, FLD and Training
8	Fishereis	Direct stocking of Spawn, Mortality rate is higher during spawn to fingerling stage rearing and uncertain in production	In Majority reservoir	Nana Khadba Navi Pipar Navi Veraval	OFT
9	Fishereis	Stocking of single species, total production is reduce	In Majority reservoir	Nana Khadba Navi Pipar Navi Veraval	OFT

10	Cotton	Pink bollworm, redding & yellowing of leaves, sucking pests, weevil,	180440		FLD and Training
11	Brinjal	lPM, INM, variety	1755		FLD and Training
12	Okra	lPM, INM, variety	2790		FLD and Training
13	Chicory	ICM	50		FLD and Training
14	Cumin	lPM, IDM, INM, variety	4300		FLD and Training
15	Ajwain	IDM, Variety	5015		FLD and Training
16	Coriander	IDM, IPM, Variety	2300		FLD and Training
17	Pearl millet	Variety, IPM, IDM	3520		FLD and Training
18	Chick pea	IPM, Variety	31300		FLD and Training
19	Kitchen gardening	Nutritional balance	Majority farmers		FLD and Training
20	Seaweed	Nutrition supply	Majority farmers		FLD and Training
21	Fisheries	Inadequate use of natural resources	-	Rasulnagar	FLD and Training

* Support with problem-cause and interventions diagram

3.2. Technologies to be assessed and refined

A.1 Abstract on the number of technologies to be assessed in respect of **crops**

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction					1					1
Farm machineries										
Value addition										
Integrated Pest Management		1								
Integrated Disease Management										1
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL		**1**			**1**					**2**

A.2. Abstract on the number of technologies to be refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Kitchen garden	Tuber Crops	TOTAL
Varietal Evaluation										
Seed / Plant production										
Weed Management										
Integrated Crop Management										
Integrated Nutrient Management	1	1								2
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management		1			1					2
Integrated Disease Management					1					1

Resource conservation technology										
Small Scale income generating enterprises										
TOTAL	1	2			2					5

A.3. Abstract on the number of technologies to be assessed in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Vermi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management	1							1
Disease of Management								
Value Addition								
Production and Management							2	2
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL	**1**						**2**	**3**

A.4. Abstract on the number of technologies to be refined in respect of livestock / enterprises

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL								

B. Details of On Farm Trial / Technology Assessment during 2018-19

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
1	**Sesame**	**To manage the leaf webber infestation in sesame**	**Management of sesame leaf webber**	1. Injudicious use of insecticides. (Spray insecticides at weekly interval) **(Farmers practices)**						3600	No. of larvae per 1 meter, yield	KVK Staff
				2. Recommended practices Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P. @ 10g/10 Liter of water at the time of infestation.**(Recommendation)**	SAU	Cartap hydrochloride,	500 gm	1200	3			
2	Okra (Vegetable mittens)	To reduce drudgery, injury and musculo skeletal disorders	**Assessment of mittens for vegetable harvesting**	1. **Farmer's Practices** :- No use any protective wear	Farmers own practices l;					900	Effect on skin. Drudgery perceived. Efficiency of picking per hour.	KVK Staff
				2. **Assessment** :- Use of mittens for	SAUs (MKV-Parbhani,	Vegetable mittens	3	300	3			

		in farm women. To improve the work efficiency		Okra and Brinjal harvesting.	Maharashtra)							
3	Fish	To reduce mortality rate during stocking To increase final yield & income	**Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir.**	1. **Farmer's Practices** :- Direct stocking of spawn into village ponds/reservoir.	Farmers own practices l;	Fish seed (IMC Fry)	10000 No.	2000	3	900	Total production (in KG.) at the time of harvesting from village pond/reservoir Average body weight at the time of harvesting Total net income	KVK Staff
				2. **Assessment**- Rearing of IMC spawns in pen up to fry stage and then release into the village pond/reservoir.	Centeral Inland Fishries Research Institute, Barrakpore, Calcutta		3		3			
4	Fish	To reduce the farming cost by using use maximum natural resources (Food, water body etc.) To increase total yield and Income.	**Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir**	1. **Farmer's practices**:- stocking a single species *Catlacatla* into ponds/reservoir.	Farmers own practices l;					18600	Average body weight of IMC and Prawn at the time of harvesting Total production of fish and prawn (in KG.) at the time of harvesting from village pond/reservoir Total Net income	KVK Staff
5	Animal Husbandary	To increase fat percentage in Milk. To increase total yield and income. Health Improvement in milking animal.	**Role of bypass fat in rations of dairy animals**	1. **Farmer's practices:-** Normal dietary pattern *i.e.* Green fodder, Dry fodder and concentrate	Farmers own practices					13500	Total fat increased (Percentage). Total milk productivity (liter). Total income.	KVK Staff
				2. **Assessment** :- Add 100g bypass fat as supplement with normal rations.	Animal Nutrition Research station, AAU, Anand (SAUs)	bypass fat	30 kg	4500	3			

OFT-1 Sesame (Assessment)

Title: Management of sesame leaf webber

Objective: To manage the leaf webber infestation in sesame

Problem definition: attack of leaf webber is increase

- Heavy infestation of leaf webber was found
- Improper cultivation practices
- Lack of knowledge about pest outbreaks and its management

Problem diagram :-

Improper cultivation practices	**Management of sesame leaf webber**	Irregular irrigation
Mono-cropping system		Lack irrigation facilities
No adoption of recommended practices		Lack of knowledge about pest outbreaks and its management
Crop failure due to water logging condition in rainy season		In judicious use of chemical pesticide
Farmer follows instruction given by the local pesticides retailer		Heavy incidence of pest and disease attack

Treatments:

1. Injudicious use of insecticides. (Spray insecticides at weekly interval) **(Farmers practices).**
2. Recommended practices Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P. @ 10 g/10 Litre of water at the time of infestation.**(Recommendation)**

No. of Replication: 3 (Farmers)

Observations:

1. Record no. of larvae per plant/1 meter row length.
2. Yield data.

OFT-2 (Assessment)

Title : Assessment of mittens for vegetable harvesting.

Objective :

1. To reduce drudgery, injury and musculo skeletal disorders in farm women.
2. To improve the work efficiency

Problem definition:

1. Muscular skeletal problem of workers
2. Drudgery to rural women
3. Injury due to thorns of brinjal/okra

Problem diagram :-

Unavailability of skilled hand tools for harvesting of vegetable	**Assessment of mittens for vegetable harvesting**	Low area of vegetable cultivation
Drudgery to rural women		Do not calculation of work efficiency
Lack of knowledge		Poor economic condition

Treatments :

1. **Farmer's Practices** :- No use any protective wear
2. **Assessment** :- Use of mittens for Okra and Brinjal harvesting.

No. of Replication :- 3 (Farm women)

Source of Technology:- SAUs (MKV- Parbhani, Maharashtra)

Thematic area: Drudgery reduction

Observations :-

1. Effect on skin.
2. Drudgery perceived.
3. Efficiency of picking per hour.

OFT-3 (Assessment)

Title : Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir.

Objectives: 1. To reduce mortality rate during stocking
2. To increase final yield & income

Experimental Animal: IMC spawn

Problem diagram :-

Over stocking of seed	**Assessment of Pen cultures of Indian Major Carp (IMC) spawn to fry before stocking in village Pond/Reservoir**	Mortality rate is higher
Uncertainity about final production		Decrease total production
Wastage of natural resourses		Lack of knowledge about fish farming technology

Treatment: 1. **Farmer's Practices** :- Direct stocking of spawn into village ponds/reservoir.
2. **Assessment**- Rearing of IMC spawns in pen up to fry stage and then release into the village pond/reservoir.

No of Replications: 3 farmers

Source of Technology:- Centeral Inland Fishries Research Institute, Barrakpore, Calcutta.

Thematic area: Production and Management

Observations:

1. Total production (in KG.) at the time of harvesting from village pond/reservoir
2. Average body weight at the time of harvesting
3. Total net income

OFT: 4 (Assessment)

Title: Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir

Objectives: 1. To reduce the farming cost by using use maximum natural resources (Food, water body etc.)
2. To increase total yield and Income.

Experimental Animal: IMC fingerlings (*Catlacatla*) and *M. rosenbergii*

Problem diagram :-

Over stocking of seeds	**Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir**	Minimun usage of natural resources
Single Species stocking		Total production decrease
Lack of knowledge		Low income

Treatment: 1. **Farmer's practices**:- stocking a single species *Catlacatla* into ponds/reservoir.
2. **Assessment:-** stocking of *M. rosenbergii* with *Catlacatla* fingerlings into ponds/reservoir

No of Replications: 3 farmers

Source of Technology:-Central Inland Fisheries Research Institute, Barrakpore, Calcutta.

Thematic area: Production and management

Observations:

1. Average body weight of IMC and Prawn at the time of harvesting
2. Total production of fish and prawn (in KG.) at the time of harvesting from village pond/reservoir
3. Total Net income

OFT-5 (Assessment)

Title : Role of bypass fat in rations of dairy animals.

Objective :

1. To increase fat percentage in Milk.
2. To increase total yield and income.
3. Health Improvement in milking animal.

Problem diagram :-

Inadequate nutrients in the daily ration	**Role of bypass fat in rations of dairy animals.**	Low fat % in milk
Decreased milk production		Financial loss
Lack of knowledge about Ntrition management		Poor health duo to improper feed

Experimental animal: Cow

Treatments :

1. **Farmer's practices:-** Normal dietary pattern *i.e.* Green fodder, Dry fodder and concentrate.
2. **Assessment:**- Add 100g bypass fat as supplement with normal rations.

