

ACTION PLAN ***2020***

(1st January 2020 to 31st December - 2020)

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

ORGANIZED BY
DIRECTOR, ATARI ZONE-VIII, ICAR, PUNE

HELD AT
GUJARAT VIDYAPITH
NEAR INCOME TAX CIRCLE
AHMEDABAD
During February 13-14, 2020

PREPARED/COMPILED By
Dr. K. P. Baraiya, Senior Scientist & Head
Smt. A. K. Baraiya, Scientist



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JAMNAGAR - 361 006
GUJARAT



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ANNUAL ACTION PLAN
(1st January 2020 to 31st December - 2020)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra Millet Research Station, JAU Airforce Road, Opp. Digjam Mill Jamnagar- 361 006	(0288) 2710165	(0288) 2710165	kvkjamnagar@jau.in kvkjamnagar@gmail.com	www.jau.in 14218698

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

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

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

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

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

1.4. Year of sanction:

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

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

1.5. Staff Position (as on 31st December, 2019)

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Please indicate		Date of joining	If Temporary, pl. indicate the consolidated amount paid (Rs./month)
				Current Pay Band	Grade pay		
1	Senior Scientist & Head	Dr. K.P. Baraiya	Plant Protection	131400-217100		24.03.2015	
2	Scientist	Shri S. H. Lakhani	Crop Production	57700-182400		30.03.2015	
3	Scientist	Vacant	Plant Protection	57700-182400			
4	Scientist	Vacant	Horti./ Ag. Engg	57700-182400			
5	Scientist	Vacant	Extension Education	57700-182400			
6	Scientist	Dr. J. N. Thaker	Fisheries	79800-211500		31.08.2006	
7	Scientist	Smt. A. K. Baraiya	Home Science	68900-205500		17.08.2006	
8	Farm Manager	Shri H. S.	Agril. Ent.	39900-126600	-	19.09.2015	38090/-

		Godhani					
9	Programme Assistant	Shri N. D. Ambaliya	Agril.	39900-126600	-	01.02.2020	38090/-
10	Computer Programmer	Shri C. P. Padhiyar	Computer Operator	39900-126600	-	29.12.2008	
11	Accountant / Superintendent	Shri B. H. Joshi	Adm.	39900-126600	-	11.6.2008	
12	Stenographer	Vacant	Adm.	19900-63200	-	-	
13	Driver	Vacant	Supt.	19900-63200	-	-	
14	Driver	Shri. D.M. Chauhan	Supt. (Fix)	19900-63200	-	9.10.2007	
15	Supporting staff	Shri B. V. Bamaniya	Supt.	14800-47100	-	01.11.2014	
16	Supporting staff	Shri P. S. Damor	Supt.	14800-47100	-	1.09.2006	

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

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

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	KVK	15-8-11	550	5500000			
2.	Farmers Hostel	KVK	15-8-11	305	3000000			
3.	Staff Quarters (6)	KVK	15-8-11	400	4000000			
4.	Demonstration Units of vegetable	KVK + ATMA	31-3-07	-	-	-	-	-
5	Training Hall	RKVY	20-2-10	190.99	1395800	-	-	-
6	Process Plant	RKVY	20-2-10	197.31	1536400	-	-	-
7	Implement shed	RKVY	11-2-10	77.33	297800	-	-	-
8	Rain Water harvesting system	KVK	31-3-2007	26m×26m (2Ponds)60m×60m (1 Pond)	999000	-	-	-
9	Fencing	-	-	Not Available	-	-	-	-
10	Threshing floor	-	-	Not Available	-	-	-	-
11	Farm godown	-	-	Not Available	-	-	-	-
12	ICT lab	-	-	Not Available	-	-	-	-
13	Other	-	-	Not Available	-	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Presentstatus
Toyota Quallis (GJ-10G 433)	2004-05	490200	506444	Under process for rightoff
Hero Honda splendor(bike) GJ-10 BB-1634	2010-11	46475	20989	Working
Mahindra-Scorpio GJ-10 GA 0535	2019-20	1032000	780	Working

C) Equipments & AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Presentstatus
Captain Mini Tractor	2001-02	166125	Under process for rightoff
Telephoneline	2001-02	19850	Working
Multi tool carrier complete set	2001-02	6500	Working
Photocopier	2001-02	125000	Working
Over headprojector	2001-02	17600	Working
Computer	2002-03	29500	Working
HP Laser printer	2002-03	20390	Working
U.P.S. (3 KVA)	2002-03	38000	Working
Spectrophotometer	2005-06	89160	Working
Flame photometer	2005-06		Working
Physicalbalance	2005-06	10640	Working
Chemicalbalance	2005-06	100000	Working
Water distillation still	2005-06	96118	Working
Kieldahi digestion and distillation	2005-06	49644	Working
Shaker	2005-06	80080	Working
Grinder	2005-06		Working
Refrigerator	2005-06	16772	Working
Oven	2005-06	30550	Working
Hot plate	2005-06		Working
Aspee tractor mounted sprayer	2006-07	32000	Working
Air assisted blower type sprayer	2009	98750	Working
Laptop computer (HCL)	2009	47500	Working
Digital camera (Nikon)P-90 12.1	2009	24300	Working
Cotton stalk shredder	2008-09	121000	Working
Groundnut digger-tractor operated	2009	78500	Working
Cultivator cum rotavator	2009	90000	Working
Groundnut decorticator	2009	95850	Working
Multi crop thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar-tractor operator	2009	44000	Working
EPBX System	2012	44000	Working
Vertical Autoclave	2012	78190	Working
Laminar Airflow	2012	127440	Working
Electronic Balance (200 gm)	2012	12600	Working
EC/ Conductivity meter	2012	6300	Working
Portable pH Meter	2012	6300	Working
Compound microscope	2012	4410	Working
Trinocular microscope	2012	112000	Working
Digital temperature & humidity	2012	34750	Working

indicator cum controller			
Digital TDS meter	2012	3985	Working
Research centrifuse with accesaries	2012	42480	Working
Stabilizer	2012	10440	Working
Hot air oven	2012	41580	Working
BOD incubator	2012	46305	Working
Digital camera SLR (Canon)	2012	44750	Working
AC 1.5 tonn	2012	45990	Working
Mahindra Tractor 275 DI TU	2019	432000	Working

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

Sl.No.	Date	Number of Participants	Salient Recommendations	Action taken
1.	01-10-2005	21	-	-
2.	07-10-2006	30	-	-
3.	02-11-2007	31	-	-
4.	17-10-2008	30	-	-
5.	14-09-2009	33	-	-
6.	29-4-2010	35	-	-
7.	07.04.2011	37	-	-
8.	10.04.2012	32	-	-
9.	02.04.2013	37	-	-
10.	27.12.2013	26	-	-
11.	21.02.2015	25	-	-
12.	29.01.2016	22	-	-
13.	25.10.2016	27	-	-
14.	12.04.2018	30	-	-
15.	25.03.2019	35	As below	As below

Suggestions made by committee members during presentation of 15th SAC is as under:

1.	<p>Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh & Chairman of the SAC suggested following points.</p> <ul style="list-style-type: none"> ➤ Arrange FLD on latest variety of pearl millet ➤ Arrange training on micro irrigation system ➤ Analyze maximum soil and water sample at KVK Soil Testing Laboratory
2.	<p>Dr. V. P. Chovatiya, Director of Research, JAU, Junagadh pointed out</p> <ul style="list-style-type: none"> ➤ Arrange training on processing of dragon fruit and pearl millet ➤ Arrange training on horticultural crops cultivation ➤ Informed farmers in advance about weather and technical suggestion on precaution measures through SMS
3.	<p>Dr. P. V. Patel, Director of Extension Education, JAU, Junagadh advice that</p> <ul style="list-style-type: none"> ➤ Presentation of SAC should be in English and vocal language should be in Gujarati
4.	<p>Shri Vitthalbhai Sanghani progressive farmers of Jamnagar suggested to</p> <ul style="list-style-type: none"> ➤ Increase organic farming and advice about dangerousness effect of chemical on human being.

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 km² i.e. 14.125 lakh ha area in the west of Gujarat state. The climate is arid (80%) and semi arid (20%) with a meanmoistureindex of 67.5. About 95 to 98% of annual rainfall comes during the monsoon month of June to October, July and August being the rainiest months. The co-efficient of variation ranges between 50 and 82%. The annual potentialevapo-transpiration ranges between 1500 and 1650mm, three times the precipitation, resulting in no flow in the ephemeral channels for the most of the year. The district is a water scarcity area droughts are common in this region draughts of moderate to severeintensity occur once in 2 to 3 years. Although the integrateddrainagesystemfrom the story/rocky/gravelly surfaces and torrential nature of precipitation generate 40 to 60% of rainfall as runoff, steeper slopes and absence of checks allow the water to quickly flow to the sea. Being is hard rock terrain, the groundwater potential is very low, is already over exploited and mined, resulting in either the saline water ingress in the costal aquifers, or drying up of the ground water up to a depth of 100m. Consequently a need for holistic approach to water resourcedevelopmentin the district. Wind velocity prevailing in the district is higher order (14.1 km) ha on an annual averagebasisdue to sea coast area.

