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ANNUAL PROGRESS REPORT

(January-2020 to December-2020)

&

ACTION PLAN

(January-2021 to December-2021)

TO BE PRESENTED AT
ANNUAL ZONAL WORKSHOP FOR KVK OF ZONE-VIII
(Gujarat, Goa & Maharashtra)

ORGANIZED BY
DIRECTOR, ATARI ZONE-VIII, ICAR, PUNE
ONNLINE WORKSHOP
HELD
During JULY 10-12, 2020

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

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY
JAMNAGAR - 361 006, GUJARAT

CONTENT

ANNUAL PROGRESS REPORT - 2020

(1st January 2020 to 31st December 2020)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

DETAIL REPORT OF APR-2020

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 Air force Road, Opp. Digjam Mill Jamnagar- 361 006	(0288) 2710165	(0288) 2710165	kvkjamnagar@gmail.com kvkjamnagar@jau.in	www.jau.in 11347096

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, Air force 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 December 31, 2020)

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	Present Basic		
1	Senior Scientist & Head	Dr. K.P. Baraiya	Plant Protection	131400-217100	143600	24.03.2015	
2	Scientist	Shri V. K. Kikani	Crop Production	57700-182400	84700	01.10.2020	
3	Scientist	Vacant	Plant Protection	57700-182400			
4	Scientist	Vacant	Horti./ Ag. Engg	57700-182400			
5	Scientist	Vacant	Ext. Education	57700-182400			
6	Scientist	Vacant	Fisheries/ Veterinary	57700-182400			
7	Scientist	Smt. A. K. Baraiya	Home Science	68900-205500	89900	17.08.2006	
8	Farm Manager	Shri H. S.	Agril. Ent.	39900-126600	39900	19.09.2015	

		Godhani					
9	ProgrammeAssistant	Shri N. D. Ambaliya	Agril.	39900-126600	-	01.02.2020	38090/-
10	Computer Programmer	Shri C. P. Padhiyar	Computer Operator	39900-126600	49000	29.12.2008	
11	Accountant / Superintendent	Vacant	Adm.	39900-126600	-	-	
12	Stenographer	Vacant	Adm.	19900-63200	-	-	
13	Driver	Vacant	Supt.	19900-63200	-	-	
14	Driver	Shri. D.M. Chauhan	Supt. (Fix)	19900-63200	26000	9.10.2007	
15	Supporting staff	Shri B. V. Bamaniya	Supt.	14800-47100	18200	01.11.2014	
16	Supporting staff	Shri P. S. Damor	Supt.	14800-47100	19300	1.09.2006	

1.6. Total land with KVK (in ha) : 20.84 ha

Sl. No.	Item	Area in hectare(s)*
1	Under Building and Road	2.00
2	Under Demonstration units	0.70
3	Under crops	12.40
4	Orchard	3.50
5	Agro-forestry	0.24
6	Others (Farm Pond & Channels)	2.00
	Total	**20.84**

1.7. Infrastructural Development:

A) Buildings

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

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Run	Present status
Toyota Qualis (GJ-10G 433)	2004-05	490200	484901	Working (it is required to be right off)
Hero Honda splendor(bike)GJ-10 BB-1634	2010-11	46475	21670	Working
Mahindra Scorpio (GJ-10 GA-0535)	2019	1032156	1500	Working (New)
Tractor Mahindra B-275 DI TU (Bhoomiputra) (GJ-10GA 0885)	2019	432205	-	Working (New)

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

1.8. A). Details 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	-	-
16.	07.03.2020	35	As below	As below
17.	08.02.2021	41	-	-

The Sixteenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on 7th March, 2020.

Suggestions made by committee members during presentation:

Sl. No.	Name and Designation of Participants	Salient Recommendations	Action taken
1	Dr. V. P. Chovatiya, Hon'ble Vice Chancellor, JAU, Junagadh	➢ Periodically send information through by mass SMS for contingency plant and weather effect to farmers.	Suggestion accepted and implemented with SMS to farmers 24 Messages and Benefited farmers 1709963. Weather Advisory send through WhatsApp in DAMU Project
		➢ Arrange FLD on latest variety of pearl millet	Suggestion accepted but, This FLD could not implemental due to unavailability of seed because of heavy rain and also COVID pandemic condition.
		➢ Arrange training on pink bollworm awareness during	Suggestion accepted and incorporated, in covid-19 condition

		second quarter.	we arrange online webinar on 16th May 2020and 26 farmers benefited.
		➢ Analyze maximum soil and water sample at KVK Soil Testing Laboratory	Suggestion accepted and analyzes 98 soil sample & 9 water sample in covid-19 pandemic condition.
2	Dr. B. K. Sagarka, Director of Extension Education, JAU, Junagadh	➢ Write down the record of success stories of different farmers success and highlight them	Suggestion accepted and incorporated. We are keeping the record of farmers success
3	Dr. K. D. Mungara, Associate Research Scientist, Pearl Millet Research Station, JAU, Jamnagar`	➢ Arrange training on bakery products.	Suggestion accepted and arrange training on 21-23.12.2020, 30 farm women participated.
4	Shri Vitthalbhai Sanghani and Jentibhai Parsana progressive farmers of Jamnagar	➢ Increase organic farming and advice about dangerousness effect of chemical on human being.	Suggestion accepted and incorporated in action plan. Maximum emphasis on organic farming in every programme. Although we arrange special training -5, No. of farmers -174 for organic farming.

The Seventeenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on February 8, 2021.

Committee made the following recommendation after active interaction.

Sl. No.	Name and Designation of Participants	Salient Recommendations	Action taken
1	Dr. V. P. Chovatiya, Hon'ble Vice Chancellor, JAU, Junagadh	➢ Arrange FLD on latest released variety of pearl millet.	Suggestion accepted and incorporated in action plan
		➢ Take data of critical observations hectare base in OFT	Suggesstions accepted and incorporated for OFT
		➢ Data should record lactation basis (milk yield) instead of 5 months in FLD on bypass fat in animal.	Suggesstions accepted and incorporated for FLD
		➢ Arrange training on weed management during third quarter	Suggestion accepted and incorporated in action plan
		➢ Record maximum farmers from every taluka and village level for benefit of DAMU project.	Suggestion accepted and incorporated in action plan
		➢ Accountability of FLD's	Suggesstions accepted and incorporated for FLD
		➢ Check the usefulness and review of advisory to farmers under DAMU project	Suggestion accepted and incorporated in action plan, survey will carried out for utility of DAMU project
2	Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh	➢ Analyze maximum soil and water sample at KVK Soil Testing Laboratory	Suggestion accepted and incorporated in action plan
		➢ Record impact assessment of training programs	Suggestion accepted and incorporated
		➢ Maintain register for FLD farmers with observation data	Suggesstions accepted and incorporated for FLD

		➢ Arrange demonstration on implements	
		➢ Upload all extension programs on ICAR portal	Suggesstions accepted and incorporated
		➢ Write down the feedback of farmers under FLD	Suggesstions accepted and incorporated for FLD
3	Shri. Vitthalbhai Sakhiya, Member of Extension Education Council, JAU, Junagadh	➢ to work cooperatively with all departments for farmers	Suggesstions accepted and incorporated for all activity carried out with lian department.
4	Shri Dhanpal Sir, ACF, Jamnagar, Devbhumi Dwarka and Porbandar	➢ linkage with forestry department with MOU for different extension programs and work together.	Suggestion accepted and incorporated in action plan

❖ 17th SAC proceeding along with list of participants in Annexure -1.

2. DETAILS OF DISTRICT

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

According tophysiographically, majorportion of the area in the district have an altitude ranging between 25 to 150 meters, which consists ten taluka having gentle slope to moderate slope. The district is marked by radicaldrainage pattern. Deccantrap basalt occupies a major part of the district. The Quaternary formations includemilliolite, limestone, alluvium and Geolian sediments. The dominantland forms are colluvial plains and rocky uplands. Low hills occur in the southern part of district and are dissected by numerous large and small seasonal streams, most of which drain towards north and form potential drainage basins. The district is characterized by shallow, black soil and coastal alluvial soils with large variations in depth, texture, structure salinity, and water erosion. Nearly two third area of the district is under cultivation. The major factors of land degradationareaccelerated water erosion and Salinization.

Basic information of operational district, Jamnagar and Devbhumi Dwarka:

Sr. No.	Details	JAMNAGAR	DEVBHUMI DWARKA
1	Total geographical area	6.075 lakh ha.	4.07509 lakh ha.
2	Totalcultivablearea	4.32 lakh ha.	2.52 lakh ha.
3	Netcultivatedarea	3.53 lakh ha.	2.38 lakh ha
4	Totalareaunder forest	0.43 lakh ha.	0.1736 lakh ha
5	Totalirrigatedarea	0.939 lakh ha.	0.23092 lakh ha.

6	Number of holdings	1.44 lakh		1.17 lakh	
7	Averageannual rainfall	550 mm.		550 mm.	
8	Soiltype	Medium black		Medium black	
9	Totalnumber of villages	419 (8 city)		280 (8 city)	
10	Totalpopulation	13.89 lakh (2011)		7.48 lakh (2011)	
	(a) Male	7.18lakh .		3.84lakh .	
	(b) Female	6.71 lakh		3.64lakh .	
11	Literacy percentage	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	The influence area of North SaurashtraAgroclimatic Zone is spread among five districts *viz*., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 talukas

		in all. The influence area of the zone lies between 21°-02' to 23°-16' North Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the Ahmedabad district and ncoastal part of Bhavnagar district, on the South by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arebian sea. The North Saurashtra region which comprises the peninsular part of Gujarat has low to medium rainfall and shallow to medium black soils and also coastal saline alluvial soils. In this Agro-climatic zone, cotton (Bt), groundnut, pearlmillet, wheat are the major crops which contribute considerably to the economy of the state. In Saurashtra, among this zone taking in to consideration the rainfall pattern, the topography, soil characteristics, the climate and the cropping pattern have been identified in Gujarat. The North Saurashtra zone have five main / sub station cum testing centre of University like Dry Farming Research Station with KVK, Targhadia (Rajkot District), Main Millet Research Station with KVK, Jamnagar, Oilseeds Research Station (Sesamum, Mustard, Sunflower) with KVK, Amreli, Dry Farming Research Station, Nanakandhasar, (Surendranagar District) and Dry Farming Research Station, Jamkhambhalia (Jamnagar District).

b) Topography

Agro – Ecologicalsituation in the District

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

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

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

Shallow black soils

Medium black soils

Saline alkali soils

Costal alluvial soils

Hilly soils

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

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

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

2.3 Soil type

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

S. No	Soiltype	Characteristics	Area in ha
1	Shallow black soils	These soils have developed from basaltic trap especially from granite and gneiss parent materials. They light grey in colour. Taxonomically, they are classified as *Ustorthents* and *Ustochrepts*. Soils depth varies for cm to 45 cm. They are gravelly but mainly they are sandy clay loam to clayey in texture. The	124000 ha (Kalawad, Jamjodhpur, Bhanvad,

		clay on tent in surface soil varies from 20% to 77.49% and calcium carbonate content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly sub angular blocky and occasionally crumb. Since these soils lack district profile layering and are shallow, capacity to retain moisture is not sufficient. The soils are neutral to alkaline in reaction p^H ranges from 7.3 – 8.4) and from fertility point of view, these are medium in available nitrogen, low to medium in available phosphorus and adequate in availability of potash.	Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, KHambhaliya& Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murrum (Unconsolidated material of decomposed trap and limestone) is generally found in sub soil layer. The drainage does not pose any problem, because of porous sub soil layer. Morphologically, the profile of these soils has A-C horizon characteristics, having moderate sub angular blocky structure. They are plastic and sticky and hard in consistency on drying. The colour of these soils varies from very dark brown to light grey. Taxonomically, these soils are classified as *Ustochrepts* in *Inceptisol* order. The soils are dominated by smectite group of clay minerals which give to mild cracking in dry season, due to which these are further classified as *Vertic – Ustochrepts* at sub group level. The soils are clay loam to clayey in texture. The souls are highly retentive of moisture because higher percentage of clay content. The percentage of clay content in the surface varies from 31.79 to 73.27 per cent, while no definite trend of clay content in different horizon of the profile is observed. 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.	180000 ha (Part of Kalyanpur, Jamnagar, Jamkham-bhalia, Lalpur, Dhrol, Jodia)
3.	Saline alkali soils	Saline alkali souls are extensively distributed on the coastal are3a as well as inlands. These soils are located in the districts of Jamnagar (Jodia, part of Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils are originated as a result of higher water table, low rainfall and high evaporation losses during summer months resulting into upward movement of salts, poor drainage, use of saline ground water and ingress of sea water (in coastal areas). The souls are classified as *Fluvaquents, Halaquents,* and*Haplaquents* (Entisol): *Haplaquents* and *Haptaquepts* in order – *Inceptisol.* Texturally these soils vary from sandy loam to clay. The degree of salinity and alkalinity is also highly variable. In Jamnagar district, the saline and alkaly soils are widely distributed mainly termed as coastal soil. The soils are sandy loam to clay loam in texture. The EC varies from 1.54 to 38.6 m.mhos/cm and ESP ranges from 9.2 to 74.64% in surface soil. The p^H varies from 7.6 to 9.00 in surface soils and normally calcareous in nature. Most of these soils are low to medium in available nitrogen and phosphorus and high in available potash.	181000 ha (Jodia, part of Okha, Jamkhambhali a, Kalyanpur& Jamnagar)

4.	Costal alluvials oils	these soils are located in the district of Jamnagar consisting Kalyanpur, Jodia and Jamnagar, Jamkhambhadia, Lalpur, Dwarka (OkhaMandal) and Dhrol, talukas. These soils are sandy clay loam to clay in texture. These soils are also affected with salts and are saline sodic in nature. The surface soil varies from 1.54 to 38.6 m.mhos/cm in Electrical conductivity, and from 9.2 to 74.64 in Exchangeable sodium percentage. The soil reaction varies with situation ranging from moderately alkaline or highly alkaline (p^H 7.6 to 9.0). The souls are normally medium in fertility. Taxonomically, these souls are classified as *Halaquents* and *Haplaquents* – Entisol and *Helaquepts* and *Hapdaquents* in Inceptisol order.	299000 ha (Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka)
5.	Hilly soils	These soils occur in some parts Bhanvad and Jamjodhpurtalukas of Jamnagar district. Because of the steep slope and erosion, the profile is not developed. These soils are developed because of weathering of parent materials existing basaltic trap limestone and sand stone. These soils are shallow to moderately deep and are coarse to find in their texture. The texture varies from loamy sand to clay loam to clay. They have under composed rock fragments and are low in fertility status. These soils are placed in to *Ustorthents* and those near foothills and valley are comparatively deeper can be placed under *Ustochrepts*and can be classified under estisol and *Inceptisol* orders respectively.	31000 ha (Some part of Bhanvad and Jamjodhpur)

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

S. No	Crop	Jamnagar			Devbhumi Dwarka		
		Area (ha)	Production (Qtl)	Productivity (Qtl /ha)	Area (ha)	Production (Qtl)	Productivity (Qtl /ha)
	Oilseeds						
1	Groundnut	213899	5883500	27.51	218714	6452063	29.50
2	Sesame	1225	6025	4.92	5166	21750	4.21
3	Castor	4178	113677	27.21	66	1800	27.27
4	Soybean	0	0		0	0	
5	Mustard	0	0		251	5350	21.31
	Total Oilseeds	**219302**	**6003202**	**27.37**	**224197**	**6480963**	**28.91**
	Cash Crops						
5	Cotton	166549	3254950	19.54	10758	199700	18.56
6	sugarcane	26	1340	51.54	12	610	50.83
	Total Cash Crops	**166575**	**3256290**	**71.08**	**10770**	**200310**	**69.40**
	Food Grain						
7	Wheat	48489	1722700	35.53	12843	455926	35.50
8	Pearlmillet	652	15483	23.75	939	22950	24.44
9	Sorghum	70	755	10.79	116	1218	10.50
10	Maize	15	112	7.47	50	380	7.60
	Total Food Grains	**49226**	**1739050**	**77.52696**	**13948**	**480474**	**78.04**
	Pulse Crops						
11	Greengram	3481	28035	8.05	2576	20750	8.06
12	Blackgram	1403	10200	7.27	1182	8650	7.32
13	Cowpea	20	75	3.75	0	0	0.00
14	Pigeon pea	967	17546	18.14	0	0	
15	Moothbean	26	110	4.23	0		

16	Chickpea	43688	715127	16.37	47555	780500	16.41
17	Cluster bean	158	2965	18.77	0	0	0.00
18	Other pulses	0	0		0		
	Total Pulses	**49743**	**774058**	**76.58**	**51313**	**809900**	**31.79**
	SPICES AND CONDIMENTS						
19	Cumin	2351	19987	8.50	88521	615364	6.95
20	Fenugreek	49	771	15.73	15	229	15.27
21	Coriander	1258	18237	14.50	21719	304066	14.00
22	Ajwan	2742	23312	8.50	12	99	8.25
24	Chilli	848	16104	18.99	85	1625	19.12
25	Garlic	328	26084	79.52	140	11302	80.73
	Total spices	**7576**	**104495**	**145.75**	**110492**	**932685**	**144.31**
	VEGETABLE						
27	Onion	109	22052	202.31	106	21430	202.17
28	Potato	55	7985	145.18	160	24300	151.88
29	Brinjal	650	119835	184.36	650	120500	185.38
30	Tomato	760	223247	293.75	897	266200	296.77
31	Cauliflower	53	7685	145.00	40	5880	147.00
32	Cowpea	345	25850	74.93	280	20935	74.77
33	Cabbage	432	72452	167.71	240	40450	168.54
34	Okra	1242	89541	72.09	1150	82720	71.93
37	Cucurbits	634	103498	163.25	450	73500	163.33
38	Cluster bean	1463	141254	96.55	1281	123550	96.45
39	Other vegetable	45	4350	96.67	5	468	93.60
	Total Vegetable	**5788**	**817749**	**1641.80**	**5259**	**779933**	**1651.82**
	FRUIT CROPS						
40	Chiku	136	15754	115.84	113	12989	114.95
41	Pomegranate	309	27500	89.00	256	22639	88.43
42	Citrus	141	10412	73.84	116	8560	73.79
44	Aonla	19	1148	60.42	16	942	58.88
45	Guava	7	284	40.57	5	232	46.40
46	Custard apple	36	2685	74.58	29	2208	76.14
47	Papaya	264	165079	625.30	219	136672	624.07
48	Coconut	276	23224	84.14	229	19111	83.45
49	Ber	192	18193	94.76	159	14983	94.23
50	Kharek	50	2488	49.76	41	2038	49.71
51	Banana	24	10587	441.13	20	8762	438.10
52	Mango	257	15678	61.00	213	12867	60.41
53	Cashew nut	2	22	11.00	2	17	8.50
54	Other fruits	97	7596	78.31	80	6247	78.09
	Musk melon	15		0.00	10		0.00
	Water melon	60		0.00	89		0.00
55	**Total Fruits**	**1885**	**300650**	**1899.65**	**1597**	**248267**	**1895.15**
56	**FLOWERS**						
57	Rose	36	3363	93.42	30	2769	92.30
58	Merry gold	77	6261	81.31	63	5151	81.76
60	Jasmine	2	142	71.00	1	117	117.00
62	Lilly	1	93	93.00	1	77	77.00

63	Other flowers	90	8011	89.01	75	6595	87.93
	Total flowers	**206**	**17870**	**427.74**	**170**	**14709**	**456.00**
	OTHER CORPS						
64	Chikori	27	2365	87.59	23	1947	84.65
65	Palma Rosa	24	2939	122.46	19	2424	127.58
	Total Other crops	**51**	**5304**	**210.05**	**42**	**4371**	**212.23**
	Fodder crops						
67	Lucern	632	76450	120.97	580	69050	119.05
68	Sorghum	34800	5225300	150.15	32944	4910500	149.06
69	Maize	4560	685050	150.23	8220	1233500	150.06
	Total Fodder crops	**39992**	**5986800**	**421.35**	**41744**	**6213050**	**418.17**
	Total Cultivated Area	**540344**			**459532**		

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

2.5. Weather data (January-2020 to December-2020)

Weekly mean Weather data-at JAU, Jamnagar during-2019									
Week No	**Temp. °c**		**R.H.%**		**WS**	**BSS**	**Eo**	**Rain**	**Rainy**
	Max	**Min**	**I**	**II**	**(kmph)**	**(hrs)**	**(mm)**	**(mm)**	**Days**
1-J	25.3	12.5	76	42	6.3	6.6	3.6		
2	24.9	12.5	75	37	6.7	7.5	3.9		
3	22.9	9.4	76	36	5.4	9.8	4.0		
4	26.5	13.0	77	31	5.8	9.2	3.9		
5	25.8	10.0	88	37	5.5	9.7	3.5		
6-F	26.7	13.3	67	27	6.9	9.9	4.5		
7	30.8	16.2	74	30	5.2	9.1	5.7		
8	31.1	15.8	73	28	5.8	9.3	5.8		
9	32.3	17.1	82	32	5.4	9.1	6.1		
10-M	29.3	16.8	78	36	8.2	9.6	6.1		
11	30.6	16.6	55	22	7.9	9.8	6.3		
12	33.1	20.1	85	40	7.8	8.9	7.0		
13	32.2	21.0	78	35	7.8	7.2	7.0		
14-A	36.7	21.4	80	28	7.5	10.1	8.6		
15	37.1	23.5	79	38	8.3	10.2	9.0		
16	36.0	24.2	82	41	9.8	9.9	8.8		
17	35.9	24.7	79	45	11.6	11.1	9.0		
18	36.4	25.5	79	50	12.3	11.4	9.2		
19-M	37.4	25.4	79	53	11.5	11.4	9.9		
20	36.0	25.4	74	42	12.4	11.3	9.5		
21	37.3	25.7	80	48	14.3	11.4	9.9		
22	37.6	27.4	76	50	14.7	11.0	10.3		
23-J	36.7	26.5	78	59	9.8	8.1	9.6	4.5	1
24	36.8	27.5	82	54	9.3	5.6	7.9	6.5	1
25	37.4	26.5	88	63	9.4	7.4	7.9	26.5	4
26	35.6	36.6	86	66	8.3	7.6	6.9	56.0	3
27-J	33.8	25.8	91	77	10.2	5.0	4.8	373.0	4
28	32.7	26.0	89	75	8.5	5.0	4.9	43.5	3
29	34.3	26.3	86	69	7.7	7.8	5.9	9.0	1
30	34.3	26.0	88	64	7.7	6.7	6.1	31.5	3
31	34.6	26.4	90	65	5.9	7.6	6.5	6.1	1

32-A	32.3	25.4	91	85	8.9	2.6	5.8	44.0	4
33	30.0	25.2	93	89	9.2	0.5	4.4	63.3	6
34	30.4	24.9	94	86	8.8	2.0	4.0	164.0	5
35	30.5	24.0	95	79	8.4	3.0	3.9	292.0	5
36-S	33.1	25.1	89	65	4.8	9.5	5.1		
37	33.4	24.9	88	72	4.3	5.8	5.4	97.5	3
38	33.4	25.5	87	70	5.8	7.5	5.4	0.6	
39	33.5	24.0	84	63	5.8	7.2	5.6		
40-O	33.5	23.8	84	59	4.6	9.2	5.6		
41	36.0	24.0	81	37	3.8	9.7	6.6		
42	35.1	25.9	79	54	5.0	6.8	6.3	6.8	1
43	34.5	20.9	73	30	3.3	9.7	5.4		
44	33.2	17.6	66	32	3.3	9.4	5.0		
45-N	32.7	17.3	70	32	3.2	9.1	4.7		
46	31.1	17.6	63	35	4.8	8.8	4.4		
47	29.1	14.0	66	29	4.1	9.2	3.9		
48	28.7	17.2	64	35	8.0	8.9	4.4		
49-D	31.1	16.0	81	34	2.9	8.9	4.6		
50	28.0	16.4	74	36	5.8	7.9	4.1		
51	26.4	12.9	64	30	6.5	8.6	3.9		
52	26.4	11.2	64	23	5.1	9.1	3.9		
Mean	**32.3**	**20.9**	**79**	**48**	**7.3**	**8.2**	**6.0**	**1224.8**	**45**
Highest	**37.6**	**27.5**	**995**	**89**	**14.7**	**11.4**	**10.3**		
Lowest	**22.9**	**9.4**	**55**	**22**	**2.9**	**0.5**	**3.5**		

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

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

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

Category	Area	Production	Productivity
Fish			
Marine			
Inland			
Prawn			
Scampi			
Shrimp			

Source: Assistant Directorate of Fishries, Jamnagar

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

Sl No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	**Jamnagar**	Chandragadh, Khojaberaja, Lothiya, NaniBanugar, Suryapara	Cotton, groundnut, sesame, castor, greengram, wheat, Gram, cumin, mustard, Vegetable, Soyabean, flowers, live stock, fisheries	Heavy infestation of sucking pest in cotton, stem rot disease&whitegrub in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	- ICM in major crops of the district - Organic crop production - 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	Thrust area
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ Whitegrub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micronutriet 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 ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2020

OFT				FLD			
1				2			
Number of OFTs		Total no. of Trials		Area in ha		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
6	5	20	17	100	88	303	273

Training				Extension Programme			
3				4			
Number of Courses		Number of Participants		Number of activities		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
55	49	1400	2049	377	9929	38572	23581

Seed Production (Qtl.)		Planting material (Nos.)	
3		6	
Target	Achievement	Target	Achievement
208	357.60	700	967

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
120	0	15600	6313

3.1. B. Operational areas details 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, Sclerotium rot (stem rot), white grub	380000 ha.	Chandragadh, Khojaberaja, Lothiya,NaniBanugar, Suryapara, Gadhka, Patelka, Haripar, Juvanpur, Jampar	OFT, FLD and Training
2	Chilli	Thrips, Curling of leaves, nutritional deficiency	1300 ha	- " -	Training
3	Garlic	Puple blotch, wireworm, yellowing, tip burning	700 ha	- " -	Training
4	Onion	Purple blotch, bulb rotting	400 ha		Training
5	Sesame	Leaf webber, mite, blight, stem rot, root rot, yellowing, replacement of old variety	125000 ha.	- " -	OFT, FLD and Training
6	Wheat	Fall army worm, Stem borer, Termite, nutritional deficiency,	60000 ha	- " -	FLD and Training
7	Vegetabe mittens (Okra, Brinjal)	Drudgery reduction, cut & wounds, skin hardness, blisters and abrasions,	1700 ha	- " -	FLD and Training
8	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 (325000)	- " -	FLD and Training

9	Cotton	Pink bollworm, redding & yellowing of leaves, sucking pests, weevil,	65000		FLD and Training
10	Chicory	ICM	45		FLD and Training
11	Cumin	Aphid, IPM, IDM, INM, variety	26300		FLD and Training
12	Ajwain	IDM, Variety	5045		FLD and Training
13	Coriander	IDM, IPM, Variety	2100		FLD and Training
14	Pearl millet	Fall army worm, Stem borer, Variety, IPM, IDM	1200		FLD and Training
15	Chick pea	IPM, Variety, Stunt virus, IDM	32500		FLD and Training
16	Kitchen gardening	Nutritional security	Majority farmers		FLD and Training

* Support with problem-cause and interventions diagram

3.2. Technology Assessment and Refinement

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation		2								2
Integrated Pest Management		1								1
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique		1								1
Mushroom cultivation										
Total		**4**								**4**

A2. Abstract on the number of technologies refined in respect of crops

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation										
Integrated Pest Management				1						1
Integrated Crop Management										
Integrated Disease Management										
Small Scale Income Generation Enterprises										
Weed Management										
Resource Conservation Technology										
Farm Machineries										
Integrated Farming System										
Seed / Plant production										
Value addition										
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total				**1**						**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								
Disease of Management								
Value Addition								
Production and Management								
Feed and Fodder								
Small Scale income generating enterprises								
TOTAL								

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. Achievements on technologies Assessed and Refined

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	No. of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation	Sesame	Assessment of the performance of high yielding Sesame varieties in *summer* irrigated condition for Jamnagar District	3	3	1.8
	Groundnut	Assessment of suitable high yielding groundnut variety in kharif season for Jamnagar district	3	3	1.8
Integrated Pest Management	Sesame	Management of sesame leaf webber	3	3	1.8
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Post Harvest Technology / Value					

addition					
Drudgery Reduction					
Storage Technique	Groundnut	Assessment of PICS bag for Groundnut storage	5	5	-
Others (Pl. specify)					
TOTAL			14	14	

B.2. Technologies Refined under various Crops

Thematic areas	Crop	Name of the technology refined	No. of trials	No. of farmers	Area in ha (Per trail covering all the Technological Options)
Integrated Nutrient Management					
Varietal Evaluation					
Integrated Pest Management	Cumin	Management of aphid in cumin	3	3	1.8
Integrated Crop Management					
Integrated Disease Management					
Small Scale Income Generation Enterprises					
Weed Management					
Resource Conservation Technology					
Farm Machineries					
Integrated Farming System					
Seed / Plant production					
Value addition					
Drudgery Reduction					
Storage Technique					
Others (Pl. specify)					
Total			**3**	**3**	

B.3. Technologies assessed under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management				
Others (Pl. specify)				
		Total		

B.4. Technologies Refined under Livestock and other enterprises

Thematic areas	Name of the livestock enterprise	Name of the technology refined	No. of trials	No. of farmers
Disease Management				
Evaluation of Breeds				
Feed and Fodder management				
Nutrition Management				
Production and Management				
Others (Pl. specify)				
Total				

C. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details

OFT – 1:- Garlic (Refinement) (Plant Protection) [*Rabi* 2019-20]

1) Title:- Management of purple blotch of garlic

Objective: To minimize the infestation of purple blotch of garlic. To increase production. To reduce yield loss of garlic

2)Problem definition: Incidence of Thrips is increase

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

Problem diagram :-

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

3) Details of technologies for assessment/refinement:

Category	**Source of technology**	**Technology details**		
Technology option 1	Farmer	T_1	Farmer practices	Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.
Technology option 2	Director of Onion & Garlic Research Station, ICAR	T_2	Reco. practices	Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.01% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence.
Technology option 3		T_3	Refined practices 1	Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.01% and Tebuconazole @0.05% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**

4) Source of Technology: JAU, Junagadh and Director of Onion & Garlic Research Station, ICAR

5) Productionsystem: Irrigated, *Rabi* crop and all agronomical practices adopted commonly.