No. of Replication: 3 farmers

Source of Technology:- Animal Nutrition Research station, AAU, Anand (SAUs)

Thematic area: Nutrition management

Observations :-

1. Total fat increased (Percentage)
2. Total milk productivity (liter)
3. Total income

C. Details of On Farm Trial / Technology Refinement during 2018-19

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
6	**Groundnut**	**To reduce infestation of white grub.**	**Management of white grub in groundnut**	1. **Farmer's Practices** :- Injudicious use of pesticides.[use of chlorpyriphos, quinalphos, flubendiamide, phorate, cartap hydrochloride, carbofuran, clothianidine, imidacloprid+ Fipronil, Thiamethoxam after infestation of white grub as post application.						3600	Record no. of grub per 1 meter row length. Yield data. Cost benefit ratio	KVK Staff
				2. **Recommendation** :- Recommended dose of Pesticide as chlorpyriphos or quinalphos @ 25 ml/kg seed. Drenching of Chlorpyriphos or quinalphos @ 4 lit/ha as initiation of pest incidence	SAU	chlorpyriphos	2 lit	400	3			
				3. **Refinement:-** Application of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 2.5 g/kg seed. Drenching of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 250 g/ha as initiation of pest incidence	Farmers experience technology	Imidacloprid 40% + Fipronil 40%	200 gm	3200	3			
7	**Chilli**	**To minimize the thrips incidence in chilli. To reduce injudicious use of chemical pesticide. To minimize residual effect of chemical**	**Management of thrips in chilli**	1. **Farmer's Practices** :- Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, imidacloprid, Fipronil, Thiamethoxam cypermethrin, lamdacyhalothrin after infestation of thrips at weekly interval without follow ETL]						3900	Record thrips population from five randomly selected plants from each plot at 7 days after spray 2. Record yield at every picking	KVK Staff
				2. **Recommendation** :- Seed treatment with imidacloprid 70 WS (7.5 g/kg seed) and dipping of seedling before transplanting for two hours in solution of imidacloprid 17.8 SL (10 ml/10 litre water) or thiamethoxam 25 WG (10 g/10 litre water).	SAU	Imidacloprid 70 WS, Imidacloprid 17.8% SL, Thiamethoxam Spinosad,	10 gm, 100 ml, 100 gm, 100 ml	120, 220, 210, 450	3			

				Spraying of spinosad 45 SC (3 ml/10 litre water)								
				3. **Refinement:-** Spray of *Bearuveria bassiana* @ 5 g/lit of water at 15 days interval	SAU	*Bearuveria bassiana*	2 kg	300	3			
8	**Garlic**	**To minimize the infestation of purple blotch of garlic. To increase production . To reduce yield loss of garlic**	**Management of purple blotch of garlic**	1. **Farmer's Practices** :- Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases						7800	Record thrips population from five randomly selected plants from each plot at 7 days after spray 2. Record yield at every picking `	KVK Staff
				2. **Recommendation** :- Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence	SAU	Mancozeb , Tricyclazole, Hexaconazole	1 kg, 500 ml, 1 lit	300, 200, 300	3			
				3. **Refinement:-** Application of Trichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence	SAU	Hexaconazole, Tebuconazole, FYM	500 ml, 250 ml,	300, 1500	3			
9	**Groundnut**	**To increase yield of Groundnut**	**Effect of Bio fertilizers in Groundnut production**	1. **Farmer's Practices** :- Application of only DAP 125 kg /ha (22.5 N- 57.5 P_2O_5 kg/ha)						6000	Soil analysis at before and after. Pod and fodder Yield (Kg/ha). Economics. Yellowing of groundnut.	KVK Staff
				2. **Recommendation** :- Recommended dose of fertilizer (12.5N -25P_2O_5-50K_2O)Kg/ha	JAU	DAP, MOP	50	1200	3		
				3. **Refinement:-** 75% RDF + Seed treatment of Rhizobium, PSB and PMB culture (Potas Mobilizing Bacteria) each at 25 to 30 ml/kg seed**)**.	SAU	DAP, MOP, Rhizobium, PSB, PMB,	25 kg, 500 ml each	600, 200	3		
10	**Wheat**	**Use of bio fertilizer, to increase yield of wheat**	**Response of Bio fertilizers to wheat yield**	1. **Farmer's Practices** :- **Response of Bio fertilizers to wheat yield**						6000	Soil analysis at before and after; No. of tillers per plant; Plant height(cm) at harvest time; Number of grain per spike; Yield (kg/ha); Economics (B:C ratio).	KVK Staff
				Recommended practice :- 120 N - 60 P_2O_5 – 60 K_2O kg/ha (100 % RDF)	JAU	DAP, MOP	50	1200	3		
				Refinement:- 75% of RDF + seed treatment of *Azatobacter*, PSB and PMB culture (Potash Mobilizing Bacteria) each at 25 to 30 ml/kg seed	SAU	DAP, MOP, Rhizobium, PSB, PMB,	25 kg, 500 ml each	600, 200	3		

OFT-6

Title: Management of white grub in groundnut

Objective: To reduce infestation of white grub.

Problem definition: incidence of white grub is increase

1. Lack of seed treatment
2. lack of pre application n of pesticides

Problem diagram :-

Improper cultivation practices	**Management of white grub in groundnut**	Multi season cropping system
Mono-cropping system		Heavy infestation of white grub was found
Lack of seed treatment		Lack of knowledge about pest outbreaks and its management
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation		Improper use of FYM (without decomposition)
lack of pre application of pesticides		

Treatments:

1. **Farmer's Practices** :- Injudicious use of pesticides.[use of chlorpyriphos, quinalphos, flubendiamide, phorate, cartap hydrochloride, carbofuran, clothianidine, imidacloprid+ Fipronil, Thiamethoxam after infestation of white grub as post application.
2. **Recommendation** :- Recommended dose of Pesticide as chlorpyriphos or quinalphos @ 25 ml/kg seed. Drenching of Chlorpyriphos or quinalphos @ 4 lit/ha as initiation of pest incidence.
3. **Refinement:-** Application of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 2.5 g/kg seed. Drenching of ready mix combination of Imidacloprid 40% + Fipronil 40% @ 250 g/ha as initiation of pest incidence.

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: IPM

Observations:

1. Record no. of grub per 1 meter row length.
2. Yield data.
3. Cost benefit ratio

OFT-7

Title: Management of thrips in chilli.

Objective: To minimize the thrips incidence in chilli. To reduce injudicious use of chemical pesticide. To minimize residual effect of chemical

Problem definition:

1. Heavy infestation of Thrips was found
2. Lack of seed treatment and improper cultivation practices
3. Lack of knowledge about pest outbreaks and its management
4. Injudicious use of nitrogenous fertilizer

Problem diagram :-

Resurgence of thrips	**Management of thrips in chilli**	Multi season cropping system
Mono-cropping system		Lack of knowledge about pest outbreaks and its management
Lack of seed treatment		Lack of improper cultivation practices
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's Practices**:-Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, imidacloprid, Fipronil, Thiamethoxam cypermethrin, lamdacyhalothrin after infestation of thrips at weekly interval without follow ETL]
2. **Recommendation** :-Seed treatment with imidacloprid 70 WS (7.5 g/kg seed) and dipping of seedling before transplanting for two hours in solution of imidacloprid 17.8 SL (10 ml/10 litre water) or thiamethoxam 25 WG (10 g/10 litre water). Spraying of spinosad 45 SC (3 ml/10 litre water)
3. **Refinement:-** Spray of *Bearuveria bassiana* @ 5 g/lit of water at 15 days interval

No. of Replication: 3 (Farmers)

Source of Technology: - Junagadh Agricultural University
Thematic area: IPM
Observations:

1. Record thrips population from five randomly selected plants from each plot at 7 days after spray
2. Record yield at every picking.

OFT-8 Garlic
Title: Management of purple blotch of garlic.
Objective: To minimize the infestation of purple blotch of garlic. To increase production. To reduce yield loss of garlic
Problem definition: Incidence of Thrips is increase

1. Heavy infestation of Thrips and purple blotch was found
2. Lack of seed treatment and improper cultivation practices
3. Lack of knowledge about pest, diseases outbreaks and its management
4. Injudicious use of nitrogenous fertilizer
5. Lack of fungicides use as preventive measure

Problem diagram :-

Improper cultivation practices	**Management of purple blotch of garlic**	Multi season cropping system
Mono-cropping system		Heavy infestation of purple blotch was found
Lack of seed treatment		Lack of knowledge about diseases outbreaks and its management
In judicious use of pesticide/fungicide		In judicious use of chemical fertilizer
Irregular irrigation		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's Practices** :-Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.
2. **Recommendation** :-Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence. **(Junagadh Agricultural University;Director of Onion & Garlic Research Station, ICAR)**
3. **Refinement:-** Application of Trichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.1% and Tebuconazole @0.1% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**

No. of Replication: 3 (Farmers)
Source of Technology: - Junagadh Agricultural University; Director of Onion & Garlic Research Station, ICAR
Thematic area: IDM
Observations:

1. Record no. of infected plant per 1 meter row length
2. Yield data

OFT :-9
Title :Effect of Bio fertilizers in Groundnut production
Objective : To increase yield of Groundnut
Problem definition:

1. Low yield due to low consumption of fertilizers.
2. Yellowing of groundnut
3. Residual toxicities of chemical fertilizers
4. threat to the sustainability of crop production
5. High cost of chemical fertilizers

6. Lack of well distributed rainfall
7. Unavailability of fertilizer as when require

Problem diagram :-

Improper cultivation practices	**Effect of Bio fertilizers in Groundnut production**	Multi season cropping system
Yellowing of leaves		Residual toxicities of chemical fertilizers
Lack of balance use of nutritional recommendation		Lack of knowledge about pest outbreaks and its management
In judicious use of pesticide		In judicious use of chemical fertilizer
Irregular irrigation/ irregular rainfall		Improper use of FYM (without decomposition)
Unavailability of fertilizer as when require		

Treatments :

1. **Farmer's Practices** :- Application of only DAP 125 kg /ha (22.5 N- 57.5 P_2O_5 kg/ha)
2. **Recommendation** :-Recommended dose of fertilizer (12.5N -25P_2O_5-50K_2O)Kg/ha.
3. **Refinement:-** 75% RDF + Seed treatment of Rhizobium, PSB and PMB culture (Potas Mobilizing Bacteria) each at 25 to 30 ml/kg seed**)**.