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

Basic information of operational district, Jamnagar and DevbhumiDwarka:

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

	Dhrol	Jamkalyanpur
	Jodiya	OkhaMandal (Dwarka)
	Kalavad	Bhanvad
	Lalpur	
	Jamjodhpur	

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

S. No	Farming system/enterprise		
1	Crops	Cereals	: Pearl millet, Sorghum, Wheat, Maize
		Pulses	: Greengram, Blackgram, Chickpea, pigeonpea
		Oilseeds	: Groundnut, Sesamum, Castor, Mustard,
		Cash crops	: Cotton,
		Spices and condiments	: Cumin, Fennel, Coriander, ajwan, Ishabgul
		Vegetables	: Onion, garlic, potato, chilli, binjal, tomato, cauliflower, Cowpea, cabbage, okra, peach, cucurbits etc
		Horticulture	: Chiku, pomegranate, lemon (Citrus), Jamun, Aonla, guava, custard apple, papaya, coconut, ber, Almond, Banana, Dragon fruit, Drum stick
		Floriculture	: Rose, merry gold, vevanti, etc
		Other Crops	: Chikori, Fenugreek, Mulberi neem
2	Live stock	Bullocks and cows	
		Buffaloes	
		Sheep	
		Goats	
		Horse and camel	
		Poultry	
		Others animals	
3.	Fishery	340 km coastal belt	4832 tonnes fish production

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

a) Soil type

S. No	Agro-climatic Zone	Characteristics
Zone-VI	North Saurashtra	<p>The influence area of North Saurashtra Agroclimatic Zone is spread among five districts viz., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 talukas in all. The influence area of the zone lies between 21°-02' to 23°-16' North Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the Ahmedabad district and ncoastal part of Bhavnagar district, on the South by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arabian sea.</p> <p>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,</p>

		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).
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b) Topography

Agro – Ecological situation in the District

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

The physiography of entire region of district is more or less flat. However, the region is undulating with slopes having little hilly areas from 25 to 150 meters. Physical features of the area vary from flat land to 150 meters above mean sea level. Most of the area falls in the range of 25m to 150m above mean sea level.

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

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

While delineating the zone into district agro ecological situations, there major factors including various soil 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 irrigation has 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 influence area of the district. The fact that this does not preclude the existence of more than one agro ecological situations within the same area.

Sl. No.	Agro Ecological Situation	Soil texture	Altitude	Principal crops	Special features	Approximate area (000ha)	Taluka included	Characteristics
AES-1	Shallow Black soils with 500-600 mm Rainfall	Sandy clay loam to clayey	75 – 150	Groundnut, wheat, sorghum, pearl millet	Well drained soils with rapid permeability	124	Kalawad, Jamjodhpur, Bhanvad, Okha	Moisture stress, temperature stress
AES-2	Shallow Black soils with 600-700 mm Rainfall	Clayey	75 – 150	Groundnut, wheat, sorghum, pearl millet	Slightly well drained soils with rapid permeability	180	Part of Kalyanpur, Jamnagar, Jamkhambhalia, Lalpur, Dhrol, Jodia	Moisture stress, temperature stress

AES-3	Coastal Alluvial soils with 300-400 mm Rainfall	Clayey loam to clayey	50	Groundnut , pearl millet, sorghum, chickpea	Low nitrogen and phosphorus	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 , pearl millet, sorghum, chickpea	Low nitrogen and phosphorus	299	Kalyanpur, Jodia & Jamnagar, Khambhadia, Lalpur, Dwarka	Salt affected salinity
AES-5	Coastal Alluvial shallow black soils with 300-400 mm Rainfall	Sandy loam to clay loam	0-25	Sorghum, Pearl millet, Groundnut , Sesamum	Arid climate	31	Okha	Known salinity for genus ephedra seacoast very rich in Algh flor and fanner of economic importance.

2.3 Soil type

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

S. No	Soil type	Characteristics	Area in ha
1	Shallow black soils	These soils have developed from basaltic trap especially from granite and gneiss parent materials. They light grey in colour. Taxonomically, they are classified as <i>Ustorthents</i> and <i>Ustochrepts</i> . Soils depth varies for cm to 45 cm. They are gravelly but mainly they are sandy clay loam to clayey in texture. The clay on top in surface soil varies from 20% to 77.49% and calcium carbonate content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly sub angular blocky and occasionally crumb. Since these soils lack distinct profile layering and are shallow, capacity to retain moisture is not sufficient. The soils are neutral to alkaline in reaction pH ranges from 7.3 – 8.4) and from fertility point of view, these are medium in available nitrogen, low to medium in available phosphorus and adequate in availability of potash.	124000 ha (Kalawad, Jamjodhpur, Bhanvad, Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, KHambhalia & Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murrum (Unconsolidated material of decomposed trap and limestone) is generally found in sub soil layer. The drainage does not pose any problem, because of porous sub soil layer. Morphologically, the profile of these soils has A-C horizon characteristics,	180000 ha (Part of Kalyanpur, Jamnagar, Jamkhamhalia, Lalpur, Dhrol, Jodia)

		<p>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 <i>Ustochrepts</i> in <i>Inceptisol</i> 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 <i>Vertic – Ustochrepts</i> at sub group level.</p> <p>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.</p> <p>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.</p>	
3.	Saline alkalisols	<p>Saline alkali souls are extensively distributed on the coastal are3a as well as inlands. These soils are located in the districts of Jamnagar (Jodia, part of Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils are originated as a result of higher water table, low rainfall and high evaporation losses during summer months resulting into upward movement of salts, poor drainage, use of saline ground water and ingress of sea water (in coastal areas). The souls are classified as <i>Fluvaquents</i>, <i>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.</p> <p>In Jamnagar district, the saline and alkaly soils are widely distributed mainly termed as coastal soil. The soils are sandy loam to clay loam in texture. The EC varies from 1.54 to 38.6 m.mhos/cm and ESP ranges from 9.2 to 74.64% in surface soil. The p^H varies from 7.6 to 9.00 in surface soils and normally calcareous in nature. Most of these soils are low to medium in available nitrogen and phosphorus and high in available potash.</p>	181000 ha (Jodia, part of Okha, Jamkhambhaliya, Kalyanpur& Jamnagar)
4.	Costal alluvialsoils	<p>these soils are located in the district of Jamnagar consisting Kalyanpur, Jodia and Jamnagar, Jamkhambhadia, Lalpur, Dwarka (OkhaMandal) and Dhrol, talukas. These soils are sandy clay loam to clay in texture. These soils are also affected with salts and are saline sodic in nature. The surface soil varies from 1.54 to 38.6 m.mhos/cm in Electrical conductivity, and from 9.2 to 74.64 in Exchangeable sodium percentage. The soil reaction varies with situation ranging from moderately alkaline or highly alkaline (p^H 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as <i>Halaquents</i> and <i>Haplaquents</i> – Entisol and <i>Helaquepts</i> and <i>Hapdaquents</i> in Inceptisol order.</p>	299000 ha (Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka)
5.	Hilly soils	<p>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.</p>	31000 ha (Some part of Bhanvad and Jamjodhpur)

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

S. No	Crop	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
	Oilseeds			
1	Groundnut	378335	5675025	15
2	Sesamum	6280	22608	3.6
3	Castor	7375	192487.5	26.1
4	Soybean	8	140	17.5
	Total Oilseeds	391998		
	Cash Crops			
5	Cotton	180440	4150120	23
6	sugarcane	150	7500	50
	Total Cash Crops	180590		
	Food Grain			
7	Wheat	58600	1881060	32.1
8	Pearlmillet	3520	46112	13.1
9	Sorghum	8100	85050	10.5
10	Maize	2850	20520	7.2
	Total Food Grains	73070		
	Pulse Crops			
11	Greengram	4185	23436	5.6
12	Blackgram	2910	17867.4	6.14
13	Cowpea	285	1071.6	3.76
14	Pigeon pea	175	1925	11
15	Moothbean	360	1512	4.2
16	Chickpea	31300	350560	11.2
17	Cluster bean	75	1406.25	18.75
18	Other pulses	15	0	
	Total Pulses	39305		
	SPICES AND CONDIMENTS			
19	Cumin	4300	36550	8.5
20	Fenugreek	90	1410	15.7
21	Coriander	2300	33350	14.5
22	Ajwan	5015	42630	8.5
24	Chilli	1550	29450	11.9
25	Garlic	600	47700	79.5
	Total spices	13855	191090	
	VEGETABLE		0	
27	Onion	200	40800	204.0
28	Potato	100	14650	146.5
29	Brinjal	1755	324680	185.0
30	Tomato	2355	701790	298.0
31	Cauliflower	97	14250	146.9
32	Cowpea	788	58940	74.8
33	Cabbage	811	136570	168.4
34	Okra	2790	200880	72.0
37	Cucurbits	1445	236110	163.4
38	Cluster bean	4524	436570	96.5
39	Other vegetable	160	17680	110.5
	Total Vegetable	15025	2182920	
	FRUIT CROPS		0	
40	Chiku	249	28810	115.7
41	Pomegranate	565	50290	89.0
42	Citrus	257	19040	74.1
44	Aonla	35	2100	60.0
45	Guava	12	520	43.3
46	Custard apple	65	4910	75.5
47	Papaya	483	301880	62.5

