# **ACTION PLAN**

(April-2019 to March-2020)

# TO BE PRESENTED AT ANNUAL ACTION PLAN WORKSHOP OF KVKs OF GUJARAT

ORGANIZED BY

DIRECTOR, ATARI ZONE-VIII, ICAR, PUNE

HELD AT

NAVSARI AGRICULTURAL UNIVERSITY,

NAVSARI

During MARCH 1-2, 2019

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



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### ANNUAL ACTION PLAN (April-2019 to March- 2020) KRISHI VIGYAN KENDRA JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

### **1. GENERALINFORMATIONABOUT THE KVK**

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

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

\* 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	Teleph	one	E-mail	Mah address	
Address	Office	FAX	E-mail	Web address	
JunagadhAgricultural 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

	Telepho		
Name	Residence	Mobile	Email
Dr. K. P. BARAIYA	Senior Scientist & Head KrishiVigyan Kendra JunagadhAgricultural 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 31<sup>st</sup>, 2001

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

### 1.5. Staff Position (as on 31<sup>st</sup>March, 2019)

SI. No.	Sanctioned Name of the post incumbent		Discipline	Discipline If Permanent, Pleasindicate			If Temporary, pl. indicate the
	-			Current Pay Band	Current Grade Pay	joining	consolidated amount paid (Rs./month)
1	Senior Scientist & Head	Dr. K.P. Baraiya	Plant Protection	37400-67000	9000	17.08.2006	
2	Scientist	Shri S. H. Lakhani	<b>Crop Production</b>	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	Vacant	ExtensionEducation	15600-39100	6000		
6	Scientist	Dr. J. N. Thaker	Fisheries	15600-39100	8000	31.08.2006	
7	Scientist	Smt. A. K. Baraiya	Home Science	15600-39100	8000	17.08.2006	
8	Farm Manager	Shri H. S. Godhani	Agril. Ent.	39900- 126600	-	19.09.2015	38090/-

9	ProgrammeAss istant	Shri A. B. Parmar	Agril.	39900- 126600	-	17.10.2018	38090/-
10	Computer	Shri C. P.	Computer	39900-	-	29.12.2008	
	Programmer	Padhiyar	Operator	126600			
11	Accountant /	Shri B. H. Joshi	Adm.	39900-	-	11.6.2008	
	Superintenden			126600			
	t						
12	Stenographer	Vacant	Adm.	19900-63200		-	
13	Driver	Vacant	Supt.	19900-63200		-	
14	Driver	Shri. D.M.	Supt. (Fix)	19900-63200		9.10.2007	
		Chauhan					
15	Supporting	Shri B. V.	Supt.	14800-47100		01.11.2014	
	staff	Bamaniya	-				
16	Supporting	Shri P. S. Damor	Supt.	14800-47100		1.09.2006	
	staff		-				

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

SI. 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

			Stage						
SI.		Sourceof	Complete				Incomplete		
31. No.	Name of building	funding	Completion Date	Plinth area (Sq.m)	Expen- diture (Rs.)	Star- ting Date	Plinth area (Sq.m)	Status of const- ruction	
1.	Administrative Building	кvк	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	I	-		
9	Implement shed	RKVY	11-2-10	77.33	297800	-	-	-	
10	Rain Water harvestingsystem	KVK	31-3-2007	26m×26m (2Ponds)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	482935	Working (it is required to be rightoff)
Hero Hondasplender(bike) GJ-10 BB-1634	2010-11	46475	20989	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	00000	Working
Grinder	2005-06	80080	Working
Refrigerator	2005-06	16772	Working
Oven	2005-06		Working
Hot plate	2005-06	30550	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			Working
indicator cum controller	2012	34750	5
Digital TDS meter	2012	3985	Working

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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 SAC meeting conducted in the year

SI.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 14<sup>th</sup> SAC is as under:

 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 <i>kharif</i> crop production technology, IPM and IDM during second	nd
	quarter instead of first quarter.	
	> Arrange training on organic farming and bio-fertilizer and recycling of farm waste dur	ing
	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 <i>Jivamrut</i> .	
4.	Dr. M. D. Khanpara, Research Scientist (Pearl Millet), Pearl Millet Research Stati	on,
	JAU, Jamnagar suggested to arrange OFT on cotton picking kit.	
5.	Shri C. O. Lashkari, Deputy Director of Horticulture, Jamnagar & DevbhumiDwa	<sup>-</sup> ka
	suggested for arrange training on pomegranate in collaboration with Horticult	ıre
	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<sup>2</sup> 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 severe intensity 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.

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Sr. No.	Details	JAMNAGAR		DEVBHUN	1I DWARKA	
1	Total geographical area	6.075 lakh ha.		4.07509 lakh ha	э.	
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	Э.	
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)		
	Totalpopulation	13.89 lakh (2011)		7.48 lakh (2011)		
10	(a) Male	7.18lakh .		3.84lakh .		
	(b) Female	6.71 lakh		3.64lakh .		
11	Literacypercentage	Rural	Urban	Rural	Urban	
11	a. Male	86.95	79.55	76.14	80.74	
	b. Female	76.22	62.18	55.41	61.36	
		6 (Six),		4 (Four)		
		Jamnagar		Jamkhambhalia		
12	Number of talukas	Dhrol		Jamkalyanpur		
12	Number of talukas	Jodiya		OkhaMandal (Dwarka)		
		Kalavad		Bhanvad		
		Lalpur				
		Jamjodhpur				

### Basicinformation of operational district, Jamnagar and DevbhumiDwarka:

### 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		Cumin, Fennel, Coriander, ajwan, Ishabgul
		condiments	•	Cullini, i enner, conander, ajwan, isnabgui
		Vegetables		Onion, garlic, potato, chilli, binjal, tomato, cauliflower,
		Vegetables	•	Cowpea, cabbage, okra, peach, cucurbits etc
				Chiku, pomegranate, lemon (Citrus), Jamun, Aonla, guava,
		Horticulture	:	custard apple, papaya, coconut, ber, Almond, Banana, Dragon
				fruit, Drum stick
		Floriculture	:	Rose, merry gold, vevanti, etc
		Other Crops	:	Chikori, Fenugreek, Mulberi neem
2	Live	Bullocks and cows		
	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–		The influence area of North SaurashtraAgroclimatic Zone is spread among five districts
VI	Saurashtra	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 – Ecological situation 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

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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.

SI. No.	Agro EcologicalSitu ation	Soilte xture	Altitude	Principal crops	Specialfeatu res	Approximate area (000ha)	Taluka included	Characteristi cs
AES- 1	Shallow Black soils with 500-600 mm Rainfall	Sandy clay loam to clayey	75 – 150	, wheat, sorghum,	Well drained soils with rapid permeability	124	Kalawad, Jamjodhpur, Bhanvad, Okha	Moisturestre ss, temperatures tress
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	Moisturestre ss, 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 Alluvialshallo w black soils with 300-400 mm Rainfall	Sandy Ioam toclay Ioam	0-25	Sorghum, Pearlmillet, Groundnut , Sesamum	Aridclimate	31	Okha	Known salinityforgen us ephedra 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 desired from 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

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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.

	Soiltype	or the soils of Jamhagardistrict are as under. Characteristics	Area in ha
-	Shallow	These soils have developed from basaltic trap especially from granite and	124000 ha
	black	gneiss parent materials. They light grey in colour. Taxonomically, they are	(Kalawad,
	soils	classified as <i>Ustorthents</i> and <i>Ustochrepts</i> . Soils depth varies for cm to 45 cm.	Jamjodhpur,
		They are gravelly but mainly they are sandy clay loam to clayey in texture. The	Bhanvad,
		clay on tent in surface soil varies from 20% to 77.49% and calcium carbonate	Okha)
		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.	
2.	Medium		180000 ha
	black	Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium	(Part of
	soils	black soils. These residual soils have basaltic trap parent materials. These	Kalyanpur,
		soils vary in depth from 30 to 60 cm or more at few places. They are	Jamnagar,
		calcareous in nature. A layer of murrum (Unconsolidated material of	Jamkham-
		decomposed trap and limestone) is generally found in sub soil layer. The	bhalia, Lalpur,
		drainage does not pose any problem, because of porous sub soil layer.	Dhrol, Jodia)
		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.	
		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	Saline alkali souls are extensively distributed on the coastal are3a as well as	181000 ha
		inlands. These soils are located in the districts of Jamnagar (Jodia, part of	
	ls	Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils	Okha,
		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	Jamnagar)
		coastal areas). The souls are classified as <i>Fluvaquents, Halaquents,</i>	
		and <i>Haplaquents</i> (Entisol): <i>Haplaquents</i> and <i>Haptaquepts</i> in order – <i>Inceptisol</i> .	
		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 <sup>H</sup> 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.	
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 <sup>H</sup> 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as <i>Halaquents</i> and <i>Haplaquents</i> – Entisol and <i>Helaquepts</i> and <i>Hapdaquents</i> 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 <i>Ustorthents</i> and those near foothills and valley are comparatively deeper can be placed under <i>Ustochrepts</i> and can be classified under estisol and <i>Inceptisol</i> orders respectively.	(Some part of Bhanvad and