No. of Replication :- 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: INM

Observations :-

1. Soil analysis at before and after.
2. Pod and fodder Yield (Kg/ha).
3. Economics.
4. Yellowing of groundnut.

OFT:10

1. Title : Response of Bio fertilizers to wheat yield

2. Objective:: Use of bio fertilizer, to increase yield of wheat

Problem definition:

1. Low yield due to low consumption of fertilizers.
2. Residual toxicities of chemical fertilizers
3. Threat to the sustainability of crop production
4. High cost of chemical fertilizers
5. Unavailability of fertilizer as when require
6. Shortage of water

Problem diagram :-

Improper cultivation practices	**Response of Bio fertilizers to wheat yield**	Multi season cropping system
Residual toxicities of chemical fertilizers		Unavailability of fertilizer as when require
threat to the sustainability of crop production		Lack of knowledge about nutrient management
Lack of knowledge about bio fertilizer		In judicious use of chemical fertilizer
High cost of chemical fertilizers		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's practice**:- Application of only DAP & Urea in different doses, (109 N – 57.5 P_2O_5 kg/ha)
2. **Recommended practice** :- 120 N - 60 P_2O_5 – 60 K_2O kg/ha (100 % RDF)
3. **Refinement:-** 75% of RDF + seed treatment of *Azatobacter*, PSB and PMB culture (Potash Mobilizing Bacteria) each at 25 to 30 ml/kg seed

No. of Replication :- 3 (Farmers)

Source of Technology: - Junagadh Agricultural University

Thematic area: INM

Observation:

1. Soil analysis at before and after;
2. No. of tillers per plant;
3. Plant height(cm) at harvest time;
4. Number of grain per spike;
5. Yield (kg/ha);
6. Economics (B:C ratio).

3.3 FRONTLINE DEMONSTRATIONS

A. Details of FLDs to be organized –

Sr. No.	Name of Crop/ Enterprise	Name of Variety Enterprises	Thematic area	Technology demonstrated	Critical Inputs	Season and year	Area (ha.)	No. of farmers /Demo.	Parameters identified
1	Cotton	Bt. Cotton	IPM/INM	Insecticide, Bio pesticide	Azadirechtin, Profenophos., *Beauveria bassiana*	Kh-18	8	20	Pest population, yield
2	Chilli		IPM	Insecticide, Bio pesticide, Bio fertilizer	Azadirechtin, Profenophos, *Beauveria bassiana* Azotobacter, PSB	Kh-18	2	5	Yield, % fruit damage
3	Brinjal	GJBH-4	Varietal	Variety	seed	Kh-18	2	5	Yield, % fruit damage
4	Okra	JGOH-4	Varietal	Variety	seed	Kh-18	2	5	Yield, % fruit damage
5	Chicory		ICM	Bio pesticide Bio fertilizer	*Beauveria bassiana* Azotobacter, PSB	Kh-18	2	5	Yield
6	Wheat	GW-463	Varietal	Variety	seed	Rabi-18	4	10	Yield
7	Cumin	GC-4	IDM	Bio fungicide	Trichoderma	Rabi-18	4	10	Yield, % Plant damage
8	Ajwain	Gujarat Ajwain-2	Varietal	Variety	seed	Rabi-18	4	10	Yield, % Plant damage
9	Coriander	GC-2	Varietal	Variety	Seed (8 kg)	Rabi-18	8	20	Yield
10	Pearl Millet	GHB-732	Varietal	Variety	Seed (GHB-732) 1.5 kg	Sum- 18-19	4	10	Yield
Other Scheme									
11	**NFSM**-Chick pea	GJG-3/GG-5	IPM, Varietal	Bio pesticide, Variety	NPV, *Beauveria*, Seed (GJG-5)	Rabi-18	20	50	Yield, % pod damage
12	**NFSM**-Pigeon pea	Vaishali (BSMR 853)	IPM/ IDM/ INM	Bio pesticide, Bio fertilize, Bio fungicide Micro nutrient	*Beauveria bassiana*, *Trichoderma,* PSB, Rhizobium, Micro mix	Kh-18	10	25	Yield, % pod damage
13	**NMOOP**-Groundnut	GJG-22	ICM	Bio pesticide, Bio fungicide, Bio fungicide Micro nutrient	Seed, metarhizium anisopliae, Beauveria bassiana, Trichoderma, PSB, Rhizobium and Micro nutrient	KH-18	20	50	Yield, % pod damage

14	**NMOOP**-Sesame	GTil -3/4	ICM	Insecticide, Bio fungicide, Bio fertilizer, Micro nutrient	Seed, Beauveria bassian, DDVP, Cypermethrin, Trichoderma, PSB, Azotobacter and Micro nutrient	KH-18	20	50	Yield, % pod damage
15	**NMOOP**-Groundnut	GJG-31	ICM	Bio pesticide, Bio fungicide, Bio fungicide Micro nutrient	Seed, Beauveria bassiana, Trichoderma, PSB, Rhizobium and Micro nutrient	Sum-18-19	20	50	Yield, % pod damage
16	**NMOOP**-Sesame	GTil -3/4	ICM	Insecticide, Bio fungicide, Bio fertilizer, Micro nutrient	Seed, DDVP, Cypermethrin, Trichoderma, PSB ,Azotobacter and Micro nutrient	Sum-18-19	20	50	Yield, % pod damage
17	**ATIC** Cotton	BT cotton	ICM	Bio pesticide Bio fertilizer	Beauveria bassiana, SNPV, Pheromone trap PSB and Azatobector	Kh-18	40	100	Yield
18	**ATIC** G'Nut	GG-20	ICM	Bio pesticide Bio fertilizer	Beauveria bassiana, PSB and Rhizobium, Trichoderma	Kh-18	40	100	Yield
19	**ATIC** Cumin	GC-4	ICM	Bio pesticide Bio fertilizer	Beauveria bassiana, PSB, Azotobector Trichoderma	Rabi-18	20	50	Yield
20	**ATIC** Coriander	GC-2	ICM	Bio pesticide Bio fertilizer	PSB, Azotobector, Beauveria bassiana, Trichoderma	Rabi-18	10	25	Yield
					Total		**260**	**650**	

Sponsored Demonstration

Crop	Area (ha)	No. of farmers
-	-	-

B. Extension and Training activities under FLDs

S. No.	Activity	No. of activities	Month	Number of participants
	Cotton			
1	Field days	1	August	20
2	Farmers Training	1	June	30
3	Media coverage	1	April	
4	Training for extension functionaries	1		
	Chilli			
1	Field days	1	July	20
2	Media coverage	1	May	
3	Training for extension functionaries	1		
	Brinjal/Okra			

1	Field days	1	July	20
2	Farmers Training	1	May	30
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Chikori			
1	Field days	1	July	20
2	Farmers Training	1	May	30
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Wheat			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Cumin/Ajwain			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Coriander			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Pearl Millet			
1	Field days	1	March	20
2	Farmers Training	1	February	30
3	Media coverage	1	February	
4	Training for extension functionaries	1		
	Chickpea			
1	Field days	1	November	20
2	Farmers Training	1	October	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Pigeon pea			
1	Field days	1	November	20
2	Farmers Training	1	August	30
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Groundnut			
1	Field days	4	May, Sep	80
2	Farmers Training	1	July	25
3	Media coverage	1	August	
4	Training for extension functionaries	1	June	30
	Sesamum			
1	Field days	4	April, May, Sep	80
2	Farmers Training	1	July	25
3	Media coverage	1	August	
4	Training for extension functionaries	1	June	30
	Kitchen gardening			
1	Field days	2	July, Sep	40
2	Farmers Training	1	June	30

3	Media coverage	1	May	
4	Training for extension functionaries			
	Seaweed			
1	Field days	2	Feb.-March-18	50
2	Farmers Training	1	Nov. -Dec-18	25
3	Media coverage			
4	Training for extension functionaries			

C. Details of FLD on Enterprises

a. Farm Implements

Name of the implement	Crop	Season and year	No. of farmers	Area (ha)	Critical inputs	Performance parameters / indicators

b. Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Critical inputs	Performance parameters / indicators
Fisheries	Sea weed (Kappaphycus)	5	5	Raft + sea weed materials	Growth (Wet as well as Dry weight)

c. FLD on Other enterprises

Enterprise	Name of the technology demonstrated	No. of farmers	No. of units	Critical inputs	Performance parameters / indicators
Solar Cooker	Solar Cooker	5	5	Solar Cooker	Time & fuel
Kitchen gardening	Nutritional gardening	50	50	Vegetable seeds	Yield
Seaweed	Raft cultural	5	5	Raft, Seaweed	Production