48	Coconut	505	42470	84.1
49	Ber	351	33270	94.8
50	Kharek	91	4550	50
51	Banana	44	19360	440.0
52	Mango	470	28670	61.0
53	Cashew nut	4	40.0	10.0
54	Other fruits	177	13890	78.5
55	Total Fruits	3308	549800	
56	FLOWERS		0	
57	Rose	66	6150	93.2
58	Merry gold	140	11450	81.8
60	Jasmine	3	260	86.7
62	Lilly	2	170	85.0
63	Other flowers	165	14650	88.8
	Total flowers	376	32680	
	OTHER CORPS		0	
64	Chikori	50	4325	86.5
65	Palma Rosa	43	5375	125
	Total Other crops	93		
	Fodder crops			
67	Lucern	1105	132600	120
68	Sorghum	16660	2499000	150
69	Maize	2910	0	
	Total Fodder crops	20675		

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

2.5. Weather data (January-19 to December-19)

Weekly mean Weather data-at JAU, Jamnagar during-2019									
Week No	Temp. °c		R.H.%		WS (kmph)	BSS (hrs)	Eo (mm)	Rain (mm)	Rainy Days
	Max	Min	I	II					
1-J	27.3	10.7	70	36	4.4	9.1	3.7		
2	26.1	12.5	71	38	5.4	8.2	4.0		
3	28.7	12.8	78	33	4.8	8.9	4.5		
4	24.6	11.5	56	28	7.8	9.0	4.2		
5	25.4	11.6	65	35	8.5	9.5	4.3		
6-F	25.7	11.7	63	27	7.7	9.1	4.6		
7	28.8	13.7	72	30	5.7	9.9	4.8		
8	28.6	16.4	85	37	6.4	9.4	4.6		
9	30.0	17.9	76	31	7.6	8.7	5.3		
10-M	29.8	17.8	77	32	6.9	9.3	5.6		
11	30.6	17.6	57	19	8.1	10.0	6.0		
12	33.8	19.6	77	29	8.1	9.8	6.8		
13	36.1	21.5	76	29	9.4	10.0	7.5		
14-A	37.3	22.2	85	30	10.4	10.2	8.0		
15	36.6	23.7	82	38	11.0	10.3	8.3		
16	34.8	23.1	76	37	10.2	10.1	8.2		
17	38.1	24.1	83	37	11.4	11.1	9.4		
18	36.3	24.8	79	47	13.0	10.7	9.6		
19-M	36.2	25.1	79	47	12.9	11.0	9.7		
20	36.3	26.2	83	52	14.2	10.7	9.8		
21	36.5	26.4	84	52	13.9	9.5	9.7		
22	38.2	27.4	88	49	15.1	10.0	10.6		
23-J	37.3	27.7	87	55	15.8	8.9	9.9		
24	34.7	27.2	85	67	11.4	2.2	8.0	48.5	2
25	35.3	27.1	86	61	12.6	7.7	7.2	7.5	1
26	35.9	28.5	79	56	13.8	6.9	8.9		

27-J	36.1	28.4	77	58	15.1	6.6	9.7		
28	36.4	28.6	74	52	18.0	6.9	9.8		
29	36.3	27.9	79	54	12.9	5.2	8.8	3.0	1
30	34.5	27.1	84	67	15.3	4.2	7.3	38.0	4
31	29.8	26.2	91	82	15.5	0.0	3.0	207.0	3
32-A	31.2	26.0	89	76	15.6	1.3	4.3	267.2	2
33	31.2	25.5	89	79	8.2	3.6	4.1	12.8	3
34	33.2	25.0	85	61	8.1	9.5	5.3	1.5	
35	32.9	26.2	91	73	7.8	5.2	4.5	197.0	3
36-S	31.8	25.6	95	84	5.0	2.7	3.2	233.0	6
37	31.3	26.2	92	83	7.8	1.0	3.7	75.00	2
38	33.5	26.1	86	65	6.3	6.1	5.2	1.5	
39	32.3	25.4	90	77	5.7	4.7	4.4	167.0	4
40-O	32.7	24.6	89	65	5.5	7.2	5.0		
41	34.7	23.6	74	44	3.2	9.6	5.9		
42	34.8	23.6	77	47	4.2	8.8	5.8		
43	32.8	22.9	75	46	5.8	8.2	5.3		
44	31.1	22.9	91	56	6.6	5.7	4.4	47.0	3
45-N	30.7	22.9	86	58	5.7	7.4	4.1		
46	31.3	21.8	82	53	5.7	7.9	4.2	5.00	1
47	29.8	19.1	77	49	4.1	7.7	4.0		
48	27.9	19.1	66	51	7.6	7.5	3.7		
49-D	28.2	18.8	67	49	7.4	5.3	3.8		
50	27.4	15.6	74	41	5.4	8.6	3.7		
51	26.4	13.9	67	34	7.5	9.1	3.7		
52	25.6	13.0	62	35	6.4	7.7	3.6		
Mean	32.2	21.8	79	49	9.1	7.6	6.0	1311.0	35
Highest	38.2	28.6	95	84	18.0	11.1	10.6	Total	Total
Lowest	24.6	10.7	56	19	3.2	0.0	3.0		

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

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

Category	Population	Production	Productivity
Cattle	349229	2475.2 qtl. total milk	
<i>Crossbred</i>			8.585 lit/day
<i>Indigenous</i>			3.375 lit/day
Buffalo	209616		4.451 lit/ha
Sheep	232530	295.16 lakh kg wool	
<i>Crossbred</i>			
<i>Indigenous</i>			
Goats	173022		0.274 lit/ha
Pigs		290097.9 Qtl meat	
<i>Crossbred</i>			
<i>Indigenous</i>			
Poultry	38041	12.77 lakh eggs	
Hens			
<i>Desi</i>			
<i>Improved</i>			
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 Fisheries, Jamnagar

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

Sl No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	Jamnagar	Chandragadh, Khojaberaja, Lothiya, NaniBanugar, Suryapara	Cotton, groundnut, sesame, castor, green gram, wheat, Gram, cumin, mustard, Vegetable, Soybean, flowers, live stock, fisheries	Heavy infestation of sucking pest in cotton, stem rot disease & white grub in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	<ul style="list-style-type: none"> - ICM in major crops of the district - Organic crop production - Introduction of new crop - Recycling of farm waste - Popularization of MIS - Motivation of fisheries cultivation - Soil Reclamation - Farm women empowerment - Farm mechanization
2	Kalyanpur	Gadhka, Patelka, Haripar, Juvanpur, Jampar			

2.8 Priority thrust areas

Sl. No	Crop/ Enterprise	Thrustarea
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	<ul style="list-style-type: none"> ➤ Integrated Crop Management in major crops ➤ IPM & IDM in major field crops ➤ Whitegrub management in Groundnut ➤ Wireworm management in garlic & Onion ➤ Micronutrient management in wheat
2.	Organic farming	Enhancement of organic farming through improved technologies
3.	Farm waste/ organic matter	Recycling of farm waste through composting, vermicompost, green manuring, etc.
4.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
5.	Soil	Reclamation of saline & alkaline soils
6.	Farm Women	Farm women empowerment by training in value addition, handi crafts, and small scale enterprises
7.	Fisheries	Fish Farming
8.	Improved Implements	Popularization of the mechanized technological know how
9.	Plant protection	Pinkboll worm in cotton and white grub in groundnut,
10	Horticultural area	Enhancement of pomegranate, datepalm, draganfruit,
11.	Storage facility	Requirement of storage techniques and value addition in farm produce
12.	Water conservation & use of Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques

3. TECHNICAL PROGRAMME**3.1.A. Details of targeted mandatory activities by KVK**

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
6	35	100	303

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
49	1245	377	38572

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (kg)	Soil Samples
(5)	(6)	(7)	(8)
208	700	120	500