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

S. No	Сгор	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
55	Total Vegetable	15025	2182920	110.5
	FRUIT CROPS	15025	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
40	Papaya	483	301880	62.5
47	- · ·	505	42470	84.1
	Coconut			
49	Ber Kharok	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
~~~	Sorghum	16660	2499000	150
68	Serginam			

20675

# Total Fodder crops

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

### 2.5. Weather data (January-18 to March-19)

	Weekly mean Weather data-at JAU,Jamnagar during-2018									
Week No	Tem	np. °c		R.H.%	ws	BSS	Eo	Rain	Rainy	
	Max	Min	I	11	(kmph)	(hrs)	(mm)	(mm)	Days	
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			
14-A	34.7	21.9	88	35	9.3	9.5	9.1			
15	35.7	24.2	88	46	9.8	9.5	9.2			
16	36.3	24.0	80	31	9.8	10.6	9.3			
17	37.1	23.6	74	30	9.8	10.6	9.3			
18	36.6	25.9	78	37	13.2	10.3	9.6			
19-M	35.7	26.0	85	48	11.8	10.5	8.7			
20	36.5	26.7	84	46	14.8	10.2	9.3			
21	37.3	27.3	81	44	13.3	11.1	9.4			
22	35.6	28.2	82	45	14.4	11.0	9.0			
23-J	35.6	29.2	77	51	16.9	10.6	9.2			
24	36.0	29.3	77	49	18.9	10.6	9.2			
25	35.1	28.3	78	56	15.8	10.6	8.8	22.0	2	
26 27-J	35.7	27.8	81 79	55 59	12.5	5.0	7.0	22.0	2	
	35.2	27.6	84		14.7 12.7	6.4 1.1	6.5 5.2	3.0 3.0	1	
28 29	33.8 31.1	27.5 26.2	93	65 78	12.7	0.4	4.3	251.0	1 4	
30	31.1	26.2	86	63	12.4	2.0	4.3	251.0	4	
31	33.2	26.9	85	61	15.7	2.0	4.7			
32-A	31.8	26.1	87	67	12.7	2.9	4.9	7.5	1	
33	31.1	26.1	90	78	11.6	0.7	4.7	31.0	2	
34	30.4	24.8	93	78	9.2	2.4	3.6	32.5	2	
35	30.4	24.3	91	75	8.4	2.4	3.8	9.5	2	
36-S	30.3	23.5	89	61	8.9	6.4	4.3	10.5	1	
37	30.3	23.5	87	59	7.2	6.9	4.5	10.5		
38	31.6	24.4	85	53	8.5	9.2	4.9			
39	34.1	22.5	93	42	6.2	8.5	4.8			
40-0	37.3	23.6	86	30	3.9	9.4	5.5			
41	37.4	23.5	81	26	3.4	8.2	5.8			
42	36.0	21.6	90	25	3.7	9.1	5.3			
43	-	-		1			1	1		
44			1					1		
45-N			1					1		
46										
47										
48										
49-D										
50								1		
51								1		
52										
Mean	33.1	22.7	84	44	10.0	8.3	6.2	370.0	15	
Highest	38.6	29.3	95	79.29	21.7	32.6	9.6			

Lowest	25.9	10.9	70	18	3.4	0.4	3.1		
* Courses Mate	Courses Matagenelagies above stary Millet Desearch Station 1011 Jampager								

\* 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)

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

### 2.8 Priority thrust areas

SI. No	Crop/ Enterprise	Thrustarea
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	<ul> <li>Integrated Crop Management in major crops</li> <li>IPM &amp; IDM in major field crops</li> <li>Whitegrub management in Groundnut</li> <li>Wireworm management in garlic &amp; Onion</li> <li>Micronutriet management in wheat</li> </ul>
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

0	FT	FLD				
()	1)	(2)				
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers			
7	22	174	448			

Trai	ning	Extension Activities				
(	3)	(4)				
Number of Courses	Number of Participants	Number of activities	Number of participants			
47	1225	358	39632			

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (Nos)	Soil Samples
(5)	(6)	(7)	(8)
264	500	500	550

# **3.1.** B. Operational areas details proposed during 2019-20

S.No.	Major crops &	Prioritized problems in these	Extent of area	Names of Cluster	Proposed
	enterprises	crops/ enterprise	(Ha/No.)	Villages identified for	Intervention
	being		affected by the	intervention	(OFT, FLD,
	practiced in		problem in the		Training,
	cluster villages		district		extension activity
					etc.)*

1	Groundnut	Lower yield, replacement of old	300000 ha.	Chandragadh,	OFT, FLD and
T	Groundhut	variety	500000 Ha.	Khojaberaja,	Training
		valiety		Lothiya,NaniBanugar,	irannig
				Suryapara, Gadhka,	
				Patelka, Haripar,	
				Juvanpur, Jampar	
2	Chilli	Thrips, Curling of leaves, nutritional	1500 ha		OFT and Training
2	Clinin	deficiency	1500 11a		
		denciency			
3	Garlic	Puple blotch, wireworm, yellowing,	600 ha	_ " _	OFT and Training
-		tip burning			
4	Sesame	Leaf webber, mite, blight, stem rot,	12000 ha.	- " -	OFT, FLD and
-	0000000	root rot, yellowing, replacement of			Training
		old variety			
5	Wheat	Fall army worm, Stem borer,	58000 ha	- " -	OFT, FLD and
		Termite, nutritional deficiency,			Training
6	Vegetabe	Drudgery reduction, cut & wounds,	2790 ha	_ " _	FLD and Training
	mittens (Okra,	skin hardness, blisters and			
	Brinjal)	abrasions,			
7	Animal	Due to inadequate nutrients in the	Majority	- " -	FLD and Training
	Husbandry	daily ration, the % fat in milk and	farmers		
		productivity of the animal	(350000)		
		decreased hence, financial loss.			
8	Fishereis	Direct stocking of Spawn, Mortality	In Majority	Nana Khadba	FLD
		rate is higher during spawn to	reservoir	NaviPipar	
		fingerling stage rearing and		NaviVeraval	
		uncertain in production			
9	Fishereis	Stocking of single species, total	In Majority	Nana Khadba	FLD
		production is reduce	reservoir	NaviPipar	
				NaviVeraval	
10	Cotton	Pink bollworm, redding& yellowing	180440		FLD and Training
		of leaves, sucking pests, weevil,			
11	Chicory	ICM	50		FLD and Training
12	Cumin	IPM, IDM, INM, variety	4300		FLD and Training
	Ajwain	IDM, Variety	5015		FLD and Training
14	Coriander	IDM, IPM, Variety	2300		FLD and Training
15	Pearl millet	Variety, IPM, IDM	3520		FLD and Training
16	Chick pea	IPM, Variety	31300		FLD and Training
17	Kitchen	Nutritional balance	Majority		FLD and Training
	gardening		farmers		
18	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	Oil seeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Varietal Evaluation		2								2
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								1
Integrated Disease Management										

Resource conservation technology						
Small Scale income generating						
enterprises						
TOTAL	3		1			4

### 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										
Integrated Farming System										
Mushroom cultivation										
Drudgery reduction										
Farm machineries										
Post Harvest Technology										
Integrated Pest Management					1					1
Integrated Disease					1					1
Management										
Resource conservation										
technology										
Small Scale income										
generating enterprises										
TOTAL					2					2

### 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							1	1
Feed and Fodder								
Small Scale income								
generating enterprises								
TOTAL	1						1	2

### 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 2019-20**

S. No	Crop/ enterpris e	Prioritized problem	Title of OFT	Technology o		Source of Techn ology	Name of critical input	per	Cost per trial	of	Total cost for the OFT (Rs.)	Parameters to be studied	memb
1	Sesame	To manage	Management	1. Injudicious	use of						3600	No. of larvae	KVK
		the lea	of sesame	insecticides.	(Spray							per 1 meter,	Staff
		webber	leaf webber	insecticides at	weekly							yield	
		infestation		interval)	(Farmers								

Annual Action Plan (2019-20)

		in sesame		practices)								
		in sesurie		2. Recommended	SAU	Cartap	500	1200	3			
				practices Application o		hydrochlori			-			
				the insecticide will be star		de,	<b>Б</b>					
				at pest infestation		ас,						
				occurred. Cartar								
				hydrochloride 50% S.P. @								
				10g/10 Liter of water a								
				the time o								
				infestation. (Recommenda								
				ion)								
	Fish			1.Farmer's practices:-	Farmer				3		Average body	
		the farming		0 0 1	s own						0	Staff
		cost by using		<i>Catlacatla</i> into	practic						IMC and	
		use	(Macrobrach	ponds/reservoir.	es I;						Prawn at the	
		maximum	umrosenberg								time of	
		natural	ii) with IMC								harvesting	
		resources	fingerlings in								Total	
		(Food, water	village								production	
		body etc.)	pond/Reserv								of fish and	
		To increase	oir								prawn (in	
		total yield									KG.) at the	
		and Income.									time of	
											harvesting	
											from village	
											pond/reserve	_
											ir	
											" Total Net	
	6							500	2	4500	income	<u> </u>
	Sesame	Low Yield,	Assessment		JAU,	Seed	1 kg	500	3	1500		Shri.
		Introducti		2 G. Til 3	Juna		seed				(Kg/ha),	S. H.
		on of new	performanc	3. G. Til. 5	gadh		of				Plant	Lakh
		high	e of high				both				Height	ani
		yielding	yielding				vari				(cm) <i>,</i>	Scier
		variety,	Sesame				ety				Capsule per	tist
			varieties in								plant, 1000	(Agro
			summer								seed	nom
			irrigated								weight (g),	y)
			condition								Maturity	
			for								days,	
			Jamnagar								Economics	
			District									
4	Ground	Low yield	Assessment	1 GG-20	JAU,	Seed	30	810	3	2430	Pod & Haulm	Shri.
	nut	in existing		2 GJG-22	Juna		kg	0	-	0	yield (kg/ha),	S. H.
		variety,			gadh		seed	_		-	Plant Height	Lakh
		Enhancing	yielding	3 GJG-32	8		of				(cm), No. Of	ani
		productivit					both				branches per	Scier
		y	Variety in				vari				plant , No. of	tist
		у	kharif				ety				pods per	(Agro
			season for				ety				plant , 100	
											pods weight (g), 100	nom
			Jamnagar								kernel	y)
			District								weight (g),	
											Economics	
	Solar	Time, fuel &	Comparison	Preparation by	Depart	Solar	1	1600	5	1600	Time	A.K.
		drudgery	of solar		-	cooker			-		consumption	
	Sooner	reduction	cooker with	traditional method	of						Fuel	Saran
		Cuuction	traditional	Preparation by	oi Renew						consumption	
			cooking	roasting	able						Movement	