6) Thematic area: Integrated disease management

7) Performance of the Technology assessed/refined with performance indicators:

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed / refined [Yield (q/ha), No. of infected plant/ 1 meter row length]					
			T_1		T_2		T_3	
			No. of infected plant	Yield	No. of infected plant	Yield	No. of infected plant	Yield
1	Mungara Mansukhbhai Valjibhai	Dodhiya	31	43	16	59	14	60
2	Jadeja Narendrasinh Gajubha	Bhangor	26	45	18	53	16	62
3	Bhensdadiya Rashik Kanjibhai	Moti Banugar	36	38	17	56	15	58
Average			**31**	**42**	**17**	**56**	**15**	**60**

8) Finalrecommendationfor micro level situation: Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method + Foliar sprays of Hexaconazole @ 0.01% and Tebuconazole @0.05% at 40 and 60 days respectively after transplanting helps in checking disease incidence and having minimum infestation of disease and highest yield with farmers practices.

9) Constraints identified and feedback for research:

- Time of application cannot identify for spraying
- Yield increase as compare to farmers' practices.
- Reduce the infestation of purple blotch disease.

10) Process of farmer's participation and their reaction: Farmers have good response and they have support for conducting OFT. Recommended practices having found less infestation of purple blotch disease where it is repeated use. However, refinement 1 is very effective treatment for the management of purple blotch and highest yield.

11) Results of On Farm Trials

Crop/ enter-prise	Farm-ing situ-ation	ProblemDiag-nosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Q/ha	
1	2	3	4	5	6	7	8	
Garlic	Irri-gated	IDM	Management of purple blotch of garlic	3	Use of fungicides	No. of infected plant/ 1 meter row length and yield (q/ha)	T_1	42.00
							T_2	56.00
							T_3	60.00

Crop/ enterprise	Results of assessment	Feedback from the farmer	Any refinement done	Justificationforrefinement
1	9	10	11	12
Garlic	Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.01% and Tebuconazole	Farmers have good response and they have support for OFT. Recommended practices having found less infestation of purple blotch where it is repeated use. However,	Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @	It is necessary against heavy incidence of diseases. Also resistance developed against conventional fungicide.

	@0.05% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**	refinement 1 is very effective treatment for the management of purple blotch and highest yield.	0.01% and Tebuconazole @0.05% at 40 and 60 days respectively after transplanting.	

Crop/ enterprise	Technology Assessed / Refined		Production kg/ha	Input CostRs./ha	GrossreturnRs./ha (Rate 25.00/kg	NetReturn (Profit) in Rs. / ha	BC Ratio
1	13		14	15	16	17	18
Garlic	T_1	Injudicious use of fungicide (Spray insecticides at weekly interval), spray fungicide after initiation/heavy infestation of diseases.	4200	90000	134400	44400	1.49
	T_2	Foliar sprays of Mancozeb @0.25%, Tricyclazole @ 0.1% and Hexaconazole @0.01% at 30, 45 and 60 days respectively after transplanting helps in checking disease incidence.	5600	84000	179200	95200	2.13
	T_3	Application of *Trichoderma* @ 5 kg/ha along with FYM @ 1 tonne/ha by broadcasting method **+** Foliar sprays of Hexaconazole @ 0.01% and Tebuconazole @0.05% at 40 and 60 days respectively after transplanting helps in checking disease incidence**.**	6000	82000	192000	110000	2.34

OFT :-2 Fisheries

OFT –2 :- Fish (2019-20) (Concluded)

1) **Title:-** Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/Reservoir
2) **Problem definition:** Natural resources cannot be fully utilized due to single spp. of fish was stocked in pond/reservoir by farmers hence, lower the production and finally financial loss.

3) Details of technologies selected for assessment/ refinement

Category	Source of technology	Technology detail		
Technology option 1	Farmer	T_1	Farmer practices	stocking a single species IMC into ponds
Technology option 2	CIFRI, ICAR Institutes	T_2	Reco. practices	stocking of *M. rosenbergii* with IMC fingerlings into ponds/reservoir

4) Source of Technology: - Central Inland Fisheries Research Institutes, Barrakpore, Calcutta.

5) Production system:

- Fish and fresh water prawn were grown simultaneously in natural water bodies without any additional treatments.

6) Thematic area: Use maximum natural resources and increase the total yield and income.

7) Performance of the Technology assessed with performance indicators:

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed / refined [Yield (Tone/ha), per cent Growth (Avg. Body weight] at time of harvesting.					
			T_1			T_2		
			% Growth (Avg. Body weight	Total Yield (Tone/ha)	Total Net Income	% Growth (Avg. Body weight	Total Yield (Tone/ha)	Total Net Income
1	Mahammad Husain Hasammiya	Navi Pipar	0.475	3.088	65188	-	-	-
2	Rafik Umar Safiya	Nana Khadba	0.550	3.410	90300	-	-	-
3	Al Unus Matsya Sahkari Group	Navi Veraval	0.510	3.315	87450	-	-	-
4	Sikandar Sidikbhai Aadmani	Khad Dhoraji	-	-	-	0.525 0.060	2.205 0.204	59600 79570
5	Asarafmiya Habibmiya	Sapada dem site	-	-	-	0.480 0.043	2.352 0.163	52250 53942
6	Sahedbhai Hasambhai Nakani	Nikava	-	-	-	0.450 0.052	2.340 0.182	51950 70110
	Average	***Catla catla***	0.512	3.271	80979	0.485	2.292	54600
		Macrobrachium rosenbergii	-	-	-	0.052	0.183	67874
	Total		**0.512**	**3.271**	**80979**	**0.537**	**2.482**	**122474**

8) Final recommendation for micro level situation: It is advisable to stock 13000 no. of Fish and Prawn per ha. in 46:54 ratio respectively go get higher return than single spp. stocking method i.e. 10000 no. of fish seed per ha., generally they followed.

9) Constraints identified and feedback for research: dependency on natural seed availability. Mostly found in Gujarat. Hatchery production technology should be developed**.**

10) Process of farmer's participation and their reaction: depending on their keen interest in adoption of new techniques/information.

11) Results of On Farm Trials (2019-20)

Crop/ enter-price	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter
1	2	3	4	5	6	7	8
FISH	Inland	Low Income	Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/	3	First rare the fish seeds up to fingerlings stage in a pond/reservoir then stocked the seeds of fresh water	% Growth increase/decrease (Avg. Body weight) of fish and fresh water prawn	**4.88%** ↑
						Total Yield increase/decrease (%) of fish and fresh water prawn (Tone/ha) at the time of harvesting	**(-) 24.12%** ↓

			Reservoir		prawn in the same water bodies	Total Income generated increase/decrease (%)	**51.24%** ↑

Crop/ enterprise	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
1	9	10	11	12
Fish	In the assessed technology, the *Catla catla* cultured with a fresh water prawn spp. *Macrobrachium rosenbergii* in a same pond in natural condition. Total yield is decreased up to -24.12 % due to lower growth rate of scampi, but obtained higher net return (Rs 1,22,474 /ha) (151 %) due to higher market value of scampi and B:C ratio (3.53) (1.20 increase) as compared to farmers practice.	Very good technology. Maximum utilization of natural resources of the pond. Due to the higher market value of FW prawn, net income is increased around Rs. 41000 per hactor	No	NA

Crop/ enterprise	Technology Assessed / Refined		Production Tone/ha	Input Cost Rs./ha	Gross return Rs./ha	Net Return (Profit) in Rs. / ha	BC Ratio
1	13		14	15	16	17	18
Fish	T_1	Farmer practices	3.271	61063	142042	80979	2.33
	T_2	Reco. practices	2.482	49598	175322	122474	3.53

12) Results of On Farm Trials (Concluded of 3 Years)

Crop/ enter-price	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter
1	2	3	4	5	6	7	8
FISH	Inland	Low Income	Stocking of Freshwater prawn (*Macrobrachium rosenbergii*) with IMC fingerlings in village pond/ Reservoir	3	First rare the fish seeds up to fingerlings stage in a pond/reservoir then stocked the seeds of fresh water prawn in the same water bodies	% Growth increase/decrease (Avg. Body weight) of fish and fresh water prawn	**10.62%** ↑
						Total Yield increase/decrease (%) of fish and fresh water prawn (Tone/ha) at the time of harvesting	**(-) 18.89%** ↓
						Total Income generated increase/decrease (%)	**62.12%** ↑

OFT 3 :-Sesame (*Summer* 2019-20)

1) Title:-Assessment of the performance of high yielding Sesame varieties in *summer* irrigated condition for Jamnagar District

2) Problem definition:

Sesame is cultivated predominantly during *summer* season in Jamnagar district. The productivity of Sesame, in Jamnagar is low due to low yield in existing variety, Heavy incidence of pest and disease

attack.. Hence, an OFT was carried out with the objectives to find out suitable high yielding sesame variety for *summer* season for Jamnagar district to enhance the sesame productivity.

3) Details of technologies selected for assessment/ refinement

Category	Source of technology	Technology detail	
Technology option 1	Farmer	T_1	G. Til. 2 (Farmer's practice)
Technology option 2	JAU	T_2	G. Til. 3
Technology option 2	JAU	T_3	G. Til. 5

4) Source of Technology: - Junagadh Agricultural University

5) Production system:

- Crop grown as Integrated Crop Management system and all other agronomical practices adopted commonly.

6) Thematic area: To enhance the sesame productivity.

7) Performance of the Technology assessed with performance indicators:

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed (from each plot]					
			Plant Height (cm)			Capsule per plant		
			T_1	T_2	T_3	T_1	T_2	T_3
1	Dudhagara Jayeshbhai Ranchhodbhai	Sumri	55	62	71	50	54	60
2	Aghera Jethalal Ranchhodbhai	Pithad	50	58	65	45	51	58
3	Godvani Dhnsukh	Keshiya	54	63	68	49	55	62
	Average		**53.00**	**61.00**	**68.00**	**48.00**	**53.33**	**60.00**

Sr. No	**Data on the performance indicators of the technology assessed (from each plot)**								
	1000 seed weight (g)			**Maturity days**			**Yield (Kg/ha)**		
	T_1	T_2	T_3	T_1	T_2	T_3	T_1	T_2	T_3
1	3.4	3.7	3.75	85	83	87	938	1025	1150
2	3.31	3.5	3.48	82	81	84	875	940	1025
3	3.35	3.6	3.65	88	85	90	908	1000	1125
Average	**3.35**	**3.60**	**3.63**	**85.00**	**83.00**	**87.00**	**907.00**	**988.33**	**1100.00**

8) Final recommendation for micro level situation:

The results of the study revealed that the sowing of Sesame G.Til.5 produced higher yield (1100 kg/ha), Plant height (68 cm), Capsule per plant (60), 1000 seed weight (3.63 g), net return (Rs. 51500/ha) and BCR (3.02) than sesame variety G. Til. 2, G. Til. 3.

9) Constraints identified and feedback for research:

- Lack of knowledge about new high yielding variety
- Non availability of seed of new high yielding variety

10) Process of farmer's participation and their reaction: Satisfactory, Less incidence of collar rot

11) Results of On Farm Trials:

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Q/ha	
1	2	3	4	5	6	7	8	
Sesame	Irri-gated	Low yield in existing variety	Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District t	3	suitable high yielding Sesame variety for *summer* season	Yield (Kg/ha), Plant Height (cm), Capsule per plant, 1000 seed weight (g), Maturity days, Economics		Pod yield (q/ha)
							T_1	9.07
							T_2	9.88
							T_3	11

Crop/ enterprise	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
1	9	10	11	12
Sesame	Sowing of sesame G.Til.5 produced higher yield (11.00 q/ha), Plant height (68 cm), Capsule per plant (60), 1000 seed weight (3.63 g), net return (Rs. 51500/ha) and BCR (3.02) than sesame variety G. Til. 2, G. Til. 3.	Farmers have good response and they have support for OFT. G.Til.5 produced higher yield	-	-

Crop/ enterprise	Technology Assessed / Refined		Production kg/ha Yield (Kg/ha)	Gross return Rs./ha	Cost of cultivation Rs./ha	Net Return (Profit) in Rs. / ha	BC Ratio
1	13		14	15	16	17	18
Sesame	T_1	G. Til. 2 (Farmer's practice)	907	63490	25500	37990	2.49
	T_2	G. Til. 3	988	69183	25500	43683	2.71
	T_3	G. Til. 5	1100	77000	25500	51500	3.02

Selling Rate: Sesame: 70 Rs per kg,

OFT-4 Sesame (Assessment) (Plant Protection)Kharif 2020

Title: Management of sesame leaf webber

1) Objective: To manage the leaf webber infestation in sesame

2) 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

3) Details of technologies selected for assessment/refinement

Category	**Source of technology**	**Technology detail**		
Technology option 1	Farmer	T_1	Farmer practices	Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, imidacloprid, cypermethrin, lamdacyhalothrin after infestation of leaf webber at weekly interval without follow ETL]
Technology option 2	SAU	T_2	Reco. Practices 1	Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P.@10g/10 Litre of water at the time of infestation.
Technology option 2	SAU	T_3	Reco. Practices 2	Spray of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval at pest initiation.

4) Source of Technology: - Junagadh Agricultural University

5) Production System and thematic area: Crop grown as Integrated Crop Management system and all agronomical practices adopted commonly.

6) Thematic area: Integrated Pest Management

7) Performance of the Technology assessed / refined with performance indicators:

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed / refined [Yield (q/ha), No. of leaf webber per 1 meter row length from each plot]					
			T_1		T_2		T_3	
			No. of leaf webber	Yield	No. of leaf webber	Yield	No. of leaf webber	Yield
1	Arjanbhai Ladhabhai Nagapara	Limbuda	11	5.5	6	6.8	4	6.5
2	Kantilal Jerambhai Kanani	Hadiyana	9	5.6	3	7.9	3	7
3	Vinod Nanjibhai Bhanderi	Latipur	12	4.8	4	7.5	4	6.3
Average			**10.67**	**5.30**	**4.33**	**7.40**	**3.67**	**6.60**

8) Final recommendation for micro level situation: Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P.@10g/10 Litre of water at the time of infestation having minimum pest population and highest yield withfarmers practices. The farmers who have done organic farming they have to use of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval at pest initiation.

9) Constraints identified and feedback for research:

- It start within early stage of crops and till remain till the pod formation

- It cannot come in direct contact of pesticide due to webbing of leaves.
- Yield increase as compare to farmers' practices.

10) Process of farmer's participation and their reaction: Farmers have good response and they have support for OFT. Recommended practices having found lower incidence of leaf webber and highest yield.

11) Results of On Farm Trial

Crop/ enter-prise	Farm-ing situ-ation	Problem Diag-nosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Q/ha	
1	2	3	4	5	6	7	8	
Sesame	Rainfed	IPM	Management of sesame leaf webber	3	Cartap hydrochloride 50% S.P.@10g/10 Litre of water at the time of infestation	Yield (q/ha), No. of leaf webber per 1 meter row length from each plot	T_1	5.30
							T_2	7.40
							T_3	6.60

Crop/ enterprise	**Results of assessment**	**Feedback from the farmer**	**Any refinement done**	**Justification for refinement**
1	9	10	11	12
Sesame	Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P.@10g/10 Litre of water at the time of infestation having minimum pest population and highest yield withfarmers practices. The farmers who have done organic farming they have to use of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval at pest initiation.	Farmers have good response and they have support for OFT. Recommended practices having found**lower** incidence of **leaf webber** and highest yield.	Nil	It is necessary against outbreak of pest and heavy infestation. Also resistance developed against conventional insecticide.

Crop/ enterprise	**Technology Assessed / Refined**		**Production kg/ha**	**Input CostRs./ha**	**Gross return Rs./ha (Rate 105.00/kg**	**Net Return (Profit) in Rs. / ha**	**BC Ratio**
1	13		14	15	16	17	18
Sesame	T_1	Injudicious use of insecticides. [use of chlorpyriphos, quinalphos, flubendiamide, Imidacloprid, cypermethrin, lambdacyhalothrin after infestation of leaf webber at weekly interval without follow ETL]	530	28700	59360	30660	2.07
	T_2	Application of the insecticide will be start at pest infestation occurred. Cartap hydrochloride 50% S.P.@10g/10 Litre of water at the time of infestation.	740	25400	82880	57480	3.26
	T_3	Spray of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval at pest initiation.	660	24500	73920	49420	3.02

OFT :- 5 GROUNDNUT(*Kharif* 2020)

1) Title:-Assessment of suitable high yielding groundnut variety in *kharif* season for Jamnagar district

2) Problem definition:

Groundnut is cultivated predominantly in Jamnagar district.The productivity of groundnut, in Jamnagar is low due to low yield in existing variety, Irregular rainfall, Heavy incidence of pest and disease attack.. Hence,an OFT was carried out with the objectives to find out suitable high yielding groundnut variety for *kharif* season for Jamnagar district to enhance the groundnut productivity.

3) Details of technologies selected for assessment/ refinement

Category	Source of technology	Technology detail	
Technology option 1	Farmer	T_1	GG-20 (Farmer's practice)
Technology option 2	JAU	T_2	GJG-22
Technology option 3	JAU	T_3	GJG-32

4) Source of Technology: - Junagadh Agricultural University

5) Production system:

- Crop grown as Integrated Crop Management system and all other agronomical practices adopted commonly.

6) Thematic area: To enhance the groundnut productivity.

7) Performance of the Technology assessed with performance indicators:

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed [Yield (q/ha), from each plot]					
			T_1		T_2		T_3	
			Haulm yield (q/ha)	Pod Yield (q/ha)	Haulm yield (q/ha)	Pod Yield (q/ha)	Haulm yield (q/ha)	Pod Yield (q/ha)
1	Mungara Chetanbhai Chhaganbhai	Jayava (Dhrol)	28	15.5	32	16.8	35	20
2	Pansuriya Parasbhai Sureshbhai	Makrani Sanosara (Kalavad)	26	17	30	18.2	33	23.5
3	Virani Mayurkumar Nanjibhai	Sanala (Kalavad)	30	18.5	34	22	37	24
Average			**28**	**17**	**32**	**19**	**35**	**22.5**

8) Final recommendation for micro level situation:

The results of the study revealed that the sowing of groundnut GJG-32produced higher pod yield (22.50 q/ha), haulm yield (35.0 q/ha), net return (Rs. 77750/ha) and BCR (2.99) than groundnut GJG-22 and GG-20.

9) Constraints identified and feedback for research:

- Lack of knowledge about new high yielding variety
- Non availability of seed of new high yielding variety
- Irregular rainfall

10) Process of farmer's participation and their reaction: Satisfactory, Less incidence of collar rot

11) Results of On Farm Trials:

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Q/ha		
1	2	3	4	5	6	7	8		
Groundnut	Irri-gated	Low yield in existing variety	Assessment of suitable high yielding groundnut variety in *kharif* season for Jamnagar	3	suitable high yielding groundnut variety for *kharif* season	Haulm yield (q/ha), Pod yield (q/ha),		Haulm yield (q/ha)	Pod yield (q/ha)
							T_1	28	17
							T_2	32	19
							T_3	35	22.5

Crop/ enterprise	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
1	9	10	11	12
Groundnut	sowing of groundnut GJG-32 produced higher pod yield (22.50 q/ha), haulm yield (35.0 q/ha), net return (Rs. 77750/ha) and BCR (2.99) than groundnut GJG-22.& GG-20	Farmers have good response and they have support for OFT. GJG-32 produced higher yield .	-	-

Crop/ enterprise	Technology Assessed / Refined		Production kg/ha		Gross return Rs./ha	Cost of cultivation Rs./ha	Net Return (Profit) in Rs. / ha	BC Ratio
			Haulm yield (Kg/ha)	Pod Yield (Kg/ha)				
1	13		14	15	16	17	18	19
Groundnut	T_1	GG-20	2800	1700	104700	49800	54900	2.10
	T_2	GJG-22	3200	1900	117300	48000	69300	2.44
	T_3	GJG-32	3500	2250	137750	46000	91750	2.99

Selling Rate: Groundnut pod: 55 Rs per kg, Groundnut haulm: 4.0 Rs per kg

OFT-6 : Home Science:

1) Title :Assessment of PICS bag for Groundnut storage

2) Problem Definition :-

1. Residual effect of insecticides used for stored godown
2. Insecticidal effect on germination
3. High moisture retention during summer days
4. Heavy attack of storage pests
5. High cost of storage
6. Heavy loss of food grains and seeds

7. Lack of regular inspection in stored products.

3) Details of technologies for assessment/ refinement

Category	Source of technology	Technology details		
Technology option 1	Farmer	T_1	Farmer practices 1	Open heaps in storage godown
Technology option 2	Farmer	T_2	Farmers practices 2	Local practices for storage in plastic bag /closely woven bag
Technology option 3	SAU (MKV-Parbhani)	T_3	Reco. practices	Storage in Triple layer hermetic "Purdue Improved Crop Storage"(PICS) bags

4) Source of Technology:- JAU, Junagadh Formerly it was from ICRISAT, Hyderabad

5) Production system :

6) Thematic area :

7) Raw data about the Performance of the Technology assessed / refined with performance indicators

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed(weight loss, Insect (Bruchid)damage in %)					
			T_1		T_2		T_3	
			weight loss	Insect damage	weight loss	Insect damage	weight loss	Insect damage
1	Jetiben Nagabhai Ambaliya	Viramdad						
2	Rekhaben Girdharbhai Sanghani	Karana						
3	Dilipbhai Gordhanbhai Sanghani	Hadmatiya						
4	Hansaben Kishorbhai Pedhadiya	Sumari						
5	Kishorbhai Danabhai Vaghela	Latipar						

8) Final recommendation for micro level situation:

9) Constraints identified and feedback for research :

10) Process of farmers participation and their reaction:

11) Results of On Farm Trials : **Awaited**

OFT – 7 Fish (2020)

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(*Labio rohita*) 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./m^3

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 was not conducted due to unavailability of technical staff**

OFT 8 Cumin (Rabi 2020-21)(Refinement)

1) Title: Management of aphid in cumin.

2) 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

3) Details of technologies for assessment/ refinement

Category	Source of technology	Technology details		
Technology option 1	Farmer	T_1	Farmer 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]
Technology option 2	SAU	T_2	Reco. practices	First spray of Carbosulfan 25 EC 0.04% was made at initiation of pest and second spray was given after 15 days.
Technology option 3		T_3	Refinement	First spray of Spray of *Bearuveria bassiana* @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval.

4) Source of Technology:- State Agricultural University

5) Production system :

6) Thematic area : IPM

7) Raw data about the Performance of the Technology assessed / refined with performance indicators

Sr. No	Name of the farmer	Name of the Village	Data on the performance indicators of the technology assessed(aphid population (aphid index) from five randomly selected plants from each plot at 7 days after spray and Yield q/ha)					
			T_1		T_2		T_3	
			No. of Aphid	Yield	No. of Aphid	Yield	No. of Aphid	Yiel d
1	Goganbhai Raydebhai Vadher	Viramdad						
2	Ranabhai Ramabhai Karmur	Tupani						
3	Ranmalbhai Sidabhai Chavada	Datrana						

8) Final recommendation for micro level situation:

9) Constraints identified and feedback for research :

10) Process of farmers participation and their reaction:

11) Results of On Farm Trials : Awaited

3.3 FRONTLINE DEMONSTRATION

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

List of technologies demonstrated during previous year and popularized during 2019 and recommended for large scale adoption in the district

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
						No. of villages	No. of farmer	Area in ha.
	Oilseeds							
1	Groundnut (NMOOP)	ICM	Seed (GJG-22)	Kharif-19	Field days, Field visit, Radio talk, On/Off Campus Training and TV Program, Exhibition and demonstration	146	1562	8950
2	Groundnut (ATIC)	ICM	*Trichoderma*, PSB, *Rhizobium*, *Beauveria*	Kharif-19		182	1040	2532
	Pulses							
3	Chickpea (NFSM)	IPM, Varietal	Seed GG-5, *Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-19		24	68	421
	Spices Crops							
4	Cumin	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-19		75	1120	1450
5	Ajwain	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-19		7	35	80
6	Coriander	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-19		58	1100	1460
	Cereals							
7	Pearl Millet	Variety	Seed (GHB-732)	Sum-19		12	35	30
	Others crops							
8	Cotton	IPM/IDM	SNPV,*Azadirachtin*, *Profenophos*, MDP, *Beauveria*	Kharif-19		50	400	540
9	Cotton (ATIC)	ICM	*Beauveria*, SNPV, MDP, *Azotobactor*, PSB,	Kharif-19		50	400	540
10	Kitchen Gardening	Nutritional Security	Vegetable seed	Kharif-19		15	45	10
11	Chicory	IPM	*Beauveria*, *Azotobactor*, PSB,	Kharif-19		4	15	12
12	Solar Cooker	Solar energy	Solar cooker	2019		3	10	0
13	Cotton	Drudgery reduction	Cotton picking Apron	Kharif-19		10	25	15

B. Details of FLDs implemented during 2020 (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Prop-osed	Actual	SC/ST	Others	Total
			Oilseeds						
1	Sesame (NFSM)	ICM	Improved Var.(G. Til-5), *Beauveria bassiana, Trichoderma,* PSB, *Azotobactor*	Sum-2019-20	10	10	0	25	25
2	Groundnut (NFSM)	ICM	Improved Var.(GJG.-22), *Metarhizium*, *Trichoderma*, PSB, *Rhizobium*	Kharif-2020-21	20	10	0	25	25
3	Castor (ATIC)	Varietal	Variety GCH-9	Kharif-2020-21	8	8	0	20	20
			Pulses						
4	Chickpea (NFSM)	IPM, Varietal	Varietal (GJG-6), *Trichoderma*, PSB, *Rhizobium*, *Beauveriabassiana*	Rabi-2020-21	20	20	0	50	50
5	Chickpea* (NFSM)	IPM, Varietal	Seed GG-5, *Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-2019-20	20	20	0	50	50
			Cereals						
6	Wheat	Varietal	Variety –GW 463	Rabi-2020-21	4	4	0	10	10
7	Wheat *	Varietal	Variety –GW 463	Rabi-2019-20	4	4	0	10	10
			Spices Crops						
8	Ajwain	IPM/IDM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-2020-21	04	04	0	10	10
9	Cumin (ATIC)	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2020-21	08	08	0	20	20
10	Coriander (ATIC)	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2020-21	08	08	0	20	20
11	Cumin*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2019-20	04	04	0	10	10
12	Ajwain*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-2019-20	04	04	0	10	10
13	Coriander*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2019-20	8	8	0	20	20
14	Cumin (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2019-20	10	10	0	25	25
15	Coriander (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2019-20	10	10	0	25	25
			Others crops						
16	Cotton	ICM	*Beauveria*, SNPV, MDP, *Azadirachtin*	Kharif-2020-21	10	10	0	25	25
17	Chicory *	IPM	*Beauveria*, *Azotobactor*, PSB,	Kharif-2019-20	2	2	0	5	5
18	Kitchen Gardening	Nutritional Security	Vegetable seed	2020-21	2	2	0	50	50
19	Cotton	Drudgery reduction	Cotton picking Apron	Kharif-2020	2	2	0	5	5

20	Okra	Drudgery reduction	Vegetable mittens	Sum-2019-20	-	-	0	5	5
21	Solar Cooker	Solar Energy	Solar Cooker	2020-21	-	-	0	5	5
22	Animal (Cow)	Dairy Management	Bypass Fat	2020-21	-	-	0	3	3

* FLD conducted during Rabi 2018-19

Details of farming situation

Sr. No.	Crop	Season and year	Farming Situation (Irrigated / rainfed)	Soil Type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
					N	P	K					
	Oilseeds											
1	Sesame (NFSM)	Sum-2019-20	Irrigated	MB	L	M	H	Cotton, Chickpea, Wheat	1 to 15 Feb.	1 to 15 May	1224.8	45
2	Groundnut (NFSM)	Kharif-2020-21	Rainfed	MB	L	M	H	Cotton, Chickpea, Wheat	1 to 4 July	15 Oct. to 31 Oct.	1224.8	45
	Pulses											
3	Chickpea (NFSM)	Rabi-2019-20	Irrigated	MB	L	M	H	Ground nut	10-20 Nov.	15-30 Mar.	1224.8	45
	Cereals											
4	Wheat	Rabi-2019-20	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1224.8	45
	Spice											
5	Cumin	Rabi-19	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1224.8	45
6	Ajwain	Rabi-19	Irrigated	MB	L	M	H	G'nut, Sesame	25-30 August	15-30 Mar.	1224.8	45
7	Coriander	Rabi-19	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1224.8	45
	Other											
8	Cotton	Kharif-2020-21	Irrigated	MB	L	M	H	Cotton, Wheat	1 to 4 August	15 Jan to 25Feb.	1224.8	45
9	Chicory	Kharif-19	Irrigated	MB	L	M	H	Cotton, Wheat	1 to 4 August	15 Jan to 25Feb.	1224.8	45

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Technology Demo.	feedback
	Oilseeds		
1	Sesame (NFSM)	Improved Var.(G. Til-5), *Beauveria bassiana,*	➢ Seeds are white and bold ➢ Resistant to Alternaria & Cercospora leaf spots, Phytopthora and Powdery mildew diseases ➢ Resistant to leaf webber, gallfly, mite, jassid and other pests

		Trichoderma, PSB, *Azotobactor*	➢ Late maturity period (91 Days) ➢ Very effective products for low cost management of pests & diseases
2	Groundnut (NFSM)	Improved Var.(GJG.-22), *Metarhizium*, *Trichoderma*, PSB, *Rhizobium*	➢ Effective control White grub with *Metariazhum* ➢ Effective control of *Sclerotium* with *Trichoderma* ➢ Also reduce the damage of pod borer ➢ Easy to apply ➢ Damage of jasside and thrips is comparatively less ➢ Late maturity group (118 day) variety ➢ Comparatively less tikka, rust and stem rot
	Pluses		
3	Chickpea (NFSM)	Seed GG-5, *Beauveria*, *Trichoderma*, *Azotobactor*, PSB	➢ GJG-5 high yielding variety ➢ GG-5 is resistance to virus and wilt ➢ More no. of branches per plant ➢ Bio pesticide and bio fertilizer are very effective and Easy to use ➢ Easley available and eco friendly ➢ It also reduce use of chemical pesticide/fertilizer in the era of organic farming
	Spices crop		
4	Cumin	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ Beauveria helped in control of thrips and also other pests ➢ Due to Trichoderma the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
5	Ajwain	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ Beauveria helped in control of thrips and also other pests ➢ Due to Trichoderma the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
6	Coriander	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ Beauveria helped in control of thrips and also other pests ➢ Due to Trichoderma the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
	Cereals		
7	Wheat	Varietal GW-463	➢ Resistant to tolerant against stem and leaf rust disease ➢ Profuse tillering and grain is having good chapatti making quality. ➢ Good grain appearance
	Others		
8	Chicory *	*Beauveria*, *Azotobactor*, PSB,	➢ Less fertilizer cost and reclamation of soil condition ➢ Reduce pest attack like aphid ➢ The products were easy to use
9	Kitchen Gardening	Vegetable seed	➢ Fresh vegetable available at doorstep and at a time with minimum cost ➢ Regulatory daily nutritious diet.