3.1. B. Operational areas details proposed during 2020

S.No.	Major crops & enterprises being practiced in cluster villages	Prioritized problems in these crops/ enterprise	Extent of area (Ha/No.) affected by the problem in the district	Names of Cluster Villages identified for intervention	Proposed Intervention (OFT, FLD, Training, extension activity etc.)*
1	Groundnut	Lower yield, replacement of old variety	300000 ha.	Chandragadh, Khojaberaja, Lothiya, NaniBanugar, Suryapara, Gadhka, Patelka, Haripar, Juvanpur, Jampar	OFT, FLD and Training
2	Chilli	Thrips, Curling of leaves, nutritional deficiency	1500 ha	- " -	Training
3	Garlic	Purple blotch, wireworm, yellowing, tip burning	600 ha	- " -	Training
4	Sesame	Leaf webber, mite, blight, stem rot, root rot, yellowing, replacement of old variety	12000 ha.	- " -	OFT, FLD and Training
5	Wheat	Fall army worm, Stem borer, Termite, nutritional deficiency,	58000 ha	- " -	FLD and Training
6	Vegetable (Okra, Brinjal)	Drudgery reduction, cut & wounds, skin hardness, blisters and abrasions,	2790 ha	- " -	FLD and Training
7	Animal Husbandry	Due to inadequate nutrients in the daily ration, the % fat in milk and productivity of the animal decreased hence, financial loss.	Majority farmers (350000)	- " -	FLD and Training
8	Fisheries	Direct stocking of Spawn, Mortality rate is higher during spawn to fingerling stage rearing and uncertain in production	In Majority reservoir	Nana Khadba, NaviPipar, NaviVeraval	OFT
9	Fisheries	Assessment of technique of rearing the ruhu (<i>Labio rohita</i>) seed from spawn to fry stage in "Hapa" system	In Majority reservoir	Nana Khadba, NaviPipar, NaviVeraval	OFT
10	Cotton	Pink bollworm, redding & yellowing of leaves, sucking pests, weevil,	180440		FLD and Training
11	Chicory	ICM	50		FLD and Training

12	Cumin	IPM, IDM, INM, variety	4300		FLD and Training
13	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 gardening	Nutritional security	Majority farmers		FLD and Training
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										
Farm machineries										
Value addition										
Integrated Pest Management		1								1
Integrated Disease Management										
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL		3								3

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 Management										
Resource conservation technology										
Small Scale income generating enterprises										
TOTAL					1					1

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 2020

S. No.	Crop/enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
1	Sesame	To manage the leaf webber infestation in sesame	Management of sesame leaf webber	1. Injudicious use of insecticides. (Spray insecticides at weekly interval) (FP) 2. Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P. @ 10g/10 Liter of water at the time of infestation. (Rec. P.)	SAU	Cartap hydrochloride,	500 gm	12003	3	3600	No. of larvae per 1P. meter, yield	Dr. K. Baraiya
2	Sesame	Low Yield, Introduction of new high yielding variety,	Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District	1 G. Til 3 2 G. Til 5	JAU, Junagadh	Seed	1 kg seed of both variety	500	3	1500	Yield (Kg/ha), Plant Height (cm), Capsule per plant, 1000 seed weight (g), Maturity days, Economics	Shri. S. H. Lakhani Scientist (Agronomy)

3	Groundnut	Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Groundnut Variety in kharif season for Jamnagar District	1 GJG-22 2 GJG-32	JAU, Junagadh	Seed	30 kg seed of both variety	5000	3	15000	Pod & Haulm yield (kg/ha), Plant Height (cm), No. Of branches per plant, No. of pods per plant, 100 pods weight (g), 100 kernel weight (g), Economics	Shri. S. H. Lakhani Scientist (Agronomy)
4	Fisheries	Directly stocking of large number of Rohu (<i>Labio rohita</i>) spawn into village pond/reservoirs hampered the total production as well as survival rate of fish	Assessment of the technique of rearing the Rohu (<i>Labio rohita</i>) seed from spawn to fry stage in "Hapa" system	1. Stocking of seed (Spawn) in large quantity (Farmer Practices) 2. Stocking of Spawn @750 no./m ³ (Recommended Practices)	AAU, Anand and CIFA, ICAR, 2018	Hapa Size 4x1x1 Mts. (1m ³)	4	60003	18000	1. Total Bio Mass (Kg.) 2. Survival Rate (%)	Dr. J.N.Thaker	
5	Home Science	Low height and weight growth of infants	Evaluation of low cost weaning mix made from locally available food materials	1. Control (Local food habits are no special food making for infants. They give biscuits, wafers, rice and khichdi etc.. 2. Reco. Practices. low cost weaning mix made from locally available food materials	WHO	Weaning mix Powder	2.75 kg	250	10	2500	1. Height 2. Weight 3. Head & chest circumferences	A. K. Baraiya

OFT-1 Sesame (Assessment)**Title:** Management of sesame leaf webber**Objective:** To manage the leaf webber infestation in sesame

Problem definition: attack of leaf webber is increase

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

Problem diagram :-

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

Treatments:

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

No. of Replication: 3 (Farmers)

Observations:

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

OFT :-2

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

Treatments :

1. T₁ :- G. Til 3
2. T₂ :- 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:3

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

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

Treatments:

1. T 1 :- GJG-22
2. T 2 :- 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: 4

Title : Assessment of the technique of rearing the Rohu(*Labio rohita*) seed from spawn to fry stage in "Hapa" system

Objective: To increase total yield and income

Problem definition:

Directly stocking of large number of Rohu(*Labio rohita*) spawn into village pond/reservoirs hampered the total production as well as survival rate of fish

Problem diagram :-

Over stocking of seed	Assessment of the technique of rearing the Rohu(<i>Labio rohita</i>) seed from spawn to fry stage in "Hapa" system	Mortality rate is higher
Lack of knowledge		Total production decrease
		Low income

Treatments:

- T 1 :- Farmer Practices :Stocking of seed (Spawn) in large quantity
- T 2 :- Recommended Practices :Stocking of Spawn @750 no./m³

No. of Replication :- 3 (Farmers)

Source of Technology: - AAU, Anand and CIFA-ICAR

Thematic area: To increase the final production by increasing survival rate

Observation: 1. Total Biomass (Kg.)
2. Survival Rate (%)

OFT: 5

Title : Evaluation of low cost weaning mix made from locally available food materials.

Objective: 1. To study the effect of low cost weaning mix on the growth of infants.
2. Assessment of impact of weaning mix on the anthropometric measurements of infant.

Problem diagram :-

Low growth rate in height	Evaluation of low cost weaning mix made from locally available food materials.	Low growth rate in weight
No special food making for infants		Local food Habbits like biscuit, weafers
Lack of knowledge		High cost of ready weaning mix

Treatments:

T1 – Control (Local food habits are no special food making for infants. They give biscuits, wafers, rice and khichdi etc..)

T2 – Recommended practices - low cost weaning mix made from locally available food materials

No. of Replication :- 20 infants (12-18 months)

Source of Technology: - WHO

Thematic area: Child Development

Duration - 6 months

Observation: 1. Height 2. Weight 3. Head and Chest Circumferences

[Weaning mix-Roasted flake powder + Roasted Wheat power + Pulses (green gram dal + bengal gram dal) + Sesame seeds powder in the ratio of 2:1:1:0.25 were selected for the base of weaning mix. The same were in proportions of 75% along with 25% dehydrated sweet potato powder]

Details of On Farm Trial / Technology Refinement during 2020

S. No.	Crop/enter prise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
6	Cumin	To minimize the infestation of aphid in Cumin, To increase production To reduce yield loss of Cumin	Management of aphid in cumin.	1. Farmer's Practices :- Injudicious use of insecticides. [use of deltamethrin, flubendiamide, imidacloprid, acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin, carbosulfan, dimethoate after infestation of aphid repeatedly at weekly interval without follow ETL]		-			3	3600	1.aphid population (aphid index) from five randomly selected plants from each plot at 7 days after spray 2.yield.	Dr. K.P. Bara iya
				2. Recommendation :- First spray of Carbosulfan 25 EC 0.04% was made at initiation of pest and second spray was given after 15 days.	SAU	Carbosulfan	500 ml	900	3			
				3. Refinement :- First spray of Spray of <i>Bearuveria bassiana</i> @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval.	SAU	<i>Bearuveria bassiana</i>	2 kg	300	3			

OFT-6 (Refinement)**Title: Management of aphid in cumin.****Objective:** To minimize the aphid incidence in cumin. To reduce injudicious use of chemical pesticide. To minimize residual effect of chemical.**Problem definition:**

1. Heavy infestation of aphid 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
5. Extra irrigation rather than recommendation during cloudy weather.
6. Overlapping of the crops seasons

Problem diagram :-

Resurgence of aphid	Management of aphid in cumin	Multi season cropping system
Overlapping of the crops seasons		Lack of knowledge about pest outbreaks and its management
Lack of seed treatment		Lack of improper cultivation practices
In judicious use of pesticide		In judicious use of nitrogenous fertilizer
Extra irrigation		Improper use of FYM (without decomposition)

Treatments:

1. **Farmer's Practices:**-Injudicious use of insecticides. [use of deltamethrin, flubendiamide, imidacloprid, acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin, carbosulfan, dimethoate after infestation of aphid repeatedly at weekly interval without follow ETL]
2. **Recommendation** :- First spray of Carbosulfan 25 EC 0.04% was made at initiation of pest and second spray was given after 15 days.
3. **Refinement:**-First spray of Spray of *Beauveria bassiana* @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval.