			-	Preparation by solar	aule						Organo	
			system		energy						laptic test	
	<b>CI. :</b>			cooker						2000		10.02
	Chilli			1. Farmer's Practices :	1						Record thrip	
			of thrips in	-								Staff
		incidence ir		insecticides. [use o							from five	ŧ
		chilli. To reduce	1	chlorpyriphos, quinalphos							randomly	
				flubendiamide,	i i						selected	

							-0/		_
injudicious use o chemical pesticide. To minimizo residual effect o chemical		imidacloprid, Fipronil Thiamethoxamcypermethr in, lamdacyhalothrin after infestation of thrips af weekly interval without follow ETL]						plants from each plot at 7 days after spray 2. Record yield at every picking	
		2.       Recommendation :         Seed       treatment       with         imidacloprid       70       WS       (7.5)         g/kg       seed)       and       dipping       o         g/kg       seed)       and       dipping       o         seedling       before       before       transplanting       for       two         hours       in       solution       o       o       imidacloprid       17.8       SL       (10)         ml/10       litre       water)       o       thiamethoxam       25       WG       (10)         g/10       litre       water).       Spraying       of       spinosad       45       SC       (3)       ml/10)         litre       water)       3.       Refinement:-       Spray       o	Imidaclopri d 17.8% SL, Thiamethox amSpinosac	gm, 100 ml, 100 gm, 100 ml	120, 220, 210, 450 300	3			
		Bearuveriabassiana @ 5 g/lit of water at 15 days interval	assiana	2 Ng	500	5			
Garlic To minimize the infestation of purple blotch o garlic. To increase production. To reduce yield loss o garlic	of purple blotch of garlic	<ol> <li>Farmer's Practices : Injudicious use or fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases</li> </ol>					7800	Record thripsKVI population Sta from five randomly selected plants from each plot at 7 days after spray 2. Record yield at every picking	
		2. Recommendation : Foliar sprays of Mancozet @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.1% at 30, 45 and 60 days respectively after transplanting helps ir checking disease incidence	Mancozeb, Tricyclazole Hexaconazo le	ml, 1	300, 200, 300	3			
		3. Refinement: Application or Trichoderma @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method + Foliar sprays or Hexaconazole @ 0.1% and Tebuconazole @ 0.1% at 40 and 60 days respectively after transplanting helps ir checking disease incidence	Tebuconazo	ml,	300, 1500	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		Irregular irrigation
improper cultivation practices		
Mono-cropping system		Lack irrigation facilities
No adoption of recommended	Management of	Lack of knowledge about pest
practices	sesame leaf	outbreaks and its management
Crop failure due to water		In judicious use of chemical
logging condition in rainy season	webber	pesticide
Farmer follows instruction given		Heavy incidence of pest and
by the local pesticides retailer		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)

Source of Technology :- Junagadh Agricultural University, Junagadh

### **Observations:**

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

### OFT: 2 (Assessment)

# Title: Stocking of Freshwater prawn (*Macrobrachiumrosenbergii*) 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	Minimun usage of natural
Over stocking of seeds	(Macrobrachiumrosenbergii)	resources
Single Species stocking	with IMC fingerlings in village	Total production decrease
Lack of knowledge	pond/Reservoir	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 :-3 Sesame

# Title :Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District

**Objective :** To find out suitable high yielding sesame variety for summer irrigated condition **Problem definition:** 

- 1. Low yield.
- 2. Threat to the sustainability of crop production
- 3. High cost of production
- 4. Shortage of irrigation water

### Problem diagram :-

Improper cultivation practices	Assessment of the	Multi season cropping system
Low yielding variety	performance of high	Irregular irrigation/ irregular rainfall
Lack of knowledge about balance	yielding Sesame varieties in	Lack of knowledge about pest
use of nutritional recommendation	summer irrigated condition	outbreaks and its management
High Wind velocity	for Jamnagar District	In judicious use of chemical fertilizer

### Treatments :

- 1. T<sub>1</sub> :- G. Til 2 (Farmers Practices)
- 2. T<sub>2</sub> :- G. Til 3
- 3. T<sub>3</sub> :- G. Til 5

No. of Replication :- 3 (Farmers)

**Source of Technology:** - Junagadh Agricultural University, Junagadh **Thematic area:** Varietal evaluation

### **Observations** :-

- 1. Yield (Kg/ha),
- 2. Plant Height (cm),
- 3. Capsule per plant,
- 4. 1000 seed weight (g),
- 5. Maturity days,
- 6. Economics

### OFT: 4 Groundnut

1. Title : Assessment of suitable high yielding Groundnut Variety in kharif season for Jamnagar District

2. Objective:: To find out suitable high yielding groundnut variety for kharif season

# Problem definition:

- 1. Low yield.
- 2. Threat to the sustainability of crop production
- 3. High cost of production
- 4. Lack of well distributed rainfall & low rainfall

### Problem diagram :-

Improper cultivation practices		Multi season cropping system		
Low yielding variety	Assessment of	Mono-cropping system		
Irregular rainfall	suitable high	Lack of knowledge about nutrient		
inegular failliai	yielding	management		
Heavy incidence of pest and disease	Groundnut Variety	In judicious use of chemical fertilizer		
attack	in kharif season for	In Judicious use of chemical fel tilizer		
In judicious use of posticide	Jamnagar District	Heavy infestation of white grub was		
In judicious use of pesticide		found		

### **Treatments:**

- 1. T<sub>1</sub>:- GG-20 (Farmers Practices)
- **2. T**<sub>2</sub>:- GJG-22
- **3. T**<sub>3</sub>:- GJG-32

No. of Replication :- 3 (Farmers)

Source of Technology: - Junagadh Agricultural University, Junagadh

Thematic area: Varietal evaluation

**Observation:** 

- 1. Pod & Haulm yield (kg/ha),
- 2. Plant Height (cm) at harvest time,
- 3. No. of branches per plant,
- 4. No. of pods per plant ,
- 5. 100 pods weight (g),
- 6. 100 kernel weight (g),
- 7. Economics

### **OFT-5** Solar cooker

Title :- Comparison of solar cooker with traditional cooking system ltems:-

- 1. Murbba,
- 2. sweet potato,
- 3. sweet corn,
- 4. Salted -Roasted groundnut

### **Objective:-**

- 1. To improve quality of Prepared items
- 2. To reduce drudgery of farm women
- 3. To reduce time and fuel consumption

### Treatment: - Item no. 1

- 1. Preparation by traditional method
- 2. preparation by sunlight heat
- 3. preparation by solar cooker

### Treatment: - Item no. 2-4

- 1. Preparation by traditional method
- 2. Preparation by roasting
- 3. Preparation by solar cooker

### No. of Replications: - 4

Source of Technology :- Department of reneuable energy

### Observations:-

- 1. Time consumption
- 2. Fuel consumption
- 3. Movement
- 4. Organo laptic test
  - a. Colour
  - b. Texture,
  - c. Test
  - d. Overall acceptance
- 5. Self life

### OFT-6

### 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 :-

0				
Resurgence of thrips	Management	Multi season cropping system		
Mono-cropping system	of thrips in	Lack of knowledge about pest outbreaks and its management		
Lack of seed treatment	chilli	Lack of improper cultivation practices		
	Mono-cropping system	Mono-cropping system  Of thrips in		

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, Thiamethoxamcypermethrin, lamdacyhalothrin after infestation of thrips at weekly interval without follow ETL]
- 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-7 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		Multi season cropping system
		Heavy infestation of purple blotch
Mono-cropping system		was found
	Management of	Lack of knowledge about diseases
Lack of seed treatment	purple blotch of	outbreaks and its management
In judicious use of	garlic	In judicious use of chemical
pesticide/fungicide	ganne	fertilizer
Innegular invigation		Improper use of FYM (without
Irregular irrigation		decomposition)

### Treatments:

- 1. **Farmer's Practices** :-Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.
- 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

### C. Details of On Farm Trial / Technology Refinement during 2019-20

### 3.3 FRONTLINE DEMONSTRATIONS

### A. Details of FLDs to be organized –

Sr.	Name of	Name of	Thematic	Technology	Critical Inputs	Season	Area	No. of	Parameters
No.		Variety	area	demonstrated	=	and year	(ha.)	farmers	identified
	• •	Enterprises					. ,	/Demo.	
1	Cotton	Bt. Cotton	IPM/INM	Insecticide,	Azadirechtin,	Kh-19	10	25	Pest
	cotton				Profenophos., MDP, SNPV				population,
				·	Beauveriabassiana				yield
2	Chicory		ICM	Bio pesticide	Beauveriabassiana	Kh-19	2	5	Yield
	enneer,			Bio fertilizer	Azotobacter, PSB	0	_		
3	Wheat	GW-463	Varietal	Variety	seed	Rabi-19	4	10	Yield
4	Cumin	GC-4	IPM/IDM	Bio pesticide	Trichoderma,	Rabi-19	4	10	Yield, % Plant
				Bio fertilizer	Beauveriabassiana				damage
					Azotobacter, PSB				
5	Ajwain	Gujarat	IPM/IDM	Bio pesticide	Trichoderma,	Rabi-19	4	10	Yield, % Plant
	,	Ajwain-2		Bio fertilizer	Beauveriabassiana	Beauveriabassiana			damage
					Azotobacter, PSB				
6	Coriander	GC-2	IPM/IDM	Bio pesticide	Trichoderma,	Rabi-19	8	20	Yield