			➢ They produce organic vegetables because farm women are not applying any pesticides or agrochemicals in their backyard. ➢ Utilized maximum backyard space and waste water. ➢ Income generated by selling extra vegetables grown in kitchen garden.
10	Drudgery reduction	Cotton picking Apron	➢ Useful for manual cotton picking and also vegetable harvesting ➢ Use of apron makes the women comfortable while picking cotton ➢ Prevents scratching of the skin
11	Drudgery reduction	Vegetable mittens for Okra	➢ Mittens are simple in design and easy for stitching. It made out of locally available material by local tailor. ➢ Mittens are useful for increasing speed of work. Long sleeves of mittens give protection to the skin of arms
12	Solar energy	Solar Cooker	➢ Light weight &Easy to mobile ➢ Use less fuel ➢ Reduce fuel collection time ➢ Reduce cooking time ➢ Completely smoke less ➢ Conserve trees ➢ Allow more dung to be used as fertilizer instead of fuel Provide work for local chulha makers
13	Animal (Cow)	Bypass Fat	This product is quite good and may help to increase % fat of milk and productivity of animals.

Farmers' reactions on specific technologies

Sl. No.	Crop	Technology Demo.	feedback
	Oilseeds		
1	Sesame-Summer (NFSM)	ICM	➢ Higher yielding white seeded variety. ➢ Effective control of diseases ➢ Bio-fertilizer reduce cost of cultivation ➢ Improve soil health
2	Groundnut Kharif NFSM	ICM	➢ GJG-22 is high yielding variety ➢ Less incidence of *Sclerotium* ➢ Effective control White grub with *Metariazhum* ➢ Effective control of *Sclerotium* with *Trichoderma* ➢ Also reduce the damage of pod borer ➢ Easy to apply
	Pluses		
3	Chickpea	ICM	➢ GJG-5 high yielding variety ➢ GG-5 is resistance to virus and wilt ➢ More no. of branches per plant ➢ Bio pesticide and bio fertilizer are very effective and Easy to use ➢ Easley available and eco friendly ➢ It also reduce use of chemical pesticide/fertilizer in the era of organic farming
	Cereals		
4	Wheat	Variety – GJW-463	➢ More number of tillers having require less seed rate ➢ Higher yielding variety

			➢ Good for chapatti making ➢ Attractive grain colour with lustrous.
	Spices crop		
5	Cumin	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ *Beauveria* helped in control of thrips,aphid and other pests ➢ Due to *Trichoderma* the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
6	Ajwain	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ *Beauveria* helped in control of thrips, aphid and other pests ➢ Due to *Trichoderma* the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
7	Coriander	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	➢ Use of *Azotobacter* and PSB had reduced the quantity of chemical fertilizers ➢ *Beauveria* helped in control of thrips, aphid and other pests ➢ Due to *Trichoderma* the incidence of wilt were minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
	Others		
8	Chicory	*Beauveria*, *Azotobactor*, PSB	➢ Less fertilizer cost and reclamation of soil condition ➢ Reduce pest attack like aphid ➢ The products were easy to use
9	Cattle	Bypass Fat	➢ This product is quite good and may help to increase % fat of milk and productivity of animals.
10	Solar cooker		➢ Light weight &Easy to mobile ➢ Use less fuel and Reduce fuel collection time ➢ Reduce cooking time ➢ Completely smoke less ➢ Conserve trees ➢ Allow more dung to be used as fertilizer instead of fuel
11	Drudgery reduction	Cotton Picking Apron	➢ Useful for manual cotton picking and also vegetable harvesting ➢ Use of apron makes the women comfortable while picking cotton ➢ Prevents scratching of the skin
12	Drudgery reduction	Vegetable mittens	➢ Mittens are simple in design and easy for stitching. It made out of locally available material by local tailor. ➢ Mittens are useful for increasing speed of work. ➢ Long sleeves of mittens give protection to the skin of arms
13	Kitchen gardening	Vegetables seeds	➢ Fresh vegetable available at doorstep and at a time with minimum cost ➢ Regulatory daily nutritious diet. ➢ They produce organic vegetables because farm women are not applying any pesticides or agrochemicals in their backyard. ➢ Utilized maximum backyard space and waste water. ➢ Income generated by selling extra vegetables grown in kitchen garden.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	22.01.20	10	
		1	27.02.20	28	
		1	15.02.20	25	
		1	22.07.20	15	
		1	7.08.20	14	
		1	13.10.20	30	
		1	21.10.20	60	
		1	21.11.20	8	
		1	24.12.20	19	
		1	4.12.20	106	
2	Farmers training	1	28.01.20	25	
		1	29.01.20	20	
		1	6.02.20	48	
		1	29.02.21	25	
		1	1.07.20	25	
		1	22.07.20	32	
		1	29.07.20	20	
		1	16.10.20	27	
3	Media coverage	2			
4	Training for extension functionaries	1	1.02.20	40	
		1	6.11.20	95	

C. PERFORMANCE OF FRONTLINE DEMONSTRATIONS

FLD on Other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Cereals																			
Wheat *	Varietal	Variety –GW 463	10	4	56.25	50.0	53.50	46.88	14.13			34300	113688	79388	3.31	34000	87891	53891	2.59
Spices & condiments																			
Cumin*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	10	04	15.00	11.88	13.63	12.06	12.95			45700	156688	110988	3.43	47500	138719	91219	2.92
Ajwain*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	10	04	12.50	8.75	11.19	9.81	14.01			38600	128656	90056	3.33	39500	112844	73344	2.86
Coriander*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	20	8	18.75	12.50	15.44	13.50	14.35			30325	92625	62300	3.05	30875	74250	43375	2.40
Cumin (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	25	10	15.63	10.0	12.65	11.21	12.82			51640	145475	93835	2.82	52456	128944	76488	2.46
Coriander (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	25	10	17.50	11.25	15.08	13.02	15.83			30800	94219	63419	3.06	31440	71583	40143	2.28
Other Crops																			
Chicory *	IPM	*Beauveria*, *Azotobactor*, PSB	5	2	143.75	125.0	137.50	120.0	4.67			99250	343750	244500	3.46	98500	300000	201500	3.05

FLD on Livestock

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Lit/5 months)		% change in yield	Fat(%)		Economics of demonstration (Rs./unit)				Economics of check (Rs./unit)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Cattle	Feed Management	Bypass Fat	3	3	1070	930	15.05	5.83	4.90	24150	38386	14236	1.59	22650	28026	5376	1.24

FLD on Women Empowerment

Category	Name of technology	No. of demonstrations	Name of observations	Demonstration	Check
Solar cooker	Solar cooker	5	Fuel consumption (per year)	Solar energy + 63 kg LPG	81 kg LPG
			Time saving	51 to 56%	0
Drudgery reduction	Cotton picking apron	5	Seed cotton picked (kg/hr)	3.44	3.14
			Cotton picking efficiency (%)	9.55 %	-
Drudgery reduction	Vegetable Mittens	5	Efficiency of picking (Kg/hour)	7.22	6.62
			Efficiency Increase (%)	8.93 %	-

FLD on Other Enterprise: Kitchen Gardening

Category and Crop	Thematic area	Name of the technology demonstrated	No. of Farmer	No. of Units	Yield (Kg)/unit		% change in yield	Other parameters		Economics of demonstration (Rs./unit)				Economics of check (Rs./unit)			
					Demonstration	Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
Kitchen gardening	Nutritional security	*Vegetable seed*	50	50	533.80	411.40	29.75	-	-	4784	10676	5892	2.23	4281	8228	3947	1.92

Note : Remove the Enterprises/crops which have not been shown

D. PERFORMANCE OF CLUSTER FRONTLINE DEMONSTRATIONS (CFLD)

Front line demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Sesame (NFSM)	ICM	Improved Var.(G. Til-5), *Beauveriabassiana*, *Trichoderma*, PSB, *Azotobactor*	G.Til.-5	25	10	9.6	5.8	7.8	6.25	24.8	22696	54600	31904	2.41	25250	43750	18500	1.73
Groundnut (NFSM)	ICM	Improved Var.(GJG.-22), *Metarhizium*, *Trichoderma*, PSB, *Rhizobium*	GJG-22	25	10	22.60	16.80	19.08	17.04	12.00	44932	104962	60030	2.35	47304	93720	46416	1.99

Front line demonstrations on Pulses crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea* (NFSM)	IPM, Varietal	Seed GG-5, *Beauveria*, *Trichoderma*, *Azotobactor*, PSB	GG-5	50	20	30.0	23.75	27.50	22.40	22.77	39200	134062	94863	3.42	40800	109200	68400	2.68

3.4 TRAINING PROGRAMME

Farmers' Training including sponsored training programmes (on campus)

Thematic Area	No. of couses	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
Micro Irrigation/irrigation				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management				0			0	0
Soil & water conservatioin				0			0	0
Integrated nutrient management				0			0	0
Production of organic inputs				0			0	0
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
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	1	12	14	26	2	2	4	30
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				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**	**12**	**14**	**26**	**2**	**2**	**4**	**30**
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Integrated water management				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				0			0	0
Nutrient Use Efficiency				0			0	0
Balance use of fertilizers				0			0	0
Soil and Water Testing				0			0	0
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IV Livestock Production and Management				0			0	0
Dairy Management				0	0	0	0	0
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management				0			0	0
Animal Nutrition Management	1	0	30	30	0	0	0	30
Disease Management				0			0	0
Feed & fodder technology				0			0	0
Production of quality animal products				0			0	0
Others (pl specify)				0			0	0
Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**30**
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	1	6	27	33	0	0	0	33
Designing and development for high				0			0	0

nutrient efficiency diet								
Minimization of nutrient loss in processing	1	0	25	25	0	0	0	25
Processing and cooking				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques				0			0	0
Value addition	1	0	30	30	0	0	0	30
Women empowerment				0			0	0
Location specific drudgery reduction technologies				0			0	0
Rural Crafts				0			0	0
Women and child care				0			0	0
Others (pl specify)				0			0	0
Total	**3**	**6**	**82**	**88**	**0**	**0**	**0**	**88**
VI Agril. Engineering				0			0	0
Farm Machinary and its maintenance				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
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	3	57	70	127	3	23	26	153
Integrated Disease Management	1	36	11	47	12	2	14	61
Bio-control of pests and diseases	1	28	0	28	6	0	6	34
Production of bio control agents and bio pesticides	1	26	0	26	3	0	3	29
Others (pl specify)				0			0	0
Total	**6**	**147**	**81**	**228**	**24**	**25**	**49**	**277**
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				0			0	0
Edible oyster farming				0			0	0

Pearl culture				0			0	0
Fish processing and value addition				0			0	0
Others (pl specify)				0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
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	25	0	25	0	0	0	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
Mushroom Production				0			0	0
Apiculture				0			0	0
Others (pl specify)				0			0	0
Total	**1**	**25**	**0**	**25**	**0**	**0**	**0**	**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 farmers/youths				0			0	0
WTO and IPR issues								
Others (pl specify)				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
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**12**	**190**	**207**	**397**	**26**	**27**	**53**	**450**

Farmers' Training including sponsored training programmes (off campus)

Thematic Area	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	1	19	0	19	0	0	0	19
Resource Conservation Technologies				0			0	0

Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming	1	24	0	24	0	0	0	24
Micro Irrigation/irrigation				0			0	0
Seed production	1	17	8	25	0	0	0	25
Nursery management				0			0	0
Integrated Crop Management	3	93	0	93	0	0	0	93
Soil & water conservatioin				0			0	0
Integrated nutrient management				0			0	0
Production of organic inputs	1	25	0	25	0	0	0	25
Others (pl specify)				0			0	0
Total	**7**	**178**	**8**	**186**	**0**	**0**	**0**	**186**
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				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	1	32	26	58	2	2	4	62
Total	**1**	**32**	**26**	**58**	**2**	**2**	**4**	**62**
III Soil Health and Fertility Management				0			0	0
Soil fertility management	1	75	0	75	0	0	0	75
Integrated water management				0			0	0
Integrated Nutrient Management	1	91	0	91	0	0	0	91
Production and use of organic inputs				0			0	0
Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Balance use of fertilizers				0			0	0
Soil and Water Testing	1	49	0	49	0	0	0	49
Others (pl specify)				0			0	0
Total	**3**	**215**	**0**	**215**	**0**	**0**	**0**	**215**
IV Livestock Production and Management				0			0	0
Dairy Management	1	46	40	86	0	0	0	86
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management				0			0	0
Animal Nutrition Management	1	0	57	57	0	3	3	60
Disease Management	1	0	42	42	0	6	6	48
Feed & fodder technology	1	26	61	87	0	0	0	87
Production of quality animal products				0			0	0
Others (pl specify)				0			0	0
Total	**4**	**72**	**200**	**272**	**0**	**9**	**9**	**281**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	0	0	20
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	7	44	51	0	1	1	52
Processing and cooking				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
Women empowerment				0			0	0
Location specific drudgery reduction technologies	1	10	14	24	0	0	0	24

Rural Crafts	1	0	30	30	0	0	0	30
Women and child care	1	9	23	32	0	0	0	32
Others (pl specify)				0			0	0
Total	**6**	**26**	**156**	**182**	**0**	**1**	**1**	**183**
VI Agril. Engineering				0			0	0
Farm Machinary and its maintenance				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
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	1	18	4	22	0	0	0	22
Integrated Disease Management	1	20	3	23	2	0	2	25
Bio-control of pests and diseases	1	39	0	39	21	0	21	60
Production of bio control agents and bio pesticides	1	26	0	26	0	0	0	26
Others (pl specify)	1	42	0	42	12	0	12	54
Total	**5**	**145**	**7**	**152**	**35**	**0**	**35**	**187**
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				0			0	0
Edible oyster farming				0			0	0
Pearl culture	1	20	0	20	0	0	0	20
Fish processing and value addition				0			0	0
Others (pl specify)				0			0	0
Total	**1**	**20**	**0**	**20**	**0**	**0**	**0**	**20**
IX Production of Inputs at site				0			0	0
Seed Production	1	25	0	25	0	0	0	25
Planting material production				0			0	0
Bio-agents production				0			0	0
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0

Vermi-compost production				0			0	0
Organic manures production	1	0	30	30	0	0	0	30
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
Mushroom Production				0			0	0
Apiculture				0			0	0
Others (pl specify)				0			0	0
Total	**2**	**25**	**30**	**55**	**0**	**0**	**0**	**55**
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								
Others (pl specify)				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
Others (pl specify)				0			0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**29**	**713**	**427**	**1140**	**37**	**12**	**49**	**1189**

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

Thematic Area	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	1	19	0	19	0	0	0	19
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	1	24	0	24	0	0	0	24
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0
Seed production	1	17	8	25	0	0	0	25
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	3	93	0	93	0	0	0	93
Soil & water conservatioin	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0
Production of organic inputs	1	25	0	25	0	0	0	25

Others (pl specify)	0	0	0	0	0	0	0	0
Total	**7**	**178**	**8**	**186**	**0**	**0**	**0**	**186**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	1	12	14	26	2	2	4	30
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0
b) Fruits	0	0	0	0	0	0	0	0
Training and Pruning	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0
c) Ornamental Plants	0	0	0	0	0	0	0	0
Nursery Management	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
d) Plantation crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
e) Tuber crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
f) Spices	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
g) Medicinal and Aromatic Plants	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	1	32	26	58	2	2	4	62
Total	**2**	**44**	**40**	**84**	**4**	**4**	**8**	**92**
III Soil Health and Fertility Management								

Soil fertility management	1	75	0	75	0	0	0	75
Integrated water management	0	0	0	0	0	0	0	0
Integrated Nutrient Management	1	91	0	91	0	0	0	91
Production and use of organic inputs	0	0	0	0	0	0	0	0
Management of Problematic soils	0	0	0	0	0	0	0	0
Micro nutrient deficiency in crops	0	0	0	0	0	0	0	0
Nutrient Use Efficiency	0	0	0	0	0	0	0	0
Balance use of fertilizers	0	0	0	0	0	0	0	0
Soil and Water Testing	1	49	0	49	0	0	0	49
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**3**	**215**	**0**	**215**	**0**	**0**	**0**	**215**
IV Livestock Production and Management								
Dairy Management	1	46	40	86	0	0	0	86
Poultry Management	0	0	0	0	0	0	0	0
Piggery Management	0	0	0	0	0	0	0	0
Rabbit Management	0	0	0	0	0	0	0	0
Animal Nutrition Management	2	0	87	87	0	3	3	90
Disease Management	1	0	42	42	0	6	6	48
Feed & fodder technology	1	26	61	87	0	0	0	87
Production of quality animal products	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**5**	**72**	**230**	**302**	**0**	**9**	**9**	**311**
V Home Science/Women empowerment								
Household food security by kitchen gardening and nutrition gardening	1	0	20	20	0	0	0	20
Design and development of low/minimum cost diet	1	6	27	33	0	0	0	33
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0
Minimization of nutrient loss in processing	2	7	69	76	0	1	1	77
Processing and cooking	0	0	0	0	0	0	0	0
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	55	55	0	0	0	55
Women empowerment	0	0	0	0	0	0	0	0
Location specific drudgery reduction technologies	1	10	14	24	0	0	0	24
Rural Crafts	1	0	30	30	0	0	0	30
Women and child care	1	9	23	32	0	0	0	32
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**9**	**32**	**238**	**270**	**0**	**1**	**1**	**271**
VI Agril. Engineering				0			0	0
Farm Machinary and its maintenance	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	0	0	0	0	0	0	0	0
Use of Plastics in farming practices	0	0	0	0	0	0	0	0
Production of small tools and	0	0	0	0	0	0	0	0

implements								
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
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection				0			0	0
Integrated Pest Management	4	75	74	149	3	23	26	175
Integrated Disease Management	2	56	14	70	14	2	16	86
Bio-control of pests and diseases	2	67	0	67	27	0	27	94
Production of bio control agents and bio pesticides	2	52	0	52	3	0	3	55
Others (pl specify)	1	42	0	42	12	0	12	54
Total	**11**	**292**	**88**	**380**	**59**	**25**	**84**	**464**
VIII Fisheries				0			0	0
Integrated fish farming	0	0	0	0	0	0	0	0
Carp breeding and hatchery management	0	0	0	0	0	0	0	0
Carp fry and fingerling rearing	0	0	0	0	0	0	0	0
Composite fish culture	0	0	0	0	0	0	0	0
Hatchery management and culture of freshwater prawn	0	0	0	0	0	0	0	0
Breeding and culture of ornamental fishes	0	0	0	0	0	0	0	0
Portable plastic carp hatchery	0	0	0	0	0	0	0	0
Pen culture of fish and prawn	0	0	0	0	0	0	0	0
Shrimp farming	0	0	0	0	0	0	0	0
Edible oyster farming	0	0	0	0	0	0	0	0
Pearl culture	1	20	0	20	0	0	0	20
Fish processing and value addition	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**1**	**20**	**0**	**20**	**0**	**0**	**0**	**20**
IX Production of Inputs at site				0			0	0
Seed Production	1	25	0	25	0	0	0	25
Planting material production	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	1	25	0	25	0	0	0	25
Organic manures production	1	0	30	30	0	0	0	30
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
Mushroom Production	0	0	0	0	0	0	0	0

Apiculture	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**3**	**50**	**30**	**80**	**0**	**0**	**0**	**80**
X Capacity Building and Group Dynamics				0			0	0
Leadership development	0	0	0	0	0	0	0	0
Group dynamics	0	0	0	0	0	0	0	0
Formation and Management of SHGs	0	0	0	0	0	0	0	0
Mobilization of social capital	0	0	0	0	0	0	0	0
Entrepreneurial development of farmers/youths	0	0	0	0	0	0	0	0
WTO and IPR issues								
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry				0			0	0
Production technologies	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Farming Systems	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**41**	**903**	**634**	**1537**	**63**	**39**	**102**	**1639**

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

(B) RURAL YOUTH								
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Integrated farming	1	50	55	105	18	5	23	128
Seed production				0			0	0
Production of organic inputs	1	6	5	11			0	11
Planting material production				0			0	0
Vermi-culture				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Sericulture				0			0	0
Repair and maintenance of farm machinery and implements				0			0	0
Value addition				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
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
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
Any other (pl.specify)				0			0	0
TOTAL	**2**	**56**	**60**	**116**	**18**	**5**	**23**	**139**

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

(B) RURAL YOUTH								
Nursery Management of Horticulture crops				0			0	0
Training and pruning of orchards				0			0	0
Protected cultivation of vegetable crops				0			0	0
Commercial fruit production				0			0	0
Integrated farming				0			0	0
Seed production				0			0	0
Production of organic inputs				0			0	0
Planting material production				0			0	0
Vermi-culture				0			0	0
Mushroom Production				0			0	0
Bee-keeping				0			0	0
Sericulture				0			0	0
Repair and maintenance of farm machinery and implements	1	22	0	22	2	0	2	24
Value addition				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
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
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

Any other (pl.specify)	1	0	55	55	0	3	3	58
TOTAL	**2**	**22**	**55**	**77**	**2**	**3**	**5**	**82**

Training for Rural Youths including sponsored training programmes – CONSOLIDATED(On + Off Campus)

(B) RURAL YOUTH								
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
Protected cultivation of vegetable crops	0	0	0	0	0	0	0	0
Commercial fruit production	0	0	0	0	0	0	0	0
Integrated farming	1	50	55	105	18	5	23	128
Seed production	0	0	0	0	0	0	0	0
Production of organic inputs	1	6	5	11	0	0	0	11
Planting material production	0	0	0	0	0	0	0	0
Vermi-culture	0	0	0	0	0	0	0	0
Mushroom Production	0	0	0	0	0	0	0	0
Bee-keeping	0	0	0	0	0	0	0	0
Sericulture	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	1	22	0	22	2	0	2	24
Value addition	0	0	0	0	0	0	0	0
Small scale processing	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Tailoring and Stitching	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
Production of quality animal products	0	0	0	0	0	0	0	0
Dairying	0	0	0	0	0	0	0	0
Sheep and goat rearing	0	0	0	0	0	0	0	0
Quail farming	0	0	0	0	0	0	0	0
Piggery	0	0	0	0	0	0	0	0
Rabbit farming	0	0	0	0	0	0	0	0
Poultry production	0	0	0	0	0	0	0	0
Ornamental fisheries	0	0	0	0	0	0	0	0
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
Any other (pl.specify)	1	0	55	55	0	3	3	58
TOTAL	**4**	**78**	**115**	**193**	**20**	**8**	**28**	**221**

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

(C) Extension Personnel								
Productivity enhancement in field crops				0			0	0
Integrated Pest Management				0			0	0
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0

Protected cultivation technology				0			0	0
Production and use of organic inputs				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
Gender mainstreaming through SHGs				0			0	0
Formation and Management of SHGs				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing				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
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security	1	0	29	29	0	0	0	29
Any other (pl.specify)				0			0	0
TOTAL	**1**	**0**	**29**	**29**	**0**	**0**	**0**	**29**

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

(C) Extension Personnel								
Productivity enhancement in field crops				0			0	0
Integrated Pest Management	1	37	0	37	3	0	3	40
Integrated Nutrient management				0			0	0
Rejuvenation of old orchards				0			0	0
Protected cultivation technology				0			0	0
Production and use of organic inputs				0			0	0
Care and maintenance of farm machinery and implements				0			0	0
Gender mainstreaming through SHGs				0			0	0
Formation and Management of SHGs				0			0	0
Women and Child care				0			0	0
Low cost and nutrient efficient diet designing	1	0	22	22	0	3	3	25
Group Dynamics and farmers organization				0			0	0
Information networking among farmers				0			0	0
Capacity building for ICT application				0			0	0
Management in farm animals				0			0	0
Livestock feed and fodder production				0			0	0
Household food security	1	0	82	82	0	13	13	95
Any other (pl.specify)				0			0	0
TOTAL	**3**	**37**	**104**	**141**	**3**	**16**	**19**	**160**

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

(C) Extension Personnel								
Productivity enhancement in field crops	0	0	0	0	0	0	0	0
Integrated Pest Management	1	37	0	37	3	0	3	40
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
Production and use of organic inputs	0	0	0	0	0	0	0	0

Care and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Formation and Management of SHGs	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	1	0	22	22	0	3	3	25
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
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	2	0	111	111	0	13	13	124
Any other (pl.specify)	0	0	0	0	0	0	0	0
TOTAL	**4**	**37**	**133**	**170**	**3**	**16**	**19**	**189**

SUMMARY OF TRAINING PROGRAMME

On Campus

(A) Farmers & Farm Women	**No. of couses**		No. of participant						
	Target	**Achi.**	others			SC/ST			Grand Total
			Male	Female	Total	Male	Female	Total	
I Crop Production	4	0	0	0	0	0	0	0	0
II Horticulture	1	1	12	14	26	2	2	4	30
III Soil Health and Fertility Management	1	0	0	0	0	0	0	0	0
IV Livestock Production and Management	2	1	0	30	30	0	0	0	30
V Home Science/Women empowerment	4	3	6	82	88	0	0	0	88
VI Agril. Engineering	1	0	0	0	0	0	0	0	0
VII Plant Protection	3	6	147	81	228	24	25	49	277
VIII Fisheries	2	0	0	0	0	0	0	0	0
IX Production of Inputs at site	1	1	25	0	25	0	0	0	25
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0
Total (A)	**19**	**12**	**190**	**207**	**397**	**26**	**27**	**53**	**450**
(B) RURAL YOUTH	2	2	56	60	116	18	5	23	139
(C) Extension Personnel	2	1	0	29	29	0	0	0	29
Grand Total (A+B+C)	**23**	**15**	**246**	**296**	**542**	**44**	**32**	**76**	**618**

Off Campus

(A) Farmers & Farm Women	**No. of couses**		**No. of participant**						
	Target	**Achi.**	**others**			**SC/ST**			**Grand Total**
			Male	**Female**	**Total**	**Male**	**Female**	**Total**	
I Crop Production	5	7	178	8	186	0	0	0	186
II Horticulture	1	1	32	26	58	2	2	4	62
III Soil Health and Fertility Management	4	3	215	0	215	0	0	0	215
IV Livestock Production and Management	3	4	72	200	272	0	9	9	281
V Home Science/Women empowerment	5	6	26	156	182	0	1	1	183

VI Agril. Engineering	0	0	0	0	0	0	0	0	0
VII Plant Protection	5	5	145	7	152	35	0	35	187
VIII Fisheries	4	1	20	0	20	0	0	0	20
IX Production of Inputs at site	2	2	25	30	55	0	0	0	55
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0
Total (A)	**29**	**29**	**713**	**427**	**1140**	**37**	**12**	**49**	**1189**
(B) RURAL YOUTH	1	2	22	55	77	2	3	5	82
(C) Extension Personnel	2	3	37	104	141	3	16	19	160
Grand Total (A+B+C)	**32**	**34**	**772**	**586**	**1358**	**42**	**31**	**73**	**1431**

Consolidated (On + Off Campus)