No. of Replication: 3 (Farmers)**Source of Technology:** - State Agricultural University**Thematic area:** IPM**Observations:**

1. Record aphid population (aphid index) from five randomly selected plants from each plot at 7 days after spray
2. Record yield.

3.3 FRONTLINE DEMONSTRATIONS

A. Details of FLDs to be organized –

Sr. No.	Name of Crop/Enterprise	Name of Variety/Enterprises	Thematic area	Technology demonstrated	Critical Inputs	Season and year	Area (ha.)	No. of farmers/Demo.	Parameters identified
1	Cotton	Bt. Cotton	IPM/INM	Insecticide, Bio pesticide	Azadirachtin, Profenophos.,MDP,SNPV <i>Beauveriabassiana</i>	Kh-20	10	25	Pest population yield
2	Chicory		ICM	Bio pesticide Bio fertilizer	<i>Beauveriabassiana</i> Azotobacter, PSB	Kh-20	2	5	Yield
3	Wheat	GW-463	Varietal	Variety	seed	Rabi-20	4	10	Yield
4	Ajwain	Gujarat Ajwain-2	IPM/IDM	Bio pesticide Bio fertilizer	Trichoderma, <i>Beauveriabassiana</i> Azotobacter, PSB	Rabi-20	4	10	Yield
Other Scheme									

5	NMOOP- Groundnut	GJG-22/ GJG 9	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GJG-22/GJG-9), Metarhizium anisopliae, Trichoderma, PSB, Rhizobium	KH-20	20	50	Yield, % pod damage
6	NMOOP- Sesame	GTil -3/5	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GTil-3/5), Beauveria bassian, Trichoderma, PSB, Azotobacter	Sum-20	10	25	Yield, % pod damage
7	NFSM- Chickpea	GG-5	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed(GG-5), Beauveria bassiana, Trichoderma, PSB, Rhizobium	Rabi-20	20	50	Yield, % pod damage
8	ATIC Castor	GCH-9	Varietal	Variety	seed	Kh-20	8	20	Yield
9	ATIC Cumin	GC-4	ICM	Bio pesticide Bio fertilizer	Beauveriabassiana, PSB, Azotobector Trichoderma	Rabi-20	8	20	Yield
10	ATIC Coriander	GC-2	ICM	Bio pesticide Bio fertilizer	PSB, Azotobector, Beauveriabassiana, Trichoderma	Rabi-20	8	20	Yield
					Total		94	235	

Sponsored Demonstration

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

B. Extension and Training activities under FLDs

S. No.	Activity	No. of activities	Month	Number of participants
	Cotton			
1	Field days	1	September	20
2	Farmers Training	1	June	25
3	Media coverage	1	April	
4	Training for extension functionaries			
	Chikori			
1	Field days	1	January	20
2	Farmers Training	1	September	25
3	Media coverage	1	January	
4	Training for extension functionaries			
	Wheat			
1	Field days	1	January	20
2	Farmers Training	1	October	25
3	Media coverage	1	October	
4	Training for extension functionaries			
	Ajwain			
1	Field days	1	November	20
2	Farmers Training	1	September	25
3	Media coverage	1	November	

4	Training for extension functionaries			
	Groundnut			
1	Field days	2	Sep	50
2	Farmers Training	2	July, August	50
3	Media coverage	1	August	
4	Training for extension functionaries	1	June	30
	Sesamum			
1	Field days	2	April, May	50
2	Farmers Training	1	Feb	25
3	Media coverage	1	Feb	
4	Training for extension functionaries	1	Jan	30
	Chickpea			
1	Field days	2	January	50
2	Farmers Training	1	November	25
3	Media coverage	1	November	
4	Training for extension functionaries	1	October	30
	Castor			
1	Field days	1	February	20
2	Farmers Training	1	September	25
3	Media coverage	1	March	
4	Training for extension functionaries	1		
	Cumin			
1	Field days	1	December	20
2	Farmers Training	1	October	25
3	Media coverage	1	October	
4	Training for extension functionaries			
	Coriander			
1	Field days	1	November	20
2	Farmers Training	1	October	25
3	Media coverage	1	October	
4	Training for extension functionaries			
	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
Vegetable Mittens	Okra	Summer-20	5	2	Mittens	Picking efficiency Effect on skin
Cotton Picking Apron	Cotton	Kharif-20	5	2	Apron	Effect on skin

b. Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Critical inputs	Performance parameters / indicators
Animal Husbandry	Local	3	3	Bypass Fat	1. % Fat increase in milk 2. Total Milk Production increase

c. FLD on Other enterprises

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

3.4 TRAINING (INCLUDING THE SPONSORED AND FLD TRAINING PROGRAMMES):**A. ON CAMPUS**

Thematic Area	No. of Courses	No. of participant						
		Others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Water management	1	25	0	25	0	0	0	25
Seed production	1	21	2	23	2	0	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	4	94	2	96	4	0	4	100
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops				0			0	0
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management	1	0	20	20	0	5	5	25
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	1	0	20	20	0	5	5	25
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Soil and Water Conservation				0			0	0
Integrated Nutrient Management				0			0	0
Production and use of organic inputs				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
Dairy Management	1	25	0	25	0	0	0	25
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	0	0	0	25
Production of quality animal products				0			0	0
Total	2	50	0	50	0	0	0	50
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening				0			0	0
Design and development of low/minimum cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing	1	0	19	19	0	6	6	25
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 empowerment of rural Women				0			0	0
Location specific drudgery reduction technologies				0			0	0
Rural Crafts	1	0	22	22	0	3	3	25
Women and child care				0			0	0
Total	3	0	66	66	0	9	9	75

VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0	0	0	0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0
Total	0	0	0	0	0	0	0	0
VII Plant Protection				0			0	0
Integrated Pest Management	1	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	0	0	25
Production of bio control agents and bio pesticides				0			0	0
Total	3	72	0	72	3	0	3	75
VIII Fisheries				0			0	0
Integrated fish farming				0			0	0
Carp breeding and hatchery management				0			0	0
Carp fry and fingerling rearing				0			0	0
Composite fish culture				0			0	0
Hatchery management and culture of freshwater prawn				0			0	0
Breeding and culture of ornamental fishes				0			0	0
Portable plastic carp hatchery				0			0	0
Pen culture of fish and prawn				0			0	0
Shrimp farming	1	15	0	15	10	0	10	25
Edible oyster farming				0			0	0
Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Total	1	15	0	15	10	0	10	25
IX Production of Inputs at site				0			0	0
Seed Production				0			0	0
Planting material production				0			0	0
Bio-agents production				0			0	0
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production	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
Total	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
Total	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
Total	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)				0			0	0
TOTAL	16	272	93	365	20	15	35	400
(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				0			0	0
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition				0			0	0
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries	1	0	0	0	5	20	25	25
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	16	0	16	14	20	34	50
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	1	20	0	20	5	0	5	25

Integrated Pest Management	1	20	0	20	5	0	5	25
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Formation and Management of SHGs				0			0	0
Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
WTO and IPR issues				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				0			0	0
Production and use of organic inputs				0			0	0
Gender mainstreaming through SHGs				0			0	0
Any other (Pl. Specify)				0			0	0
TOTAL	2	40	0	40	10	0	10	50
G. Total	20	328	93	421	44	35	79	500

B. OFF Campus

Thematic Area	No. of Courses	No. of participant						Grand Total
		Others			SC/ST			
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
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				0			0	0
Production of organic inputs				0			0	0
Total	3	64	11	75	3	2	5	80
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops				0			0	0
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0

b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology				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	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	0	28	2	0	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	0	25	25	0	0	0	25
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	0	25	25	0	0	0	25
Production of quality animal products				0			0	0
Total	3	25	50	75	0	0	0	75
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	5	5	25
Design and development of low/minimum				0			0	0

cost diet				0			0	0
Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques				0			0	0
Value addition	1	0	25	25	0	0	0	25
Income generation activities for empowerment of rural Women				0			0	0
Location specific drudgery reduction technologies	1	0	19	19	0	6	6	25
Rural Crafts				0			0	0
Women and child care	1	0	25	25	0	0	0	25
Total	4	0	89	89	0	11	11	100
VI Agril. Engineering				0			0	0
Installation and maintenance of micro irrigation systems				0			0	0
Use of Plastics in farming practices				0			0	0
Production of small tools and implements				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Small scale processing and value addition				0			0	0
Post Harvest Technology				0			0	0
Total	0	0	0	0	0	0	0	0
VII Plant Protection				0			0	0
Integrated Pest Management	2	45	0	45	5	0	5	50
Integrated Disease Management	2	45	0	45	5	0	5	50
Bio-control of pests and diseases	1	25	0	25	0	0	0	25
Production of bio control agents and bio pesticides				0			0	0
Total	5	115	0	115	10	0	10	125
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	0	0	25
Composite fish culture				0			0	0
Hatchery management and culture of freshwater prawn	1	20	0	20	5	0	5	25
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				0			0	0
Pearl culture	1	20	5	25	0	0	0	25
Fish processing and value addition	1	10	15	25	0	0	0	25
Total	4	75	20	95	5	0	5	100
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
Bio-agents production				0			0	0
Bio-pesticides production	1	25	0	25	0	0	0	25
Bio-fertilizer production				0			0	0