				Bio fertilizer	Beauveriabassiana				
					Azotobacter, PSB				
7	Pearl	GHB-732	Varietal	Variety	Seed (GHB-732)	Sum- 19-	4	10	Yield
	Millet				1.5 kg	20			
Oth	er Scheme								
11	NFSM-	GG-5	Improved	Improved	Seed(GG-5), Beauveria	Rabi-19-	20	50	Yield, % pod
	Chickpea		Variety with	Variety, Bio	bassiana,	20			damage
			ICM	pesticide,	Trichoderma,				
				Bio fungicide,	PSB, Rhizobium				
				Bio fertilizer					
12	NMOOP-	GJG-22/	Improved	Improved	Seed (GJG-22/GJG-9)	KH-19	30	75	Yield, % pod
	Groundnut	GJG 9	Variety	Variety					damage
13	NMOOP-	GTil -3/5	Improved	Improved	Seed(GTil-3/5),	Sum-19-	20	50	Yield, % pod
	Sesame		Variety with		Beauveria bassian,	20			damage
			ICM	with ICM	Trichoderma,				
					Pendimethalin,				
					PSB, Azotobacter and				
					Micro nutrient				
14	ATIC	BT cotton	ICM	Bio pesticide	Beauveriabassiana,	Kh-19	20	50	Yield
	Cotton			Bio fertilizer	SNPV, MDP,				
					PSB and Azatobector				
15	ATIC	GG-20	ICM	Bio pesticide		Kh-19	20	50	Yield
12	G'Nut	GG-20	ICIVI	Bio fertilizer	Beauveriabassiana,	KU-19	20	50	riela
	Ginut			BIO TEI UIIZEI	PSB and Rhizobium,				
					Trichoderma				
16	ATIC	GC-4	ICM	-	Beauveriabassiana, PSB,	Rabi-19	10	25	Yield
	Cumin			Bio fertilizer	Azotobector				
			1011		Trichoderma	<b>B</b> 1 1 1 5			
17	ATIC	GC-2	ICM	Bio pesticide	PSB, Azotobector,	Rabi-19	10	25	Yield
	Coriander			Bio fertilizer	Beauveriabassiana,				
					Trichoderma				

		Total	174	435	

Sponsored Demonstration

Сгор	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	25
3	Media coverage	1	April	
4	Training for extension functionaries	1		
	Chikori			
1	Field days	1	July	20
2	Farmers Training	1	May	25
3	Media coverage	1	May	
4	Training for extension functionaries	1		
	Wheat			
1	Field days	1	November	20
	Farmers Training	1	October	25
3	Media coverage	1	October	
4	Training for extension functionaries	1		
	Cumin/Ajwain			
1	Field days	1	November	20
	Farmers Training	1	October	25
	Media coverage	1	October	
4	Training for extension functionaries	1		
	Coriander			
1	Field days	1	November	20
	Farmers Training	1	October	25
	Media coverage	1	October	
	Training for extension functionaries	1		
	Pearl Millet			
1	Field days	1	March	20
	Farmers Training	1	February	25
	Media coverage	1	February	
	Training for extension functionaries	1	,	
	Chickpea			
1	Field days	2	January	50
	Farmers Training	1	November	25
	Media coverage	1	November	
	Training for extension functionaries	1	October	30
	Groundnut			
1	Field days	2	Sep	50
	Farmers Training	2	July, August	50
	Media coverage	1	August	
	Training for extension functionaries	1	June	30
-	Sesamum			
1	Field days	2	April, May	50
	Farmers Training	1	Feb	25

3	Media coverage	1	Feb	
4	Training for extension functionaries	1	Jan	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			

# 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
Animial Husbandry	Gir	3	3	Bypass Fat	% of Fat increase Total Production increase

### c. FLD on Other enterprises

Enterprise	Name of the technology demonstrated	No. of farmers	No. of units	Critical inputs	Performance parameters / indicators
Kitchen gardening	Nutritional gardening	50	50	Vegetable seeds	Yield
Okra Mittent	Vegetable mitten	5	5	Vegetable mitten	Picking efficiency, effect on skin,
Apron	Cotton picking apron	5	5	Apron	Picking efficiency

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

### A. ON CAMPUS

Thematic Area	No. of	No. of participant								
I nematic Area	NO. OF	Others			SC/ST			Grand		
	Courses	Male	Female	Total	Male	Female	Total	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	1	21	2	23	2		2	25		
Nursery management				0			0	0		
Integrated Crop Management	1	24	0	24	1	0	1	25		
Fodder production				0			0	0		
Production of organic inputs	1	24	0	24	1	0	1	25		

Total	3	69	2	71	4	0	4	75
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value				0			0	0
crops								
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				0			0	0
Net etc.)								
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		İ		0			0	0
Rejuvenation of old orchards		1		0			0	0
Export potential fruits		İ		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				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	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Soil and Water Conservation		1		0			0	0
Integrated Nutrient Management				0			0	0
Production and use of organic inputs				0			0	0
Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops	1	18	5	23	1	1	2	25
Nutrient Use Efficiency				0			0	0
Soil and Water Testing				0			0	0
Total	1	18	5	23	1	1	2	25
IV Livestock Production and Management				0			0	0
0								

Dairy Management	1	0	20	20	0	10	10	30
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management				0			0	0
Feed management	1	25	0	25	5	0	5	30
Production of quality animal products				0			0	0
Total	2	25	20	45	5	10	15	60
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening				0			0	0
and nutrition gardening								
Design and development of low/minimum				0			0	0
cost diet								
Designing and development for high nutrient				0			0	0
efficiency diet	4	_	10	10			C	25
Minimization of nutrient loss in processing	1	0	19	19	0	6	6	25
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques		0	25	0			0	0
Value addition	1	0	25	25	0	0	0	25
Income generation activities for	1	0	22	22	0	3	3	25
empowerment of rural Women				0			0	0
Location specific drudgery reduction				0			0	0
technologies				0			0	0
Rural Crafts				0			0	0
Women and child care	2	0	66	-	0	0	0	<b>75</b>
Total	3	0	66	66 0	0	9	<b>9</b> 0	0
VI Agril. Engineering Installation and maintenance of micro	1	25	0	25	0	0	0	25
irrigation systems	T	23	0	25	0	0	0	25
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery				0			0	0
and implements				U			0	U
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0
Total	1	25	0	25	0	0	0	25
VII Plant Protection	-			0	Ŭ		0	0
Integrated Pest Management	1	22	0	22	3	0	3	25
Integrated Disease Management	1	25	0	25	0	0	0	25
Bio-control of pests and diseases	1	25	0	25	-		0	25
Production of bio control agents and bio	-			0			0	0
pesticides				Ŭ				Ŭ
Total	3	72	0	72	3	0	3	75
VIII Fisheries			-	0	-	-	0	0
Integrated fish farming	1	0	0	0	0	30	30	30
Carp breeding and hatchery management			-	0	~		0	0
Carp fry and fingerling rearing	ļ			0			0	0
Composite fish culture	ļ			0			0	0
Hatchery management and culture of	ļ			0			0	0
freshwater prawn								
Breeding and culture of ornamental fishes	ļ			0			0	0
Portable plastic carp hatchery				0			0	0
i ortable plastic carp natchery		1		0			U	0

				•			•	-
Pen culture of fish and prawn		<u> </u>		0			0	0
Shrimp farming	1	30	0	30			0	30
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Tota	2	30	0	30	0	30	30	60
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	1	23	0	23	2	0	2	25
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
Tota	1	23	0	23	2	0	2	25
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				0			0	0
farmers/youths								
WTO and IPR issues				0			0	0
Tota	0	0	0	0	0	0	0	0
XI Agro-forestry				0			0	0
Production technologies				0			0	0
Nursery management				0			0	0
Integrated Farming Systems				0			0	0
Tota	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	· · ·			0	-		0	0
TOTAL	16	262	93	355	15	50	65	420
(B) RURAL YOUTH				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Integrated farming	1	16	0	16	9	0	9	25
Seed production			-	0	-	-	0	0
Production of organic inputs	1	20	0	20	5	0	5	25
Integrated Farming (Medicinal)				0			0	0
Planting material production		+		0			0	0
Vermi-culture				0			0	0
Sericulture		-		0			0	0
		+		0			0	0
Protected cultivation of vegetable crops		-					-	
Commercial fruit production		-		0			0	0
Repair and maintenance of farm machinery		1		0			0	0
and implements		-		0			0	0
Nursery Management of Horticulture crops		1		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				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	2	36	0	36	14	0	14	50
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	2	40	0	40	10	0	10	50
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				0			0	0
implements								
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	2	40	0	40	10	0	10	50

### **B. OFF Campus**

	Thematic Area	No. of	No. of participant
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	Courses	s <b>es</b> Others SC/ST						Grand	
	courses	Male	Female	Total	Male	Female	Total	Total	
(A) Farmers & Farm Women		inaic	. emaie	rotai	mare	i cinaic	lotai		
I Crop Production									
Weed Management	2	41	9	50	3	2	5	55	
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	23	2	25	0	0	0	25	
Fodder production	-	25	2	0	0	Ū	0	0	
Production of organic inputs				0			0	0	
Total	3	64	11	75	3	2	5	80	
Il Horticulture	5	04		0	5	2	0	0	
a) Vegetable Crops				0			0	0	
Production of low volume and high value				0			0	0	
crops				0			0	Ŭ	
Off-season vegetables				0			0	0	
Nursery raising				0			0	0	
				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	U	
b) Fruits				0			0	0	
Training and Pruning				0			0	0	
· · ·				0			0	0	
Layout and Management of Orchards 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				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				0			0	0	
Processing and value addition	1	0	25	25	0	0	0	25	
g) Medicinal and Aromatic Plants		-	-	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	0	25	25	0	0	0	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	2	41	13	54	1	0	1	55