	No. of couses		No. of participant						
(A) Farmers & Farm Women			Others			SC/ST			Grand Total
	Target	Acheived	Male	Female	Total	Male	Female	Total	
I Crop Production	9	7	178	8	186	0	0	0	186
II Horticulture	2	2	44	40	84	4	4	8	92
III Soil Health and Fertility Management	5	3	215	0	215	0	0	0	215
IV Livestock Production and Management	5	5	72	230	302	0	9	9	311
V Home Science/Women empowerment	9	9	32	238	270	0	1	1	271
VI Agril. Engineering	1	0	0	0	0	0	0	0	0
VII Plant Protection	8	11	292	88	380	59	25	84	464
VIII Fisheries	6	1	20	0	20	0	0	0	20
IX Production of Inputs at site	3	3	50	30	80	0	0	0	80
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0	0
Total (A)	**48**	**41**	**903**	**634**	**1537**	**63**	**39**	**102**	**1639**
(B) RURAL YOUTH	3	4	78	115	193	20	8	28	221
(C) Extension Personnel	4	4	37	133	170	3	16	19	189
Grand Total (A+B+C)	**55**	**49**	**1018**	**882**	**1900**	**86**	**63**	**149**	**2049**

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Increasing production and productivity of crops	5	156	81	237	18	25	43	174	106	280
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops										
Soil health and fertility management	4	215	30	245	0	0	0	215	30	245
Production of Inputs at site	2	46	3	49	2	0	2	48	3	51

Methods of protective cultivation	1	26	61	87	0	0	0	26	61	87
Others (pl. specify)										
Total	**12**	**443**	**175**	**618**	**20**	**25**	**45**	**463**	**200**	**663**
Post-harvest technology and value addition										
Processing and value addition	1	32	26	58	2	2	4	34	28	62
Others (pl. specify)										
Total	**1**	**32**	**26**	**58**	**2**	**2**	**4**	**34**	**28**	**62**
Farm machinery										
Farm machinery, tools and implements	0									
Others (pl. specify)	0									
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										
Livestock production and management	1	46	40	86	0	0	0	46	40	86
Animal Nutrition Management	1	0	57	57	0	3	3	0	60	60
Animal Disease Management	1	0	42	42	0	6	6	0	48	48
Fisheries Nutrition										
Fisheries Management	1	20	0	20	0	0	0	20	0	20
Others (pl. specify)										
Total	**4**	**66**	**139**	**205**	**0**	**9**	**9**	**66**	**148**	**214**
Home Science										
Household nutritional security	2	0	137	137	0	16	16	0	153	153
Economic empowerment of women										
Drudgery reduction of women										
Others (pl. specify)										
Total	**2**	**0**	**137**	**137**	**0**	**16**	**16**	**0**	**153**	**153**
Agricultural Extension										
Capacity Building and Group Dynamics	0									
Others (pl. specify)	0									
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**19**	**541**	**477**	**1018**	**22**	**52**	**74**	**563**	**529**	**1092**

Name of sponsoring agencies involved: ATMA, DAO, FTC, Agakhan trust, NGO, GGRC, ICDS, TCSRD, ANARDE foundation

Details of vocational training programmes carried out by KVKs for rural youth

Area of training	No. of Courses	No. of Participants								
		General			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Commercial floriculture										
Commercial fruit production										
Commercial vegetable production										
Integrated crop management										
Organic farming										
Others (pl. specify)										
Total										
Post harvest technology and value addition										

Value addition	1	0	30	30	0	0	0	0	30	30
Others (pl. specify)										
Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**0**	**30**	**30**
Livestock and fisheries										
Dairy farming										
Composite fish culture										
Sheep and goat rearing										
Piggery										
Poultry farming										
Others (pl. specify)										
Total										
Income generation activities										
Vermi composting										
Production of bio-agents, bio-pesticides,										
bio-fertilizers etc.										
Repair and maintenance of farm machinery										
and implements										
Rural Crafts										
Seed production										
Sericulture										
Mushroom cultivation										
Nursery, grafting etc.										
Tailoring, stitching, embroidery, dying etc.										
Agril. para-workers, para-vet training										
Others (pl. specify)										
Total										
Agricultural Extension										
Capacity building and group dynamics										
Others (pl. specify)										
Total										
Grand Total	**1**	**0**	**30**	**30**	**0**	**0**	**0**	**0**	**30**	**30**

1.5 Extension Programmes (including activities of FLD programmes)

Activities	No. of Programme	No. of farmers	No. of Extension Personnel	Total
Advisory Services	7509	9655	353	**10008**
Diagnostic visits	26	131	6	**137**
Field Day	10	304	25	**329**
Group discussions	28	825	95	**920**
Kisan Ghosthi	12	619	36	**655**
Film Show	8	516	28	**544**
Self -help groups	3	33	0	**33**
Kisan Mela	1	1238	21	**1259**
Exhibition	1	1238	21	**1259**
Scientists' visit to farmers field	62	668	21	**689**
Farmers' seminar/workshop	4	868	44	**912**
Method Demonstrations	15	217	59	**276**
Celebration of important days	6	835	203	**1038**
Special day celebration	2	228	18	**246**

Lecture delivered	90	7566	482	**8048**
Implement/Crop Demonstration	20	572	55	**627**
Farmer shibir/Crop shibir	7	412	22	**434**
Collobrative training	3	375	53	**428**
Others (pl. specify in Remarks column)	2	179	17	**196**
Total	**7809**	**17245**	**6336**	**23581**

Other Extension Activity

Sr. No.	Scientist Activity (give Number)	No. ofActivity
1	Electronic Media (CD./DVD)	0
2	Extension Literature	2099
3	Newspaper coverage	14
4	Popular articles	3
5	Radio Talks	0
6	TV Talks	2
7	Animal health camps (Number of animals treated)	0
8	Publications	2
	Total	**2120**

3.6 Online activities during year 2020

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webexetc)	Title of Program	No. of Programmes	No. of Participants/ Views
A	**Farmers training**				
1	16.05.20	Zoom	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	26
2	21.05.20	Zoom	IPM in vegetable and summer crops for doubling farmers income	1	21
3	27.07.20	Zoom	Bio-control of pest & Diseases for doubling farmers income	1	34
4	31.08.20	Zoom	IPM & IDM In Groundnut and Cotton	1	61
5	18.09.20	Google meet	Importance of Nutrition garden in our Health and Balance Diet	1	29
6	6.10.20	Google meet	Role and activity of KVK and Constrain and Practical utility of agriculture discipline in Farmers field	1	128
7	15.10.20	Google meet	Role of food in our health and RDA and Design of low/minium cost diet	1	33
	Total			**7**	**332**
B	**Farmers scientist's interaction programme**				
1	21.05.20	Zoom	IPM in vegetable and summer crops for doubling farmers income	1	21

2	31.08.20	Zoom	IPM & IDM In Groundnut and Cotton	1	61
3	18.09.20	Google meet	Current Food habits effect on health	1	29
4	15.10.20	Google meet	Group discussion on Rabi crops sowing time and variety	1	33
	Total			**4**	**177**
C	**Farmers seminars**				
1	25.12.20	Video conferencing	Virtual programme addressed by Hon'ble P.M. for kishan kalyan day celebration	1	750
	Total			**1**	**750**
D	**Expert lectures**				
1	27.07.20	Zoom	Production techniques of Bio-products at house hold method	1	34
2	18.09.20	Google meet	Cultivation practices of vegetales for nutritional garden	1	29
	Total			**2**	**63**
E	**Any other (Pl. specify)**				
1	Day Celebration	**YouTube Live**	International women day	1	72
2		**YouTube Live**	Online programme on Hon'ble Prime Minister of India address the Scientific community on 29.08.202	1	150
	Total			**2**	**222**
	Grand Total (A+B+C+D+E)			**16**	**2544**

3.7 PRODUCTION OF SEED/PLANTING MATERIAL AND BIO-PRODUCTS

Production of seeds by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Quantity of seed(q)	Expected Value(Rs)	Expected Number of farmers
Oilseeds	Groundnut	GJG-32	-	24.00	372000	22
	Groundnut	GJG-31	-	12.00	186000	16
	Groundnut	GJG-9	-	40.20	623100	64
	Groundnut	GJG-32	-	54.30	841650	82
	Sesamum	GJT-5	-	1.10	16500	38
Cereals	Wheat	GW-451	-	226.00	581950	335
Total				**357.60**	**2621200**	**557**

Production of planting materials by the KVKs

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Vegetable seedlings	Brinjal		GHB-4	840	420	24
Fruit	Lime	Kagdi lime		12	360	8
	Mango	Kesar		87	11310	11
	Custard apple	Custard apple		28	420	18
Total				**967**	**12510**	**61**

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity		Value (Rs.)	No. of Farmers
		No.	kg		
Bio Fertilizers	*Azotobactor*	138		16560	66
	Rhizobium	83		9960	41
	PSB	148		17760	70
Bio-pesticide	*Beauveria Bassiana*		2261	339150	420
	Metarizium				
Bio-fungicide	*Trichoderma*		3683	257810	359
Bio Agents					
Others	Pheromone trap				
	Lure				
Total		**369**	**5944**	**641240**	**956**

N.B. *Product was produced by JAU University and selling by KVK the amount is only given for revenue generation

Table: Production of livestock materials

Particulars of Live stock	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals				
Cows				
Buffaloes				
Calves				
Others (Pl. specify)				
Fisheries				
Indian carp				
Exotic carp				
Others (Pl. specify)				
Total				

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

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

Date of start : January -2016

Periodicity : Quarterly

1. Jan to Mar, 2020
2. April to June, 2020
3. July to Sept., 2020
4. Oct. to Dec. 2020

Number of copies distributed: JAU Newsletter

B. Literature developed/published

Item	Title	Authors name	Number of copies
Research papers	Impact of Cluster Frontline Demonstrations (CFLDs) on Kharif Groundnut Productivity and Income of Farmers in Jamnagar District of Gujarat.*Int.J.Curr. Microbiol. App.Sci* (2020)**9(11)**: 1116-1120	Lakhani SH, Baraiya KP and Baraiya AK	
Research papers	Efficacy of insecticides against white grub, *Holotrichia consanguinea* infesting groundnut. Journal of Entomology and Zoology Studies 2020; **8(4)**: 759-762	Patel TM, Baraiya KP, Kaneria PB and Jadav AH (2020).	

Abstract	"Captive breading of Erronea onyx Cowry-A step forward to conserve the nature" National Seminar, Adipur, Kutch Sponsored by GSBTM.	Thaker J.N.	
Popular Articles	Rasoi banavava yogya Padhati vapriye ane poshan vadhariye(2020). Krushi Jivan,53(1);622:29-30	Baraiya AK, Baraiya KP and Lakhani SH	
	Kapasma Gulabi iyal same samuhik pagla leva padse(2020).Krushi Vigyan,46(09):21-22	Baraiya KP, Baraiya AK, Godhani HS and Lakhani SH	
	Safal Varta:Kadva Karela ni Samarudhdha Kheti Janiye ' Krushi Jivan' ne sang(2020). Krushi Jivan,52(8),617;11-13	Gorfad PS and Thaker JN	
Technical reports	Annual Progress Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	7
	16th AGRESCO Report	Smt. A. K. Baraiya,Dr. K. P. Baraiya	49
	33rd ZREAC Report	Smt. A. K. Baraiya,Dr. K. P. Baraiya	54
	34thZREAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	54
	17th SAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	35
	Annual Report of ATIC(2020)	Smt. A. K. Baraiya, Dr. K. P. Baraiya	1
	NMOOP& NFSM FLD result report	Mr. A. V. Savaliya, Dr. K. P. Baraiya	1
	DAMU Project Annual Report	Mr. A. V. Savaliya, Dr. K. P. Baraiya	1

C. Details of Electronic Media Produced

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

D. Success Story/CASE STUDIES

5.1 Case study/ Success story

PROFILE OF FARM INNOVATORS

Thematic Area: Organic Bio-diversity Park

"Organic Biodiversity Park of Crops &Vegetable"

Dr. K. P. Baraiya, Smt. A. K. Baraiya

Personal Profile			Organic biodiversity park of crops & vegetable cultivation
Name of farmer	:	Vallabhbhai Nathabhai Bunsha	**Shri Vallabhbhai Nathabhai Bunsha**is enthusiastic farmers of village Sarvaniya of Kalavad block of Jamnagar district since his childhood. Sarvaniya village is roadsides 5 km away from Kalavad. His farm is on highway road between Jamnagar and Junagadh. This area comes under medium rainfall 450 to 500 mm with very erratic rainfalls patterns. Vallabhbhai and his family completely dependent on farming. He has no any side income from any business. He engaged with farming by birth. They grow some common farming practices *viz.,* Groundnut, sorghum, pearl millet, and other fodder crops. From starting, he used more pesticide and Chemical fertilizer due to that increase cost of cultivation and reduce net profit.
Contact No.	:	9825467206, 7359285206	
Address	:	At.- Sarvaniya, Ta.- Kalavad, Dist.- Jamnagar	
Age	:	01.06.1957 (64 Years)	
Education	:	4 standards	

Land holding	:	4 ha	**Practical Utility of the Innovation/ Mode etc.**
Crops grown	:	Turmeric, Vegetable,	**Shri Vallabhbhai** is innovative farmer. He was farming as per local practices upto 2015. During 2016 he comes in contact scientists of KVK by the means of Krishi Mahotshav. He discussed with scientists about their problems on farming practices, price and productivity down and the serious problems of crop production *viz*., pink bollworm, white grub, mealy bug, thrips etc. with the proper solutions of their problems he frequently visited KVK and participated the extension programmes of KVK.
Livestock	:	3 - Gir Cow	
Business	:	Farming	
Special recognition	:	Innovative and Progressive farmer	

Vallabhbhai learn different farming technology and principles of organic farming. Then he put in mind for starting of organic cultivation under guidance of scientists. During the 208-19, he has joined skill-training programme on organic grower. In this training, he learned different techniques of organic growing, methods of pest management, diseases management, multiplication of bio-products, indigenous techniques for the cultivation.

Under skill-training programme exposure visit arranged by KVK and visited different successful organic growers. Then he has started multi mix cropping pattern on his field. He cultivated organic vegetable prior to the skill-training *viz*., fenugreek, brinjal, tomato, palak, etc. after skill-training he adopted mic cropping pattern in a single field in 2 acre. He cultivated chickpea, fenugreek, mustard, wheat, green gram, sesame, turmeric, black gram, brinjal, chilli, palak, cabbage, cauliflower, Indian bean, French bean, beat, groundnut, sunflower, okra, cluster bean etc different vegetable and field crops together in single field.

Vallabhbhai having 3 Gir cow give fodder from organic crop by-products as a feed and fodder for animals. The animal products and by-products usage in farming and inputs for the crop production. He prepare panchgavya, Ghan Jivamrut, also prepare insecticides from extraction of different plant *viz*., dhaturo, neem, oak, custard apple, castor, chilli, ginger, turmeric, hing, tobacco, garlic, butter milk, bajara flour etc and usages for different pests and diseases management.

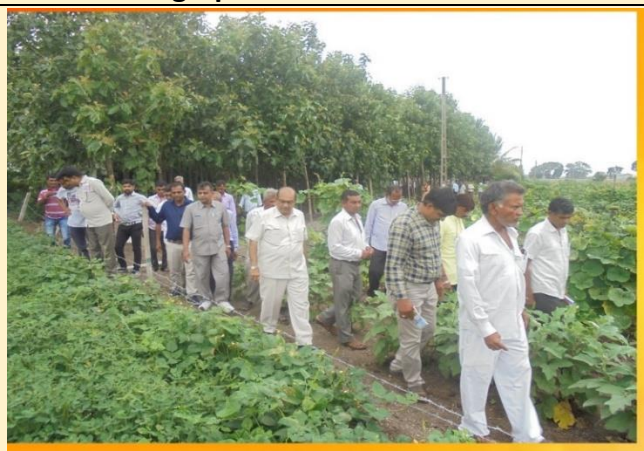
On other hand he also cultivated different crops *viz*., chickpea, wheat, turmeric, wheat, mustard, groundnut, sesame, black gram, green gram as sole crops organically. He sold all the products from his field directly to the customers. Turmeric processed and make powdered packed and branded by "Shree Prakrutik Farm". The productivity difference in different crops before and after organic cultivation is below.

Crop cultivation	Before	After
Groundnut	1800 to 2500 kg/ha	3000 to 3700 kg/ha
Cotton	1500 to 2000 kg/ha	Leave crop
Chickpea	1800 to 2500 kg/ha	3500 to 4200 kg/ha
Fenugreek	Not cultivated	3000 kg/ha
Turmeric	Not cultivated	
Marketing	At APMC	Direct to consumers

The total income before the innovation was Rs. 3 lakhs, however now a days it increase upto 7 lakhs per annum. The cost of cultivation was more than 40 per cent of gross return. However, it reduce upto Rs.15000 input cost and Rs.50000/- labour cost. Thus, total cost of cultivation Rs. 65000/- and Net Profit Rs. 635000/-.

Many farmers of nearby area as well from different surround districts were visited Vallabhbhai's farm and take information about the net house and vegetable cultivation and they started on their own farm.

Action Photographs



Hon'ble VC & DR, JAU visited Shirvania & Nani Bhalsan on 08.08.2019

Net House and open field crop	New crops sown in net house

Maize

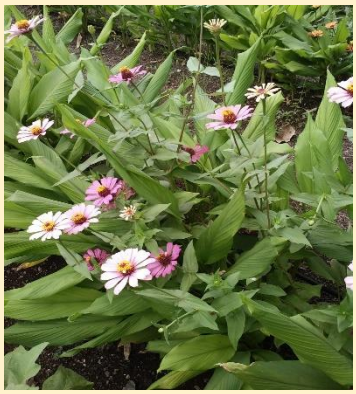
Fenugreek

Garlic in mixed

Mango in mix cropping

Mustard

Fenugreek sole crops



Turmeric mixed with flowers

Wheat

Coriander

2 Case study/ Success story

PROFILE OF FARM INNOVATORS
Thematic Area: Organic Cultivation

"Doubling Income with Vegetable cultivation"

Dr. K. P. Baraiya, Smt. A. K. Baraiya

Personal Profile			Doubling income with Chilli & other vegetable Cultivation
Name of farmer	:	Jagdishsinh Bapubha Jadeja	**Shri Jagdhshsinh Bapubha Jadeja**is young &enthusiastic farmers of village Memana of Lalpur block of Jamnagar district. This village is 8 km from Lalpur and 35 km from Jamnagar, under North Saurashtra Agro-Climatic Zone having hardly 350 to 400 mm erratic rainfalls. His family completely depend on farming. Jagdishsinh studied up to 10 standard, but his interest was in farming since his childhood. He has also started diamond business after completion of his study. However, his mind was not set there, he has very interest in farming and finally he has started from 1998. His father grow some common farming practices *viz.,* Groundnut, sorghum, pearl millet and other fodder crops. From starting he used more pesticide and Chemical fertilizer due to that increase cost of cultivation and reduce net profit.
Contact No.	:	9979022802	
Address	:	At.- Memana, Ta.- Lalpur, Dist.- Jamnagar	
Age	:	41 Years (23.09.1980)	
Education	:	10 Std pass	
Land holding	:	10 ha	**Practical Utility of the Innovation/ Mode etc.**
Crops grown	:	Chilli, Vegetable, groundnut, wheat,	**Shri Jagdhshsinh Bapubha Jadeja**is young, enthusiastic and innovative farmer. He has started farming with common practices with his family. After some time he come in contact with the scientist of the Krishi Vigyan Kendra, Jamnagar and he has also listen different agricultural programmes on Radio & TV, he has also seen some success stories from Agriculture University, then he has decided to cultivation of vegetables since 1999. He visited KVK for solutions of different pest and diseases problems at KVK, Jamnagar from 2002. Scientists guided him for high yielding vegetable cultivation and their season wise requirements. The he has started cultivation of vegetables *viz*., chilli, brinjal, okra, cabbage, cauliflower, bottle gourd, bitter gourd, ridge gourd, sponge gourd, tomato in 2 ha area, whereas in remaining area grow pigeonpea, groundnut, sesame, castor, cotton, wheat, cumin, chickpea, onion, garlic etc
Livestock	:	19 - Cow-5, Buffalo-14	
Business	:	Farming	
Special recognition	:	Innovative and Progressive farmer	

Initially he has grown indigenous variety of all crops, after frequently visit of KVK and Scientist; he has grown some improved variety. After 2 to 3 years' experience, his expertise developed in chilli. He has grown chilli scientifically with to 12 tonn FYM per hectare, basal fertilizer NPK (12:32:16) 50 kg, Narmadaphos 25 kg, potash 25 kg and 5 kg Sulphur given in one hectare. He use research hybrid varieties VNR-38 and US-730 in his field. Nursery for seedling started during April and transplant seedling to field during June month. He sold green chilli in vegetable market with packing himself. The production of chilli on an average highest 150 tonn per season from one hector land. The first flush started from July and it remain continuous upto October. The crop suffers from thrips throughout the season. The leaf curling and dieback is common problem of chilli. He use fungicides and pesticides to overcome these problems.

The price for the chilli is range from Rs. 5 to 60 per kg and on an average Rs. 15 to 20 per kg) is received during 20 years of experience. He has highest total earning of chilli recorded from a hectare is Rs.12.50 lakh during 2020. His cost of cultivation is Rs. 195000/- per hectare including fertilizer, pesticide, irrigation and labour charges. The net profit was Rs.1055000/- net profit.

Many farmers of surround area were visited "Jagdishsinh farm and take information about the vegetable cultivation and they started on their own farm.

Action Photographs

	
Seedling prepared	Field view of chilli
	
Field view of chilli	Field view of chilli
	
Grading & Packing of Chilli	Yield of Chilli

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

1. Innovative methodology:

- ❖ Farmers to farmer dissemination
- ❖ Distributed printed leafletto farmers
- ❖ Farm School on farmer's field
- ❖ Kishan advisory through mobile SMS
- ❖ Film show

- ❖ Cluster frontline demonstration
- ❖ Mass campaign
- ❖ Mass media communication

2. Innovative technology transfer:

- ❖ Use of FYM to minimize the chemical fertilizer in cotton
- ❖ Use of MDP in cotton for management of pink bollworm
- ❖ Use of Trichoderma against stem rot disease of groundnut
- ❖ Use of *Metarhizium* against white grub in groundnut
- ❖ Use of *Beauveria* against all pest of all crops.
- ❖ Use of bio-fertilizers *viz*. PSB, Rhizobium, Azatobactor etc
- ❖ Use of pheromone trap for mass trapping as well as monitoring
- ❖ Tractor mounted sprayer
- ❖ Introduction of new variety i.e.GG-3, GG-5 of Chickpea, GJG-22 of Groundnut, GW-463 of wheat
- ❖ Use of trap crop, pheromone trap etc. as a IPM component
- ❖ Cotton stalk shredder for recycling of farm waste

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
1.	Chilly	Use castor as a trap crop	For controlling thrips and jassids
2	Crop husbandry	Crop rotation and mixed cropping	Control weed, and diseases management
3	"	Mixing of ash with pulse/millet grains	While storing to protect from pest
4	"	Vegetable seeds placed inside cowdung	Use for next year
5	Fertility Management	Application of ash	To improve soil fertility
6	"	Sheep and goat penning	To improve soil fertility
7	"	Jivamrut	To improve soil fertility and reduce chemical fertilizers
7	Crop husbandry	Panchgavya	For management of pests and diseases of crops
8	Crop husbandry	Sheep and goat grazing	For pinkboll worm management
9	Harvesting	Harvest pulse crop in the morning hours	To reduce shattering
10	Organic farming	Jivamrut, Panchgavya, Cow based farming	Reduce the cost of cultivation as well as without chemical organic farming.
11	Crop husbandry	Use of light trap	For pest reduction
12		Use of yellow sticki trap	For pest management

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

Practicing Farmers

a) Group discussion with the farmers
b) Field visits
c) Group meeting
d) Identifying general trends in the area
e) PRA survey

Rural Youth

a) Filling up research based questionnaires
b) Identification of leader and role of rural youth in agriculture (Socio-metric method)
c) Field visit for practical experience
d) General discussion about district agriculture issues

In-service personnel

a) Knowledgetest (Interview schedule)

b) Interaction with the personnel
c) Functional areas of personnel

5.2 Indicate the methodology for identifying OFTs/FLDs

For OFT :

- PRA
- Problem identified from Matrix
- Field level observations
- Farmer group discussions
- Assessment of technology
- Others if any

For FLD :

1. New variety/technology
2. Poor yield at farmers level
3. Existing cropping system :- Coriander
4. Technology – adoption gap
5. 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

6. LINKAGES

A. 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& Devbhumi Dwarka	➢ Joint diagnostic team visit at farmers field ➢ For collaborative training and demonstration Programme ➢ Collaborative On/Off campus training programme ➢ For providing hostel facilities to participants and organizing collaborative Krishi Mela ➢ Organize all government programmes collelctively
2	District Rural Development Agency, Jamnagar& Devbhumi Dwarka	
3	Deputy Director of Veterinary, Department of veterinary &Animal Husbandry, Jamnagar& Devbhumi Dwarka	
4	Deputy Director of Horticulture, Jamnagar	
5	Deputy Director of Agriculture (Training), Farmer Training Centre, Jamnagar& Devbhumi Dwarka	
6	Deputy Director of Agriculture (Extension), Jamnagar& Devbhumi Dwarka	
7	Asstt. Director of Fisheries, Jamnagar& Devbhumi Dwarka	
8	Range Forest Officer, Jamnagar& Devbhumi Dwarka	
9	Asstt. Director of GLDC, Jamnagar& Devbhumi Dwarka	
10	Estate Engineer, Department of Irrigation, Jamnagar& Devbhumi Dwarka	
11	All Taluka Development Officers, and their team at Taluka level	
12	Rajkot-Jamnagar Gramin Bank, Jamnagar& Devbhumi Dwarka	
13	Project Director, ATMA, Jamnagar& Devbhumi Dwarka	
14	Project Director, DWDU, Jamnagar & Devbhumi Dwarka	

15	NABARD Bank	
B	**Private Corporation**	
1	Territory Manager, GSFC, Jamnagar& Devbhumi Dwarka	➢ Impart training on Agril. aspects ➢ Collaborative on/off campus training programme ➢ Sponsor training programme
2	Territory Manager, GNFC, Jamnagar& Devbhumi Dwarka	
3	Territory Manager, IFFCO, Jamnagar& Devbhumi Dwarka	
4	Reliance Industries, Dept. of Green Belt, Jamnagar	
5	Syngenta Company	
6	GGRC	
C	**NGOs**	
1	Murlidhar Trust, Opp. Trajitpara Branch School, Bhanvad	➢ Impart training on Agril. aspects ➢ Collaborative on/off campus training programme
2	Tata Chemical Society for Rural Development Foundation, At. Mithapur, Ta.-Dwarka, Dist.-Jamnagar	
3	Agakhan Rural Development Trust	
4	ANARDE foundation trust	
5	Mahindra Tractor, Jamnagar	
6	BAIF Singach	
7	ACT	

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

Establishment of Agricultural Technology Information Centre (ATIC) (B. H.:- 12572-03)	2020-21	State Govt.	1235000/-
Cluster Frontline demonstration of pulses under NSFM (B.H.:- 2704-50)	2020-21	ICAR	340160/-
Cluster Frontline demonstration of Oilseeds under NMOOP (B.H.:- 2704-51)	2020-21	ICAR	170000/-
District Agromet Units (DAMUs) (B.H.2704-59)	2020-21	II	290000/-
Swachhta Action Plan (B.H.-2704-65)	2020-21	II	22700/-

C. Details of linkage with ATMA

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

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

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

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	Other remarks (if any)
01	**Meetings**	AGB, AMC and other meeting	16	2	
02	**Research projects**	-	-	-	-
03	**Training programmes**	On/ Off Campus training programme	10	4	

04	**Demonstrations**	Method Demonstration	9	5	
05	**Extension Programmes**				
	Kisan Mela		1		
	Technology Week				
	Exposure visit		5	2	
	Exhibition		1	0	
	Soil health camps		1	0	
	Animal Health Campaigns				
	Others (Pl. specify)	Day Celebration	2	2	
		Lecture Dilivered	21	10	
06	**Publications**				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	**Other Activities** (Pl.specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development		3	2	

D. Give details of programmes implemented under National Horticultural Mission

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

E. Nature of linkage with National Fisheries Development Board

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

F. Details of linkage with RKVY

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
	Training, lecture deliver, field & diagnostic visit	Members in district level committee	-	-	-

G. Details of linkage with PKVY (Paramparagat Krishi VikasYojana)

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

H. Details of linkage with NFSM

S. No.	Programme	Nature of linkage	Funds received if any Rs.	Expenditure during the reporting period in Rs.	Remarks
1	Training, lecture deliver, field & diagnostic visit	Members in district level committee			

I. Details of linkage with SMAF (Sub-mission on Agroforestry)

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

6. Convergence with other agencies and departments:

Period	Activity details	Place of activity	Officers present
24.03.20	NMSA meeting attended	DDO chamber	7
7.03.20	SAC meeting with line Department	KVK, Jamnagar	35
11.05.20	DLMC meeting organized by horticulture department Jamnagar	on ZOOM app.	5
11.05.20	DLMC meeting organized by horticulture department Devbhumi dwarka	on ZOOM app	5
21.05.20	ATMA AMC meeting of Jamnagar at. ATMA office, Jamnagar	on ZOOM app	7
21.05.20	ATMA AMC meeting of Dev Bhumi Dwarka at. ATMA office, Jamnagar	on ZOOM app	9
28.05.20	PMFBY Scheme DLMC meeting at Dy.Dir. Agri. (Extension) office	on ZOOM app	11
11.06.20	District Epidemic Management Committee Meeting District Panchayat, Jamnagar	on ZOOM app	25
11.06.20	ATMA- AGB meeting of Jamnagar District	DDO Chamber, Jamnagar	9
15.06.20	ATMA -AGB meeting of Devbhumi Dwarka	DDO chamber Jam Khambhaliya	12
27/07/20	DWDU –District Co ordination and Collaboration committee meeting	Sabhagruh, Jilla Panchayat Bhavan, Jamnagar	26
7/08/2020	Prepare Video Documentary Film with DWDU Department on “Activity of KVK”	KVK, Jamnagar office	4
25/08/2020	NMSA(DMC-District Mission Committee) meeting	DDO Chamber, Jamnagar	7
25/08/20	NFSM committee Meeting	DDO chamber, Jamnagar	11
7/08/20	Meeting with deputy director Agriculture(Ext.) for “Advance estimate for Precision and timely sowing and monitoring scheme” Of Devbhumi Dwarka District	On zoom app.	12
7.08.20	Meeting with deputy director Agriculture(Ext.)for “Advance estimate for Precision and timely sowing and monitoring scheme” of Jamnagar District	On zoom app	12
	Video Conference with Collector, DDO and Agri. Department Officers of Jamnagar District for Hazard for crop due to heavy rainfall	Webex meeting	14
28.09.20	Online DMLC meeting for Village Lavel soil testing lab.	Zoom app.	6
20.10.2020	DMLC Meeting of Horticulture	Dy.Dir.(Hort.) office	5

8. Innovator Farmer's Meet

Sl.No.	Particulars	Details
	Have you conducted Farm Innovators meet in your district?	~~Yes~~/ No
	Brief report in this regard	

9. Farmers Field School (FFS)

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

10.1. Technical 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
- Farmers reduce cost of production by using *Beauveria bassiana* and other bio-products
- Farmers understood the use of sulphur in oilseed crops specially in mustard through front line demonstrations in different villages
- Farmers understand the need of soil and water conservation and its future consequences in the area.
- Positive response coming from farmers about use of *Trichoderma* as seed treatment and soil application in cumin and groundnut
- Farmers are realizing the need of micronutrients and their deficiency in the different soils of the area
- Farmers are realizing the importance of seed treatment for pest and disease management
- Positive feedback coming from farmers side about the use of Pseudomonas in coriander for disease management
- Farmers getting satisfactory results from seed treatment for pest and disease control in different crops

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

Director (ATARI), DEE, Comptroller of University :

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

- Provide grant for farm protection wall and other infrastructure fascilities

Soil & Water Conservation:

- Farmers are facing the problem of malfunctioning of micro irrigation systems with poor quality irrigation water.
- Problem of soil salinity/ alkalinity is increasing day by day due to inherent salinity of soils and application of poor quality water.
- More research is required for magnetic water softener and effects of softened water on soil after continuous use.