3.4 TRAINING (INCLUDING THE SPONSORED AND FLD TRAINING PROGRAMMES):

A. ON CAMPUS

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Water management				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management	1	17	3	20	3	2	5	25
Fodder production				0			0	0
Production of organic inputs				0			0	0

Total	**1**	**17**	**3**	**20**	**3**	**2**	**5**	**25**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops				0			0	0
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology	1	17	0	17	8	0	8	25
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	**1**	**17**	**0**	**17**	**8**	**0**	**8**	**25**
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Soil and Water Conservation				0			0	0
Integrated Nutrient Management				0			0	0
Production and use of organic inputs	1	21	0	21	4	0	4	25
Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Soil and Water Testing				0			0	0
Total	**1**	**21**	**0**	**21**	**4**	**0**	**4**	**25**

IV Livestock Production and Management				0			0	0
Dairy Management	1	17	0	17	8	0	8	25
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management				0			0	0
Feed management				0			0	0
Production of quality animal products				0			0	0
Total	**1**	**17**	**0**	**17**	**8**	**0**	**8**	**25**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening				0			0	0
Design and development of low/minimum cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques				0			0	0
Value addition	1		19	19		6	6	25
Income generation activities for empowerment of rural Women				0			0	0
Location specific drudgery reduction technologies	1		19	19		6	6	25
Rural Crafts				0			0	0
Women and child care				0			0	0
Total	**2**	**0**	**38**	**38**	**0**	**12**	**12**	**50**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0			0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements	1	22	0	22	3	0	3	25
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0
Total	**1**	**22**	**0**	**22**	**3**	**0**	**3**	**25**
VII Plant Protection				0			0	0
Integrated Pest Management	1	16	2	18	4	3	7	25
Integrated Disease Management				0			0	0
Bio-control of pests and diseases				0			0	0
Production of bio control agents and bio pesticides				0			0	0
Total	**1**	**16**	**2**	**18**	**4**	**3**	**7**	**25**
VIII Fisheries				0			0	0
Integrated fish farming				0			0	0
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing				0			0	0
Composite fish culture				0			0	0
Hatchery management and culture of freshwater prawn				0			0	0
Breeding and culture of ornamental fishes				0			0	0

Portable plastic carp hatchery				0			0	0
Pen culture of fish and prawn				0			0	0
Shrimp farming	1	13	0	13	12	0	12	25
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Total	**1**	**13**	**0**	**13**	**12**	**0**	**12**	**25**
IX Production of Inputs at site				0			0	0
Seed Production				0			0	0
Planting material production				0			0	0
Bio-agents production				0			0	0
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production				0			0	0
Organic manures production				0			0	0
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets				0			0	0
Small tools and implements				0			0	0
Production of livestock feed and fodder				0			0	0
Production of Fish feed				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0
Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths	1	22	0	22	3	0	3	25
WTO and IPR issues				0			0	0
Total	**1**	**22**	**0**	**22**	**3**	**0**	**3**	**25**
XI Agro-forestry				0			0	0
Production technologies				0			0	0
Nursery management				0			0	0
Integrated Farming Systems				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII Others (Pl. Specify)				0			0	0
TOTAL	**10**	**145**	**43**	**188**	**45**	**17**	**62**	**250**
(B) RURAL YOUTH								
Mushroom Production				0			0	0
Bee-keeping	1	21		21	4		4	25
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs	1	16	0	16	9	0	9	25
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0

Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition	1	0	19	19	0	6	6	25
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries				0			0	0
Para vets				0			0	0
Para extension workers				0			0	0
Composite fish culture				0			0	0
Freshwater prawn culture				0			0	0
Shrimp farming				0			0	0
Pearl culture				0			0	0
Cold water fisheries				0			0	0
Fish harvest and processing technology				0			0	0
Fry and fingerling rearing				0			0	0
Small scale processing				0			0	0
Post Harvest Technology				0			0	0
Tailoring and Stitching				0			0	0
Rural Crafts				0			0	0
TOTAL	**3**	**37**	**19**	**56**	**13**	**6**	**19**	**75**
(C) Extension Personnel								
Productivity enhancement in field crops	**1**	20		20	5		5	25
Integrated Pest Management	1	20		20	5		5	25
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Formation and Management of SHGs								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Care and maintenance of farm machinery and implements								
WTO and IPR issues								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Women and Child care								
Low cost and nutrient efficient diet designing								
Production and use of organic inputs								
Gender mainstreaming through SHGs								
Any other (Pl. Specify)								
TOTAL	**2**	**40**	**0**	**40**	**10**	**0**	**10**	**50**
G. Total	**15**	**222**	**62**	**284**	**68**	**23**	**91**	**375**

B. OFF Campus

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Water management				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management	1	17		17	8		8	25
Fodder production				0			0	0
Production of organic inputs	1	22	0	22	3		3	25
Total	**2**	**39**	**0**	**39**	**11**	**0**	**11**	**50**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	1	19		19	6		6	25
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit	1	22		22	3		3	25
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology	1	19		19	6		6	25

Processing and value addition				0			0	0
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	**3**	**60**	**0**	**60**	**15**	**0**	**15**	**75**
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Soil and Water Conservation				0			0	0
Integrated Nutrient Management	1	13	6	19	4	2	6	25
Production and use of organic inputs				0			0	0
Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Soil and Water Testing				0			0	0
Total	**1**	**13**	**6**	**19**	**4**	**2**	**6**	**25**
IV Livestock Production and Management				0			0	0
Dairy Management				0			0	0
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management				0			0	0
Feed management	1		15	15		10	10	25
Production of quality animal products	1	20		20	5		5	25
Total	**2**	**20**	**15**	**35**	**5**	**10**	**15**	**50**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1		19	19		6	6	25
Design and development of low/minimum cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques	1		19	19		6	6	25
Value addition				0			0	0
Income generation activities for empowerment of rural Women	1		20	20		5	5	25
Location specific drudgery reduction technologies				0			0	0
Rural Crafts				0			0	0
Women and child care				0			0	0
Total	**3**	**0**	**58**	**58**	**0**	**17**	**17**	**75**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0			0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0

Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	1	21	0	21	4	0	4	25
Integrated Disease Management	1	15	5	20	4	1	5	25
Bio-control of pests and diseases	1	20	0	20	5	0	5	25
Production of bio control agents and bio pesticides	1	13	4	17	6	2	8	25
Total	**4**	**69**	**9**	**78**	**19**	**3**	**22**	**100**
VIII Fisheries				0			0	0
Integrated fish farming				0			0	0
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing				20			5	25
Composite fish culture				0			0	0
Hatchery management and culture of freshwater prawn				0			0	0
Breeding and culture of ornamental fishes				0			0	0
Portable plastic carp hatchery				0			0	0
Pen culture of fish and prawn	1	20		0	5		0	0
Shrimp farming				0			0	0
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Total	**1**	**20**	**0**	**20**	**5**	**0**	**5**	**25**
IX Production of Inputs at site				0			0	0
Seed Production				0			0	0
Planting material production				0			0	0
Bio-agents production				0			0	0
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production				0			0	0
Organic manures production				0			0	0
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets				0			0	0
Small tools and implements				0			0	0
Production of livestock feed and fodder				0			0	0
Production of Fish feed				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0
Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths	1	25	0	25	0	0	0	25
WTO and IPR issues				0			0	0
Total	**1**	**25**	**0**	**25**	**0**	**0**	**0**	**25**
XI Agro-forestry				0			0	0
Production technologies				0			0	0
Nursery management				0			0	0
Integrated Farming Systems				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

XII Others (Pl. Specify)				0			0	0
TOTAL	**17**	**246**	**88**	**334**	**59**	**32**	**91**	**425**
(B) RURAL YOUTH				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs				0			0	0
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition				0			0	0
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries				0			0	0
Para vets				0			0	0
Para extension workers				0			0	0
Composite fish culture				0			0	0
Freshwater prawn culture				0			0	0
Shrimp farming				0			0	0
Pearl culture				0			0	0
Cold water fisheries				0			0	0
Fish harvest and processing technology	1		0	0		25	25	25
Fry and fingerling rearing				0			0	0
Small scale processing				0			0	0
Post Harvest Technology				0			0	0
Tailoring and Stitching				0			0	0
Rural Crafts				0			0	0
TOTAL	**1**	**0**	**0**	**0**	**0**	**25**	**25**	**25**
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops				0			0	0
Integrated Pest Management				0			0	0
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Formation and Management of SHGs				0			0	0
Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0

Care and maintenance of farm machinery and implements				0			0	0
WTO and IPR issues				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				0			0	0
Production and use of organic inputs				0			0	0
Gender mainstreaming through SHGs				0			0	0
Any other (Pl. Specify)				0			0	0
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
G. Total	**18**	**246**	**88**	**334**	**59**	**57**	**116**	**450**

C. Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	0	0	0	0	0	0	0	0
Resource Conservation Technologies	0	0	0	0	0	0	0	0
Cropping Systems	0	0	0	0	0	0	0	0
Crop Diversification	0	0	0	0	0	0	0	0
Integrated Farming	0	0	0	0	0	0	0	0
Water management	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	2	34	3	37	11	2	13	50
Fodder production	0	0	0	0	0	0	0	0
Production of organic inputs	1	22	0	22	3	0	3	25
Total	**3**	**56**	**3**	**59**	**14**	**2**	**16**	**75**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	1	19	0	19	6	0	6	25
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0
b) Fruits	0	0	0	0	0	0	0	0
Training and Pruning	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0
Cultivation of Fruit	1	22	0	22	3	0	3	25
Management of young plants/orchards	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0

c) Ornamental Plants	0	0	0	0	0	0	0	0
Nursery Management	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
d) Plantation crops	0	0	0	0	0	0	0	0
Production and Management technology	1	17	0	17	8	0	8	25
Processing and value addition	0	0	0	0	0	0	0	0
e) Tuber crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
f) Spices	0	0	0	0	0	0	0	0
Production and Management technology	1	19	0	19	6	0	6	25
Processing and value addition	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0
Total	**4**	**77**	**0**	**77**	**23**	**0**	**23**	**100**
III Soil Health and Fertility Management				0			0	0
Soil fertility management	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0
Integrated Nutrient Management	1	13	6	19	4	2	6	25
Production and use of organic inputs	1	21	0	21	4	0	4	25
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Soil and Water Testing	0	0	0	0	0	0	0	0
Total	**2**	**34**	**6**	**40**	**8**	**2**	**10**	**50**
IV Livestock Production and Management				0			0	0
Dairy Management	1	17	0	17	8	0	8	25
Poultry Management	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0
Rabbit Management/goat	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0
Feed management	1	0	15	15	0	10	10	25
Production of quality animal products	1	20	0	20	5	0	5	25
Total	**3**	**37**	**15**	**52**	**13**	**10**	**23**	**75**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1	0	19	19	0	6	6	25
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Storage loss minimization techniques	1	0	19	19	0	6	6	25
Value addition	1	0	19	19	0	6	6	25
Income generation activities for empowerment of rural Women	1	0	20	20	0	5	5	25

Location specific drudgery reduction technologies	1	0	19	19	0	6	6	25
Rural Crafts	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0
Total	**5**	**0**	**96**	**96**	**0**	**29**	**29**	**125**
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	22	0	22	3	0	3	25
Small scale processing and value addition	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Total	**1**	**22**	**0**	**22**	**3**	**0**	**3**	**25**
VII Plant Protection				0			0	0
Integrated Pest Management	2	37	2	39	8	3	11	50
Integrated Disease Management	1	15	5	20	4	1	5	25
Bio-control of pests and diseases	1	20	0	20	5	0	5	25
Production of bio control agents and bio pesticides	1	13	4	17	6	2	8	25
Total	**5**	**85**	**11**	**96**	**23**	**6**	**29**	**125**
VIII Fisheries				0			0	0
Integrated fish farming	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	1	20	0	20	5	0	5	25
Composite fish culture	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0
Shrimp farming	1	13	0	13	12	0	12	25
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Fish processing and value addition	0	0	0	0	0	0	0	0
Total	**2**	**33**	**0**	**33**	**17**	**0**	**17**	**50**
IX Production of Inputs at site				0			0	0
Seed Production	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	0	0	0	0	0	0	0	0
Small tools and implements	0	0	0	0	0	0	0	0
Production of livestock feed and fodder	0	0	0	0	0	0	0	0
Production of Fish feed	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics				0			0	0

Leadership development	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	2	47	0	47	3	0	3	50
WTO and IPR issues	0	0	0	0	0	0	0	0
Total	**2**	**47**	**0**	**47**	**3**	**0**	**3**	**50**
XI Agro-forestry				0			0	0
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XII Others (Pl. Specify)				0			0	0
TOTAL	**27**	**391**	**131**	**522**	**104**	**49**	**153**	**675**
(B) RURAL YOUTH				0			0	0
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	1	21	0	21	4	0	4	25
Integrated farming	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	1	16	0	16	9	0	9	25
Integrated Farming (Medicinal)	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0
Training and pruning of orchards	0	0	0	0	0	0	0	0
Value addition	1	0	19	19	0	6	6	25
Production of quality animal products	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0
Para vets	0	0	0	0	0	0	0	0
Para extension workers	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Freshwater prawn culture	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Pearl culture	0	0	0	0	0	0	0	0
Cold water fisheries	0	0	0	0	0	0	0	0
Fish harvest and processing technology	1	0	0	0	0	25	25	25
Fry and fingerling rearing	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0

Tailoring and Stitching	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
TOTAL	**4**	**37**	**19**	**56**	**13**	**31**	**44**	**100**
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	1	20	0	20	5	0	5	25
Integrated Pest Management	1	20	0	20	5	0	5	25
Integrated Nutrient management	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Any other (Pl. Specify)	0	0	0	0	0	0	0	0
TOTAL	**2**	**40**	**0**	**40**	**10**	**0**	**10**	**50**
G. Total	**33**	**468**	**150**	**618**	**127**	**80**	**207**	**825**

Summary of Training Programme

ON Campus

(A) Farmers & Farm Women	**No. of couses**	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	1	17	3	20	3	2	5	25
II Horticulture	1	17	0	17	8	0	8	25
III Soil Health and Fertility Management	1	21	0	21	4	0	4	25
IV Livestock Production and Management	1	17	0	17	8	0	8	25
V Home Science/Women empowerment	2	0	38	38	0	12	12	50
VI Agril. Engineering	1	22	0	22	3	0	3	25
VII Plant Protection	1	16	2	18	4	3	7	25
VIII Fisheries	1	13	0	13	12	0	12	25
IX Production of Inputs at site	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics	1	22	0	22	3	0	3	25
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**10**	**145**	**43**	**188**	**45**	**17**	**62**	**250**
(B) RURAL YOUTH	3	37	19	56	13	6	19	75
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**15**	**222**	**62**	**284**	**68**	**23**	**91**	**375**

Off Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	2	39	0	39	11	0	11	50
II Horticulture	3	60	0	60	15	0	15	75
III Soil Health and Fertility Management	1	13	6	19	4	2	6	25
IV Livestock Production and Management	2	20	15	35	5	10	15	50
V Home Science/Women empowerment	3	0	58	58	0	17	17	75
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	4	69	9	78	19	3	22	100
VIII Fisheries	1	20	0	20	5	0	5	25
IX Production of Inputs at site	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics	1	25	0	25	0	0	0	25
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**17**	**246**	**88**	**334**	**59**	**32**	**91**	**425**
(B) RURAL YOUTH	1	0	0	0	0	25	25	25
(C) Extension Personnel	0	0	0	0	0	0	0	0
Grand Total (A+B+C)	**18**	**246**	**88**	**334**	**59**	**57**	**116**	**450**

Consolidated (On + Off Campus)

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	3	56	3	59	14	2	16	75
II Horticulture	4	77	0	77	23	0	23	100
III Soil Health and Fertility Management	2	34	6	40	8	2	10	50
IV Livestock Production and Management	3	37	15	52	13	10	23	75
V Home Science/Women empowerment	5	0	96	96	0	29	29	125
VI Agril. Engineering	1	22	0	22	3	0	3	25
VII Plant Protection	5	85	11	96	23	6	29	125
VIII Fisheries	2	33	0	33	17	0	17	50
IX Production of Inputs at site	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics	2	47	0	47	3	0	3	50
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**27**	**391**	**131**	**522**	**104**	**49**	**153**	**675**
(B) RURAL YOUTH	4	37	19	56	13	31	44	100
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**33**	**468**	**150**	**618**	**127**	**80**	**207**	**825**

Details of training programmes attached in **Annexure -I**

3.5. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	12	210	35	245	65	50	115	275	85	360
KisanMela	1	1200	250	1450	200	50	250	1400	300	1700
KisanGhosthi	10	300	125	425	200	100	300	500	225	725

Exhibition	5	4000	1000	5000	2000	800	2800	6000	1800	7800
Film Show	50	1500	400	1900	900	300	1200	2400	700	3100
Method demonstration	2	20	10	30	10	50	60	30	60	90
Farmers Seminar	5	250	40	290	80	10	90	330	50	380
Workshop	1	200	100	300	100	80	180	300	180	480
Group meetings	12	120	30	150	50	30	80	170	60	230
Lectures delivered as resource persons	55	8000	1500	9500	3000	1000	4000	11000	2500	13500
Newspaper coverage	5	0	0	0	0	0	0	0	0	0
Radio talks	1	0	0	0	0	0	0	0	0	0
TV talks	1	0	0	0	0	0	0	0	0	0
Popular articles	3	0	20	20	0	20	20	0	40	40
Extension Literature	7	2500	200	2700	1200	100	1300	3700	300	4000
Advisory Services	10	100	10	110	50	10	60	150	20	170
Scientific visit to farmers field	50	200	20	220	60	5	65	260	25	285
Farmers visit to KVK	80	300	20	320	40	10	50	340	30	370
Diagnostic visits	5	30	5	35	5	2	7	35	7	42
Exposure visits	1	30	0	30	10	0	10	40	0	40
Ex-trainees Sammelan	1	20	5	25	4	1	5	24	6	30
Soil health Camp	1	100	20	120	30	20	50	130	40	170
Animal Health Camp	1	50	10	60	20	5	25	70	15	85
Agri mobile clinic	1	3000	100	3100	1000	100	1100	4000	200	4200
Soil test campaigns	1	110	10	120	40	10	50	150	20	170
Farm Science Club Conveners meet	1	100	10	110	40	10	50	140	20	160
Self Help Group Conveners meetings	3	40	20	60	20	20	40	60	40	100
MahilaMandals Conveners meetings	6	10	50	60	10	40	50	20	90	110
Celebration of important days (specify)	3	150	40	190	60	30	90	210	70	280
KrishiMohostva	5	0	20	20	0	20	20	0	40	40
KrishiRath	3	40	0	40	20	0	20	60	0	60
Pre Kharif workshop	3	80	0	80	30	0	30	110	0	110
Pre Rabi workshop	7	250	40	290	100	30	130	350	70	420
PPVFRA workshop	1	20	10	30	10	5	15	30	15	45
Any Other (Specify)	5	220	20	240	90	10	100	310	30	340
Total	**358**	**23150**	**4120**	**27270**	**9444**	**2918**	**12362**	**32594**	**7038**	**39632**