Production and use of organic inputs	1	28		28	2		2	30
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	1	20	8	28	2	0	2	30
Total	4	89	21	110	5	0	5	115
IV Livestock Production and Management				0			0	0
Dairy Management	1	25	0	25	5	0	5	30
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management/goat				0			0	0
Disease Management	1	25	0	25	0	0	0	25
Feed management	1	20	0	20	10	0	10	30
Production of quality animal products				0			0	0
Total	3	70	0	70	15	0	15	85
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening	1	0	19	19	0	6	6	25
and nutrition gardening								
Design and development of low/minimum				0			0	0
cost diet								
Designing and development for high nutrient				0			0	0
efficiency diet								
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	0	25	25	0	0	0	25
Income generation activities for	1	0	20	20	0	5	5	25
empowerment of rural Women								
Location specific drudgery reduction	1	0	19	19	0	6	6	25
technologies								
Rural Crafts				0			0	0
Women and child care	1	0	25	25	0	0	0	25
Total	5	0	108	108	0	17	17	125
VI Agril. Engineering				0			0	0
Installation and maintenance of micro				0			0	0
irrigation systems								
Use of Plastics in farming practices				0			0	0
Production of small tools and implements		ļ		0			0	0
Repair and maintenance of farm machinery				0			0	0
and implements								-
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

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Integrated Pest Management	3	65	0	65	10	0	10	75
Integrated Disease Management	2	40	0	40	10	0	10	50
Bio-control of pests and diseases	1	25	0	25	0	0	0	25
Production of bio control agents and bio				0			0	0
pesticides								
Tota	l 6	130	0	130	20	0	20	150
VIII Fisheries				0			0	0
Integrated fish farming				0			0	0
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing	1	25	0	25			0	25
Composite fish culture	1	25		25			0	25
Hatchery management and culture of				0			0	0
freshwater prawn								
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				0			0	0
Edible oyster farming	1	1		0			0	0
Pearl culture	1	0	0	0	18	7	25	25
Fish processing and value addition	1			0			0	0
Tota	3	50	0	50	18	7	25	75
IX Production of Inputs at site				0			0	0
Seed Production	1	22	0	22	3		3	25
Planting material production			-	0			0	0
Bio-agents production				0			0	0
Bio-pesticides production	1			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
	+			0			0	0
Small tools and implements Production of livestock feed and fodder	+			0			0	0
				0			0	0
Production of Fish feed	1	22	0	22	2	0	3	
Total	1 I	22	U	0	3	U	<b>3</b>	<b>25</b> 0
X Capacity Building and Group Dynamics				-			0	0
Leadership development	+			0			-	
Group dynamics	+			0			0	0
Formation and Management of SHGs	+			0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of				0			0	0
farmers/youths	+							
WTO and IPR issues		•		0	•	-	0	0
Tota	0	0	0	0	0	0	0	0
XI Agro-forestry				0			0	0
Production technologies	<u> </u>			0			0	0
Nursery management	<u> </u>	ļ		0			0	0
Integrated Farming Systems				0			0	0
Tota	I 0	0	0	0	0	0	0	0
XII Others (Pl. Specify)				0			0	0
TOTAL	26	425	165	590	64	26	90	680

					•	,		
(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				0			0	0
and implements				_				
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
				0			0	0
Cold water fisheries							-	
Fish harvest and processing technology				0			0	0
Fry and fingerling rearing				0			0	-
Small scale processing				0			0	0
Post Harvest Technology				0			0	0
Tailoring and Stitching				0			0	0
Rural Crafts	1	0	10	0	0	6	0	0
TOTAL	1	0	19	19	0	6	6	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				0			0	0
implements								

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	27	425	184	609	64	32	96	705

## C. Consolidated table (ON and OFF Campus)

Thematic Area	No. of	No. of participant								
Thematic Area	Courses		Others			SC/ST		Grand		
	courses	Male	Female	Total	Male	Female	Total	Total		
(A) Farmers & Farm Women										
I Crop Production										
Weed Management	2	41	9	50	3	2	5	55		
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	1	21	2	23	2	0	2	25		
Nursery management	0	0	0	0	0	0	0	0		
Integrated Crop Management	2	47	2	49	1	0	1	50		
Fodder production	0	0	0	0	0	0	0	0		
Production of organic inputs	1	24	0	24	1	0	1	25		
Total	6	133	13	146	7	2	9	155		
II Horticulture				0			0	0		
a) Vegetable Crops				0			0	0		
Production of low volume and high value crops	0	0	0	0	0	0	0	0		
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	0	0	0	0	0	0	0	0		
etc.)										
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	0	0	0	0	0	0	0	0		
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		

			Annual Actic		,10 20)			
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	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0
Processing and value addition	1	0	25	25	0	0	0	25
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
	0	0	0	0	0	0	0	0
Post harvest technology and value addition	1	0	25	25	0	0	0	<b>25</b>
Total		U	25	0	U	U	0	0
III Soil Health and Fertility Management	0	0	0	0	0	0		0
Soil fertility management	0	0	0	0	0	-	0	0
Soil and Water Conservation		-	-	-	-	0		
Integrated Nutrient Management	2	41	13	54	1	0	1	55
Production and use of organic inputs	1	28	0	28	2	0	2	30
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	1	18	5	23	1	1	2	25
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Soil and Water Testing	1	20	8	28	2	0	2	30
Total	5	107	26	133	6	1	7	140
IV Livestock Production and Management				0			0	0
Dairy Management	2	25	20	45	5	10	15	60
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	1	25	0	25	0	0	0	25
Feed management	2	45	0	45	15	0	15	60
Production of quality animal products	0	0	0	0	0	0	0	0
Total	5	95	20	115	20	10	30	145
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening	1	0	19	19	0	6	6	25
and nutrition gardening								
Design and development of low/minimum cost	0	0	0	0	0	0	0	0
diet								
Designing and development for high nutrient	0	0	0	0	0	0	0	0
efficiency diet								
Minimization of nutrient loss in processing	1	0	19	19	0	6	6	25
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Storage loss minimization techniques	0	0	0	0	0	0	0	0
Value addition	2	0	50	50	0	0	0	50
Income generation activities for empowerment	2	0	42	42	0	8	8	50
of rural Women								
Location specific drudgery reduction	1	0	19	19	0	6	6	25
technologies								
Rural Crafts	0	0	0	0	0	0	0	0
	-							
Women and child care	1	0	25	25	0	0	0	25

Total	8	0	174	174	0	26	26	200
VI Agril. Engineering	0	U	174	0	U	20	0	0
	1	25	0	25	0	0	0	25
Installation and maintenance of micro irrigation systems	T	25	0	25	0	0	0	25
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	0	0	0	0	0	0	0	0
implements								
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	25	0	25	0	0	0	25
VII Plant Protection				0			0	0
Integrated Pest Management	4	87	0	87	13	0	13	100
Integrated Disease Management	3	65	0	65	10	0	10	75
Bio-control of pests and diseases	2	50	0	50	0	0	0	50
Production of bio control agents and bio	0	0	0	0	0	0	0	0
pesticides								
Total	9	202	0	202	23	0	23	225
VIII Fisheries				0			0	0
Integrated fish farming	1	0	0	0	0	30	30	30
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	1	25	0	25	0	0	0	25
Composite fish culture	1	25	0	25	0	0	0	25
Hatchery management and culture of freshwater	0	0	0	0	0	0	0	0
prawn								
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	30	0	30	0	0	0	30
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	1	0	0	0	18	7	25	25
Fish processing and value addition	0	0	0	0	0	0	0	0
Total	5	80	0	80	18	37	55	135
IX Production of Inputs at site				0			0	0
Seed Production	1	22	0	22	3	0	3	25
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	1	23	0	23	2	0	2	25
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	2	45	0	45	5	0	5	50
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	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
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	42	687	258	945	79	76	155	1100
(B) RURAL YOUTH				0			0	0
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0
Integrated farming	1	16	0	16	9	0	9	25
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	1	20	0	20	5	0	5	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	0	0	0	0	0	0	0	0
implements								
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	0	0	0	0	0	0	0	0
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	3	36	19	55	14	6	20	75
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	2	40	0	40	10	0	10	50

Integrated Pest Management	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0
implements								
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	47	763	277	1040	103	82	185	1225

## Summary of Training Programme

**ON** Campus

	No. of	No. of participant						
(A) Farmers & Farm Women	couses		others			SC/ST		Grand
		Male	Female	Total	Male	Female	Total	Total
I Crop Production	3	69	2	71	4	0	4	75
II Horticulture	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management	1	18	5	23	1	1	2	25
IV Livestock Production and Management	2	25	20	45	5	10	15	60
V Home Science/Women empowerment	3	0	66	66	0	9	9	75
VI Agril. Engineering	1	25	0	25	0	0	0	25
VII Plant Protection	3	72	0	72	3	0	3	75
VIII Fisheries	2	30	0	30	0	30	30	60
IX Production of Inputs at site	1	23	0	23	2	0	2	25
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
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)	16	262	93	355	15	50	65	420