Horticulture:

- Need to be developed nematode & wilt resistant root-stock in pomegranate
- Fertigation schedule should be developed in Datepalm
- Need to be developed value addition methods for Datepalm

Plant Protection:

- Need to be developed more insect and disease resistant varieties under different crops
- Farmers need freshly prepared bio-agents like *Beauveria, Metarhizium,Trichoderma, Pseudomonas, Paecillomyces* etc.
- Need to be effective control measures for mealybug control in cotton.
- More emphasis should be given on fruit fly management in different orchards
- Research scientists should focus on discovering best management techniques for mealybug
- Also focus on para-wilt management practices in cotton
- Need to be discover new molecules of nematicides for nematode management
- Should be focus on insecticide resistance management
- Ease availability of bio-pesticides to farmers

Agronomy:

- Need to be developed salinity resistant varieties of crops like groundnut and castor
- Need to be developed high yielding/ salinity tolerant varieties of pulse crops
- Need to be farming with cow based agriculture development for doubling the farmers income

11. Technology Week celebration during 2020

Due to pendamic condition by covid-19, technology week celebration during 2020 were not carried out on KVK, JAU, Jamnagar.

12. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)

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

IMPACT OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR IN OPERATIONAL VILLAGES 2015-16 TO 2017-18

Krishi Vigyan Kendra has been proved to be one of the best option for improvement of knowledge, attitude and skill level in farming community of rural India through Trainings, On Farm Trials (OFT), Front Line Demonstrations (FLD), other extension activities and on mass campaign.Krishi Vigyan Kendra is the innovative scientific training institutes which have been established throughout the country with the mandates to impart need based and skill oriented trainings to practicing farmers, in-service field level extension workers and to those who wish to go for self-employment. The basic objective of Krishi Vigyan Kendra is focused on demonstrating the recent technology at the farmer's field and imparting skill oriented vocational trainings to the farmers. The Krishi Vigyan Kendra at Jamnagar was established in 2003-04, the main aim of establishing the Krishi Vigyan Kendra was to bring about improvement in production and economy of the farmers. In order to achieve this objective, the Krishi Vigyan Kendra Jamnagar carries out a number of training programmes and various other activities on crop production and allied fields. The specific objective of the present paper was to assess the impact of KVK activities in Jamnagar districts.

METHODOLOGY

The present investigation was undertaken in operational villages of Jamnagar& Devbhumi Dwarka districts of Gujarat state. Both districts consists of total 10 blocks, out of which Kalavad, Lalpur and Bhanvad were selected for different extension activities carried out by Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar. Three irrigated and three rain fed villages selected from each block. Thus, total eighteen villages were adopted as operational area of Krishi Vigyan Kendra for the period of 2015 -16 to 2017-18. These eighteen villages were considered as the study sample for this investigation. For selection of respondents, 10 respondents were selected randomly from each adopted village. Thus, total number of respondents was 180. For the collection of data a simple structured schedule developed by Chandra (1991) was used with some modifications. The data collected from each respondent by personal interview method.

Table: 1. Village-wise numbers of respondents selected for the study and farming situation

Sr. No.	Village	Taluka	Farmingsituation	Totalno. of selected farmers
1	Mulila	Kalavad	Irrigated	10
2	Chhatar	Kalavad	Irrigated	10
3	Chelabedi	Kalavad	Irrigated	10
4	Sanosara	Kalavad	Rainfed	10
5	Golaniya	Kalavad	Rainfed	10
6	Laxmipur (Dudhala)	Kalavad	Irrigated	10
7	Bhangor	Lalpur	Irrigated	10
8	Memana	Lalpur	Irrigated	10

9	Dharampur	Lalpur	Irrigated	10
10	Govana	Lalpur	Rainfed	10
11	Pipartoda	Lalpur	Rainfed	10
12	Babarjar	Lalpur	Rainfed	10
13	Morjar	Bhanvad	Irrigated	10
14	Sahidevaliya	Bhanvad	Irrigated	10
15	Dudhala	Bhanvad	Irrigated	10
16	Rojivada	Bhanvad	Rainfed	10
17	Vanavad	Bhanvad	Rainfed	10
18	Fatepur	Bhanvad	Rainfed	10
			Total	**180**

With a view to measure the overall limpact of Krishi Vigyan Kendra in eighteen adopted villages, questionnaires were prepared in local language in two parts – (1) Extension intervention indicator and (2) Technological intervention indicator. Basic information of selected villages and respondents are given in Table No. 1. It was considered worthwhile to study entitled "Impact of KVK on selected villages" with following objective.

1. To study the socio-economic profile of selected respondents
2. To assess the impact of extension indicator
3. To study the technological impact of KVK activities.

Socio economic profile of the respondents

Considering the objectives of the study, socio-economic profile of the respondents viz, age, education, size of family, size of land holding, social participation, extension contact and farm mechanization index were worked out. Selected characteristics are depicted in Table no. 2.

Table: 2. Distribution of the respondents according to their characteristics

Sr No	Socio-economic characteristics	Selected respondents (n=180)	
		Frequency	Per cent
1	2	3	4
1	**Age**		
	Young age group (up to 35 year)	28	15.56
	Middle age group (36 to 50 year)	84	46.67
	Old age group (above 50 year)	68	37.78
2	**Education**		
	Illiterate	8	4.44
	Primary education (1 to 7 standard)	62	34.44
	Middle education (8 to 10 standard)	72	40.00
	Secondary education (11 to 12 standard)	21	11.67
	College and above	17	9.44
3	**Size of family**		
	Nuclear family (> 5 member)	98	54.44
	Join tfamily (< 5 member)	82	45.56
4	**Social Participation**		
	Social participation	96	53.33
	No Social participation	84	46.67
5	**Extension Contact**		
	Low extension participation (> 2.8 score)	13	7.22
	Medium extension participation (2.8 to 7.5 score)	112	62.22

	High extension participation (<7.5 score)	55	30.56
6	**Size of land holding**		
	Small holding (up to2 ha score)	44	24.44
	Medium holding (>2 to4 ha score)	74	41.11
	Large holding (above 4 ha score)	62	34.44
7	**Farm mechanization index**		
	Low FMI (Mean – S.D.)	39	21.67
	Medium FMI (Mean ± S.D.)	95	52.78
	High FMI (Mean + S.D.)	46	25.56

The data presented in table 2 showed that maximum numbers of the respondents (84) were of middle age group (36 to 50 years) i.e. 46.67per cent followed by old age group 37.78 and young age group 15.56 per cent respectively. In case of education, equal number of respondents was educated up to primary and middle education (40.00 percent) followed by illiterate, secondary education and college and its above level education with 4.44, 11.67 and 9.44 percent respectively. From the table, it is also observed that majority (54.44 per cent) of the respondents were belonged to nuclear family and 45.56 percent of joint family.

The data depicted in table revealed that more than half (53.33per cent) of the respondents had social participation while 46.67 percent had no in social participation. In case of extension participation, 62.22 per cent of the respondents had medium extension participation, whereas 30.56 per cent and 7.22 per cent of them had high and low extension participation respectively.

It is quite clear from the table that 41.11 per cent respondents were medium land holder (2 to 4 ha) while 34.44 and 24.44 percent farmers were large and small land holders having more than 4 ha and up to 2 ha of land holding respectively. In case of farm mechanization, 52.78 per cent of the farmers had medium farm mechanization index followed by 25.56 and 21.67 per cent respondents had low and high farm mechanization index.

Impact of extension indicator

In a viewtoascertainimpact of different extension activities in adopted villages, questionnaire was prepared to measure the different extension indicators. It was structured to know the experience of farmers before and after three years' experience. The percentage worked out and percent increase should be the growth of the farmers after the KVK activities in adopted villages. The data are presented in table:-3.

Table: 3 Distribution of the respondents according to its extension intervention (N = 180)

Sr. No.	Extensionindicator	Impact of Krishi Vigyan Kendra				Diffe-rence	Rank
		Before		After			
		Frequency	Percent	Frequency	Percent		
1	Knowledge about technology and package of practices	101	56.11	160	88.89	32.78	**IV**
2	Extent of awareness	81	45.00	172	95.56	50.56	**III**
3	Change in attitude	60	33.33	161	89.44	56.11	**II**
4	Improvement in workperformance / skill	74	41.11	127	70.56	29.44	**V**
5	Extent of spread of technology	58	32.22	169	93.89	61.67	**I**
6	Increase in SHGs / FIGs	69	38.33	110	61.11	22.78	**VI**
7	Formation / establishment of	65	36.11	78	43.33	7.22	**VII**

	cooperative						

The perusal of data presented in table 3 revealed that more than 50.00 per cent difference noticed in case of spread of technology (61.67 %) followed by change in attitude (56.11 %) and extent of awareness (50.56 %) respectively.

In case of other extensionindicators, the difference observed was less than 50.00 per cent are gain in knowledge about technology and package of practices, improvement in workperformance/skill and increase in SHGs /CIGs with 32.78, 29.99 and 22.78 per cent respectively. The least difference was observed in case of formation and establishment of cooperative (7.22 %).

From above discussion, it could be concluded that the spread of technology (ranked first), change in attitude (ranked second), extent of awareness (ranked third), gain in knowledge (ranked fourth) and improvement in workperformance/skill (ranked fifth).

Impact of technological indicator

To find out the technological impact, the following 13 technologies were tested, amongst three i.e. introduction of new verities, increase in yield /production and increase in area were tested in four major crops of our district which is cotton, groundnut, castor and wheat.

Table: -4. Distribution of farmers according to his technological indicator

Sr. No.	Technological indicator	Impact of Krishi Vigyan Kendra				Diffe-rence	Rank
		Before		After			
		Frequency	Percent	Frequency	Percent		
1	**Introduction of new verities**	**89.18**	**49.55**	**138.18**	**76.77**	**27.22**	**II**
1	Cotton	120	66.67	162	90.00	23.33	
2	Groundnut	115	63.89	155	86.11	22.22	
3	Castor	137	76.11	165	91.67	15.56	
4	Wheat	145	80.56	172	95.56	15.00	
5	Cumin	110	61.11	162	90.00	28.89	
6	Gram	107	59.44	168	93.33	33.89	
7	Til	108	60.00	148	82.22	22.22	
8	Coriander	12	6.67	133	73.89	67.22	
9	Pearl Millet	80	44.44	128	71.11	26.67	
10	Onion	30	16.67	65	36.11	19.44	
11	Garlic	17	9.44	62	34.44	25.00	
2	**Increase in yield / productivity**	**102.36**	**56.87**	**127.00**	**70.56**	**13.69**	**VIII**
1	Cotton	154	85.56	98	54.44	-31.11	
2	Groundnut	142	78.89	177	98.33	19.44	
3	Castor	136	75.56	142	78.89	3.33	
4	Wheat	133	73.89	159	88.33	14.44	
5	Cumin	135	75.00	161	89.44	14.44	
6	Gram	114	63.33	152	84.44	21.11	
7	Til	100	55.56	132	73.33	17.78	
8	Coriander	51	28.33	102	56.67	28.33	
9	Pearl Millet	112	62.22	140	77.78	15.56	
10	Onion	30	16.67	80	44.44	27.78	

11	Garlic	19	10.56	54	30.00	19.44	
3	**Increase in area**	**92.18**	**51.21**	**144.00**	**80.00**	**28.79**	**I**
1	Cotton	158	87.78	130	72.22	-15.56	
2	Groundnut	95	52.78	165	91.67	38.89	
3	Castor	98	54.44	143	79.44	25.00	
4	Wheat	111	61.67	167	92.78	31.11	
5	Cumin	102	56.67	157	87.22	30.56	
6	Gram	113	62.78	163	90.56	27.78	
7	Til	90	50.00	145	80.56	30.56	
8	Coriander	43	23.89	172	95.56	71.67	
9	Pearl Millet	102	56.67	128	71.11	14.44	
10	Onion	46	25.56	102	56.67	31.11	
11	Garlic	56	31.11	112	62.22	31.11	
4	**Increase in production**	**105.55**	**58.64**	**138.18**	**76.77**	**18.13**	**IV**
1	Cotton	160	88.89	130	72.22	-16.67	
2	Groundnut	130	72.22	172	95.56	23.33	
3	Castor	120	66.67	166	92.22	25.56	
4	Wheat	133	73.89	160	88.89	15.00	
5	Cumin	121	67.22	158	87.78	20.56	
6	Gram	98	54.44	135	75.00	20.56	
7	Til	100	55.56	130	72.22	16.67	
8	Coriander	95	52.78	135	75.00	22.22	
9	Pearl Millet	103	57.22	128	71.11	13.89	
10	Onion	56	31.11	100	55.56	24.44	
11	Garlic	45	25.00	106	58.89	33.89	
5	**Extent of adoption**	**107**	**59.44**	**151**	**83.89**	**24.44**	**III**
6	**Increase in income**	**130**	**72.22**	**159**	**88.33**	**16.11**	**VII**
7	**Generation of employment**	**122**	**67.78**	**139**	**77.22**	**9.44**	**IX**
8	**Expansion of an enterprise**	**89**	**49.44**	**96**	**53.33**	**3.89**	**X**
9	**Introduction of new enterprise**	**75**	**41.67**	**79**	**43.89**	**2.22**	**XI**
10	**Improvement in market facility of farm produce**	**75**	**41.67**	**78**	**43.33**	**1.67**	**XII**
11	**Creation of infrastructure**	**103**	**57.22**	**134**	**74.44**	**17.22**	**V**
12	**Opening of farm school**	**78**	**43.33**	**81**	**45.00**	**1.67**	**XIII**
13	**Decrease in yield gaps**	**91**	**50.56**	**120**	**66.67**	**16.11**	**VI**

It is concluded from above table: 4 that the highest difference (28.79 %) was observed in increase in area followed by introduction of new varieties (27.22 %), adoption rate (24.44 %), increase in yield (18.13 %), creation of infrastructure (17.22 %), decrease in yield gap (16.11 per cent),increase in income (16.11 per cent) and increase in yield/productivity (13.69 %) respectively.

Least difference observed in case of Improvement in market facility of farmproduceand Opening of farmschool (1.67 per cent of each) and Introduction of new enterprise (2.22 per cent).

From above discussionit canbe concluded that increase in area (ranked first), introduction of new varieties (ranked second), adoption rate (ranked third), increase in production (ranked fourth) and creation of infrastructure (ranked fifth) and decrease in gap (ranked sixth).

The reason forincrease in production and introduction of new varieties is dueto constant and concrete efforts of KVK scientists to the farmers and vice versa. Farmers could solved their problems of plantprotection and crop production by direct contact of the specialist of KVK either by phone or person. Introduction of new varieties ranked second position because of Front Line Demonstrations conducted by KVK at farmer's fields and trainings.

Table: 5. Impact of farm mechanization, IPM and INM (Year :-2015-16 to 2017-18)

Sr.No.	Practices	Before	After	Per centincrease
		Year 2015-16	Year 2017-18	
a)	**Farmmechanization**			
1	Tractor (No.)	35	110	214.29
2	Rotavator	4	18	350.00
3	Thresher (No.)	35	55	57.14
4	Electric Motor (No.)	154	200	29.87
5	Oil Engine (No.)	89	60	-32.58
6	Sprayer (No.)	180	235	30.56
7	Dripirrigationset	5	35	600.00
8	Sprikler irrigationset	3	18	500.00
b)	**Integratednutrientmanagement**			
1	Use of FYM	145	170	17.24
2	Judicious use of Urea	101	130	28.71
3	Judicious use of DAP	76	107	40.79
4	Judicious use of SSP	59	78	32.20
5	Judicious use of Potash	48	68	41.67
6	Use of Mineral mixer	26	63	142.31
8	Gypsum / Sulpher (t)	10	20	100.00
c)	**IPM**			
1	Use of Trichoderma	42	196	366.67
2	Pheromen Trap (no)	32	85	165.63
3	NPV (no)	21	30	42.86
4	Neem oil (no)	69	114	65.22
5	*Beauveria*	49	148	202.04

It can be concluded from above Table:5 that in case of farm mechanization, the highest per cent increase was in Drip irrigation set (600 %) followed by Sprinkler irrigation system (500%), rotavator (350%), and tractor (214.29%). While least percent increase was observed in thresher, electric motor and spray pump with 57.14, 29.87 and 30.56 per cent respectively. But, this trend was reverse in case of oil engine (-32.58%) which was due to replacement of oil engine with electric motor. Use of drip and sprinkler increased because of scarcity of irrigation water, proper guidance from KVK scientist, and help from GGRC and Government.

Farmers of adopted villages were aware about importance of integrated nutrient management (INM) through on and off campus trainings, FLDs, field days and mobile phones. In integrated nutrient management the highest percent rise was observed in use of mineral mixer (142.31%) followed by use of judicious use of Gypsum (100%), potash (41.67%) and judicious use of DAP (40.79%) respectively. While least percent increase was observed in use of FYM (17.24 per cent), use of urea (28.71 per cent) and use of SSP (32.20 per cent) respectively.

Now a day's IPM is the most important factor from production technology point of view. Due to continuous efforts of KVK scientists, regular visit of farmer's field and guidance through mobile phone, the use of bio control agents were remarkably enhanced. In adopted villages the

highest percent increase was observed in use of *Trichoderma* (366.67%)followed by use of *Beauveria* (202.04%), pheromone trap (165.63%), neem oil (65.22 per cent) abd NPV (42,86).

Table: 6. Increase and decrease of productivity of major crops KVK villages in last threeyear (year 2015-16 to 2017-18)

Sr. No.	Crop	Productivity Difference	Rank
1	Cotton	-31.11	XI
2	Groundnut	19.44	IV
3	Castor	3.33	X
4	Wheat	14.44	VIII
5	Cumin	14.44	IX
6	Gram	21.11	III
7	Til	17.78	VI
8	Coriander	28.33	I
9	Pearl Millet	15.56	VII
10	Onion	27.78	II
11	Garlic	19.44	V

From above table, it is clear that highest increase was observed in production of coriander with first rank. Before adoption time the farmers were sowing local variety of coriander. After adoption of these villages by KVK, Jamnagar the FLDs of coriander variety GC-2 was conducted, during training and field days the farmers were awaked about recommended variety of coriander i.e. Gujarat Coriander – 2. Therefore the productivity of coriander was increased. This was followed by groundnut and chickpea with second and third rank respectively. It is due to adoption of recommended varieties, good crop management practices and regular guidance of KVK experts to farmers.

At the same time productivity of cotton crop was declined up to –31.11 per cent. The reason behind this as per farmers' feedback was mono cropping system (every year sowing of cotton on same land), attack of pink bollworm and remarkable infestation of sucking pests.

From above tableit is concluded that Coriander (ranked first), Onion (ranked second), chickpea (ranked third), groundnut (ranked fourth), garlic (ranked fifth), sesame (sixth), pearl millet (seventh), wheat (ranked eighth), cumin (ranked ninth) and castor (ranked tenth). While cotton ranked at eleventh position with decrease in yield.

Conclusion:-

Krishi Vigyan Kendra has been playing pivotal role for the allover improvement of farming community. To concentrate its efforts 18 villages were adopted for different activities for the period of 2015-16 to 2017-18. Due to constant and concrete efforts of KVK scientists, like organizing On and Off campus trainings, Front Line demonstrations (FLDs), field days, sharing of technology through cell phones, distribution of literature, celebration of technology weeks, soil health day, agricultural fairs, exposure visits, etc. had provided scientific know-how to farmers which led them to adopt new technology and finally to a better life.

After completion of three years in adopted villages the major outcomes are :

The yield of coriander and onion was increased by 28.33 and 27.78 percent. A remarkable change was noticed in use of drip and sprinkler irrigation system. Use of overdose of DAP and urea was minimized and farmers started to use more bio agents especially *Trichoderma* and *Beauveria* to control pest and diseases which resulted in decrease of cost of cultivation with conservation of environment. The efforts of KVK scientists succeeded in arousing awareness, change in attitude, introduction of new varieties, extent of adoption which increased the crop production and finally the income of the farmer.

B. Cases of large scale adoption (Please furnish detailed information for each case)

Sr.	Significant Achievements		Details of achievements
1	Promotion of organic farming	:	Farmers were aware about organic farming, skill training conducted skill development of organic growers. Horizontal spread in more then 750 farmers have been started organic farming in the KVK jurisdiction. About 17% farmers have been started organic inputs for their pest, diseases and nutrition management, through which they reduce the cost of cultivation.
2	Employment generation through seed production	:	Skill training on "Organic Grower" and "quality seed grower were conducted and horiontal spread"
3	Popularization of New varieties of Groundnut	:	GG-20 variety share more than 75% share of total groundnut cultivation. It was replaced by GJG-22 variety, GJG-9, GJG-31 and GJG-32 by availability of seed on about 28%
4	Spread of Beauveria	:	It reduces chemical pesticide drastically. Seed treatment is more effective as well as less quantity of insecticides is to be required. Aware farmers about use of *Beauveria bassiana* for the management of pink bollworm in cotton and white grub in groundnut. It also successful for the control the all type of pest infesting crops. This technology is expansion in about 340000 ha.
5	Spread of Trichoderma	:	Most successful biological fungicide used in groundnut cultivation for the management of stem rot (*Sclerotium rolfsii*) of groundnut, wild of cumin. It reduce chemical fungicides drastically, and having fixed in soil as regular organism, therefore repeated use having augmented in soil and reduce all soil borne diseases. More than 85% farmers used. It spread over 360000 ha.
6	Popularization of different varieties	:	Sesame : G.Til.-3, 4; 5 Pearl Millet- GHB-558, 538, 732 Chickpea :- GG-5, GJG-3
7	New crop introduction	:	Coriander is the forth-major crop of rafi crops after cumin, wheat and chickpea. It was introduced by KVK, JAU, Jamnagar from 2012-13.
8	The Impact of Drip Irrigation: "More Crop Per Drop"	:	➢ Increased yield, Early maturity, ➢ Water saving ➢ Fertilizer saving ➢ Increased Fertilizer efficiency ➢ Energy saving ➢ Labor saving ➢ Marginal lands can be irrigated ➢ Use of saline water is possible for irrigation ➢ Reduced weed growth ➢ Less problem of disease and pest ➢ Makes inter culture operations easy ➢ Keep soil condition good & ➢ Save time
9	Re-cycling of farm waste through Bio-decomposer & Bio-Fertilizers	:	➢ Reduce cost of cultivation, ➢ water saving, ➢ fertilizers & micro-nutrients saving ➢ growth hormones saving,

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

Most Successful Technology	Source of Technology with Year of Released/ Developed	Parameters/Indicators/Determinants for Large Scale Adoption or Most Successful					
Variety		Area covered (ha)	No/ of Villages covered	Approx No. of farmers adopted	Highest yield Q/ha	Net return Rs/ha	More demand in market
Pearl millet GHB-732	JAU, Junagadh Year of release: 2010-11	412	36	214	47.50	41754	
Coriander GC-2		3685	162	365	14.25	76650	
Green Gram GM-4	GAU	6732	386	768	11.25	29863	
Chickpea GJG-3	JAU	575	27	272	26.32	68537	
Chickpea GG-5	JAU, Junagadh Year of release: 2013-14	265	21	150	31.25	79020	
IDM							
Trichoderma in Groundnut	JAU, Junagadh	3437	80	456	28.75	40600	
Groundnut variety GJG-32	JAU, Junagadh	650	65	250	35.65	112580	
Groundnut GJG-9	JAU, Junagadh	874	150	632	32.62	98684	

13. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2020			
Feb 2020			
March 2020			
April 2020	4	310839	
May 2020	2	155432	
Jun 2020	1	77729	
Jul 2020	2	155406	
Aug 2020	1	77729	
Sept 2020	5	310834	
Oct 2020	4	233587	
Nov. 2020	2	155370	
Dec. 2020	3	233037	
	24	**1709963**	

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Jamnagar	Text only	10	0	3	0	10	1	24
	Voice only							
	Voice & Text both							
	Total Messages	**10**	**0**	**3**	**0**	**10**	**1**	**24**
	Total farmers Benefitted	**777017**	**0**	**233139**	**0**	**699369**	**438**	**1709963**

14. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1									

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

Name Of the crop	Date of sowing	Area (ha)	Details of production			Amount (Rs.)		Remarks
			Variety	Type of Produce	Qty. kg	Cost of inputs	Gross income	
Wheat	16.12.19	06	GW-451	Seed	26350	130000	516006	
Groundnut	14.02.20	1.5	GJG-32	Seed (Breeder)	2400	120000	360000	
Groundnut	26.06.20	1	GJG-31	Seed (Breeder) Haulm	1170 1750	80000	181350 4680	
Groundnut	25.06.20	4	GJG-9	Seed (Breeder) Haulm	4200 6300	320000	624000 25200	
Groundnut	04.07.20	5	GJG-32	Seed (Breeder) Haulm	5300 7000	380000	776500 28000	
Sesame	20.07.20	0.5	GJT-5	Seed	110	10000	46500	
Sorghum	5.08.20	0.15	Gundri	Green fodder	4500	8500	22500	

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

Sl. No.	Bio Products	Name of the bio-product	Quantity		Amount (Rs.)		No. of Farmers	Remarks
			No.	kg	Cost of inputs	Gross income		
1	Bio Fertilizers	*Azotobactor*	138		10	1380	66	
2		*Rhizobium*	83		10	830	41	
3		*PSB*	148		10	1480	70	
4	Bio-pesticide	*Beauveria Bassiana*		2261	15	33915	420	
5		*Metarizium*						
6	Bio-fungicide	*Trichoderma*		3683	10	36830	359	
7	Bio Agents							
8	Others	Pheromone trap						
9		Lure						
	Total		**369**	**5944**		**74435**	**956**	

N.B. *Product was produced by JAU University and selling by KVK the amount is only given for revenue generation

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

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
1	Vermi Vompost				-		
2.	Animal unit		FYM	20 tonn			

E. Utilization of hostel facilities

Accommodation available (No. of beds): 25

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
Jan 2020	32	1	0
Feb 2020	109	4	0
March 2020	41	1	0
April 2020	0	0	0
May 2020			0
Jun 2020			0
Jul 2020			0
Aug 2020			0
Sept 2020	2	1	0
Oct 2020	3	9	0
Nov. 2020			0
Dec. 2020	5	25	0
Total	**192**	**41**	

F. Database management

S. No	Database target	Database created

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

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

H. Performance of Nutritional Garden at KVK farm

If Nutritional Garden developed at KVK farm/Village Level? Yes/No

If yes,

Nutritional Garden developed at KVK farm

Area under nutritional garden (ha)	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers visited
	Vegetable crops		
	Fruit crops		
	Others if any		

Nutritional Garden developed at Village Level

No. of Villages covered	Component of Nutritional Garden	No. of species / plants in nutritional garden	No. of farmers covered
	Vegetable crops		
	Fruit crops		
	Others if any		

H. Details of Skill Development Trainings organized

S.No.	Name of KVKs/SAUs/ICAR Institutes	Name of QP/Job role	Duration (hrs)	No. of participants					
				SCs/STs		Others		Total	
				Male	Female	Male	Female	Male	Female

15. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India						
With KVK	State Bank of India	Khodiyar Colony, Jamnagar	SBIN0012211	Training Organizer	10319002389	361002098	12211

B. Utilization of KVK funds during the year 2019-20 (Rs. in lakh)

S. No.	Head	R.E 2019-20	Opening Balance as on 01.04.2019	Refund During 2019-20, if any	Fund received during 2019-20	Expenditure during 2019-20	Closing Balance (04-05+06-07)
1	2	3	4	5	6	7	8
Grants for creation of Capital Assets (CAPITAL)							
1	**Works**	0	0	0	0	0	0
	A. Land	0	0	0	0	0	0
	B. Building	0	0	0	0	0	0
	i. Office building	0	0	0	0	0	0
	ii. Residential building	0	0	0	0	0	0
	iii. Minor works	0	0	0	0	0	0
2	**Equipments**	0	0	0	0	0	0
3	**Information Technology**	0	0	0	0	0	0
4	**Library Books and Journals**	0	0	0	0	0	0
5	**Vehicles & Vessels**	1450000	0	0	1450000	1440389	9611
6	**Livestock**	0	0	0	0	0	0
7	**Furniture & Fixtures**	0	0	0	0	0	0
8	**Others**	0	0	0	0	0	0
	Total-CAPITAL (1+2+3+4+5+6+7+8)	**1450000**	**0**	**0**	**1450000**	**1440389**	**9611**
Grants in Aid - Salaries (REVENUE)							

9	**Establishment Expenses**						
	A. Salaries	8650000	1743787	0	8650000	8339842	2053945
	Total-SALARIES (9)	**8650000**	**1743787**	**0**	**8650000**	**8339842**	**2053945**
Grants in Aid - General (REVENUE)							
10	**Pension & Other Retirement Benefits**	0	0	0	0	0	0
11	**Travelling Allowance**	100000	0	0	100000	106592	-6592
12	**Research & Operational Exp.**						0
	A. Research Expenses	500000	20000	0	500000	519994	6
	B. Operational Expenses	300000	9342	0	300000	308854	488
	Total - Res. & Operational Exp.	**900000**	**29342**	**0**	**900000**	**935440**	-6098
13	**Administrative Expenses**						0
	A. Infrastructure		0	0			0
	B. Communication	10000	0	0	10000	164	9836
	C. Repairs & Maintenance						0
	i. Equipments, Vehicles & Others	80000	0	0	80000	79346	654
	ii. Office building	0	0	0	0		0
	iii. Residential building		0	0			0
	iv. Minor Works	0	0	0	0		0
	D. Other	10000	0	0	10000	9000	1000
	Total - Administrative Expenses	**100000**	**0**	**0**	**100000**	**88510**	11490
14	**Miscellaneous Expenses**						0
	A. HRD					0	0
Total Grants in Aid – General (10+11+12+13+14)		**1000000**	**29342**	**0**	**1000000**	**1023950**	**5392**
Grand Total (Capital + Salaries+ General)		**11100000**	**1773129**	**0**	**11100000**	**10804181**	**2068948**

B. Utilization of KVK funds during the year 2020-21 (Rs. in lakh)(Till Dec, 2020)

S.No.	Particulars	Sanctioned	Opening balance	Released	Expenditure	Balance
A.	**Recurring Contingencies**					
1	Pay & Allowances	9100000	2053945	10022213	12076158	0
2	Traveling allowances	100000	0	100000	16826	83174
3	Contingencies	900000	15003	865034	963211	-83174
	TOTAL (A)	**10100000**	**2068948**	**10987247**	**13056195**	**0**
B.	**Non-Recurring Contingencies**	0	0	0	0	0
C.	**REVOLVING FUND**	0	0	0	0	0
	GRAND TOTAL (A+B+C)	**10100000**	**2068948**	**10987247**	**13056195**	**0**

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

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
1st April 2017 to 31st March, 2018	**4861580**	**4171833**	**3457716**	**5557697**

1st April 2018 to 31st March, 2019	**5557697**	**4549175**	**4143409**	**5963463**
1st April 2019 to 31st March, 2020	**5963463**	**4201134**	**2525789**	**7638808**
1st April 2020 to 31st December, 2020	**7638808**	**3482987**	**792007**	**10329788**

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (On/ Off line)	Dates
Dr. K. P. Baraiya	SS & H	Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Offline	7-9.01.20
Dr. J. N. Thaker	SMS	Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Offline	7-9.01.20
Mr. S.H. Lakhani	SMS	Recent Extension Approaches for Effective Transfer of Technology	JAU, Junagadh	Offline	7-9.01.20
Dr. J. N. Thaker	SMS	National Level Seminar on Emerging trends in Science and Technology :Challenges & Opportunities	Tolani College, Adipur, Kutch	Offline	08.02.2020
Dr. K. P. Baraiya	SS & H	State Level workshop on Action Plan of KVK of Gujarat	Gujarat Vidyapeeth	Offline	13-14.02.20
Mr. S.H. Lakhani	SMS	International Convention on Perspective to Face Contemporary Challenges of Agricultural Development	NASC,ICAR New Delhi	Offline	18-19.02.2020
Dr. K. P. Baraiya	SS & H	National Conference of KVK-2020	ICAR, New Delhi	Offline	28.02.20 to 1.3.2020
Dr. K. P. Baraiya	SS & H	National Webinar on post covid-19 & Agri business challenges opportunities	JAU, Junagadh	Online	13-14.06.20
Smt. A. K. Baraiya	SMS	National Webinar on post covid-19 & Agri business challenges opportunities	JAU, Junagadh	Online	3-14.06.20
Mr. S.H. Lakhani	SMS	Training on Application of Geo informatics in Ecological Studies	IIRS, Dept. of Space, GoI	Online	13-24.07.20
Smt. A. K. Baraiya	SMS	MOOC Programme on Gender in Agriculture Development	MANAGE, Hyderabad	Online	27.07.20 to 6.08.20
Mr. S.H. Lakhani	SMS	Webinar on Farmer Producer Organizations and Commodity markets	NAHEP,CAAST, AAU, Anand	Online	27-28.07.20
Mr. S.H. Lakhani	SMS	Webinar on Scope of Agricultural Entrepreneurship Development	NAU, Bharuch	Online	19-21.08.20
Mr. S.H. Lakhani	SMS	Webinar on Kharif Pakoma Pravartman Pak Sanrakshan Na Prashno Ane Nirakaran	PPAG & AAU, Anand	Online	20.08.20
Dr. K. P. Baraiya	SS & H	Webinar on Kharif Pakoma Pravartman Pak Sanrakshan Na Prashno Ane Nirakaran	PPAG & AAU, Anand	Online	20.08.20

Dr. K. P. Baraiya	SS & H	Webinar on Soil Health Management for Sustainable Crop Productivity	MBAC,Agwanpur, Saharsa, Bihar	Online	7-8.09.20
Dr. K. P. Baraiya	SS & H	National Webinar on Boosting Immunity through Horticulture	SHRD & ICAR, IARI, New Delhi	Online	1-9.09.20
Smt. A. K. Baraiya	SMS	National Webinar on Boosting Immunity through Horticulture	SHRD & ICAR, IARI, New Delhi	Online	1-9.09.20

17. Details of progress in Doubling Farmers Income (DFI) villages adopted by KVKs

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit)	
				Before	After
Lothiya	291	FLD, OFT & Training			
Khoja Beraja	390	FLD, OFT & Training			
Chandragadh	315	FLD, OFT & Training			
Nani Banugar	285	FLD, OFT & Training			
Gadhka	1450	FLD, OFT & Training			
Total	**2731**				

18. Details of activities planned under NARI /PKVY / TSP / KKA, etc.

S. No.	Name of the programme	No. of villages adopted	Key activities performed	No. of activities carried out	No. of families covered

19. Details of Progress of ARYA Project

Name of Enterprise	No of Training Conducted	No of Beneficiaries	No of Extension Activities	No of Beneficiaries	No of Unit established	Change in income		No. Of Groups Formed
						Before	After	

20. Details of SAP

S. No.	Types of major Activity conducted- SwachhtaPakhwada, Cleaning, Awareness Workshop, **Miccobial based Agricultural Waste Management by Vermicomposting** etc.	No. of Programmes conducted	No. of Participants

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

21.1 ESTABLISHMENT OF AGRICULTURAL TECHNOLOGY INFORMATION CENTRE (ATIC) (YEAR-2020).

1.	Name of the Scheme	:	Establishment of Agricultural Technology Information Centre (ATIC) B.H. 12572-03
2.	Location of the scheme	:	Krishi Vigyan Kendra, JAU, Jamnagar
3.	Officer-in charge of the scheme	:	Senior Scientist & Head, KVK, JAU, Jamnagar
4.	Objectives	:	➢ Single window system for technology dissemination. ➢ Formulation of FIGs as a process of innovativeness in technology dissemination. ➢ Feedback from users to the research centre
5.	Justification of the scheme	:	➢ The JAU has generated a large number of technologies in different disciplines of agriculture and all allied subjects. ➢ Location specific technology and assessment technologies and demonstration of the technological models is planned.

A. Details of ATIC:

Sr. No.	Name of ATIC	Name of host institute	Name of ATIC manager	Telephone No.			E-mail address
				Office	Fax	Mobile	
1.	KVK, Jamnagar	Junagadh Agricultural University, Junagadh	Senior Scientist & Head	(0288) 2710165	(0288) 2710165	+919427980032	kvkjamnagar@gmail.com

B. Details of farmers visit:

Sr. No.	Name of ATIC	Purpose of visit	No. of farmers visited
1.	KVK, Jamnagar	For agricultural information	713
2.	KVK, Jamnagar	Technology Products	956

C. Facilities in ATIC (Operational):

Sr. No.	Particulars	No. of ATIC
1.	Reception counter	No
2.	Exhibition/technology measures	Yes
3.	Touch screen kiosk	Nil
4.	Cafeteria	Yes
5.	Sales counter	Yes
6.	Farmers feedback register	Yes
7.	Others	Nil

A. Technologies Information Provided

A. 1. Details technology information, category of information:

Name of ATIC	Information Category	No. of farmers benefitted	Variety	Pest Management	Disease management	Agro tech.	SWT	PHT	AH	HS
KVK, Jamnagar	1. Kisan call centre SMS	1243679	155412	543897	155411	77688	0	0	0	311271
	Phone calls	7057	574	3967	1145	445	360	48	268	250
	2. Video shows	516	116	113	71	0	0	26	0	190

	3. Letters received	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	4. Letter replied	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	5. Training to famers/ technocrats/ students	941	57	313	166	55	94	30	51	175
	6. Others	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

A. 2. Publication (Print & Electronic media):

Sr. No.	Name of ATIC	Particular	No. sold/distributed	Revenue generate	No. of farmers benefitted
1.	**KVK, JAU, Jamnagar**	Books/Booklet	Nil	Nil	Nil
2.		Tech. bulletin	Nil	Nil	Nil
3.		Tech. inventory	Nil	Nil	Nil
4.		CDs	Nil	Nil	Nil
5.		DVDs	Nil	Nil	Nil
6.		Leaflet	350	Nil	225
7.		Folders	1749	Nil	883
8.		Video films	Nil	Nil	Nil
9.		Audio CDs	Nil	Nil	Nil
10.		Others (Poster)	Nil	Nil	Nil

B. Technology products provided:

Sr. No.	Particular	Quantity	Unit of quantity	Value in Rs.	No. of farmers benefitted
1.	**Seeds**				
(i)	Green Gram (GM-4)	0.41	Quintal	3690	7
(ii)	Sesame (G.Til-4)	0.40	Quintal	6000	11
(iii)	Sesame (G.Til-4)(Breeder)	0.35	Quintal	8155	8
(iv)	Groundnut (GJG-9) (Breeder)	63.70	Quintal	887980	64
(v)	Groundnut (GJG-32) (Breeder)	72.10	Quintal	1044570	82
(vi)	Wheat (GW-451)	258.00	Quintal	723400	335
(vii)	Sun hemp	4.00	Quintal	20800	14
2.	**Planting materials**	967	No.	12560	27
3.	**Live stock(Vermi compost)**	200	Kg	1000	16
4.	**Poultry birds**	-	-	-	-
5.	**Bio Product**		**Quintal**	-	-
	1. *Beauveria bassiana*	22.61	Quintal	339150	420
	2. *Trichoderma*	36.83	Quintal	257810	359
	3. PSB	148	No.	17760	70
	4. *Rhizobium*	83	No.	9960	41
	5. *Azotobactor*	138	No.	16560	66
	6. *Metarhizium*	0	Quintal	0	0

C. Technology services provided:

Name of ATIC	Particulars	No. of farmers benefitted
KVK, Jamnagar	Soil and Water testing	107
	Plant diagnosis	95
	Services to line department	75
	Others (Group Meeting, Field Visit, Field Day)	623

D. FLD conducted:

Sr. No.	Month	Crop/Inputs	Season	Variety	No. of Farmers/ Demonstration		
					Others	SC/ST	Total
1.	January to December 2020	**Castor** Variety GCH-9	*Kharif*	GCH-9	20	0	20
2.		**Cumin** PSB, *Azotobacter*, *Beauveria, Trichoderma*	*Rabi*	GC-4	20	0	20
3.		**Coriander** PSB, *Azotobacter, Beauveria, Trichoderma*	*Rabi*	GC-2	20	0	20
				Total	**60**	**0**	**60**

E. Short term training courses:

Sr. No.	Month	Title of the Training	No. of Beneficiaries			No. of SC/ST Beneficiaries		
			M	F	Total	M	F	Total
1	January to December 2020	Management of Pink ball worm in cotton	26	0	26	0	0	0
2		Integrated Crop Management in Rabi crops	25	0	25	0	0	0
3		Integrated Crop Management in Rabi crops	20	0	20	0	0	0
4		IPM in vegetable crops: onion & garli	10	70	80	3	23	26
5		IPM in Cumin, Gram, Wheat, Onion, Garlic	37	0	37	3	0	3
6		Importance of nutrients and feed management in animal husbandry to increase milk production	0	30	30	0	0	0
7		Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	26	0	26	0	0	0
8		Groundnut seed production technology	17	8	25	0	0	0
9		House hold food security by kitchen gardening and nutrition gardening	0	20	20	0	0	0
		Total	**161**	**128**	**289**	**6**	**23**	**29**

F. Extension Activity:

Sr. No.	Name of Activity	No. of Activity	No. of Participant		
			M	F	T
1	Group meeting, Kishan goshthi, Night meeting etc.	16	254	169	423
2	Field visit/Field Day	21	158	42	200
3	Literature	49	192	198	390
4	Plant Diagnosis services	24	102	26	128

21.2 District Agro-Meteorological Unit (DAMU) Gramin Krishi Mausham Seva (GKMS)

India Meteorological Department (IMD), Ministry of Earth Sciences (MoES), Govt. of India, New Delhi is operating an integrated Agro-Meteorological Advisory Service (AAS) at district level, inIndia, which represents a small step towards agriculture management in rhythm with weat herand climate variability leading to weather proofing for farm production. Under AAS, needs of farming community was defined through ascertaining information requirement of diverse groups of end-users. The Indian Council of Agricultural Research (ICAR) and India Meteorological Department (IMD) have jointly expanding Agromet network or District level to support sub-district/ Block level advisory service through a network of 660 District Agromet units (DAMUs) in KVKs premises under

Gramin Krishi Mausham Sewa (GKMS). The target of the project is to provide Agromet services directly to all the farming households.

Objectives

- To improvise the district level Agromet Advisory Services (AAS) so as to deliver crop and location specific AAS to farmers at block level.
- To design optimum observatory network for issuance of village level advisories
- To establish District Agromet Units as nodal centre for catering to needs of agriculture services.
- To provide advisory bulletins through last mile connectivity to farmers with personalized agromet advisory services.
- To extend the weather based advisory service to like livestock, grazing of farm feed etc.

District Agromet Unit in KVK, Jamnagar

The District Agromet Unit is starting at KVK, JAU, Jamnagar since 2nd November 2018 but requirement of SMS and Observer joining at November 2019. Jamnagar is making Agro weather bulletin for all the 6 blocks viz. Dhrol, Jamnjodhpur, Jodiya, Kalavad, Jamnagar, Lalpur of the Jamnagar district.

Activity of DAMU at KVK Jamnagar

- Preparation of Agromet advisory bulletin Block and District wise
- Conducting Farmer awareness program (FAP)
- Dissemination of weather bulletin through different social media level

Weather Bulletin

Preparation of weather bulletin on the basis of medium range forecast provided by IMD supported by GFS model for the block wise weather bulletin. Preparation of advisory is in both Both language (English and Local language) twice in a week on Tuesday and Friday. There are several weather parameter forecast received from IMD i.e. Rainfall, Maximum temperature, Minimum temperature, Relative humidity (maximum and minimum), Cloud cover, Wind speed and direction. The bulletin preparation is for main crops of Jamnagar district i.e. Cotton, Groundnut, Wheat, Pigeon pea, Cumin, Chickpea, Castor, Sesame, Pearl millet etc.

Number of Weather Bulletin prepare from Jan-Dec, 2020

District Name	No. of Bulletins
Jamnagar	61
Block name	
Dhrol	111
Jamjodhpur	111
Jodiya	111
Jamnagar	111
Kalavad	111
Lalpur	111
Total No. of Block wise Weather Bulletin	**666**

Dissemination of weather bulletin.

Individually these bulletins are sending to farmers group by short message service (mKisan portal), and by social media by making farmers Whats App groups, Facebook.

Number of farmers

Particular	No. of farmers

Whatsapp Group -15	1718
Facebook Page	1808 followers
Telegram Page	125 Subscribers
SMS (mKisan Portal)	77708

Farmer Awareness Programmes

Climate based farming is drawing farmer near to precision agriculture. So, farmer awareness is very important for cover more number can receive Agro advisories. Farmers can mitigate their crops itself against uneven weather patterns.

Farmer Awareness Program (FAP) organized by KVK, JAU, Jamnagar under DAMU Project

S. No.	FAP/ Farmers meet /Meghdoot Popularization activities	Date	Location (Block/Village)	Approx. No. of Farmers attended the Program
1	Farmers meet	01/01/2020	Kunal, Jodiya	28
2	Farmers meet	17/01/2020	Khara Beraja, Jamnagar	27
3	FAP	21/01/2020	Mota Itala, Dhrol	25
4	Meghdoot App. Popularization activities	06/02/2020	Haripar, Lalpur	35
5	Meghdoot Popularization activities	19/02/2020	Madhapar, Jodiya	30
6	FAP	29/02/2020	Keshiya, Jamnagar	25
7	KrishiMela, at KVK Jamnagar	03/03/2020	Jamnagar	800
8	FAP, Field visit	05/08/2020	Nana Vadala, Kalavad	19
9	FAP	07/08/2020	Theba, Jamnagar	14
10	FAP	28/10/2020	Lothiya, Jamnagar	10
11	FAP	05/12/2021	Theba, Jamnagar	23
12	FAP, Meghdoot App. Popularization	24/12/2020	Karana, Lalpur	10

21.3 OTHER PROGRAMME CELEBRATED

National Nutrition Month 1st to 30th September 2020

KVK, Jamnagar celebrated National Nutrition Month During September 1 to 30, 2020 as per the ICAR guideline. During these celebration different types of activities carried out by Scientist (Home Science), KVK, Jamnagar. In context with the programme total 2,33,372 peoples aware about national nutrition month. Sent Mobile advisory through SMS to 233126 farmers/farm women and Anganvadi worker to aware about nutritional practices. Training on “Balance diet and importance of nutrition garden” were given to 76 farm women & farmers, 94 Anganvadi worker and 30 Adolescent girls. This centre provided vegetable and fruit planting materials to 17 persons. The visit of nutritional garden of KVK were taken by 18 farmers and 19 farm labour and discussion on Importance of Kitchen gardening and also visited to kitchen gardening in staff quarters. The newer crops and nutritional rich Quinoa seed and vegetable seed Kit distributed to 50 Farm women and 50 Anganvadi workers.

Krushi Mela (3rd March, 2020)

Krushi Mela organized at KVK, Jamnagar on March 3, 2020 in collaboration with ATMA project & FTC, Jamnagar. In this programme,1259 farmers/farm women from whole Jamnagar district were participated. Dr. K. P. Baraiya Senior scientist and Head, KVK, Jamnagar delivered lecture on doubling the farmer's income and minimize the cost of cultivation, importance & management of MIS and Organic farming. Emphasis on reduction of chemical in farming through organic farming. KVK also actively participated in exhibition.

Mahila Kisan Divas 15th October, 2020

Krishi Vigyan Kendra, JAU, Jamnagar Organized Online Training programme on Mahila Kisan Divas on 15th October, 2020. In this programme, arranged lectures on "Role of food in Health and RDA", Right cooking practices, Unknown Nutrient Cereals and vegetables in our area and benefits of arid food product through PPT. 33 Farmer/Farm women actively participated in this online training. In last session we arranged Group discussion on Rabi crop cultivation.

Parthenium Awareness Week (16 to 22 August, 2020)

KVK, Jamnagar organized awareness programme during the Parthenium awareness week on 21st August 2020. In this programme 14 farmers 6 staff members were participated and to create awareness about skin diseases caused by parthenium and its remedy. Removal of parthenium by all staff members in KVK campus and kept surrounding area Parthenium free.

Swachh Bharat Pakhwada (16th Dec to 31st Dec, 2020)

Krishi Vigyan Kendra, Jamnagar celebrated Swachhta Pakhwada during 16th to 31st December, 2020. During this celebration total 11 different programme organized. Amang them 8 programme organized on Awareness on Composting of farm waste materials, Vermi composting, NADEP composting, technologies for conversion of watse to wealth and Swachhta Pakhwada. In all programme total 896 farmers/farm women participated. 3 programme organized at KVK campus level and all staff members joined for Cleaned KVK office, hostel and different units premises. We cleaned the campus by removing plastics and paper wastes.

World Soil Health Day (5th December, 2020)

On 5th December, 2020 Krishi Vigyan Kendra, JAU, Jamnagar celebrated World Soil Health Day in collaboration with State Agricultural Department, Jamnagar. On this celebration total three programme organized at different three villages like Dedakdad (Dhrol), Dudhai (Jodia) and Theba(Jamnagar). During this programme a number of activities like Farmer-Scientist Interactions, soil sampling and soil testing demonstrations, plant nutrient deficiency diagnostics and advisories for balanced nutrition of crops and field visits were organized on this occasion. Total 215 farmers were participated in these programme.

Kisan Kalyan Karykram (25th December, 2020)

Krishi Vigyan Kendra, JAU, Jamnagar and District Administration jointly celebrated the KIsan Kalyan Karyakram on December 25, 2020 at different APMC of all the block level. Kalavad taluka having celebrated by KVK and district administration staff with 560 farmers. This programme were inaugurated by Dr. Dhansukhbai Bhanderi, Chairman Gujarat Finance Board and other local leaders were participated.

International Yoga Day (21st June, 2020)

International Yoga Day was celebrated on June 21, 2020. Due to Covid-19 pandemic condition, "Ministry of Ayush, Government of India suggested the theme of "Yoga @ Home and Yoga with Family". They also broadcast online video for the same programme, that any one can join through online from their home. In this, programme 13 members of 6 family Participated from KVK Jamnagar.

Tree Plantation Day (2nd October, 2020)

Krishi Vigyan Kendra, Jamnagar celebrated "Tree Plantation Day" on October 2, 2020. During this celebration, different programmes were organized by KVK, Jamnagar and also some plantation takes place at office premises of KVK. All the staff members were participated in Campus beatification activity programme. Farmers were aware for the tree plantation and its importance for life on earth.

21.3 DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Samples	No. of Samples	No. of Farmers	No. of Villages	Amount realized (Rs.)
Soil	98	98	14	10150
Water	9	8	8	450
Plant	65	63	27	0
Manure				
Others (pl.specify)				
Total	**172**	**169**	**49**	**10600**

APR SUMMARY

(Note: While preparing summary, please don't add or delete any row or columns)

1. Training Programmes

Clientele	No. of Courses	Male	Female	Total participants
Farmers & farm women	24	443	267	710
Rural youths	4	98	123	221
Extension functionaries	4	40	149	189
Sponsored Training	16	523	376	899
Vocational Training	1	0	30	30
Grand Total	**49**	**1104**	**945**	**2049**

2. Frontline demonstrations

Enterprise	Area(ha)	No. of Farmers	Units/Animals
Oilseeds	28	70	
Pulses	20	50	
Cereals	4	10	
Vegetables	0	0	
Other crops	30	75	
Hybrid crops	0	0	
Total	**82**	**205**	
Livestock & Fisheries	0	3	3 animals
Other enterprises	6	65	5 units
Total	**6**	**68**	
Grand Total	**88**	**273**	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	2	6	6
Livestock			
Various enterprises	1	5	5
Total	**3**	**11**	**11**
Technology Refined			
Crops	2	6	6
Livestock			
Various enterprises			
Total	**2**	**6**	**6**
Grand Total	**5**	**17**	**17**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	7809	23581
Other extension activities	2120	
Total	**9929**	**23581**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Live stock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Jamnagar	Text only	10	0	3	0	10	1	24
	Voice only							
	Voice & Text both							
	Total Messages	**10**	**0**	**3**	**0**	**10**	**1**	**24**
	Total farmers Benefitted	**777017**	**0**	**233139**	**0**	**699369**	**438**	**1709963**

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	357.60	2621200
Planting material (No.)	967	12510
Bio-Products (kg)	6313	641240
Livestock Production (No.)	0	0
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Samples	No. of Beneficiaries	Amount realized (Rs.)
Soil	98	98	14
Water	9	8	8
Plant	65	63	27
Total	**172**	**169**	**49**

8. HRD and Publications

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

ANNEXURE –I

PROCEEDING OF THE 17th SCIENTIFIC ADVISORY COMMITTEE MEETING OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR HELD ON FEBRUARY 8, 2021

The Seventeenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on February 8, 2021.

The following members were remaining present in the meeting.

Sr. No.	Name & Designation	Position
1	Vice Chancellor, Junagadh Agricultural University, Junagadh.	Chairman
2	Director of Extension Education, Junagadh Agricultural University, Junagadh	Member
3	Director of Research, Junagadh Agricultural University, Junagadh	Member
4	Associate Director of Research, Main Dry Farming Research Station, Junagadh Agricultural University, Targhadia (Rajkot).	Member
5	Research Scientist (Millet), Main Millet Research Station, Junagadh Agricultural University, Jamnagar- 361 006.	Member
6	District Agricultural Officer, District Panchayat, Jamnagar	Member
7	Director, District Rural Development Agency, Jamnagar	Member
8	Project Director, District Watershed Development Unit, Jamnagar	Member
9	Dy. Director of Animal Husbandry, District Panchayat, Jamnagar	Member
10	Dy. Director of Horticultural, District Panchayat, Jamnagar	Member
11	Dy. Director of Agriculture (Extension), Jamnagar	Member
12	Dy. Director of Agriculture, Farmers Training Centre, Jamnagar	Member
13	Project Director, Agricultural Technology Management Agency (ATMA), Jamnagar	Member
14	Dy. Conservation of Forest, Forest Department,(Extension), Jamnagar	Member
15	Asstt. Director of Fisheries, Sumer club road, Jamnagar	Member
16	Research Officer, Fisheries Research Station, Okha	Member
17	Progressive farmer (G) Shri Bathani Jayeshbhai At:- Soyal, Ta Dhrol, Dist.- Jamnagar	Member
18	Progressive farmwomen (G): Shri Bathani Arunaben Jayeshbhai, At:-Soyal, Ta. Dhrol, Dist.- Jamnagar	Member
19	Progressive farmer (Horticulture) : Shri Jentibhai Parsana, At. Haripar Ta.:- Lalpur, Dist. Jamnagar.	Member
20	Progressive farmer (Organic) : Shri Vitthalbhai Lakhabhai Sanghani, At. Nani Bhalsan, Ta.:- Kalavad, Dist. Jamnagar.	Member
21	Progressive farmer (Organic) : Shri Altafbhai Bodubhai Sama , At. Dhichada, Ta.:- Jamnagar, Dist. Jamnagar.	Member
22	Progressive farmer (Animal Husbandry) : Shri. Pravinbhai Devchandbhai	Member

	Dodhiya, At. Dhichada, Ta.:- Jamnagar, Dist. Jamnagar.	
23	Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar	Member Secretary
24	Smt. Anjanaben K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar	Invitee
25	Shri V. L. Kikani, Scientist (Crop Production), KVK, JAU, Jamnagar	Invitee
26	Shri Vitthalbhai Sakhiya, Member of Extension Education Council, JAU, Junagadh	Invitee
27	Dr. H. C. Chhodvadiya, Associate Extension Educationist, DEE Office, JAU, Junagadh	Invitee
28	Dr. V. J. Savaliya, Training Associate, DEE Office, JAU, Junagadh	Invitee
29	Dr. D. L. Kadvani, Research Scientist (Plant Pathology), Pearl Millet Research Station, JAU, Jamnagar	Invitee
30	Dr. K. K. Dhedhi, Associate Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
31	Dr. H. M. Bhuva, Associate Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
32	Dr. G. M. Parmar, Associate Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
33	Dr. S. K. Parmar, Assistant Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
34	Shri J. S. Sorathiya, Assistant Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
35	Shri Subhash N. Patel, Deputy Project Director, ATMA, JAU, Jamnagar	Invitee
36	Shri Jignesh B. Patel, Deputy Project Director, ATMA, JAU, Jamnagar	Invitee
37	Shri Kishorbhai Laljibhai Pedhadiya, Progressive Farmer, At. Sumari, Ta. & Dist. Jamnagar	Invitee
38	Mr. N. D. Ambaliya, Agri. Officer, KVK, Jamnagar	Invitee
39	Mr. H. S. Godhani, Agri. Officer, KVK, Jamnagar	Invitee
40	Mr. A. V. Savaliya, SMS, (Agromet), DAMU, KVK, Jamnagar	Invitee
41	Mr. R. B. Pandya, Agromet Observer, DAMU, KVK, Jamnagar	Invitee

Dr. K. D. Mungara, Research Scientist (Pearl Millet) Pearl millet Research Station, Junagadh Agricultural University, Jamnagar welcomed the dignitaries and all the members of the Scientific Advisory Committee and highlighted the brief achievements of the Centre.