3.6 Target for Production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-496	8
OILSEEDS	Groundnut	GJG-22	48
	Sesame	G.Til.-4	2

	Sesame	G.Til.-3	6
PULSES	Green gram	GM-4	2
VEGETABLES			
OTHERS (Specify)			

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
FRUITS			
SPICES			
VEGETABLES	Brinjal	GJLB-3,4	500
FOREST SPECIES			
ORNAMENTAL CROPS			
		Total	**500**

Bio-products

Sl. No.	Product Name	Species	Quantity	
			No	(kg)
BIO PESTICIDES				
1	Beauveria			5000
2	Trichoderma			3000
	PSB		100	
	Azaobactor		50	
	Rhizobium		50	
	Pheromone trap			
	NPV			

LIVESTOCK

Sl. No.	Type	Breed	Quantity	
			(Nos)	Unit
Cattle				
GOAT				
SHEEP				
POULTRY				
Pig farming				
FISHERIES	Advance Fingerlings	IMC	500	

4 Literature to be Developed/Published

A. KVK News Letter

Date of start : 01/01/2016

Number of copies to be published : e-publication

B. Literature developed/published

S.No.	Topic	Number
1	Research paper each scientist	1
2	Technical reports	3
3	News letters	4
4	Training manual all discipline	4
5	Popular article	6
6	Extension literature	5
	Total	**23**

C. Details of Electronic Media to be Produced

S. No.	Type of media (CD / VCD / DVD / Audio-Cassette)	Title of the programme	Number
1			

D. Success stories/Case studies identified for development as a case. -

a. Brief introduction
b. Interventions
c. Output
d. Outcomes
e. Impacti) Social economic, ii) Bio-Physical
f. Good Action Photographs

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

a) Focused group discussion with the farmers
b) Field visits
c) Identifying general trends in the area

Rural Youth

a) Filling up research based questionnaires
b) Identification of leader and role of rural youth in agriculture (Sociometric method)
c) Engagement of rural youth in agriculture
d)

In-service personnel

a) Knowledge test (Interview schedule)
b) Interaction with the personnel
c) b) Functional areas of personnel

5.2 Indicate the methodology for identifying OFTs/FLDs

For OFT :

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

For FLD :

i) New variety/technology
ii) Poor yield at farmers level
iii) Existing cropping system :- Coriander
iv) Others if any

5.3 Field activities

i. Name of villages identified/adopted with block name (from which year) -
ii. No. of farm families selected per village :
iii. No. of survey/PRA conducted :
iv. No. of technologies taken to the adopted villages
v. Name of the technologies found suitable by the farmers of the adopted villages:
vi. Impact (production, income, employment, area/technological– horizontal/vertical)
vii. Constraints if any in the continued application of these improved technologies

5.4 Activities of Soil and Water Testing Laboratory

Status of establishment of Lab:

1. Year of establishment :2005-06

2. List of equipments purchase with amount

Sl. No	Name of the Equipment	Qty.	Cost	Remarks
1	Spectrophotometer	1	89160	Not working
2	Flame photometer	1		Not working
3	Physical balance	1	10640	Not working
4	Chemical balance	1	100000	Not working
5	Water distillation still	1	96118	Not working
6	Kieldahi digestion and distillation	1	49644	Not working
7	Shaker	1	80080	Working
8	Grinder	1	16772	Working
9	Refrigerator	1		Working
10	Oven	1	30550	Working
11	Hot plate	1		Working
Total		11	472964	

3. Targets of samples for analysis:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount to be realized
Soil Samples	500	500	15	
Water	50	50	12	
Plant				
Total	**550**	**550**	**27**	

6. LINKAGE

6.1 Functional linkage with different organizations

Sr.	Name of organization	Nature of linkage
A	**Statecorporation and state deptt.**	
1	DistrictAgriculturalOfficer, Deptt. of Agriculture, District Panchayat, Jamnagar	➢ Joint diagnostic teamvisit at farmers field ➢ Organizing collaborative trainingto farmers ➢ For collaborative off campus training ➢ For collaborative training and demonstrationProgramme ➢ Collaborative on campustrainingprogramme ➢ For providing hostelfacilitiesto participants and organizing collaborative MahilaKrishiMela
2	DistrictRuralDevelopment Agency, Jamnagar	
3	DeputyDirector of Veterinary, Department of veterinary &Animal Husbandry, Jamnagar	
4	DeputyDirector of Horticulture, Jamnagar	
5	DeputyDirector of Agriculture (Training), Farmer Training Centre, Jamnagar	
6	DeputyDirector of Agriculture (Extension), Jamnagar	
7	Asstt. Director of Fisheries, Jamnagar	
8	RangeForest Officer, Jamnagar	
9	Asstt. Director of GLDC, Jamnagar	
10	Estate Engineer, Department of Irrigation, Jamnagar	
11	All TalukaDevelopmentOfficers, and their team at Talukalevel	
12	Rajkot-Jamnagar Gramin Bank, Jamnagar	
13	Project Director, ATMA, Jamnagar	
14	Project Director, DWDU, Jamnagar	
B	**Private Corporation**	
1	Territory Manager, GSFC, Jamnagar	➢ Imparttraining on Agril. aspects
2	Territory Manager, GNFC, Jamnagar	
3	Territory Manager, IFFCO, Jamnagar	

4	Reliance Industries, Dept. of Green Belt, Jamnagar	➢ Collaborative on/off campustrainingprogramme ➢ Sponsortrainingprogramme
C	**NGOs**	
1	Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad	➢ Imparttraining on Agril. aspects ➢ Collaborative on/off campustrainingprogramme
2	V.D.R.F. Trust, Momai Xerox, B.P. Road, Bhanvad	
3	Late J.V. Nariya Educational and Charitable Trust, 49, Modern Market, First Floor, Nr. Amber Cinema	
4	Jay AshapuraCharitable Society, MadhavNivas, Karmachari Society, Trikonban, Dhrol (Dist.-Jamnagar)	
5	Shekhpat Jalstrav Vikas Mandal, At.-Shekhpat, Post-Aliyabada, Ta.&Dist.-Jamnagar	
6	LakhtarJalstravGramVikas Trust, 55, Shiv Complex, At.- Bhadra (Patiya), Ta.-Jodia, Dist.- Jamnagar	
7	Umiya Mataji Mandir Trust, At.- Sidsar, Ta.-Jamjodhpur, Dist.-Jamnagar	
8	Shardapith Education Trust, 104-Shrusti complex, Nr. Gurudwara, Jamnagar	
9	Chachara Education & Charitable Trust, 104- Shrusti complex, Nr. Gurudwara, Jamnagar	
10	Tata Chemical Societyfor Rural Development Foundation, At. Mithapur, Ta.-Dwarka, Dist.-Jamnagar	
11	Agakhan Rural Development Trust	
12	ANARDE foundation trust	

6.2 Details of linkage with ATMA

a) Is ATMA implemented in your district (Yes/No) :- Yes

S. No.	Programme	Nature of linkage	Remarks
1	District Level Training	Impart Training on Agricultural Aspects	Celeberate Technology week Arrangement of KrishiMela
2.	Block level training	Lecture delivered	
3.	Village level training		

6.3 E-linkage during 2018-19

S. No	Nature of activities	Likely period of completion (please set the time frame)	Remarks if any
1	ERNET	2008	Not connected and not in working condition
2	JAU Website	2006	Continuous updated
3	ICAR Website	2017	Entry of all activity on web portal

6.4 Give details of programmes implemented under National Horticultural Mission

S. No.	Programme	Nature of linkage	Constraints if any
1	-	-	District is not inovolve in NHM

6.5 Nature of linkage with National Fisheries Development Board

S. No.	Programme	Nature of linkage	Remarks
1.	-	-	-

6.6 Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL etc.) / schemes during 2018-19

S.No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved

7.0 Convergence with departments :

Sr.	Name of organization	Nature of linkage
	1. ATMA 2. DWDU 3. DAO 4. DRDA 5. GGRC 6. NABARD 7. SPICE BOARD 8. STATE HORTICULTURE 9. CENTRAL WEREHOUSE 10. TATA CHEMICAL 11. ENARDE Foundation	➢ Organizing collaborative training to farmers ➢ For collaborative off campus training ➢ For collaborative training and demonstration Programme ➢ Collaborative on campus training programme ➢ For providing hostel facilities to participants and organizing collaborative MahilaKrishiMela ➢ Celebrating important days and programmes by central government as well as state government ➢ Field visit to gather ➢ Diagnostic visit on farmers field with line department

8. Innovator Farmer's Meet 2018- 2019

Sl.No.	Particulars	Details
	Are you planning for conducing Farm Innovators meet in your district?	Yes/ No
	If Yes likely month of the meet	September
	Brief action plan in this regard	Organic farm innovators & pomegranate cultivator of this area were invited for the meet.