(B) RURAL YOUTH	2	36	0	36	14	0	14	50
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	20	338	93	431	39	50	89	520
Off Campus								

	No. of	No. of participant								
(A) Farmers & Farm Women	couses		others Male Female Total			SC/ST				
		Male				Female	Total	Total		
I Crop Production	3	64	11	75	3	2	5	80		
II Horticulture	1	0	25	25	0	0	0	25		
III Soil Health and Fertility Management	4	89	21	110	5	0	5	115		
IV Livestock Production and Management	3	70	0	70	15	0	15	85		
V Home Science/Women empowerment	5	0	108	108	0	17	17	125		

Annual Action Plan (2019-20)

VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	6	130	0	130	20	0	20	150
VIII Fisheries	3	50	0	50	18	7	25	75
IX Production of Inputs at site	1	22	0	22	3	0	3	25
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
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)	26	425	165	<b>590</b>	64	26	90	680
(B) RURAL YOUTH	1	0	19	19	0	6	6	25
(C) Extension Personnel	0	0	0	0	0	0	0	0
Grand Total (A+B+C)	27	425	184	609	64	32	96	705

	No. of	No. of participant							
(A) Farmers & Farm Women	couses		others			SC/ST		Grand	
		Male	Female	Total	Male	Female	Total	Total	
I Crop Production	6	133	13	146	7	2	9	155	
II Horticulture	1	0	25	25	0	0	0	25	
III Soil Health and Fertility Management	5	107	26	133	6	1	7	140	
IV Livestock Production and Management	5	95	20	115	20	10	30	145	
V Home Science/Women empowerment	8	0	174	174	0	26	26	200	
VI Agril. Engineering	1	25	0	25	0	0	0	25	
VII Plant Protection	9	202	0	202	23	0	23	225	
VIII Fisheries	5	80	0	80	18	37	55	135	
IX Production of Inputs at site	2	45	0	45	5	0	5	50	
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	
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)	42	687	258	945	79	76	155	1100	
(B) RURAL YOUTH	3	36	19	55	14	6	20	75	
(C) Extension Personnel	2	40	0	40	10	0	10	50	
Grand Total (A+B+C)	47	763	277	1040	103	82	185	1225	

## Consolidated (On + Off Campus)

Details of training programmes attached in Annexure -I

#### 3.5. Extension Activities (including activities of FLD programmes)

Nature of Extension	No. of		Farmers		Exte	nsion Off	icials		Total	
Activity	activities	Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	12	210	35	245	65	50	115	275	85	360
Kisan Mela	1	1200	250	1450	200	50	250	1400	300	1700
Kisan Ghosthi	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	32	30	5	35	5	2	7	35	7	42
Exposure visits	2	30	0	30	10	0	10	40	0	40
Ex-trainees Sammelan	3	20	5	25	4	1	5	24	6	30
Soil health Camp	3	100	20	120	30	20	50	130	40	170
Animal Health Camp	3	50	10	60	20	5	25	70	15	85
Agri mobile clinic	30	3000	100	3100	1000	100	1100	4000	200	4200
Soil test campaigns	2	110	10	120	40	10	50	150	20	170
Farm Science Club Conveners meet	3	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	424	23150	4120	27270	9444	2918	12362	32594	7038	39632

# 3.6 Target for Production and supply of Technological products SEED MATERIALS

Sl. No.	Сгор	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-496	150
OILSEEDS	Groundnut	GJG-9	96
	Sesame	G.Til3	12
PULSES	Green gram	GM-4	6
VEGETABLES			
OTHERS (Specify)			

## PLANTING MATERIALS

SI. No.	Сгор	Variety	Quantity (Nos.)
FRUITS			
SPICES			
VEGETABLES	Brinjal	GJLB-3,4	500
FOREST SPECIES			
ORNAMENTAL CROPS			

	Total	500

#### **Bio-products**

SI. No.	Product Name	Species	Quantity		
			No	(kg)	
BIO PESTICIDES					
1	Beauveria			5000	
2	Trichoderma			5000	
3	PSB		200		
4	Azaobactor		200		
5	Rhizobium		200		
6	Pheromone trap				
7	NPV				

#### LIVESTOCK

SI. No.	Туре	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	:0:
Number of copies to be published	: e-

: 01/01/2016
: e-publication

B. Literature developed/published

S.No.	Торіс	Number
1	Research paper each scientist	1
2	Technical reports	6
3	News letters	4
4	Training manual all discipline	4
5	Popular article	6
6	Extension literature	5
	Total	26

#### C. Details of Electronic Media to be Produced

	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 leaderand role of rural youth in agriculture (Sociometric method)
- c) Engagement of rural youth in agriculture

#### In-service personnel

- a) Knowledgetest (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

SI. No	Name of the Equipment	Qty.	Cost	Remarks
1	Spectrophotometer	1	89160	Not working
2	Flame photometer	1		Not working
3	Physicalbalance	1	10640	Not working
4	Chemicalbalance	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	10//2	Working
10	Oven	1	20550	Working
11	Hot plate	1	30550	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	
Α	Statecorporation and state deptt.		
1	DistrictAgriculturalOfficer, Deptt. of Agriculture, District Panchayat, Jamnagar	<ul> <li>Joint diagnostic teamvisit at farmersfield</li> </ul>	
2	DistrictRuralDevelopment Agency, Jamnagar	Organizing collaborative	
3	DeputyDirector of Veterinary, Department of veterinary &Animal Husbandry, Jamnagar	trainingto farmers ➤ For collaborative off campus	
4	DeputyDirector of Horticulture, Jamnagar	training	
5	DeputyDirector of Agriculture (Training), Farmer Training Centre, Jamnagar	For collaborative training and	
6	DeputyDirector of Agriculture (Extension), Jamnagar	demonstrationProgramme	
7	Asstt. Director of Fisheries, Jamnagar	Collaborative on	
8	RangeForest Officer, Jamnagar	campustrainingprogramme	
9	Asstt. Director of GLDC, Jamnagar	For providing hostelfacilitiesto	
10	Estate Engineer, Department of Irrigation, Jamnagar	participants and organizing	
11	All TalukaDevelopmentOfficers, and their team at Talukalevel	collaborative	
12	Rajkot-Jamnagar Gramin Bank, Jamnagar	MahilaKrishiMela	
13	Project Director, ATMA, Jamnagar		
14	Project Director, DWDU, Jamnagar		
В	Private Corporation		
1	Territory Manager, GSFC, Jamnagar	Imparttraining on Agril.	
2	Territory Manager, GNFC, Jamnagar	aspects	
3	Territory Manager, IFFCO, Jamnagar	Collaborative on/off	
4	Reliance Industries, Dept. of Green Belt, Jamnagar	campustrainingprogramme ➤ Sponsortrainingprogramme	
С	NGOs		
1	Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad	Imparttraining on Agril.	
2	V.D.R.F. Trust, Momai Xerox, B.P. Road, Bhanvad	aspects	
3	Late J.V. Nariya Educational and Charitable Trust, 49, Modern Market, First Floor, Nr. Amber Cinema	<ul> <li>Collaborative on/off campustrainingprogramme</li> </ul>	
4	Jay AshapuraCharitable Society, MadhavNivas, Karmachari Society, Trikonban, Dhrol (DistJamnagar)		
5	Shekhpat Jalstrav Vikas Mandal, AtShekhpat, 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, TaJamjodhpur, DistJamnagar		

8	Shardapith Education Trust, 104-Shrusti complex, Nr. Gurudwara, Jamnagar
9	ChacharaEducation & Charitable Trust, 104- Shrusti complex, Nr. Gurudwara,
	Jamnagar
10	Tata Chemical SocietyforRural Development Foundation, At. Mithapur, Ta
	Dwarka, DistJamnagar
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 2019-20

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
4	Facebook page		Activities carried out by KVK
5	M-kishan portal		SMS to Farmers in verenacular language

#### 6.4 Give details of programmes implemented underNational Horticultural Mission

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

#### 6.5 Nature of linkage with NationalFisheriesDevelopmentBoard

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

## 6.6 Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL/NARI/DAESI/DAMU/DFI, etc.) / schemes during 2019-20, if involved.

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

\* The financial sanction is given but not release the fund till date for establishment of DAMU

#### 7.0 Convergence with departments :

Sr.	Name of organization	Nature of linkage
	<ol> <li>ATMA</li> <li>DWDU</li> <li>DAO</li> <li>DRDA</li> <li>GGRC</li> <li>NABARD</li> <li>SPICE BOARD</li> <li>STATE HORTICULTURE</li> <li>CENTRAL WEREHOUSE</li> </ol>	<ul> <li>Organizing collaborative training to farmers</li> <li>For collaborative off campus training</li> <li>For collaborative training and demonstration Programme</li> <li>Collaborative on campus training programme</li> <li>For providing hostel facilities to participants and organizing collaborative MahilaKrishiMela</li> <li>Celebrating important days and programmes by central government as well as state government</li> </ul>

10. TATA CHEMICAL	$\triangleright$	Field visit to gather
11. ENARDE Foundation	$\triangleright$	Diagnostic visit on farmers field with line department

### 8. Innovator Farmer's Meet 2019- 2020

SI.No.	Particulars	Details
1	Are you planning for conducing Farm	Yes/ No
	Innovators meet in your district?	
2	If Yes likely month of the meet	September
3	Brief action plan in this regard	Organic farm innovators & pomegranate
		cultivator of this area will be invite for the meet.

## 9. Farmers Field School (FFS) planned 2019-2020

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 diferent programmes 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		Area		of produc expected)	tion	Expected A (Rs	Remarks	
51. INO.	Demo Unit	establishment	(ha)	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	-	Gir	-	-	50000	61200	
4	Fisheries	2008	0.06	IMC	120	Kg.	1000	3600	

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

Name		Details of pro	oduction (expe	ected)	Expected Am	ount (Rs.)	Remarks
of the crop	Area (ha)	Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals							
Wheat	3	GW-496	Truthful	150	180000	300000	
Pulses							