Vermi-compost production				0			0	0
Organic manures production				0			0	0
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets				0			0	0
Small tools and implements				0			0	0
Production of livestock feed and fodder				0			0	0
Production of Fish feed				0			0	0
Total	2	47	0	47	3	0	3	50
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0
Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths				0			0	0
WTO and IPR issues				0			0	0
Total	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
Total	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)				0			0	0
TOTAL	26	415	216	631	26	13	39	670
(B) RURAL YOUTH				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs				0			0	0
Integrated Farming (Medicinal)				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Sericulture				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Value addition				0			0	0
Production of quality animal products				0			0	0
Dairying				0			0	0
Sheep and goat rearing				0			0	0
Quail farming				0			0	0
Piggery				0			0	0
Rabbit farming				0			0	0
Poultry production				0			0	0
Ornamental fisheries				0			0	0
Para vets				0			0	0
Para extension workers				0			0	0

Composite fish culture				0			0	0
Freshwater prawn culture				0			0	0
Shrimp farming				0			0	0
Pearl culture				0			0	0
Cold water fisheries				0			0	0
Fish harvest and processing technology				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	1	0	20	20	0	5	5	25
TOTAL	1	0	20	20	0	5	5	25
(C) Extension Personnel				0			0	0
Productivity enhancement in field crops	1	20	0	20	5	0	5	25
Integrated Pest Management	1	20	0	20	5	0	5	25
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Formation and Management of SHGs				0			0	0
Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
WTO and IPR issues				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				0			0	0
Production and use of organic inputs				0			0	0
Gender mainstreaming through SHGs				0			0	0
Any other (Pl. Specify)				0			0	0
TOTAL	2	40	0	40	10	0	10	50
G. Total	29	455	236	691	36	18	54	745

C. Consolidated table (ON and OFF Campus)

Thematic Area	No. of Courses	No. of participant						Grand Total
		Others			SC/ST			
		Male	Female	Total	Male	Female	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	1	25	0	25	0	0	0	25
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	7	158	13	171	7	2	9	180
II Horticulture								
a) Vegetable Crops								
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 etc.)	0	0	0	0	0	0	0	0
b) Fruits								
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								
Nursery Management	1	0	20	20	0	5	5	25
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
d) Plantation crops								
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								
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								
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								
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0
Total	2	0	45	45	0	5	5	50
III Soil Health and Fertility Management								
Soil fertility management	0	0	0	0	0	0	0	0
Soil and Water Conservation	0	0	0	0	0	0	0	0
Integrated Nutrient Management	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								
Dairy Management	2	25	25	50	0	0	0	50
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	25	25	50	0	0	0	50
Production of quality animal products	0	0	0	0	0	0	0	0
Total	5	75	50	125	0	0	0	125
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	5	5	25
Design and development of low/minimum cost diet	0	0	0	0	0	0	0	0
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	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 of rural Women	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	1	0	19	19	0	6	6	25
Rural Crafts	1	0	22	22	0	3	3	25
Women and child care	1	0	25	25	0	0	0	25
Total	7	0	155	155	0	20	20	175
VI Agril. Engineering								
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0
VII Plant Protection								
Integrated Pest Management	3	67	0	67	8	0	8	75
Integrated Disease Management	3	70	0	70	5	0	5	75
Bio-control of pests and diseases	2	50	0	50	0	0	0	50
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0
Total	8	187	0	187	13	0	13	200
VIII Fisheries								
Integrated fish farming	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	1	25	0	25	0	0	0	25
Composite fish culture	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	1	20	0	20	5	0	5	25
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	15	0	15	10	0	10	25
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	1	20	5	25	0	0	0	25
Fish processing and value addition	1	10	15	25	0	0	0	25
Total	5	90	20	110	15	0	15	125
IX Production of Inputs at site								
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	1	25	0	25	0	0	0	25
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	3	70	0	70	5	0	5	75
X Capacity Building and Group Dynamics								
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								
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)								
TOTAL	42	687	309	996	46	28	74	1070
(B) RURAL YOUTH								
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	0	0	0	0	0	0	0	0
Integrated Farming (Medicinal)	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Nursery Management of Horticulture crops	0	0	0	0	0	0	0	0

Training and pruning of orchards	0	0	0	0	0	0	0	0
Value addition	0	0	0	0	0	0	0	0
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	1	0	0	0	5	20	25	25
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	1	0	20	20	0	5	5	25
TOTAL	3	16	20	36	14	25	39	75
(C) Extension Personnel								
Productivity enhancement in field crops	2	40	0	40	10	0	10	50
Integrated Pest Management	2	40	0	40	10	0	10	50
Integrated Nutrient management	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Protected cultivation technology	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Group Dynamics and farmers organization	0	0	0	0	0	0	0	0
Information networking among farmers	0	0	0	0	0	0	0	0
Capacity building for ICT application	0	0	0	0	0	0	0	0
Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
WTO and IPR issues	0	0	0	0	0	0	0	0
Management in farm animals	0	0	0	0	0	0	0	0
Livestock feed and fodder production	0	0	0	0	0	0	0	0
Household food security	0	0	0	0	0	0	0	0
Women and Child care	0	0	0	0	0	0	0	0
Low cost and nutrient efficient diet designing	0	0	0	0	0	0	0	0
Production and use of organic inputs	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Any other (Pl. Specify)	0	0	0	0	0	0	0	0
TOTAL	4	80	0	80	20	0	20	100
G. Total	49	783	329	1112	80	53	133	1245

**Summary of Training Programme
ON Campus**

(A) Farmers & Farm Women	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	Total	
I Crop Production	4	94	2	96	4	0	4	100
II Horticulture	1	0	20	20	0	5	5	25
III Soil Health and Fertility Management	1	18	5	23	1	1	2	25
IV Livestock Production and Management	2	50	0	50	0	0	0	50
V Home Science/Women empowerment	3	0	66	66	0	9	9	75
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	3	72	0	72	3	0	3	75
VIII Fisheries	1	15	0	15	10	0	10	25
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	272	93	365	20	15	35	400
(B) RURAL YOUTH	2	16	0	16	14	20	34	50
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	20	328	93	421	44	35	79	500

Off Campus

(A) Farmers & Farm Women	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	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	25	50	75	0	0	0	75
V Home Science/Women empowerment	4	0	89	89	0	11	11	100
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	5	115	0	115	10	0	10	125
VIII Fisheries	4	75	20	95	5	0	5	100
IX Production of Inputs at site	2	47	0	47	3	0	3	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)	26	415	216	631	26	13	39	670
(B) RURAL YOUTH	1	0	20	20	0	5	5	25
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	29	455	236	691	36	18	54	745

Consolidated (On + Off Campus)

(A) Farmers & Farm Women	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	Total	
I Crop Production	7	158	13	171	7	2	9	180
II Horticulture	2	0	45	45	0	5	5	50
III Soil Health and Fertility Management	5	107	26	133	6	1	7	140
IV Livestock Production and Management	5	75	50	125	0	0	0	125
V Home Science/Women empowerment	7	0	155	155	0	20	20	175
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	8	187	0	187	13	0	13	200
VIII Fisheries	5	90	20	110	15	0	15	125
IX Production of Inputs at site	3	70	0	70	5	0	5	75
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	309	996	46	28	74	1070
(B) RURAL YOUTH	3	16	20	36	14	25	39	75
(C) Extension Personnel	4	80	0	80	20	0	20	100
Grand Total (A+B+C)	49	783	329	1112	80	53	133	1245

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

D. Skill development training

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Organic farming	Organic farming	Organic growers	Feb	30	20	0	20	0	0	0	20
Seed production	Seed production	Quality seed growers	Feb	30	20	0	20	0	0	0	20

3.5. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	12	210	35	245	65	50	115	275	85	360
Kisan Mela	1	1200	250	1450	200	50	250	1400	300	1700
Kisan Ghosthi	8	250	50	300	50	50	100	300	100	400
Exhibition	2	2000	1000	3000	500	200	700	2500	1200	3700
Film Show	50	1800	870	2670	250	80	330	2050	950	3000
Method demonstration	4	65	25	90	10	10	20	75	35	110
Farmers Seminar	5	250	40	290	80	10	90	330	50	380
Workshop	1	200	100	300	25	10	35	225	110	335
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	0	0	0	0	0	0	0	0