9. Farmers Field School (FFS) planned 2018-2019

S. No	Thematic area	Title of the FFS	Budget proposed in Rs.
1	Nil	Nil	Nil

10. Technical feedback

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

- Demonstrated new variety
- Introduction of newer crop by KVK through different FLD as well as OFT
- Information of any crop diversification get from KVK
- Frequently visit to farmers
- Telephonic information is available 24 hours through scientist mobile

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

- Grant for the contingency for handling diferentprogrammes is in sufficient
- Limit of food provision during training and other cost should be increase along with stipend and transportation fascility (Approximately Rs. 500 to 1000 per head per training required)
- Timely release of grant for successful and perfect conducting of FLD and OFT
- Required new vehicle for field visit and other extension programme. It is also required minimum two vehicle in KVK due to work load and it is among farmers field
- Contingency grant is in sufficient (It should be minimum 30 lakhs per KVK)
- Provide grant for farm protection wall and other infrastructure fascilities

11. Utilization of hostel facilities

S. No.	Programme	No. of days
1	As per requirement	
2		
	Total	

12. ACTION PLAN OF INFRASTRUCTURE IN KVK

A. Action plan of demonstration units (other than instructional farm)

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production (expected)			Expected Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Crop Cafeteria	Every year	0.5	-	-	-	100000	-	
2	Vermicompost	2008	0.1	-	-	-	50000	70000	
3	Animal unit	2007	0.25	Gir	-	-	200000	300000	

B. Action plan of instructional farm (Crops) including seed production

Name of the crop	Area (ha)	Details of production (expected)			Expected Amount (Rs.)		Remarks
		Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals							
Wheat	3	GW-496	Seed	150	180000	300000	
Pulses							
Green gram	3	GM-4	Seed	15	85000	115000	
Oilseeds							
Groundnut	4	GJG-22	Seed	75	190000	350000	
Sesame	3	G.Til.-3	Seed	15	70000	100000	
Fibers							
Spices & Plantation crops							
Coriander	1	Guj.Cor.-2	Seed	16	35000	65000	
Floriculture							
Fruits							
Vegetables							
Others (specify)							

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

Sl. No.	Name of the Product	Qty (expected)	Expected Amount (Rs.)		Remarks
			Cost of inputs	Gross income	
1	Nil	-	-	-	As per the requirement

D. Action plan of instructional farm (livestock and fisheries production)

Sl. No	Name of the animal / bird / aquatics	Details of production (expected)			Expected Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Cow	Gir	Milk	2500 lit	100000	100000	
			FYM	50 ton		20000	

Annexure - I

TRAINING PROGRAMMES

i) Farmers & Farm women (On Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
	PF	Doubling farmers income through Scientific production technology of major *kharif* crops (Pigeon pea, Cotton, Groundnut)	4	17	3	20	3	2	5	25
Horticulture										
	PF	Production Technology of major horticultural crops of the district (Pomegranate, papaya, spices and condiments)	4	17	0	17	8	0	8	25
Livestock prod.										
	PF	Additional income generation through Animal husbandry by Higher Milk Production by Improving breed, Nutrition & Feed Management.	4	17	0	17	8	0	8	25
Agril. Engg.										
	PF	Importance and benefits of farm machinery in Crop production	4	22	0	22	3	0	3	25
Home Sc.										
	PF	Women and Child Care	4	0	22	22	0	3	3	25
	PF	Location specific drudgery reduction technology	4	0	19	19	0	6	6	25
Plan prot.										
	PF	IPM and IDM in vegetable, groundnut & cotton crops	4	16	2	18	4	3	7	25
Fisheries										
	PF	Activity to doubling the income in brackish water Aquaculture-Shrimp farming : culture, feed management, diseases and its prevention	4	13	0	13	12	0	12	25
Soil Health										
	PF	Use of bio fertilizers and recycling of farm waste through composting for enhancing farmers income	4	21	0	21	4	0	4	25
Capacity building										
		Agro Tourism A new concept of modern Agriculture	4	22	0	22	3	0	3	25

ii) Farmers & Farm women (Off Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
	PF	Organic farming : A step towards doubling farmers income	4	22	0	22	3	0	3	25
	PF	Crop production technology of summer green gram, sesame and groundnut	4	17	0	17	8	0	8	25
Horticulture										
	PF	Production Technology of Vegetable crops for doubling the income of farmers	4	19	0	19	6	0	6	25

	PF	Production Technology of spices and condiments (Coriander, cumin, ajwain)	4	19	0	19	6	0	6	25
	PF	Scientific production of fruit crops (Pomegranate, papaya, ber, date palm)	4	22	0	22	3	0	3	25
Livestock prod.										
	PF	Importance of nutrients and feed management in animal husbandry to increase milk production and diseases control.	4	0	15	15	0	10	10	25
	PF	Importance of selection, housing, feed, breeding and health of animals for more profits in dairy industries.	4	20	0	20	5	0	5	25
Agril. Engg.										
	PF									
Home Sc.										
	PF	House hold food security by kitchen gardening and nutrition gardening	4	0	19	19	0	6	6	25
	PF	enhancing farmers income through Income generation activities for rural Women	4	0	20	20	0	5	5	25
	PF	storage loss minimization techniques and food processing and value addition in fruit, vegetable, spices and other agricultural produce	4	0	19	19	0	6	6	25
Plan prot.										
	PF	IPM & IDM in protected cultivation & Role of Bio agent in Insect pest management	4	20	0	20	5	0	5	25
	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	4	21	0	21	4	0	4	25
	PF	IPM & IDM in fruit, vegetable and rabi field crops	4	15	5	20	4	1	5	25
	PF	Store grain pests and its management	4	13	4	17	6	2	8	25
Fisheries										
	PF	Doubling the income in inland fisheries sector by selling/stocking fish seeds, rearing in pan culture system	4	20	0	20	5	0	5	25
Soil Health										
	PF	Integrated Nutrient Management in Coriander, gram and cumin	4	13	6	19	4	2	6	25
Capacity building										
		Role of ICT for Agriculture Development to double income of farmers	4	25	0	25	0	0	0	25

ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Fishries	See weeds	A natural resources for additional income generation in fisheries sector -Sea weeds : types, importance, culture technique and various use	July	4	0	0	0	0	25	25	25
Fruit and Vegetable	Value addition	Value addition in fruits, vegetables and agriculture produce for doubling farmers income	Octo	4	0	19	19	0	6	6	25
Honey bee	Bee keeping	Bee keeping	Octo	4	21	0	21	4	0	4	25
Organic Farming	Organic farming	Production of organic input at a site	Jan	4	16	0	16	9	0	9	25

iii) Training programme for extension functionaries

Date	Clientele	Title of the training programme	Duration in days	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
On Campus										
	EF	Pre-seasonal training on *kharif* crops (Pigeon pea, Green gram, Groundnut, Cotton)	4	20	0	20	5	0	5	25
	EF	Crop production technology in Cumin, Gram, Wheat, Onion, Garlic	4	20	0	20	5	0	5	25

Quarter and discipline wise summary of training programme :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP		1			**1**	1			1	**2**	**3**
II Horticulture	HO				1	**1**	1	1	1		**3**	**4**
III Soil Health and Fertility Management	SFM	1				**1**			1		**1**	**2**
IV Livestock Production and Management	LPM		1			**1**			1	1	**2**	**3**
V Home Science/Women empowerment	WOE	1				**1**	1	1	1	1	**4**	**5**
VI Agril. Engineering	AEG	1				**1**					**0**	**1**
VII Plant Protection	PLP		1			**1**	2	1		1	**4**	**5**
VIII Fisheries	FIS		1			**1**			1		**1**	**2**
IX Production of Inputs at site	PI					**0**					**0**	**0**
X Capacity Building and Group Dynamics	CBD	1				**1**			1		**1**	**2**
(B) Extension Functionaries	EF	1		1		**2**					**0**	**2**
(C) Rural youth				1	1	**2**	1		1		**2**	**4**
Total		**5**	**4**	**2**	**2**	**13**	**6**	**3**	**7**	**4**	**20**	**33**

iv) Sponsored programme

Discipline	Sponsoring agency	Clientele	Title of the training programme	No. of course	No. of participants			Number of SC/ST			G. Total
					M	F	T	M	F	T	
a) Sponsored training progdramme											
AEG	ATMA	PF	Importance of MIS	2	80	0	80	20	0	20	100
PLP	ATMA	PF	Kharif crop protection and production technology	3	100	40	140	10	10	20	160
SFM, AEG	AGAKHAN	PF	INM and MIS in rabi crops	2	50	50	100	5	5	10	110
PLP	DAO	PF	Integrated pest and diseases management in cumin	1	60	0	60	0	0	0	60
PLP	ATMA	PF	IPM & IDM in groundnut, cotton crops	1	55	0	55	5	0	5	60
PLP	DAO	PF	IPM, IDM, INM in groudnnut and cotton	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP	Dy.D.Hort.	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	DWDU	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP, CP	ATMA	PF	Seed Production technology and IPM in these crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	Storage Techniques and IPM in summer crops	1	0	55	55	0	5	5	60
			Total	16	675	145	820	70	20	90	910
b) Sponsored research programme											
			Total								
c) Any special programmes											
			Total								