Green gram	1	GM-4	Truthful	6	28000	54000	
Oilseeds							
Groundnut	8	GJG-9	Breeder	96	380000	1200000	
Sesame	2	G.Til3	Breeder	12	50000	180000	
Fibers							
Spices & Plantation crops							
Floriculture							
Fruits							
Vegetables							
Others (specify)							

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

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

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

		Name	Details	of production	(expected)	Expected A	mount (Rs.)	
	SI. No	of the animal / bird / aquatics	Breed	Type of Produce	Qty.	Cost of inputs	Gross income	Remarks
1	1	Cow	Gir	Milk	1600 lit	40000	51200	
				FYM	3 ton		10000	

a

#### TRAINING PROGRAMMES

#### Annexure - I

Date	Clientele	Title of the training programme	Duration	N	umbei	r of	Nu	mber	of	G.
			in days	ра	rticipa	ints	:	SC/ST		Tota
				М	F	Т	М	F	Т	
Crop Produ	ction					I				
Quarter-1 <sup>st</sup>	PF	Doubling Farmers income through scientific	4	24	0	24	1	0	1	25
		production technology of major kharif crops								
Quarter-1 <sup>st</sup>	PF	Groundnut seed production Technology for	2	21	2	23	2	0	2	25
	D.5	doubling farmers income		24		24	4		4	25
Quarter– 3 <sup>rd</sup>	PF	Organic Farming: A Step towards doubling farmers income	4	24	0	24	1	0	1	25
Livestock p	rod	Tarmers income								
Quarter-1 <sup>st</sup>	PF	Feed and Fodder Management in Animal	3	25	0	25	5	0	5	30
		Husbandry	5	25	Ū	25	5	U	5	50
Quarter-	PF	Additional income generation through	4	0	20	20	0	10	10	30
2 <sup>nd</sup>		Animal Husbandry by higher milk production		-			-			
		by improving Breed and Nutrition & Feed								
		Management								
Agril. Engg.										
Quarter-	PF	Water management through micro irrigation	2	25	0	25	0	0	0	25
2 <sup>nd</sup>		system in kharif crops doubling the farmes								
		income								
Home Sc.			<u> </u>							
Quarter-1 <sup>st</sup>	PF	Income generation activities for	1	0	22	22	0	3	3	25
		empowerment of rural Women for doubling								
Quartar	PF	the faremrs income Value addition in fruits, vegetables and	4	0	25	25	0	0	0	25
Quarter- 2 <sup>nd</sup>	PF	agriculture produce for doubling the faremrs	4	0	25	25	0	0	0	25
2		income								
Quarter-	PF	Importance of nutrition in daily diet and	1	0	19	19	0	6	6	25
3 <sup>rd</sup>	••	techniques of Minimization of nutrition loss	-	Ũ	10		Ŭ	Ũ	Ũ	20
-		in processing								
Plan prot.				1					1	
Quarter-1 <sup>st</sup>	PF	IPM in vegetable and summer crops for	2	22	0	22	3	0	3	25
		doubling the faremrs income								
Quarter-	PF	Bio-control of pest & Diseases for doubling	2	25	0	25	0	0	0	25
2 <sup>nd</sup>		the faremrs income								
Quarter-	PF	IPM and IDM in rabi crops for doubling the	3	25	0	25	0	0	0	25
3 <sup>rd</sup>		faremrs income								
Fisheries		<b>I-</b>								
Quarter-	PF	Doubling the income in brackish water	5	30	0	30	0	0	0	30
2 <sup>nd</sup>		Aquaculture-Shrimp Farming: Culture, Feed								
Quarter	PF	Management, Diseases and its prevention. Natural resources for additional income	5	0	0	0	0	30	30	30
Quarter – 3 <sup>rd</sup>	PF	generation in fisheries sector-Sea Weeds:	5	0	0	0	0	50	50	50
J		types, importance, culture techniques and								
		various uses.								
Production	of Inputs		1	1		I	1		1	
Quarter-4 <sup>th</sup>		Vermi-compost production for doubling the	1	23	0	23	2	0	2	25
·······		faremrs income			-			-		
Soil Health						•				
Quarter-	PF	Importance of major and micro nutrient in	1	18	5	23	1	1	2	25
2 <sup>nd</sup>		crops production for doubling the faremrs								
		income	1			1			1	

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ii) Farmers	& Farm wo	omen (Off Campus)								
Date	Clientele	Title of the training programme	Duration	N	umber	of	Num	per of S	C/ST	G.
			in days	pa	rticipa	nts				Total
				Μ	F	Т	Μ	F	Т	
Crop Produc						1		1	T	
Quarter-2 <sup>nd</sup>	PF	Integrated Weed Management in	1	21	3	24	1	0	1	25
		Oilseed crops for doubling the faremrs								
		income								
Quarter-3 <sup>rd</sup>	PF	Pre-seasonal training on rabi crops	1	23	2	25	0	0	0	25
		(Chickpea, Cumin, Wheat) for doubling								
		the faremrs income								
Quarter-3 <sup>rd</sup>	PF	Techniques of weed Management in	1	20	6	26	2	2	4	30
		Pulse crop for doubling the faremrs								
		income								
Horticulture	1			-				-		
Quarter-1 <sup>st</sup>	PF	Processing and value addition in	1	0	25	25	0	0	0	25
		spices crops for doubling the faremrs								
1.5		income								
Livestock pr		Common diseases and its remedies in	1	25	0	25		0		25
Quarter-1 <sup>st</sup>	PF		1	25	0	25	0	0	0	25
Quarter-2 <sup>nd</sup>	PF	cattle. Importance of Nutrients and Feed	1	20	0	20	10	0	10	20
Quarter-2	PF	Management in Animal Husbandry to	1	20	0	20	10	0	10	30
		increase milk production and diseases								
		control.								
Quarter-3 <sup>rd</sup>	PF	Importance of selection, housing, feed,	4	25	0	25	5	0	5	30
Quarter-5	ГТ	breeding and health of animals for	4	25	0	25	5	0	5	50
		more profits in dairy industries								
Home Sc.										
Quarter-1 <sup>st</sup>	PF	House hold food security by kitchen	1	0	19	19	0	6	6	25
		gardening and nutrition gardening for	-	Ŭ	10		Ŭ	Ŭ	Ũ	23
		doubling the faremrs income								
Quarter-2 <sup>nd</sup>	PF	Location specific drudgery reduction	1	0	19	19	0	6	6	25
		technology for doubling the faremrs								
		income								
Quarter-3 <sup>rd</sup>	PF	Income generation activities for	4	0	20	20	0	5	5	25
		empowerment of rural Women								
		through rural crafts for doubling the								
		faremrs income								
Quarter-4 <sup>th</sup>	PF	food processing and value addition in	1	0	25	25	0	0	0	25
		fruit, vegetable, and other agricultural								
		produce for doubling the faremrs								
		income								
Quarter-4 <sup>th</sup>	PF	Women and Child Care	1	0	25	25	0	0	0	25
Plan prot.					-			-	-	
Quarter-1 <sup>st</sup>	PF	Management of pink bollworm in	1	20	0	20	5	0	5	25
		cotton for doubling the faremrs								
Oursetser 2nd		income	1	20	0	20	-	0	-	25
Quarter-2 <sup>nd</sup>	PF	Management of pink bollworm in	1	20	0	20	5	0	5	25
		cotton & management of white grub in								
Quarter-2 <sup>nd</sup>	PF	groundnut and other kharif crops	1	25	0	25	0	0	0	25
Quarter-2 <sup>rd</sup>	PF	Management of diseases in <i>kharifc</i> rops Integrated Disease and pest	1	25	0	25 20	0	0	0	25 25
Qual Lef-3"	PF		1	20	U	20	5	U	5	23
	management in cumin and gram for doubling the farmers income									
Quarter-3 <sup>rd</sup>	PF	IPM in vegetable crops: onion & garlic	1	25	0	25	0	0	0	25
			1	25	0	25	0	0	0	25
Quarter-4 <sup>th</sup>	PF	Store grain pests and its management								75

									_	
		income								
Fisheries										
Quarter-1 <sup>st</sup>	PF	Importance of composite/mix culture of IMC with exotic carp/Fresh water prawn spp.	1	25	0	25	0	0	0	25
Quarter-3 <sup>rd</sup>	PF	Pearl production: A source of additional income generation from inland fisheries	3	0	0	0	18	7	25	25
Quarter-4 <sup>th</sup>	PF	Doubling the income in inland fisheries sector by stocking, rearing and selling the fish seeds.	1	25	0	25	0	0	0	25
Production of	of Inputs	at site								
Quarter-4 <sup>th</sup>	PF	Seed production technology of summer sesame for doubling the faremrs income	1	22	0	22	3	0	З	25
Soil Health					l	I		1		
Quarter-1 <sup>st</sup>	PF	Awareness about soil health card (SHC)	1	20	8	28	2	0	2	30
Quarter-1 <sup>st</sup>	PF	Use of bio-fertilizers and recycling of farm waste through composting for doubling the faremrs income	1	28	0	28	2	0	2	30
Quarter-2 <sup>nd</sup>	PF	Integrated Nutrient Management in Groundnut for doubling the faremrs income	1	22	7	29	1	0	1	30
Quarter-3 <sup>rd</sup>	PF	Integrated Nutrient Management in rabi crops for doubling the faremrs income	1	19	6	25	0	0	0	25

## ii) Vocational training programmes for Rural Youth

Crop /	Identified Thrust	Training title*	Training title* Month (days)		No. of Participants				SC/ST ticipa		G.Total
Enterprise	Area				М	F	Т	М	F	Т	
Plant	Bio-Pesticide	Production of Bio Pesticides	May	4	0	0	0	0	25	25	25
Protection		at Small scale level									
Fruit and	Value addition	Value addition in fruits,	Octo	4	0	19	19	0	6	6	25
Vegetable		vegetables and agriculture									
		produce for doubling farmers									
		income									
Integrated	Integrated Farming	Integrated Farming System	Jan	4	16	0	16	9	0	9	25
Farming											

#### 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	
				Μ	F	Т	Μ	F	т	
On Campus										
	EF	Pre-seasonal training on kharif crops (Pigeon	2	20	0	20	5	0	5	25
		pea, Green gram, Groundnut, Cotton)								
	EF	Crop production technology in Cumin, Gram,	2	20	0	20	5	0	5	25
		Wheat, Onion, Garlic								

Discipline	Subject	SubjectOn-CampusCodeQuarter					Off-Campus					
	Code							Quarter				
		Ι	II	III	IV	Total	Ι	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	СР	2	0	1	0	3		1	2		3	6
II Horticulture	HO					0	1				1	1
III Soil Health and Fertility Management	SFM		1			1	2	1	1		4	5
IV Livestock Production and Management	LPM	1	1			2	1	1	1		3	5
V Home Science/Women empowerment	WOE	1	1	1		3	1	1	1	2	5	8
VI Agril. Engineering	AEG		1			1					0	1
VII Plant Protection	PLP	1	1	1		3	1	2	2	1	6	9
VIII Fisheries	FIS		1	1		2	1	0	1	1	3	5
IX Production of Inputs at site	PI				1	1				1	1	2
X Capacity Building and Group Dynamics	CBD					0					0	0
(B) Extension Functionaries	EF	1		1		2					0	2
(C) Rural youth	RY	1			1	2			1		1	3
Total		7	6	5	2	20	7	6	9	5	27	47

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## iv) Sponsored programme