Extension Literature	25	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	1500	700	2200	400	250	650	1900	950	2850
Diagnostic visits	5	30	5	35	5	2	7	35	7	42
Exposure visits	1	30	0	30	10	0	10	40	0	40
Ex-trainees Sammelan	1	20	5	25	4	1	5	24	6	30
Soil health Camp	1	100	20	120	30	20	50	130	40	170
Animal Health Camp	1	50	10	60	20	5	25	70	15	85
Agri mobile clinic	1	3000	100	3100	1000	100	1100	4000	200	4200
Soil test campaigns	1	110	10	120	40	10	50	150	20	170
Farm Science Club Conveners meet	1	100	10	110	40	10	50	140	20	160
Self Help Group Conveners meetings	3	40	20	60	20	20	40	60	40	100
Mahila Mandals Conveners meetings	6	10	50	60	10	40	50	20	90	110
Celebration of important days (specify)	7	600	600	1200	150	80	230	750	680	1430
Krishi Mohostva	5	0	20	20	0	20	20	0	40	40
Krishi Rath	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	377	23095	5750	28845	7519	2208	9727	30614	7958	38572

3.6 Target for Production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-496	95
OILSEEDS	Groundnut	GJG-9	53
	Groundnut	GJG-32	60
	Sesame	G.Til.-3	0.4
PULSES	Green gram	GM-4	0.4
VEGETABLES			
OTHERS (Specify)			

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
FRUITS	Jamun, Guava, custard apple		100
SPICES			
VEGETABLES	Brinjal	GJLB-3,4	500
FOREST SPECIES			100
ORNAMENTAL CROPS			
		Total	700

Bio-products

Sl. No.	Product Name	Species	Quantity	
			No	(kg)
BIO PESTICIDES				
1	Beauveria			5000
2	Trichoderma			10000
3	PSB		200	
4	Azaobactor		200	
5	Rhizobium		200	
6	Pheromone trap			
7	NPV			

LIVESTOCK

Sl. No.	Type	Breed	Quantity	
			(Nos)	Unit
Cattle				
GOAT				
SHEEP				
POULTRY				
Pig farming				
FISHERIES	Advance Fingerlings	IMC	120 kg	

4 Literature to be Developed/Published**A. KVK News Letter**

Date of start : 01/01/2016

Number of copies to be published : e-publication

B. Literature developed/published

S.No.	Topic	Number
1	Research paper each scientist	1
2	Technical reports	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

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

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

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

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

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

Rural Youth

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

In-service personnel

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

5.2 Indicate the methodology for identifying OFTs/FLDs**For OFT :**

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

For FLD :

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

5.3 Field activities

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

5.4 Activities of Soil and Water Testing Laboratory**Status of establishment of Lab:**

1. Year of establishment :2005-06
2. List of equipments purchase with amount

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

9	Refrigerator	1		Working
10	Oven	1	30550	Working
11	Hot plate	1		Working
Total		11	472964	

3. Targets of samples for analysis:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount to be realized
Soil Samples	400	400	15	
Water	100	100	12	
Plant				
Total	500	500	27	

6. LINKAGE

6.1 Functional linkage with different organizations

Sr.	Name of organization	Nature of linkage
A	State corporation and state deptt.	
1	District Agricultural Officer, Deptt. of Agriculture, District Panchayat, Jamnagar	<ul style="list-style-type: none"> ➤ Joint diagnostic team visit at farmers field ➤ Organizing collaborative training to farmers ➤ For collaborative off campus training ➤ For collaborative training and demonstration Programme ➤ Collaborative on campus training programme ➤ For providing hostelfacilitiesto participants and organizing collaborative MahilaKrishiMela
2	District Rural Development Agency, Jamnagar	
3	Deputy Director of Veterinary, Department of veterinary & Animal Husbandry, Jamnagar	
4	Deputy Director of Horticulture, Jamnagar	
5	Deputy Director of Agriculture (Training), Farmer Training Centre, Jamnagar	
6	Deputy Director of Agriculture (Extension), Jamnagar	
7	Asstt. Director of Fisheries, Jamnagar	
8	Range Forest Officer, Jamnagar	
9	Asstt. Director of GLDC, Jamnagar	
10	Estate Engineer, Department of Irrigation, Jamnagar	
11	All Taluka Development Officers, and their team at Taluka level	
12	Rajkot-Jamnagar Gramin Bank, Jamnagar	
13	Project Director, ATMA, Jamnagar	
14	Project Director, DWDU, Jamnagar	
B	Private Corporation	
1	Territory Manager, GSFC, Jamnagar	<ul style="list-style-type: none"> ➤ Impart training on Agril. aspects ➤ Collaborative on/off campus training programme ➤ Sponsor training programme
2	Territory Manager, GNFC, Jamnagar	
3	Territory Manager, IFFCO, Jamnagar	
4	Reliance Industries, Dept. of Green Belt, Jamnagar	
C	NGOs	
1	Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad	<ul style="list-style-type: none"> ➤ Impart training on Agril. aspects ➤ Collaborative on/off campus training programme
2	V.D.R.F. Trust, Momai Xerox, B.P. Road, Bhanvad	
3	Late J.V. Nariya Educational and Charitable Trust, 49, Modern Market, First Floor, Nr. Amber Cinema	
4	Jay Ashapura Charitable Society, Madhav Nivas, Karmachari Society, Trikonban, Dhrol (Dist.-Jamnagar)	
5	Shekhpat Jalstrav Vikas Mandal, At.-Shekhpat, Post-Aliyabada, Ta.&Dist.-Jamnagar	
6	Lakhtar Jalstrav Gram Vikas Trust, 55, Shiv Complex, At.- Bhadra (Patiya), Ta.-Jodia, Dist.- Jamnagar	
7	Umiya Mataji Mandir Trust, At.- Sidsar, Ta.-Jamjodhpur, Dist.-Jamnagar	
8	Shardapith Education Trust, 104-Shrusti complex, Nr. Gurudwara, Jamnagar	
9	Chachara Education & Charitable Trust, 104- Shrusti complex, Nr. Gurudwara, Jamnagar	

10	Tata Chemical Society for Rural Development Foundation, At. Mithapur, Ta.- Dwarka, Dist.-Jamnagar	
11	Agakhan Rural Development Trust	
12	ANARDE foundation trust	

6.2 Details of linkage with ATMA

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

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

6.3 E-linkage during 2020

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 vernacular language

6.4 Give details of programmes implemented under National Horticultural Mission

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

6.5 Nature of linkage with National Fisheries Development Board

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

6.6 Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL/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	Farmers meeting for awareness	10	805000	Dr. K. P. Baraiya S. H. Lakhani A. V. Savaliya R. B. Pandya
		weather based agro advisory	105		

* 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
1.	ATMA	<ul style="list-style-type: none"> ➤ Organizing collaborative training to farmers ➤ For collaborative off campus training ➤ For collaborative training and demonstration Programme ➤ Collaborative on campus training programme ➤ For providing hostel facilities to participants and organizing collaborative Mahila KrishiMela ➤ Celebrating important days and programmes by central government as well as state government ➤ Field visit to gather ➤ Diagnostic visit on farmers field with line department
2.	DWDU	
3.	DAO	
4.	DRDA	
5.	GGRC	
6.	NABARD	
7.	SPIICE BOARD	
8.	STATE HORTICULTURE	
9.	CENTRAL WEREHOUSE	
10.	TATA CHEMICAL	
11.	ENARDE Foundation	

8. Innovator Farmer's Meet 2020

Sl.No.	Particulars	Details
1	Are you planning for conducting Farm Innovators meet in your district?	Yes/ No
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 inviting for the meet.

9. Farmers Field School (FFS) planned 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 different programmes is in sufficient
- Limit of food provision during training and other cost should be increase along with stipend and transportation facility (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 facilities

11. Utilization of hostel facilities

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

Annexure - I

TRAINING PROGRAMMES

i) Farmers & Farm women (On Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
Quarter-2 nd	PF	Doubling Farmers income through scientific production technology of major kharif crops	2	24	0	24	1	0	1	25
Quarter-2 nd	PF	Groundnut seed production Technology	1	21	2	23	2	0	2	25
Quarter-3 rd	PF	Water management through micro irrigation system in kharif crops	2	25	0	25	0	0	0	25
Quarter-4 th	PF	Organic Farming: A Step towards doubling farmers income	2	24	0	24	1	0	1	25
Horticulture										
Quarter-3 rd	PF	Nursery Management	1	0	20	20	0	5	5	25
Livestock prod.										
Quarter-2 nd	PF	Feed and Fodder Management in Animal Husbandry	2	25	0	25	0	0	0	25
Quarter-3 rd	PF	Dairy Industry :Additional income generation through animal husbandry	3	25	0	25	0	0	0	25
Home Sc.										
Quarter-1 st	PF	Importance of nutrition in daily diet and techniques of Minimization of nutrition loss in processing	1	0	19	19	0	6	6	25
Quarter-2 nd	PF	Value addition in fruits, vegetables and agriculture produce for doubling farmers income	1	0	25	25	0	0	0	25
Quarter-3 rd	PF	Empowerment of rural Women through rural crafts	1	0	22	22	0	3	3	25
Plan prot.										
Quarter-2 nd	PF	IPM in vegetable and summer crops for doubling farmers income	1	22	0	22	3	0	3	25
Quarter-3 rd	PF	Bio-control of pest & Diseases for doubling farmers income	1	25	0	25	0	0	0	25
Quarter-4 th	PF	IPM and IDM in rabi crops for doubling farmers income	1	25	0	25	0	0	0	25
Fisheries										
Quarter-3 rd	PF	Income generation in brackish water Aquaculture through Shrimp Farming in waste land	5	15	0	15	10	0	10	25
Production of Inputs at site										
Quarter-1 st	PF	Vermi-compost production	1	23	0	23	2	0	2	25
Soil Health										
Quarter-3 rd	PF	Importance of major and micro nutrient in crops production	1	18	5	23	1	1	2	25

ii) Farmers & Farm women (Off Campus)