Annexure-II

NEW TECHNICAL PROGRAMME

Proposal 1 : (Plant Protection)

1.	Title	:	**Knowledge of farmer about integrated management of pink bollworm in cotton**
2.	Name of the lead organization	:	Krishi Vigyan Kendra, JAU, Jamnagar
3.	Name of Principle investigator	:	1. Dr. V. C. Gadhiya, Scientists (Plant Protection) 2. Dr. K. P. Baraiya, Senior Scientist & Head 3. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh
	Name of Co-investigator		1. Dr. P. S. Gorfad, Scientists (Extension) 2. Shri. S.H. Lakhani, Scientists (Agronomy)
4.	Problem statements (Sources of problems & clear statement of problem)	:	Major attack/damage of Pink Bollworm in cotton crop during last three year.
5.	Introduction	:	Cotton crop is major crop grown in Jamnagar district. Cotton cultivation is a very important part of Indian Agriculture accounts for about 33% of the global cotton area contributing 22% of the world production. About 6 million farmers cultivate cotton and about 40-50 million people are directly or indirectly employed by the cotton industry accounts for around 59% share of the raw material consumption of the Indian textile industry. But the cotton crops are suffering from various insect, pest, disease, weed and Nutrient deficiency among them the pest attack create more losses throughout their production and farmers uses various pesticide for production of cotton. Since last three year pink bollworm is became headache for farmers. Hence, present investigation will be made for determination knowledge of farmer about integrated management practices of pink bollworm in cotton. In view of this scenario, the present study will be therefore designed with the following specific objectives
6.	Objective	:	1. To study the socio-economic character of the selected cotton growers 2. To access the source of information by cotton growers 3. To know the knowledge level of cotton growers on pink bollworm management and constrains faced by them. 4. To seek suggestion from cotton growers to overcome such constraints.
7.	Methodology	:	1. Selection of ten Block: Out of 10 Block six from Jamnagar and four from Devbhumi Dwarka district will be selected. 2. Selection of two Village (2 from each Block): Random sampling method. 3. Selection of farmers (Total: 200), 10 cotton growers from each village. 4. Knowledge interview schedule. 5. Personal interview (questionnaire fill). 6. Data collection, Analysis

Proposal : 2 (Agronomy)

1.	Title	:	**Adoption of recommended practices of Pomegranate Growers**
2.	Name of the lead organization	:	Krishi Vigyan Kendra, JAU, Jamnagar
3.	Name of Principle investigator	:	1. Mr. S. H. Lakhani, Subject Matter Specialist (Agronomy) 2. Dr. K. P. Baraiya, Senior Scientist & Head 3. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh
	Name of Co-investigator		1. Dr. P. S. Gorfad, Subject Matter Specialist (Extension) 2. Smt A. K. Baraiya, Subject Matter Specialist (Home Science)
4.	Problem statements (Sources of problems & clear statement of problem)	:	Removal of large number of Pomegranate orchard in Jamnagar districts in last two years
5.	Introduction	:	Pomegranate is being planting in all blocks of Jamnagar district. Pomegranate is one of the major horticultural crop in Jamnagar district. Major problems in pomegranate are climate change, price, pest and diseases. Farmers did not get good prices for their product. So in last two years pomegranate grower eradicating their pomegranate orchards and started growing other agricultural crops. Therefore, the present study was conducted to know the constraints faced by Pomegranate Growers of Jamnagar district with the following specific objectives.
6.	Objective	:	1. To study the profile characteristics of the selected pomegranate growers 2. To study level of adoption of respondents about recommended pomegranate production technology 3. To find out the constraints faced by pomegranate grower in management practices of pomegranate. 4. To seek suggestion from pomegranate growers to overcome such constraints.
7.	Methodology	:	1. Farmers will be selected from each block of Jamnagar district.(Jamnagar, Lalpur, Kalavad, Jamjodhpur, Dhrol and Jodiya) 2. Total 30 Villages will be selected (5 villages from each Block) by using random sampling method. 3. To study the knowledge and adoption level. 4. Selection of farmers:5 pomegranate growers will be selected from each village(Total: 150). 5. To collect data from respondents Personal interview schedule (questionnaire) will be used. 6. Analysis, Reporting

Proposal 3 (Home Science)

1	Title	:	**Knowledge level of rural women regarding weaning food for infant in Jamnagar District**
2	Background information	:	In India, infants are breastfed during the first six months provided the mother can produce enough breast milk to satisfy the hunger needs of the baby. The growth rate of breastfed infants is quite satisfactory during this period. Many types of research have proved that breastfeeding alone is enough during the early stages of an infant for growth and health. After six months of age, the nutrients and energy requirement of infants cannot be met only by the feeding breast milk. The mother's milk does not meet the calorie and protein requirements of the increasing growth spurt, also the quantity of the milk produced by the lactating mother starts to diminish. Breast milk is a poor source of Vitamin C & D. The iron stored in the liver of the infant lasts only until the 5th or the 6th month. So it becomes imperative to start supplementary feeding to maintain the rate of growth of the infant, beyond six months. The weaning foods or supplementary foods help the infants to be well nourished, be healthy and also improve their immunity. **Weaning** – Weaning is the process of introducing supplementary food to an infant who has been exclusively breastfed till that time and goes on till the infant is off the mother's milk. Weaning is considered an important part of a child's growth from a nutritional angle. After introducing supplementary foods for nourishing the infant, the number of latching sessions to the mother's milk need to be gradually reduced. Foods should be prepared and given in a safe manner, meaning that measures are taken to minimize the risk of contamination with pathogens. And they should be given in a way that is *appropriate*, meaning that foods are of appropriate texture for the age of the child and applying responsive feeding following the principles of psycho-social care.
3	Objective	:	➢ To study the personal and social variable of respondents ➢ To study the knowledge of rural women regarding feeding and weaning food practices in infant ➢ To assess training need of women about weaning food for infant.
4	Principal Investigator	:	1. Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar 2. Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar 3. Dr. A. M. Parakhia, Director of Extension Education, JAU, Junagadh
	Name of Co-investigator		1. Dr. P. S. Gorfad, Scientist (Extension Education), KVK, JAU, Jamnagar 2. Mr. S. H. Lakhani, Subject Matter Specialist (Agronomy)
5	Location	:-	Jamnagar District
6	Year of Commencement	:	2018-19
6.	Experimental Detail/ Methodology	:	The study area of this research programme will be all six blocks viz., Jamnagar, Jodia, Dhrol, Kalavad, Lalpur and Jamjodhpur of Jamnagar District. From each taluka five villages and from selected villages five women will be selected randomly for the study. Thus, total of 150 women will constitute the sample size for this study. For collection of data personal interview technique will be use. Data will be collected with the help of structured interview schedule. Frequencies, percentage and mean percent score will be used for analysing the data statistically.

Annexure - III

Budget - Details of budget utilization (2017-18) up to 31 March 2018

S. No.	Particulars	Sanctioned	Released	Expenditure
13.1	**Recurring Contingencies**			
13.1.1	**Pay & Allowances**	9053000	9053000	8304894
13.1.2	**Traveling allowances**	200000	200000	76668
13.1.3	**Contingencies**	1030000	1030000	1029977
13.1.4.1	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance	300000	300000	299498
B	POL, repair of vehicles, tractor and equipments			
C	Meals/refreshment for trainees	100000	100000	102000
D	Training material	85000	85000	83453
E	Frontline demonstration except oilseeds and pulses	355000	355000	355630
F	On farm testing	85000	85000	87681
G	Training of extension functionaries	30000	30000	30652
H	Maintenance of buildings	75000	75000	71063
I	Establishment of Soil, Plant & Water Testing Laboratory	0		
J	Library	0		
13.1	**Total Recurring**	10283000	10283000	9411539
13.2	**Non-Recurring Contingencies**			
13.2.1	**Works**	0	0	0
13.2.2	**Equipments including SWTL & Furniture**	0	0	0
13.2.3	**Vehicle** (Four wheeler/Two wheeler, please specify)	0	0	0
24.2.4	**Library**	0	0	0
13.2	**TotalNon Recurring**	**0**	**0**	**0**
13.3	**REVOLVING FUND**	0	0	0
13.4	**GRAND TOTAL (A+B+C)**	**10283000**	**10283000**	**9411539**

Details of Budget Estimate (2018-19) based on proposed action plan

S. No.	Particulars	BE 2018-19 proposed (Rs.)
14.1	**Recurring Contingencies**	
14.1.1	**Pay & Allowances**	**9500000**
14.1.2	**Traveling allowances**	**200000**
14.1.3	**Contingencies**	**2800000**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	500000
B	POL, repair of vehicles, tractor and equipments	300000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	400000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	100000

E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	500000
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	200000
G	Training of extension functionaries	300000
H	Maintenance of buildings	400000
I	Establishment of Soil, Plant & Water Testing Laboratory	80000
J	Library	20000
14.1	**TOTAL Recurring Contingencies**	**12500000**
14.2	**Non-Recurring Contingencies**	
14.2.1	**Works**	55800000
14.2.2	**Equipments including SWTL & Furniture**	2150000
14.2.3	**Vehicle** (Four wheeler/Two wheeler, please specify)	2000000
14.2.4	**Library** (Purchase of assets like books & journals)	50000
14.2	**TOTAL Non-Recurring Contingencies**	**60000000**
14.3	**REVOLVING FUND**	0
14.4	**GRAND TOTAL**	**72500000**