Discipl	Sponsorin	Client	Title of the training programme	No. of		Nu	G.				
ine	g agency	ele		cours	participants			SC/ST			Total
				е	М	F	Т	Μ	F	Т	
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	3	100	40	140	10	10	20	160
			technology								
SFM,	AGAKHAN	PF	INM and MIS in rabi crops	2	50	50	100	5	5	10	110
AEG											
PLP	DAO	PF	Integrated pest and diseases management	1	60	0	60	0	0	0	60
			in cumin								
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	1	55	0	55	5	0	5	60
			these crops								
PLP	ATMA	PF	Storage Techniques and IPM in summer	1	0	55	55	0	5	5	60
			crops								
			Total	16	675	145	820	70	20	90	910
b) Sp	ponsored res	search p	programme								
			Total								
c) Any special programmes											
SFM	ATMA	PF	World Soil health day	1	50	50	100	10	10	20	120
WOE	ATMA	PF	Mahila Krushi Divas	1	0	100	100	0	20	20	120
			Total	2	50	150	200	10	30	40	240

Annexure-II

Ne	v Technical Project	Proposal 1 (Plant Protection)				
1	Title	Knowledge of eco-friendly organic farming practices followed in crop by	the			
1						
_		farmers of Jamnagar District				
2	Background information	Organic farming follows the principle of circular causation and emerged in response to questions on health, environment and sustainab issues. It assesses the status, opportunities and sequestration potentials o India. It identifies constraints that impede adoption of especially for small f holders who constitute over 70% of farming community in India. Although India occupies second position in terms of number of certi organic farms (44,926), it is 13th in terms of area under of representing only 0. of total agricultural lands. This scenario appears poor compared to many of countries. Farmer"s apprehension towards in India is rooted in non-availabilit sufficient organic supplements, bio fertilizers and local market for organic proc and poor access to guidelines, certification and input costs. An integrated effo needed from government and non government agencies to encourage farmer adopt of as a solution to climate change, health and sustainability issue. India's organic food market has potential to grow more than 25 per of annually to touch \$1.36 billian by 2020. (Joshi, 2017). Organic farming system is not new in our country and is being follow from ancient time. It is a dynamic interaction between the soil, the plants, ecosystem and the environment which primarily aimed at cultivating land raising crops in such a way as to keep the soil alive and in good health by us organic waste i.e. crop, animal and farm waste and other biological material al with beneficial microbes.	ility f in arm fied 3 % ther y of luce rt is s to cent wed the and e of ong			
		Gujarat has remained a pioneer state in adopting organic farming. The are more than dozen groups and networks across the state working voluntarily promotion, training and marketing of organic produce. But still there is a huge gap in efforts being made by govt and adoptio observe and do effort to document the practices followed by farmers we adopoted organic farming in the region. Looking to this, the study was empiric carried out with following specific objectives	r for n of who			
3	Objective					
5	Objective	<ul> <li>To study the socio-economic profile of farmers.</li> <li>To assess the adoption level of farmers about organic farming practices</li> <li>To study knowledge of farmers for organic farming practices.</li> </ul>				
4	Principal	Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar				
	Investigator					
	Co-investigator	Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar Shri S. H. Lakhani, Scientist (Agronomy), KVK, JAU, Jamnagar Dr. P. V. Patel, Director of Extension Education, JAU, Junagadh				
5	Location	Jamnagar and Devbhumi Dwarka District				
6	Year of Commencement	2019-20				
7.	Experimental Detail/ Methodology	The present research study will conducted in jurisdiction of Krishi Vigyan Ken Junagadh Agricultural University, Jamnagar. Four talukas will selected purposi where organic farming is being practiced for conduction the present investigat Three villages will further selected purposively from each selected taluka; wh organic farming is being practiced and village wise organic farmers list prepared. Ten farmers will selected randomly for the study purpose. The overall 120 farmers will selected study purpose and an interview schedule developed as preferred by farmer time period and data were collected by person interview method. The data collected by personal interview method w processed, tabulated, classified and analyzed in light of objectives.	vely ion. here will hus, was onal			

Nev	w Technical Project	t Pi	roposal 2 (Home Science)
1	Title	:	Knowledge of human nutritional practices among the farm women of Jamnagar District
-			
2	Background information	:	Health is a precious asset for everyone. It is an essential requirement of all irrespective age, caste, creed, race, religion and economic standard. There is a significant relationship between housing conditions and health. An adequate and safe water supply, disposal of excreta and solid wastes drainage of surface water, facilities for personal and domestic hygiene and sanitary food preparation, control of indoor air pollution, safe handling of things and suitable precautions where the home serves as a work place. Moreover, the health problems are rampant in rural areas, not merely because of lack of medical facilities but because of general poverty, lack of balanced and nutritious diet to large proportion of rural population and moreover lack of knowledge with regard to health and hygiene. Good nutrition is a firm foundation for human happiness, and sound health and skilled performance. It constitutes the most important readily improved environmental influence of health. Even, today 25 percent of our Indian populations are trapped in the viscous circle of poverty, malnutrition and diseases which reduce their work performance nullify al efforts under taken for their development and finally impede over nation's progress. Even though, there are many schemes, programmes, medical services to serve the people, there is a great bulk of illness in our country. The common factors which contribute are personal ignorance, poverty, isolation, lack of resources and lack of knowledge. The overall objective of the study is to bring the awareness to improve the nutrition status. The study provides the information on the knowledge of the nutritional practices of the farm women. It would also give the information on the suggestions to improve the health and nutrition status among the rural
3	Objective	:	Ivelihood.         To know the social variables of farm women
			To study knowledge of farm women on selected nutritional practices
4	Principal Investigator	:	Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar
	Co-investigator		Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar Shri S. H. Lakhani, Scientist (Agronomy), KVK, JAU, Jamnagar Dr. P. V. Patel, Director of Extension Education, JAU, Junagadh
5	Location	:-	Jamnagar District
6	Year of Commencement		2019-20
7.	Experimental Detail/ Methodology	:	The study area of this research programme will be all six blocks viz., Jamnagar, Jodia, Dhrol, Kalavad, Lalpur & Jamjodhpur of Jamnagar District. From each taluka three villages and from selected villages four women will be selected randomly for the study. Thus, total of 120 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 -	
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S.	Deutieuleure	Constianed	Deleged	From a mediate on a
No.	Particulars	Sanctioned	Released	Expenditure
13.1	Recurring Contingencies			
13.1.1	Pay & Allowances	9500000	7200000	6850659
13.1.2	Traveling allowances	200000	50000	46923
13.1.3	Contingencies	1050000	850000	1030092
13.1.4.1	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance			
В	POL, repair of vehicles, tractor and equipments			
С	Meals/refreshment for trainees			
D	Training material			
Ε	Frontline demonstration except oilseeds and pulses			
F	On farm testing			
G	Training of extension functionaries			
Н	Maintenance of buildings			
Ι	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
13.1	Total Recurring	10750000	8100000	7927674
13.2	Non-Recurring Contingencies			
13.2.1	Works	0	0	0
13.2.2	Equipments including SWTL & Furniture	800000	0	0
13.2.3	Vehicle (Four wheeler/Two wheeler, please specify)	800000	0	0
24.2.4	Library	0	0	0
13.2	TotalNon Recurring	1600000	0	0
13.3	REVOLVING FUND	0	0	0
13.4	GRAND TOTAL (A+B+C)	12350000	8100000	7927674

## Budget - Details of budget utilization (2018-19) up to 31 January 2019

## Details of Budget Estimate (2019-20) based on proposed action plan

S. No.	Particulars	BE 2019-20 proposed (Rs.)
14.1	Recurring Contingencies	
14.1.1	Pay & Allowances	10800000
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
В	POL, repair of vehicles, tractor and equipments	300000
С	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
Н	Maintenance of buildings	400000
1	Establishment of Soil, Plant & Water Testing Laboratory	80000

J	Library	20000
14.1	TOTAL Recurring Contingencies	16600000
14.2	Non-Recurring Contingencies	
14.2.1	Works	55800000
14.2.2	Equipments including SWTL & Furniture	
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	57850000
14.3	REVOLVING FUND	0
14.4	GRAND TOTAL	74450000