Date	Client ele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
Quarter – 3 rd	PF	Integrated Weed Management in Oilseed crops	1	21	3	24	1	0	1	25
Quarter-4 th	PF	Pre-seasonal training on rabi crops (Chickpea, Cumin, Wheat)	1	23	2	25	0	0	0	25
Quarter-4 th	PF	Techniques of weed Management in Pulse crop	1	20	6	26	2	2	4	30
Horticulture										
Quarter-2 nd	PF	Processing and value addition in spices crops for doubling the farmers income	1	0	25	25	0	0	0	25
Livestock prod.										
Quarter-1 st	PF	Importance of Nutrients and Feed Management in Animal Husbandry to increase milk production	1	0	25	25	0	0	0	25
Quarter – 3 rd	PF	Common diseases and its remedies in cattle.	1	25	0	25	0	0	0	25
Quarter-4 th	PF	Importance of selection, housing, feed, breeding and health of animals for more profits in dairy industries	1	0	25	25	0	0	0	25
Home Sc.										
Quarter-1 st	PF	Women and Child Care	1	0	25	25	0	0	0	25
Quarter-2 nd	PF	House hold food security by kitchen gardening and nutrition gardening	1	0	19	19	0	6	6	25
Quarter – 3 rd	PF	Location specific drudgery reduction technology	1	0	19	19	0	6	6	25
Quarter-4 th	PF	food processing and value addition in fruit, vegetable, and other agricultural produce for doubling the farmer income	1	0	25	25	0	0	0	25
Plan prot.										
Quarter-1 st	PF	Store grain pests and its management for reduction the storage loss	1	25	0	25	0	0	0	25
Quarter-1 st	PF	IPM in vegetable crops: onion & garlic	1	25	0	25	0	0	0	25
Quarter-2 nd	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	20	0	20	5	0	5	25
Quarter – 3 rd	PF	Management of diseases in <i>kharif</i> crops	1	25	0	25	0	0	0	25
Quarter-4 th	PF	Integrated Disease and pest management in cumin and gram for doubling the farmers income	1	20	0	20	5	0	5	25

Fisheries										
Quarter-1 st	PF	Doubling the income in inland fisheries sector by stocking, rearing and selling the fish seeds.	3	25	0	25	0	0	0	25
Quarter-2 nd	PF	Importance of composite/mix culture of IMC with exotic carp/Fresh water prawn spp.	1	20	2	20	5	0	5	25
Quarter – 3 rd	PF	Additional income generation through fish processing and value addition in fishries sector	3	10	15	25	0	0	0	25
Quarter-4 th	PF	Pearl production: A source of additional income generation from inland fisheries	1	25	0	25	0	0	0	25
Production of Inputs at site										
Quarter-1 st	PF	Seed production technology of summer sesame	1	22	0	22	3	0	3	25
Quarter – 3 rd	PF	Bio pesticides production	1	25	0	25	0	0	0	25
Soil Health										
Quarter-2 nd	PF	Awareness about soil health card (SHC)	1	20	8	28	2	0	2	30
Quarter-2 nd	PF	Use of bio-fertilizers and recycling of farm waste through composting	1	28	0	28	2	0	2	30
Quarter – 3 rd	PF	Integrated Nutrient Management in Groundnut	1	22	7	29	1	0	1	30
Quarter-4 th	PF	Integrated Nutrient Management in rabi crops	1	19	6	25	0	0	0	25

ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Rural craft	women Empowerment	Income generation activities for empowerment of rural women through rural crafts	April	4	0	20	20	0	5	5	25
Fish	Ornamental Fish	Additional income generation through Ornamental fish culture and aquarium maintenance	July	5	0	0	0	5	20	25	25
Integrated farming	Integrated farming	Integrated farming system	Feb.	4	16	0	16	9	0	9	25

iii) Training programme for extension functionaries

Date	Clientele	Title of the training programme	Duration in days	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	

On Campus										
	EF	Pre-seasonal training on <i>kharif</i> crops (Pigeon pea, Green gram, Groundnut, Cotton)	2	20	0	20	5	0	5	25
	EF	Crop production technology in Cumin, Gram, Wheat, Onion, Garlic	2	20	0	20	5	0	5	25
Off Campus										
	EF	Pre-seasonal training on <i>kharif</i> crops (Pigeon pea, Green gram, Groundnut, Cotton)	2	20	0	20	5	0	5	25
	EF	Crop production technology in Cumin, Gram, Wheat, Onion, Garlic	2	20	0	20	5	0	5	25

iv) Skill development training

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Organic farming	Organic farming	Organic growers	Feb	30	20	0	20	0	0	0	20
Seed production	Seed production	Quality seed growers	Feb	30	20	0	20	0	0	0	20

QUARTER AND DISCIPLINE WISE SUMMARY OF TRAINING PROGRAMME :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP	0	2	1	1	4			1	2	3	7
II Horticulture	HO			1		1		1			1	2
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	1	4	7
VI Agril. Engineering	AEG					0					0	0
VII Plant Protection	PLP		1	1	1	3	2	1	1	1	5	8
VIII Fisheries	FIS			1		1	1	1	1	1	4	5
IX Production of Inputs at site	PI			1		1	1		1		2	3
X Capacity Building and Group Dynamics	CBD					0					0	0
(B) Extension Functionaries	EF		1	1		2		1	1		2	4
(C) Rural youth	RY	1		1		2		1			1	3
Total		2	6	10	2	20	6	8	8	7	29	49

iv) Sponsored programme

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

Budget - Details of budget utilization (April 2019 to up till date)

S. No.	Particulars	Sancti oned	Rele ased	Expend iture
24.1	Recurring Contingencies			
24.1.1	Pay & Allowances	91	69	68.58
24.1.2	Traveling allowances	1	1	0.95
24.1.3	Contingencies	9	8	8.0
24.1.4.1	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance			
<i>B</i>	POL, repair of vehicles, tractor and equipments			
<i>C</i>	Meals/refreshment for trainees			
<i>D</i>	Training material			
<i>E</i>	Frontline demonstration except oilseeds and pulses			
<i>F</i>	On farm testing			
<i>G</i>	Training of extension functionaries			
<i>H</i>	Maintenance of buildings			
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory			
<i>J</i>	Library			
24.1	Total Recurring	101	78	77.53
24.2	Non-Recurring Contingencies			
24.2.1	Works			
24.2.2	Equipments including SWTL & Furniture			
24.2.3	Vehicle (Four wheeler/Two wheeler, please specify)	14.5	14.5	14.5
24.2.4	Library			
24.2	TotalNon Recurring	14.5	14.5	14.5
24.3	REVOLVING FUND			
24.4	GRAND TOTAL (A+B+C)	115.5	92.5	92.03

Details of Budget Estimate (2020-21) based on proposed action plan

S. No.	Particulars	BE 2020-21 proposed (Rs.)
25.1	Recurring Contingencies	
25.1.1	Pay & Allowances	123
25.1.2	Traveling allowances	2
25.1.3	Contingencies	35
<i>A</i>	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	
<i>B</i>	POL, repair of vehicles, tractor and equipments	
<i>C</i>	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	
<i>D</i>	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	
<i>E</i>	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	
<i>F</i>	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	
<i>G</i>	Training of extension functionaries	
<i>H</i>	Maintenance of buildings	
<i>I</i>	Establishment of Soil, Plant & Water Testing Laboratory	
<i>J</i>	Library	
25.1	TOTAL Recurring Contingencies	160
25.2	Non-Recurring Contingencies	
25.2.1	Works	50
25.2.2	Equipments including SWTL & Furniture	
25.2.3	Vehicle (Four wheeler/Two wheeler, please specify)	
25.2.4	Library (Purchase of assets like books & journals)	1
25.2	TOTAL Non-Recurring Contingencies	51
25.3	REVOLVING FUND	
25.4	GRAND TOTAL	211