Dr. V. P. Chovatiya, Hon'ble Vice-Chancellor, JAU, Junagadh and Chairman of Scientific Advisory Committee chaired the meeting and grant permission to proceed the meeting.

Recently developed Invocation song of Junagadh Agricultural University played. Dignitaries on dais welcomed by presenting flower. After garlanding the guests and dignitaries on the dais, and inaugurating the meeting by lightening a lamp with prayer.

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar presented action taken report of the minutes of 16th SAC meeting, progress report (January to December-2020) and Action Plan (January to December- 2021) in brief. Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar presented progress report and Action Plan for discipline

of Plant Protection. Smt. A. K. Baraiya, Scientist (Home Science), presented progress report & Action Plan for discipline of home science, Animal Husbandry, Horticulture & ATIC Scheme. Shri V. L. Kikani, Scientist (Crop production), presented progress report & Action Plan for discipline of crop production, Agri. Engineering and Soil Health Fertility Management, NMOOP & NFSM and fisheries. The annual report and action plan both approved by the members with following suggestions.

Suggestions made by committee members during presentation:

1.	Dr. V. P. Chovatiya, Hon'ble Vice Chancellor and Director of Research, Junagadh Agricultural University, Junagadh & Chairman of the SAC suggested following points. ➢ Arrange FLD on latest released variety of pearl millet. ➢ Take data of critical observations hectare base in OFT ➢ Data should record lactation basis (milk yield) instead of 5 months in FLD on bypass fat in animal. ➢ Arrange training on weed management during third quarter. ➢ Record maximum farmers from every taluka and village level for benefit of DAMU project. ➢ Accountability of FLD's ➢ Check the usefulness and review of advisory to farmers under DAMU project.
2.	Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh advised that ➢ Analyze maximum soil and water sample at KVK Soil Testing Laboratory. ➢ Record impact assessment of training programs. ➢ Maintain register for FLD farmers with observation data ➢ Arrange demonstration on implements ➢ Upload all extension programs on ICAR portal ➢ Write down the feedback of farmers under FLD
3.	Vitthalbhai Sakhiya, Member of Extension Education Council, JAU, Junagadh suggested to work cooperatively with all departments for farmers.
4.	Shri Dhanpal Sir, ACF, Jamnagar, Devbhumi Dwarka and Porbandar suggested to linkage with forestry department with MOU for different extension programs and work together.

Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh appreciated work done by all scientist and presentation. Successful became with collaborative work. He advice to record of success stories of different farmers success and highlight them. He also emphasis on farmers for integrated farming system (IFS) to minimize input and maximize income of farmers. His emphasis on diagnostic crop problem and solve them maximum. He has advice to aware and promote farmers for registration of FPO (Farmers Producer Organization).

After above suggestions from the house Dr. V. P. Chovatiya, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, delivered the chairmen's remarks. He promote for FPO for specific groups like Quinoa, organic farming etc and aware them for value addition, and marketing. In current year, cumin suffers from heavy attack of aphid. He also observe black wheat reported aphid population instead recommended wheat variety found resistant. Kind emphasis on restrict the early sown cotton for disturbance of pink bollworm life cycle. He appreciate work done

on rural craft and bakery product for employment generation in rural youth. He also appreciate the work done on kitchen gardening for nutritional security. Sir, remarked on nominate area specific variety under PPV&FRA. He strike a note on accountability of our work for farmers. He suggested delivering inventory on SMS for changing climate well in advance for better curative measures. At last, he appreciated for overall work done by KVK.

The meeting ended with the vote of thanks by Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar.

Member Secretary, SAC &
Senior Scientist & Head
KVK, JAU, Jamnagar

Director of Extension Education,
Junagadh Agricultural University
Junagadh

Note: Proceeding for approval please.

Chairman, SAC
KVK, JAU, Jamnagar& Vice Chancellor
Junagadh Agricultural University, Junagadh

Annexure II

Front line Demonstration Beneficiaries Farmers List

1. NFSM- Sesame, Summer 2020, Ha.- 10, Farmers - 25

(Inputs: Guj. Til. 5 seed – 1kg, Trichoderma-2.0 kg, Bueveria – 2 kg, Azotobacter -1 lit, PSB- 1 lit)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Godvani Vinodbhai Dharamsibhai	Keshiya	Jodiya	Jamnagar	9427226521
2	Godvani Ashvinbhai Karmanbhai	Keshiya	Jodiya	Jamnagar	9828570075
3	Godvani Nandlal Karmanbhai	Keshiya	Jodiya	Jamnagar	9428865300
4	Godvani Hashmukh Dharmshibhai	Keshiya	Jodiya	Jamnagar	9712233599
5	Godvani Odhavjibhai Dharshibhai	Keshiya	Jodiya	Jamnagar	9428863648
6	Godvani Rasik Manjibhai	Keshiya	Jodiya	Jamnagar	9427237259
7	Godvani Chaganbhai Gandubhai	Keshiya	Jodiya	Jamnagar	9428989410
8	Godvani Chandulal Gandubhai	Keshiya	Jodiya	Jamnagar	9429141621
9	Gosai Pravinpari Devpari	Keshiya	Jodiya	Jamnagar	9638572505
10	Godvani Bhikhabhai Valjibhai	Keshiya	Jodiya	Jamnagar	9925569545
11	Godvani Girdharbhai Parsotambhai	Keshiya	Jodiya	Jamnagar	9427276715
12	Godvani Hemrajbhai Parshotambhai	Keshiya	Jodiya	Jamnagar	9998299061
13	Godvani Maganbhai Hansrajbhai	Keshiya	Jodiya	Jamnagar	9428686011
14	Godvani Vasantbhai Virjibhai	Keshiya	Jodiya	Jamnagar	9427773892
15	Godvani Bhavesh Dharamshibhai	Keshiya	Jodiya	Jamnagar	9725833376
16	Godvani Mansukh Valjibhai	Keshiya	Jodiya	Jamnagar	9925569545
17	Godvani Mansukhbhai Ambabhai	Keshiya	Jodiya	Jamnagar	9427978215
18	Godvani Dharamsibhai Mohanbhai	Keshiya	Jodiya	Jamnagar	9429118674
19	Dalsaniya Shailesh Raghavjibhai	Lakhtar	Jodiya	Jamnagar	9979244344
20	Boda Dayabhai Dhanajibhai	Lakhtar	Jodiya	Jamnagar	9724181658
21	Chaniyara Nanjibhai Hirabhai	Lakhtar	Jodiya	Jamnagar	9898752751
22	Boda Becharbhai Lavjibhai	Lakhtar	Jodiya	Jamnagar	9925642112
23	Bhalodiya Manojbhai Gangarambhai	Lakhtar	Jodiya	Jamnagar	9898759783
24	Boda Maheshbhai Lavjibhai	Lakhtar	Jodiya	Jamnagar	9998576640
25	Dalsaniya Bharatbhai Khimjibhai	Lakhtar	Jodiya	Jamnagar	9879292303

2. NFSM – Groundnut, Kharif 2020, Ha.-10 , Farmers - 25

(Inputs: Groundnut Seed (GJG-22) - 30.0 kg, Metarhizium anisopliae – 2.0 kg, Trichoderma - 2.0 kg, Rhizobium -1 Lit, PSB- 1 Lit)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Nakum Lakhaman Mathurdas	Haripar	Kalyanpur	Devbhumi Dwarka	9998574678
2	Nakum Ranchodbhai Mathurbhai	Haripar	Kalyanpur	Devbhumi Dwarka	9003460170
3	Nakum Gangaben Mathurbhai	Haripar	Kalyanpur	Devbhumi Dwarka	8140550056
4	Nakum Manubhai Mathuebhai	Haripar	Kalyanpur	Devbhumi Dwarka	8723320935
5	Parmar Mohanbhai Pethabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9879361962
6	Nakum Goradhanbhai Ramjibhai	Haripar	Kalyanpur	Devbhumi Dwarka	9727697048
7	Nakum Jerambhai Ramjibhai	Haripar	Kalyanpur	Devbhumi Dwarka	9426736753
8	Nakum Jayshreeben Jerambhai	Haripar	Kalyanpur	Devbhumi Dwarka	8264360915
9	Nakum Karshanbhai Meghajibhai	Haripar	Kalyanpur	Devbhumi Dwarka	9737924484
10	Nakum Ranchodbhai Meghajibhai	Haripar	Kalyanpur	Devbhumi Dwarka	7698687934
11	Parmar Jerambhai Parbatbhai	Haripar	Kalyanpur	Devbhumi Dwarka	9913264985
12	Parmar Nathiben Jerambhai	Haripar	Kalyanpur	Devbhumi Dwarka	7283806099
13	Nakum Dayabhai Ramjibhai	Haripar	Kalyanpur	Devbhumi Dwarka	7874264511
14	Nakum Ramiben Dayabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9904492785

15	Nakum Laljibhai Dayabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9727857739
16	Nakum Harishbhai Dayabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9924192785
17	Sonagara Vallbhabhai Ramjibhai	Haripar	Kalyanpur	Devbhumi Dwarka	9978792104
18	Sonagara Ramuben Ramajibhai	Haripar	Kalyanpur	Devbhumi Dwarka	7572856644
19	Sonagara Maniben Vallbhabhai	Haripar	Kalyanpur	Devbhumi Dwarka	7567642790
20	Parmar Velabhai Hirabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9913031871
21	Parmar Nathiben Hirabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9879233759
22	Parmar Haradasbhai Valabhai	Haripar	Kalyanpur	Devbhumi Dwarka	9714187407
23	Nakum Viruben Goradhanbahi	Haripar	Kalyanpur	Devbhumi Dwarka	9825701491
24	Veshara Babubhai Ratanabhai	Haripar	Kalyanpur	Devbhumi Dwarka	8141492385
25	Parmar Babubhai Nathubhai	Haripar	Kalyanpur	Devbhumi Dwarka	9924947190

3. ATIC-Castor (Varietal) Kharif :2020-21, 8 ha. 20 farmers

Input : Castor seed- 2kg (GCH-9)

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Maganbhai Jamanbhai Kamani	Harshadpur	Jamnagar	Jamnagar	9904956045
2	Vasoya Aranjanbhai Raiyabhai	Harshadpur	Jamnagar	Jamnagar	8347491392
3	Jadeja Takhubha Amarsang	Harshadpur	Jamnagar	Jamnagar	9924463494
4	Vasoya Parsotambhai Raiyabhai	Harshadpur	Jamnagar	Jamnagar	9574799157
5	Vasoya Dahyabhai Popatbhai	Harshadpur	Jamnagar	Jamnagar	7698139011
6	Vasoya Jamanbhai Bhojabhai	Harshadpur	Jamnagar	Jamnagar	7203834830
7	Ankitbhai Rajeshbhai Vasoya	Harshadpur	Jamnagar	Jamnagar	8140137825
8	Vadi Bhikhubhai Lakhabhai	Lothiya	Jamnagar	Jamnagar	9979399055
9	Kanara Maldebhai Khimabhai	Kanalus	Lalpur	Jamnagar	9723648645
10	Mukundbhai Mohanbhai Pipariya	Lothiya	Jamnagar	Jamnagar	9909441397
11	Saileshbhai Ishvarbhai Bhojani	Arablush	Lalpur	Jamnagar	
12	Vithalbhai Bhagvanjibhai Kasundra	Arablush	Lalpur	Jamnagar	7069286186
13	Maheshbhai Samjibhai Ajudiya	Lothiya	Jamnagar	Jamnagar	9898901739
14	Kantilal Pragjibhai Boda	Sapar	Jamnagar	Jamnagar	9924232983
15	Kishorchandra Veljibhai Dodhiya	Moti Khavdi	Jamnagar	Jamnagar	9824114118
16	Hemrajbhai Shivabhai Bhalodiya	Lakhtar	Jodiya	Jamnagar	9601620245
17	Shantilal Shivabhai Bhalodiya	Lakhtar	Jodiya	Jamnagar	9925580542
18	Ranchhodbhai Harjibhai Sangani	Balambhdi	Kalavad	Jamnagar	7777948873
19	Ramnikbhai Jerambhai Sangani	Balambhdi	Kalavad	Jamnagar	9687572558
20	Sangani Bavanjibhai Harjibhai	Balambhdi	Kalavad	Jamnagar	9638690998

4. NFSM-Chickpea Rabi-2020-21, Ha.-20, Farmers- 50

(Inputs: GJG-6 seed 25 kg, PSB- 500 ml, Rhizobium 500 ml, Trichoderma 1 kg, Beauveria 1 kg)

Sr. No	Name	Village	Taluka	District	Cell Number
1	Sabhaya Jaysukhbhai Bavajibhai	Chandragadh	Jamnagar	Jamnagar	9913131434
2	Sabhaya Girdharbhai Bavajibhai	Chandragadh	Jamnagar	Jamnagar	9427236872
3	Sabhaya Harishbhai Bavajibhai	Chandragadh	Jamnagar	Jamnagar	9426249982
4	Sabhaya RameshbhaiKurjibhai	Chandragadh	Jamnagar	Jamnagar	8140293231
5	Domadiya ChandulalKanjibhai	Chandragadh	Jamnagar	Jamnagar	9879796028
6	Domadiya VeljibhaaiKanjibhai	Chandragadh	Jamnagar	Jamnagar	9879795945
7	Dobariya HarilalKhimjibhi	Chandragadh	Jamnagar	Jamnagar	8780565353
8	Sabhaya GirgharbhaiBhurabhai	Chandragadh	Jamnagar	Jamnagar	6354782951
9	Sabhaya Dhirajbhaibhurabhai	Chandragadh	Jamnagar	Jamnagar	9099289498
10	Sabhaya RameshbahiBhurabhai	Chandragadh	Jamnagar	Jamnagar	9925741071
11	Dobariya SandipbhaiHarilal	Chandragadh	Jamnagar	Jamnagar	9714607866
12	Sabhaya JaydeepkumarDhirajlal	Chandragadh	Jamnagar	Jamnagar	9727187282

13	Sabhaya JagabhaiDevajibhai	Chandragadh	Jamnagar	Jamnagar	9925270551
14	Sabhaya MansukhbhaiDevajibhai	Chandragadh	Jamnagar	Jamnagar	9624951446
15	Sabhaya VithhalbhaiBhavanbhai	Chandragadh	Jamnagar	Jamnagar	9879433152
16	Sabhaya HareshbhaiBhovanbhai	Chandragadh	Jamnagar	Jamnagar	9825514642
17	MungaraAlpeshbhaiTulshibhai	Chandragadh	Jamnagar	Jamnagar	9904234289
18	BhanderiJinabhaiRamjibhai	Chandragadh	Jamnagar	Jamnagar	9825532143
19	Mungara Vallabhbhai Bavjibhai	Chandragadh	Jamnagar	Jamnagar	9909581690
20	MungaraNayanbhaiArvindbhai	Chandragadh	Jamnagar	Jamnagar	7698626785
21	BhanderiBecharbhaiRamjibhai	Chandragadh	Jamnagar	Jamnagar	9978827095
22	UmretiyaShivlalJivrajbhai	Chandragadh	Jamnagar	Jamnagar	9909517571
23	UmretiyaGirdharbhaiJivrajbhai	Chandragadh	Jamnagar	Jamnagar	9737353658
24	UmretiyaRamnikbhaiJivrajbhai	Chandragadh	Jamnagar	Jamnagar	9737353658
25	MoliyaSAileshbhaiJaysukhbhai	Chandragadh	Jamnagar	Jamnagar	9726262307
26	BhikhabhaiLadhabhaiVadi	Lothiya	Jamnagar	Jamnagar	9979399095
27	Pipariya MulajibhiDungarbhai	Lothiya	Jamnagar	Jamnagar	9638318327
28	Pipariya DudhibenMohanbhai	Lothiya	Jamnagar	Jamnagar	9909441397
29	Pipariya MukundbhaiMohanbhai	Lothiya	Jamnagar	Jamnagar	9909441397
30	RanpariyaMohanbhaiChanabhai	Lothiya	Jamnagar	Jamnagar	9638312141
31	RanpariyaHansrajbhaiDungarbhai	Lothiya	Jamnagar	Jamnagar	8849694276
32	RanpariyaMukeshbahi Vallabhbhai	Lothiya	Jamnagar	Jamnagar	7819808849
33	Ranpariya Vallabhbhai pachabhai	Lothiya	Jamnagar	Jamnagar	9427760232
34	RanpariyaNandlaldharamsibhai	Lothiya	Jamnagar	Jamnagar	9879366447
35	RanpariyaVashrambhaiKhodabhai	Lothiya	Jamnagar	Jamnagar	9727571614
36	RanpariyaVeljibhaiKhodabhai	Lothiya	Jamnagar	Jamnagar	9727571614
37	RanpariyaParsotambhaiVeljibhai	Lothiya	Jamnagar	Jamnagar	9879790284
38	Vaishnav ParsotambhaiKurjibahi	Lothiya	Jamnagar	Jamnagar	6354599050
39	Pipariya JitendrabhaiDhvantbhai	Lothiya	Jamnagar	Jamnagar	
40	RanpariyaNathbhaiRavjibhai	Lothiya	Jamnagar	Jamnagar	9428865091
41	Vaishnav RatilalbhaiKurjibhai	Lothiya	Jamnagar	Jamnagar	9586799196
42	Vaishnav SureshbhaiMepabhai	Lothiya	Jamnagar	Jamnagar	9913300624
43	MendaparaGordhanbhaiAmbabhai	Lothiya	Jamnagar	Jamnagar	9913835652
44	RanpariyaVirabhiHarjibhai	Lothiya	Jamnagar	Jamnagar	9687492692
45	Pipariya DhvantbhaiMurjibhai	Lothiya	Jamnagar	Jamnagar	9428726340
46	Pipariya ArjunbhaiDungarbhai	Lothiya	Jamnagar	Jamnagar	9974010831
47	RanpariyaJamanbhaiPanchabhai	Lothiya	Jamnagar	Jamnagar	9913447987
48	Vasoya Vithalbhai Virjibhai	Lothiya	Jamnagar	Jamnagar	9925418182
49	RanpariyaRameshbhaiBikhabhai	Lothiya	Jamnagar	Jamnagar	6351232871
50	AkabariSavitabenSureshbhai	Lothiya	Jamnagar	Jamnagar	9979960591

5. KVK-Wheat, Rabi 2020-21, Ha.-4, Farmers-10

(Inputs: GW-463 seed – 40 kg)

Sr. No	Name	Village	Taluka	District	Cell Number
1	Pagada Bhanajibhai Mohanbhai	Khoja Beraja	Jamnagar	Jamnagar	9913161307
2	Bhagat Ramjanali Valajibhai	Khoja Beraja	Jamnagar	Jamnagar	9904965462
3	Valiyani Chhotumamad Nurali	Khoja Beraja	Jamnagar	Jamnagar	9909897304
4	Sanghani Parasotanmbhai Bhanjibhai	Khoja Beraja	Jamnagar	Jamnagar	8980936070
5	Koradiya Ashokbhai Nanajibhai	Khoja Beraja	Jamnagar	Jamnagar	9737656218
6	Sanghani Sanjaybhai Prasotambhai	Khoja Beraja	Jamnagar	Jamnagar	9427240698
7	Bhagat Sadardinbhai Ramjanali	Khoja Beraja	Jamnagar	Jamnagar	9904533682
8	Bhagat Rafik Ramjanali	Khoja Beraja	Jamnagar	Jamnagar	7046251516
9	Vsoya Manasukhbhai Jerambhahi	Khoja Beraja	Jamnagar	Jamnagar	9913791916
10	Koradiya Bavajibhai Meghajibhai	Khoja Beraja	Jamnagar	Jamnagar	9737656218

6. KVK-Ajwain, Kharif -2020, Ha.- 4, Farmers-10

(Inputs:. Trichoderma-2.0 kg, Beauveria – 2 kg, Azotobacter -1 lit, PSB- 1 lit,)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Kapuriya Indulal Lakhabhai	Harshadpur	Jamnagar	Jamnagar	9898370889
2	Patoriya Vipul Jamanbhai	Harshadpur	Jamnagar	Jamnagar	9904086794
3	Vasoya Nathubhai Nanjibhai	Harshadpur	Jamnagar	Jamnagar	9586386001
4	Vasoya Arajanbhai Raiyabhai	Harshadpur	Jamnagar	Jamnagar	8347491392
5	Vasoya Rajanikbhai Parsotambhai	Harshadpur	Jamnagar	Jamnagar	9737003156
6	Vasoya Jesangbhai Khimabhai	Harshadpur	Jamnagar	Jamnagar	9714275994
7	Vasoya Rajeshbhai Ranchodbhai	Harshadpur	Jamnagar	Jamnagar	7600172866
8	Atara Vitthalbhai Parbatbhai	Harshadpur	Jamnagar	Jamnagar	9924580551
9	Munjapara Anjanaben Shaileshbhai	Morkanda	Jamnagar	Jamnagar	9601826257
10	Mujapara Dipen Manishbhai	Morkanda	Jamnagar	Jamnagar	9825839930

7. ATIC-Coriander (IPM) (Kharif :2020-21) 8 ha. 20 farmers

(Input : Beauveria Bassiana-1 kg, Trichoderma -2 kg, PSB-1 Li., Azotobactor- 1Li.)

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Girdharbhai Damjibhai Sanghani	Karana	Lalpur	Jamnagar	9408536518 9909897388
2	Kanjibhai Lakhabhai Sanghani	Karana	Lalpur	Jamnagar	9427769621
3	Jivanbhai Gopalbhai Vadi	Karana	Lalpur	Jamnagar	
4	Mukeshbhai Bhikhabhai Nariya	Karana	Lalpur	Jamnagar	9023434831
5	Gokalbhai Dayhabhai Sanghani	Karana	Lalpur	Jamnagar	6355255013
6	Chandreshbhai Arjanbhai Nariya	Karana	Lalpur	Jamnagar	9427403958
7	Pravinbhai Parsotambhai Nariya	Karana	Lalpur	Jamnagar	9428127039
8	Mukeshbhai Parbatbhai Nariya	Karana	Lalpur	Jamnagar	9429557316
9	Ranchhodbhai Vallabhbhai Nariya	Karana	Lalpur	Jamnagar	9428860856
10	Vallabhbhai Anandbhai Nariya	Karana	Lalpur	Jamnagar	9925524308
11	Bhanjibhai Kadvabhai Sanghani	Hadmatiya	Jamnagar	Jamnagar	9879232381
12	Damjibhai Chhaganbhai Sabhaya	Hadmatiya	Jamnagar	Jamnagar	9427968696
13	Mansukhbhai nanjibhai Sabhaya	Hadmatiya	Jamnagar	Jamnagar	9427966663
14	Rameshbhai Ratnabhai Virani	Hadmatiya	Jamnagar	Jamnagar	8758713445
15	Jamanbhai Popatbhai Sabhaya	Hadmatiya	Jamnagar	Jamnagar	9427944278
16	Tulsibhai Ratnabhai Sabhaya	Hadmatiya	Jamnagar	Jamnagar	9909146307
17	Mahendrabhai Jerambhai Savliya	Hadmatiya	Jamnagar	Jamnagar	9601364643
18	Rameshbhai Lakhabhai Vadi	Hadmatiya	Jamnagar	Jamnagar	8320348821
19	Girdharbhai Karmashibhai Vaishnav	Hadmatiya	Jamnagar	Jamnagar	9712217552
20	Sanjaybhai Savjibhai Dhameliya	Hadmatiya	Jamnagar	Jamnagar	9925825137

8. ATIC - Cumin (IPM) Rabi 2020-21 8 ha. 20 farmers

(Input : *Beauveria* Bassiana-1 kg, *Trichoderma* -2 kg, PSB-1 Li., Azotobactor- 1Li.)

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Damjibhai Nathabhai Nariya	Karana	Lalpur	Jamnagar	9428634899
2	Vanitaben Hansrajbhai Sanghani	Karana	Lalpur	Jamnagar	9408002948
3	Girdharbhai Vallabhbhai Nariya	Karana	Lalpur	Jamnagar	9427769571
4	Niteshbhai Jamanbhai Nariya	Karana	Lalpur	Jamnagar	9427514623
5	Govindbhai Keshvajibhai Nariya	Karana	Lalpur	Jamnagar	9427772539
6	Bhanjibhai Manjibhai Sanghani	Karana	Lalpur	Jamnagar	9328557055

7	Ramnikbhai Premjibhai Nariya	Karana	Lalpur	Jamnagar	9429359868
8	Kanjibhai Popatbhai Nariya	Karana	Lalpur	Jamnagar	9428725985
9	Nagjibhai Dahyabhai Sanghani	Karana	Lalpur	Jamnagar	9427514863
10	Arjanbhai Velabhai Nandasana	Majoth	Dhrol	Jamnagar	9998522784
11	Utambhai Mohanbhai Morad	Majoth	Dhrol	Jamnagar	9428729741
12	Kantilal Mohanbhai Morad	Majoth	Dhrol	Jamnagar	9724143633
13	Pareshbhai Mohanbhai Morad	Majoth	Dhrol	Jamnagar	9998861729
14	Pravinbhai Samjibhai Dudhagara	Majoth	Dhrol	Jamnagar	9979951354
15	Rameshbhai Samjibhai Dudhagara	Majoth	Dhrol	Jamnagar	9913084743
16	Jaysukhbhai Bavnajibhai Limbasiya	Majoth	Dhrol	Jamnagar	9879387487
17	Bhagvanjibhai Lakshmanbhai Dudhagara	Majoth	Dhrol	Jamnagar	9979585788
18	Kantilal Samjibhai Dudhagara	Majoth	Dhrol	Jamnagar	9974855904
19	Rasikbhai Ratabhai Dudhagara	Majoth	Dhrol	Jamnagar	9825817346
20	Naranbhai Velabhai Nandasana	Majoth	Dhrol	Jamnagar	9558355534

9. KVK-Cotton, Kharif 2020-21, ha.-10, Farmers-25

(Inputs: MDP - 3, *.Beauvaria* -1.0 kg, S-NPV -250.0 ml, *Azadirachtin* -1 lit)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Savaliya Dineshbhai Jashmatbhai	Nana Vadala	Kalavad	Jamnagar	9974419466
2	Savaliya Vinodbhai Nagjibhai	Nana Vadala	Kalavad	Jamnagar	9724144315
3	Markana Gopalbhai Virjibhai	Nana Vadala	Kalavad	Jamnagar	9638278810
4	Markana Rameshbhai Raghavbhai	Nana Vadala	Kalavad	Jamnagar	9974396536
5	Savaliya Mukeshbhai Chhaganbhai	Nana Vadala	Kalavad	Jamnagar	9978975437
6	Savaliya Dilipbhai Nagjibhai	Nana Vadala	Kalavad	Jamnagar	9974247815
7	Markana Chanabhai Virjibhai	Nana Vadala	Kalavad	Jamnagar	9913512837
8	Markana Rameshbhai Bhavanbhai	Nana Vadala	Kalavad	Jamnagar	9914696215
9	Markana Hirabhai Jethabhai	Nana Vadala	Kalavad	Jamnagar	9974696005
10	Markana Gopal Jivrajbhai	Nana Vadala	Kalavad	Jamnagar	9909880515
11	Savaliya Hasmukh Jasmatbhai	Nana Vadala	Kalavad	Jamnagar	9974668771
12	Markana Maganbhai Bhikhabhai	Nana Vadala	Kalavad	Jamnagar	9712166297
13	Lunagariya Lakhmanbhai Dhanabhai	Nana Vadala	Kalavad	Jamnagar	9979626459
14	Ashodariya Dineshbhai Bhagabhai	Nana Vadala	Kalavad	Jamnagar	9925085385
15	Savaliya Sanjaybhai Damjibhai	Nana Vadala	Kalavad	Jamnagar	9974668720
16	Sanghani Sanjay Raghavbhai	Theba	Jamnagar	Jamnagar	9879568221
17	Changani Harshadbhai Madhavajibhai	Theba	Jamnagar	Jamnagar	6353375223
18	Changani Devabhai Karmubhai	Theba	Jamnagar	Jamnagar	9924879588
19	Sanghani Savitaben Batukbhai	Theba	Jamnagar	Jamnagar	9429976605
20	Sanghani Kalpesh Ravajibhai	Theba	Jamnagar	Jamnagar	9979994650
21	Mungara Aaravind Chhaganbhai	Theba	Jamnagar	Jamnagar	9998843636
22	Harsoda Devaraj Keshavaji	Theba	Jamnagar	Jamnagar	9909557947
23	Kanazariya Ramjibhai Bhagavanbhai	Theba	Jamnagar	Jamnagar	9712928264
24	Sangani Niteshbhai Kanjibhai	Theba	Jamnagar	Jamnagar	9978817270
25	Changani Naranbhai Raiyabhai	Theba	Jamnagar	Jamnagar	9714438839

10. KVK- Kitchen Gardening, ha. 4 : No. of farmers 50

(Inputs : Different vegetable seed packets - Brinjal GJLB-4; Lady's Finger GJO-3; Valor GJIB-11; Sponge Gourd GJSG-2; Indian beans GJIB-2; Cucumber Gujarat-1, Cow pea AVC-1, Tomato GT-6, Bottle Gourd-Pusa Navin; Cluster beans; Bitter Gourd; Ridge Gourd;, Spinach, Chilli, Beetroot)

S.N.	Farmer name	Village	Taluka	District	Mobile No.
1	Kamani Bhavanaben Dineshbhai	Harshadpur	Jamnagar	Jamnagar	9662215515

2	Patoriya Bhavanaben Nileshbhai	Harshadpur	Jamnagar	Jamnagar	9638547179
3	Patoriya Naynaben Dhirajbhai	Harshadpur	Jamnagar	Jamnagar	9913703702
4	Vasoya Geetaben Rajabhai	Harshadpur	Jamnagar	Jamnagar	8347491392
5	Vasoya Varshaben Rajubhai	Harshadpur	Jamnagar	Jamnagar	9574799157
6	Dangriya Ashmitaben Rameshbhai	Harshadpur	Jamnagar	Jamnagar	8469160709
7	Bhanderi Harshidaben Narotambhai	Harshadpur	Jamnagar	Jamnagar	9904747852
8	Chovatiya Neetaben Sureshbhai	Harshadpur	Jamnagar	Jamnagar	9904532199
9	Chovatiya Pushpaben Mukeshbhai	Harshadpur	Jamnagar	Jamnagar	9924462597
10	Vasoya Ramilaben Rajeshbhai	Harshadpur	Jamnagar	Jamnagar	9717749758
11	Vasoya Drashtiben Sanjaybhai	Harshadpur	Jamnagar	Jamnagar	9723537407
12	Atara Manjuben Pravinbhai	Harshadpur	Jamnagar	Jamnagar	9879711717
13	Vasoya Joshanaben Girdharbhai	Harshadpur	Jamnagar	Jamnagar	9924230414
14	Kapuriya Kanchanben Indubhai	Harshadpur	Jamnagar	Jamnagar	9898370889
15	Atara Vandnaben Tulshibhai	Harshadpur	Jamnagar	Jamnagar	8347250941
16	Vasoya Manjuben Tulshibhai	Harshadpur	Jamnagar	Jamnagar	9429794599
17	Pagda Labhuben Ramnikbhai	Harshadpur	Jamnagar	Jamnagar	9978424637
18	Chovatiya Ilaben Jadgishbhai	Harshadpur	Jamnagar	Jamnagar	9904754599
19	Vasoya Bhavishaben Mukeshbhai	Harshadpur	Jamnagar	Jamnagar	7203834830
20	Jadeja Ushaba Takhubha	Harshadpur	Jamnagar	Jamnagar	9924463494
21	Morad Hemiben Mohanbhai	Majoth	Dhrol	Jamnagar	8140456841
22	Nandasana Menaben Utambhai	Majoth	Dhrol	Jamnagar	9104302256
23	Limbasiya Nayanaben Vinodbhai	Majoth	Dhrol	Jamnagar	6353695098
24	Dudhagara Vasanben Kantibhai	Majoth	Dhrol	Jamnagar	9974030368
25	Dudhagara Muktaben Karmashibhai	Majoth	Dhrol	Jamnagar	9909280822
26	Morad Joshnaben Utambhai	Majoth	Dhrol	Jamnagar	9724653720
27	Limbasiya Divyaben Jaysukhbhai	Majoth	Dhrol	Jamnagar	6353911560
28	Dudhagara Geetaben Rasikbhai	Majoth	Dhrol	Jamnagar	6353639791
29	Dudhagara Hansaben Rameshbhai	Majoth	Dhrol	Jamnagar	9913084743
30	Dudhagara Neetaben Pravinbhai	Majoth	Dhrol	Jamnagar	9409589652
31	Dudhagara Hansaben Bhaveshbhai	Majoth	Dhrol	Jamnagar	9913135482
32	Morad Bhavanaben Kantibhai	Majoth	Dhrol	Jamnagar	9427882734
33	Morad Akshitaben Kantibhai	Majoth	Dhrol	Jamnagar	7043838204
34	Dudhagara Prabhaben Bhikhabhai	Majoth	Dhrol	Jamnagar	
35	Dudhagara Anadiben Bhagavanjibhai	Majoth	Dhrol	Jamnagar	9979585788
36	Dudhagara Rekhaben Ashokbhai	Majoth	Dhrol	Jamnagar	8100930085
37	Vasoya Dimpalben Vishalbhai	Majoth	Dhrol	Jamnagar	7016190680
38	Mungra Mitalben Dilipbhai	Khiijadiya	Jamnagar	Jamnagar	6352481926
39	Vasoya Shobhanaben Jentibhai	Khiijadiya	Jamnagar	Jamnagar	8758150325
40	Jashuben Madhavajibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	7874926087
41	Savitaben Maganbhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	8320105975
42	Muktaben Tulsibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9724920789
43	Ranjanben Kantibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	8980927202
44	Lakshmiben Vinabhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9726564318
45	Lakshmiben Bhagavanjibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	8141165910
46	Narmadaben Hiteshbhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9825531436
47	Pravinaben Girishbhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9879386043
48	Hiraben Jadavajibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9974560969
49	Manuben Bhikhabhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9601446377
50	Lilaben Laljibhai Vasoya	Khiijadiya	Jamnagar	Jamnagar	9727450398

11. KVK-Cotton Picking Apron (Kharif :2020-21) 2 ha. 5 farmers

(Inputs: Cotton Picking Apron -1)

S.N.	Farmer name	Village	Taluka	District	Mobile No.
1	Chandrikaben Dhirajbhai Ranpariya	Lothiya	Jamnagar	Jamnagar	9909897600
2	Manuben Ratilal Vaishnav	Lothiya	Jamnagar	Jamnagar	9712530205
3	Dakshaben Subhasbhai Pipariya	Lothiya	Jamnagar	Jamnagar	9727311486
4	Lilaben Jentibhai Vasoya	Lothiya	Jamnagar	Jamnagar	9712004039
5	Hemiben Bhagvanjibhai Ranpariya	Lothiya	Jamnagar	Jamnagar	9537706253

12. KVK-Vegetable mittens (Summer : 2020) 2 ha. 5 farmer

(Inputs: Vegetable mittens -1)

Sr. No.	Name of Farmers	Village	Taluka	District	Phone
1	Priyaben Gopalbhai Nakum	Khambhaliya	Khambhaliya	Devbhumi Dwarka	9824861488
2	Valiben Narshibhai Nakum	Khambhaliya	Khambhaliya	Devbhumi Dwarka	9904616771
3	Muktaben Jamanbhai Parmar	Khambhaliya	Khambhaliya	Devbhumi Dwarka	9924249868
4	Hiraben Gopalbhai Nakum	Khambhaliya	Khambhaliya	Devbhumi Dwarka	
5	Jethiben Samjibhai Kanzariya	Chela	Jamnagar	Jamnagar	9925541003

13. KVK- Solar cooker (2020-21) farm women-5

(Inputs: Solar cooker -1)

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Dudhagara Hansaben Rameshbhai	Majoth	Dhrol	Jamnagar	9913084743
2	Limbasiya Divyaben Jaysukhbhai	Majoth	Dhrol	Jamnagar	6353911560
3	Morad Joshnaben Utambhai	Majoth	Dhrol	Jamnagar	9724653720
4	Dudhagara Muktaben Karmashibhai	Majoth	Dhrol	Jamnagar	9909280822
5	Dudhagara Hansaben Bhaveshbhai	Majoth	Dhrol	Jamnagar	9913135482

14. KVK-By Pass Fat, Year 2020-21, Farmers-3

(Input : By pass Fat-15 kg for 5 Months)

Sr. No.	Name of Beneficiary Farmers	Village	Block	District	Mobile No.	Aadhar No.
1	Bhagvatsinh Mahipatsinh Jadeja	Memana	lalpur	Jamnagar	9427256664	
2	Upendrasinh Hemubha Jadeja	Memana	lalpur	Jamnagar	9339011111	587330397670
3	Jagdishsinh Bapubha Jadeja	Memana	lalpur	Jamnagar	9909055981	895789357364

ANNUAL ACTION PLAN
(1st January 2021 to 31st December - 2021)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1. Details of Operational area/ Villages (2021 to 2023)

Sl No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	**Dhrol**	Katada, Jayva, Mansar (Jaliya), Kharva, Khendgarka	Cotton, groundnut, sesame, castor, greengram, wheat, Gram, cumin, mustard, Vegetable, Soyabean, flowers, live-stock, fisheries	Heavy infestation of sucking pest in cotton, stem rot disease & whitegrub in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	- ICM in major crops of the district - Organic crop production - Introduction of new crop - Recycling of farm waste - Popularization of MIS - Motivation of fisheries cultivation - Soil Reclamation - Farm women empowerment - Farm mechanization
2	**Jam Jodhpur**	Sonvadiya, Satapar, Bhupat Ambardi, Dal Devaliya Luvarsar			
3	**Jam Khambhalia**	Keshod, Shedha Bhadthar, Samor, Jakasiya, Juvangadh			

2. Priority thrust areas

Sl. No	Crop/ Enterprise	Thrustarea
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ Whitegrub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micronutriet 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. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
5	17	102	308

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
38	965	192	18166

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (kg)	Soil Samples
(5)	(6)	(7)	(8)
138.5	1700	0	350

B. Details of On Farm Trial / Technology Assessment during 2021

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT
1	Sesame	To manage the leaf webber infestation in sesame	Management of sesame leaf webber
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
3	Groundnut	Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Groundnut Variety in kharif season for Jamnagar District
4	Groundnut	Heavy attack of storage pests	Assessment of PICS bag for Groundnut storage

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)**
3. Spray of *Beauveria bassiana* @ 5 g/lit of water at 15 days interval at pest initiation. **(Refinement)**

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. T_1 :- G. Til 2
2. T_2 :- G. Til 3
3. T_2 :- 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**	Multi season cropping system
Low yielding variety		Mono-cropping system

Irregular rainfall	**yielding Groundnut Variety in kharif season for Jamnagar District**	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 :- GG-20
2. T_2 :- GJG-22
3. T_3 :- 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 PICS bag for Groundnut storage

Objective :

1. To provide sustainable and ecologically safe approach to preserve groundnut pods
2. To Reduce storage loss in groundnut seed
3. To increase storage period

Problem Definition :-

1. Residual effect of insecticides used for stored godown
2. Insecticidal effect on germination
3. High moisture retention during summer days
4. Heavy attack of storage pests
5. High cost of storage
6. Heavy loss of food grains and seeds
7. Lack of regular inspection in stored products.

Problem Diagram :-

Lack of regular inspection in stored products	**Assessment of PICS bag for Groundnut storage**	High cost of storage
Heavy loss of food grains and seeds		Heavy attack of storage pests
Residual effect of insecticides used for stored gowdown		Insecticidal effect on germination
High moisture retention during summer days		

Treatment

T_1–Farmer Practices (Open heaps in storage gowdown)

T_2–Local practices for storage in plastic bag /closely woven bag

T_3–Storage in Triple layer hermetic "Purdue Improved Crop Storage"(PICS) bags

No. of Replication/farmers :- 5 (Three bags/farmers)

Source of Technology : JAU, Junagadh Formerly it was from ICRISAT, Hyderabad

Observation :Post (after six month) storage

1. Weight loss
2. Insect (Bruchid)damage

Details of On Farm Trial / Technology Refinement during2021

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT
6	**Cumin**	**To minimize the infestation of aphid in Cumin, To increase productionTo reduce yield loss of Cumin**	**Management of aphid in cumin.**

OFT-5 (Refinment)

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:

7. Heavy infestation of aphid was found
8. Lack of seed treatment and improper cultivation practices
9. Lack of knowledge about pest outbreaks and its management
10. Injudicious use of nitrogenous fertilizer
11. Extra irrigation rather than recommendation during cloudy weather.
12. 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 *Bearuveria 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	Azadirechtin, Profenophos.,MDP,SNPV, *Beauveriabassiana*	Kh-21	10	25	yield
2	Chicory		ICM	Bio pesticide Bio fertilizer	*Beauveriabassiana* Azotobacter, PSB	Kh-21	2	5	Yield
3	Wheat	GW-463	Varietal	Variety	seed	Rabi-21	4	10	Yield
4	Ajwain	Gujarat Ajwain-2	IPM/IDM	Bio pesticide Bio fertilizer	Trichoderma, *Beauveriabassiana* Azotobacter, PSB	Rabi-21	4	10	Yield
5	Pearl Millet	GHB-1231	Varietal	Variety	seed	Sum-21	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-21	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-21	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-21	20	50	Yield, % pod damage
8	**ATIC** Castor	GCH-9	Varietal	Variety	seed	Kh-21	8	20	Yield
9	**ATIC** Cumin	GC-4	ICM	Bio pesticide Bio fertilizer	Beauveria bassiana, PSB, Azotobector Trichoderma	Rabi-21	8	20	Yield
10	**ATIC** Coriander	GC-2	ICM	Bio pesticide Bio fertilizer	PSB, Azotobector, Beauveria bassiana, Trichoderma	Rabi-21	8	20	Yield
					Total		**98**	**245**	

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
Cotton Picking Apron	Cotton	Kharif-21	5	2	Apron	Picking efficiency

b. Livestock Enterprises

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

Husbandry					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	2 ha	Vegetable seeds	Yield

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

ON Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	3	73	0	73	2	0	2	75
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	1	25	0	25	0	0	0	25
V Home Science/Women empowerment	2	0	44	44	0	6	6	50
VI Agril. Engineering	1	22	0	22	3	0	3	25
VII Plant Protection	3	72	0	72	3	0	3	75
VIII Fisheries	0	0	0	0	0	0	0	0
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)	**13**	**233**	**69**	**302**	**11**	**12**	**23**	**325**
(B) RURAL YOUTH	1	16	0	16	9	0	9	25
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**16**	**289**	**69**	**358**	**30**	**12**	**42**	**400**

Off Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	3	62	11	73	5	2	7	80
II Horticulture	0	0	0	0	0	0	0	0
III Soil Health and Fertility Management	3	69	13	82	3	0	3	85
IV Livestock Production and Management	1	0	25	25	0	0	0	25
V Home Science/Women empowerment	5	0	119	119	0	6	6	125
VI Agril. Engineering	0	0	0	0	0	0	0	0

VII Plant Protection	5	115	0	115	10	0	10	125
VIII Fisheries	0	0	0	0	0	0	0	0
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)	**19**	**293**	**168**	**461**	**21**	**8**	**29**	**490**
(B) RURAL YOUTH	1	16	0	16	9	0	9	25
(C) Extension Personnel	2	20	20	40	5	5	10	50
Grand Total (A+B+C)	**22**	**329**	**188**	**517**	**35**	**13**	**48**	**565**

Consolidated (On + Off Campus)

(A) Farmers & Farm Women	**No. of couses**	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	6	135	11	146	7	2	9	155
II Horticulture	1	0	20	20	0	5	5	25
III Soil Health and Fertility Management	4	87	18	105	4	1	5	110
IV Livestock Production and Management	2	25	25	50	0	0	0	50
V Home Science/Women empowerment	7	0	163	163	0	12	12	175
VI Agril. Engineering	1	22	0	22	3	0	3	25
VII Plant Protection	8	187	0	187	13	0	13	200
VIII Fisheries	0	0	0	0	0	0	0	0
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)	**32**	**526**	**237**	**763**	**32**	**20**	**52**	**815**
(B) RURAL YOUTH	2	32	0	32	18	0	18	50
(C) Extension Personnel	4	60	20	80	15	5	20	100
Grand Total (A+B+C)	**38**	**618**	**257**	**875**	**65**	**25**	**90**	**965**

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

3.4 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	8	180	25	205	25	5	30	205	30	235
Kisan Mela	1	300	50	350	40	10	50	340	60	400
Kisan Ghosthi	5	170	20	190	20	14	34	190	34	224
Exhibition	2	150	230	380	40	10	50	190	240	430
Film Show	20	900	400	1300	120	40	160	1020	440	1460
Farmers Seminar	2	100	20	120	40	5	45	140	25	165
Workshop	1	200	100	300	25	10	35	225	110	335
Group meetings	6	60	15	75	25	15	40	85	30	115

Lectures delivered as resource persons	25	3500	700	4200	1200	450	1650	4700	1150	5850
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	14	1200	100	1300	600	50	650	1800	150	1950
Advisory Services	10	100	10	110	50	10	60	150	20	170
Scientific visit to farmers field	20	120	10	130	30	2	32	150	12	162
Farmers visit to KVK	25	550	250	800	200	120	320	750	370	1120
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	350	50	400	3350	150	3500
Soil test campaigns	1	60	0	60	12	0	12	72	0	72
Farm Science Club Conveners meet	1	50	0	50	4	0	4	54	0	54
Self Help Group Conveners meetings	1	12	5	17	3	2	5	15	7	22
MahilaMandals Conveners meetings	4	8	30	38	4	25	29	12	55	67
Celebration of important days (specify)	3	400	150	550	60	80	140	460	230	690
KrishiMohostva	5	0	20	20	0	20	20	0	40	40
Pre Kharif Kisan Mela	3	80	0	80	30	0	30	110	0	110
Pre Rabi Kisan Mela	4	100	20	120	15	3	18	115	23	138
Any Other (Specify)	11	300	45	345	125	20	145	425	65	490
Total	**192**	**11770**	**2340**	**14110**	**3087**	**969**	**4056**	**14857**	**3309**	**18166**

3.6 Target for Production and supply of Technological products

SEED MATERIALS

Sl. No.	Crop	Variety	Quantity (qtl.)
CEREALS	Wheat	GW-463	75
OILSEEDS	Groundnut	GJG-9	55
	Groundnut	GJG-31	40
	Sesame	G.Til.-3	6
PULSES	Green gram	GM-4	7.5
VEGETABLES			
OTHERS (Specify)			
		Total	**138.5**

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
FRUITS	Jamun, Guava, custard apple		100
SPICES			
VEGETABLES	Brinjal, Tomato, Chili	GJLB-3,4	1500
FOREST SPECIES			100

ORNAMENTAL CROPS			
		Total	**1700**

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			
		Total	**600**	150000

LIVESTOCK

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

4. Targets of samples for analysis:

Details	No. of Samples	No. of Farmers	No. of Villages	Amount to be realized
Soil Samples	300	300	15	
Water	50	50	12	
Plant				
Total	**350**	**350**	**27**	

6.5. Additional Activities planned including sponsored projects (NARI/DAESI/DAMU/DFI/PKVY,Skill Trainings, etc.) / schemes during 2021, 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	500000	Dr. K. P. Baraiya V. L. Kikani A. V. Savaliya R. B. Pandya
		weather based agro advisory	52		

6.5.1. Details of activities planned in DFI villages

Name of DFI village	Total No. of families	Interventions planned	No. of families to	Present annual	Expected annual

selected	in the village	during 2021	be covered under the intervention	income of the family (Rs /annum)	income of the family after intervention (Rs/ annum)
Chantragadh	315	FLD, Training	10	-	-
Lothiya	291	FLD, Training	10	-	-
Khoja Beraja	390	FLD, Training	10	-	-
Nani Banugar	285	FLD, Training	10	-	-
Gadhka	1450	FLD, Training	10	-	-

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-2nd	PF	Doubling Farmers income through scientific production technology of major kharif crops	1	24	0	24	1	0	1	25
Quarter– 3rd	PF	Water management through micro irrigation system in kharif crops	1	25	0	25	0	0	0	25
Quarter-4th	PF	Organic Farming: A Step towards doubling farmers income	1	24	0	24	1	0	1	25
Horticulture										
Quarter– 3rd	PF	Nursery Management	1	0	20	20	0	5	5	25
Soil Health										
Quarter –3rd	PF	Importance of major and micro nutrient in crops production	1	18	5	23	1	1	2	25
Livestock prod.										
Quarter-2nd	PF	Feed and Fodder Management in Animal Husbandry	1	25	0	25	0	0	0	25
Home Sc.										
Quarter-2nd	PF	Value addition in fruits, vegetables and agriculture produce for doubling farmers income	1	0	25	25	0	0	0	25
Quarter-4th	PF	House hold food security by kitchen gardening and nutrition gardening	1	0	19	19	0	6	6	25
Agril. Engineering										
Quarter-4th	PF	Installation and Maintenance of micro irrigation system	1	22	0	22	3	0	3	25
Plan prot.										
Quarter-2nd	PF	IPM in vegetable and summer crops for doubling farmers income	1	22	0	22	3	0	3	25
Quarter– 3rd	PF	Bio-control of pest & Diseases for doubling farmers income	1	25	0	25	0	0	0	25
Quarter-4th	PF	IPM and IDM in rabi crops for doubling farmers income	1	25	0	25	0	0	0	25
Production of Inputs at site										
Quarter-1st	PF	Vermi-compost production	1	23	0	23	2	0	2	25

ii) Farmers & Farm women (Off Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
Quarter-2nd	PF	Groundnut seed production Technology	1	21	2	23	2	0	2	25
Quarter – 3rd	PF	Integrated Weed Management in Oilseed crops	1	21	3	24	1	0	1	25
Quarter-4th	PF	Techniques of weed Management in Pulse crop	1	20	6	26	2	2	4	30
Soil Health										
Quarter-2nd	PF	Use of bio-fertilizers and recycling of farm waste through composting	1	28	0	28	2	0	2	30
Quarter –	PF	Integrated Nutrient Management in	1	22	7	29	1	0	1	30

3rd		Groundnut								
Quarter-4th	PF	Integrated Nutrient Management in rabi crops	1	19	6	25	0	0	0	25
Livestock prod.										
Quarter-1st	PF	Importance of Nutrients and Feed Management in Animal Husbandry to increase milk production	1	0	25	25	0	0	0	25
Home Sc.										
Quarter-1st	PF	Importance of nutrition in daily diet and techniques of Minimization of nutrition loss in processing	1	0	25	25	0	0	0	25
Quarter-2nd	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
Quarter-2nd	PF	House hold food security by kitchen gardening and nutrition gardening	1	0	19	19	0	6	6	25
Quarter-3rd	PF	Women empowerment through bakery	1	0	25	25	0	0	0	25
Quarter-4th	PF	Boosting immunity through fruit and vegetables	1	0	25	25	0	0	0	25
Plan prot.										
Quarter-1st	PF	IPM in vegetable crops: onion & garlic	1	25	0	25	0	0	0	25
Quarter-2nd	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-3rd	PF	Management of diseases in *kharif*crops	1	25	0	25	0	0	0	25
Quarter-4th	PF	Integrated Disease and pest management in cumin and gram for doubling the farmers income	1	20	0	20	5	0	5	25
Quarter-4th	PF	Store grain pests and its management for reduction the storage loss	1	25	0	25	0	0	0	25
Production of Inputs at site										
Quarter-1st	PF	Seed production technology of summer sesame	1	22	0	22	3	0	3	25
Quarter-3rd	PF	Bio pesticides production	1	25	0	25	0	0	0	25

ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Rural craft	women Empowerment	Income generation activities for empowerment of rural women through rural crafts	April	4	0	20	20	0	5	5	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 *kharif* 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 *kharif* crops (Pigeon pea, Green gram, Groundnut, Cotton)	2	20	0	20	5	0	5	25

	EF	Constraints of kitchen gardening and their remadies	2	0	20	20	0	5	5	25

Quarter and discipline wise summary of training programme :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP		1	1	1	**3**	0	1	1	1	**3**	**6**
II Horticulture	HO			1		**1**					**0**	**1**
III Soil Health and Fertility Management	SFM			1		**1**		1	1	1	**3**	**4**
IV Livestock Production and Management	LPM		1			**1**	1				**1**	**2**
V Home Science/Women empowerment	WOE	0	1	0	1	**2**	1	2	1	1	**5**	**7**
VI Agril. Engineering	AEG				1	**1**					**0**	**1**
VII Plant Protection	PLP		1	1	1	**3**	1	1	1	2	**5**	**8**
VIII Fisheries	FIS					**0**					**0**	**0**
IX Production of Inputs at site	PI	1				**1**	1		1		**2**	**3**
X Capacity Building and Group Dynamics	CBD					**0**					**0**	**0**
Total		**1**	**4**	**4**	**4**	**13**	**4**	**5**	**5**	**5**	**19**	**32**
(B) Extension Functionaries	EF		1	1		**2**		1	1		**2**	**4**
(C) Rural youth	RY	1				**1**		1			**1**	**2**
Total		**2**	**5**	**5**	**4**	**16**	**4**	**7**	**6**	**5**	**22**	**38**

iv) Sponsored programme

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

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

S. No.	Particulars	BE 2021-22 proposed (Rs.)
25.1	**Recurring Contingencies**	
25.1.1	**Pay & Allowances**	**123**
25.1.2	**Traveling allowances**	**2**
25.1.3	**Contingencies**	**35**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	
B	POL, repair of vehicles, tractor and equipment	
C	Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained)	
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	
G	Training of extension functionaries	
H	Maintenance of buildings	
I	Establishment of Soil, Plant & Water Testing Laboratory	
J	Library	
25.1	**TOTAL Recurring Contingencies**	**160**
25.2	**Non-Recurring Contingencies**	
25.2.1	**Works**	50
25.2.2	**Equipment 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**

Annesure – III

NEW TECHNICAL PROGRAMME

New Technical Project Proposal 1 (Home Science)

1	Title	:	**Assessment of knowledge of farm women about kitchen gardening in rural areas in Jamnagar & Devbjhumi Dwarka district**
2	Background information	:	Kitchen gardening is the revolutionary step to increase vegetables production as well as provision of cheap vegetables to the consumers. Kitchen gardening contributes to household food security by providing direct access to food on a daily basis. Vegetables are major source of vitamins, minerals, and fibers; their nutritive and medicinal values in human life are well documented. There are many social benefits that have emerged from kitchen gardening practices, better health and nutrition, increased income, employment, food security within the household, and enhance in community social life. Apart from having a good amount of production of vegetables at national level, the per capita availability in diet is quite low in our country. The daily requirement of vegetable is around 300 gm as per ICMR but the availability is very low. Many of the rural families used to grow vegetables in their backyards for their household consumption. Still they lack in adequate consumption of vitamins and minerals because of unorganized cultivation of vegetables. Keeping in view the importance of vegetables in daily diets and its low availability, the Krishi Vigyan Kendra has conducted various training and demonstrations on kitchen gardening under Women in Agriculture discipline.
3	Objective	:	➢ Assessment of the Pre and post training knowledge of farm women regarding establishment of kitchen garden ➢ To study Major Constraints perceived in the establishment of kitchen garden
4	Principal Investigator	:	Smt. A. K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar
	Co-investigator		Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh
5	Location	:-	Jamnagar District
6	Year of Commencement	:	2021-22 to 2023-24 (three years)
7.	Experimental Detail/ Methodology	:	The study area of this research programme will be KVK selected three blocks *viz*., Jodia, Dhrol of Jamnagar District and Khambhaliya of Devbhumi Dwarka District. From each block Five villages and from each selected villages twenty women respondent will be select randomly for the study. Thus, 300 women will constitute the sample size for this study. For collection of data personal interview technique will be use. Data will be collect with the help of structured interview schedule. Frequencies, percentage and mean percent score will be used for analysing the data statistically

New Technical Project Proposal 2 (DAMU-GKMS)

1	Title	:	**Usefulness of Agro-met advisory service to the farmers of Jamnagar district**
2	Background information	:	Climate is the most limiting factor for crop grown. While all other physical factors, inputs and agronomic practices can be manipulate, vagaries of weather cannot be controll. However, adverse effects on crops can often be mitigat. Thus, risk in agricultural operations can be minimiz by the provision of weather information properly interpreted for their agricultural significance, containing advisories for farm operation and disseminate well in advance of the impending weather. In view of above, Agrometeorological Advisory Service (AAS) are being rendere by India Meteorological Department (IMD), Ministry of Earth Sciences (MoES) under Gramin Krishi Mausam Sewa (GKMS) scheme as a step towards contribution to weather information-based crop/livestock management strategies and operations dedicated to enhancing crop production. District Agro meteorological Unit (DAMU) is functional running at Krishi Vigyan Kendra, JAU, Jamnagar since 2nd November, 2020. The District Agro meteorological Unit, KVK, JAU, Jamnagar is prepare block level Agromet advisory bulletin for all the 6 block *viz*. Dhrol, Jodia, Jamjodhpur, Jamnagar, Kalavad, Lalpur of Jamnagar district and also prepare district level advisory bulletin for Jamnagar district separately. The overall objective of the study is to how to useful weather bulletin at farmers level in crop/livestock production. It would also give the information on the suggestions to the improvement in weather bulletin.
3	Objective	:	1. To find out usefulness about Agromet advisory service at farmers level 2. To improve advisory of weather bulletin with the help of farmers feedback
4	Principal Investigator	:	Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar
	Co-investigator		Mr. A. V. Savliya, SMS, Agromet, KVK, JAU, Jamnagar Mr. R. B. Pandya, Agromet Observer, KVK, JAU, Jamnagar Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh
5	Location	:-	Jamnagar District
6	Year of Commencement	:	2021-22
7.	Experimental Detail/ Methodology	:	The present research study will conduct in jurisdiction of Krishi Vigyan Kendra, JAU, Jamnagar. All 6 blocks of Jamnagar district will be select for study. From every block, randomly 50 farmers will be select, who join with KVK weather Whats app group. Thus, 300 farmers will be select for final study. Data will be collect with the help of personal interview schedule. Personal interview method data were processed, tabulated, classified and analyzed in respective of objective