ANNUAL PROGRESS REPORT - 2023

(1st January 2023 to 31st December 2023)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

DETAIL REPORT OF APR-2023

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 26818179

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, 2023)

Sl. No.	Sanctioned post	Name of the incumbent	Mobile No.	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	9427980032	Plant Protection	131400-217100	152300	24.03.2015	
2	Scientist	Vacant		Crop Production	57700-182400			
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	9998227607	Home Science	68900-205500	98300	17.08.2006	
8	Farm Manager	Smt. D. G. Patel	9737933102	Agronomy	39900-126600	39900	30.07.2018	
9	ProgrammeAssistant	Shri N. D. Ambaliya	9824720448	Agril.	39900-126600	39900	01.02.2020	
10	ComputerProgrammer	Shri C. P. Padhiyar		Computer Operator	39900-126600	55200	29.12.2008	
11	Accountant / Superintendent	Vacant		Adm.	39900-126600	-	-	
12	Stenographer	Shri V. A. Jadav	7203973026	Adm.	19900-63200	-	27.07.2021	26000/-
13	Driver	Vacant		Supt.	19900-63200	-	-	
14	Driver	Shri. D.M. Chauhan	9824173712	Supt.	19900-63200	29300	9.10.2007	
15	Supporting staff	Shri B. V. Bamaniya	9904553794	Supt.	14800-47100	20900	01.11.2014	
16	Supporting staff	Shri B. G. Mokariya	9824551105	Supt.	14800-47100	-	-	

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	Soil and water testing lab	KVK	2004	Instruments not working	650000			
15	Mini soil testing Kit	KVK	2012	Instruments not working				
16	Sell Contour	-	-	Not available	-	-	-	-
17	Demo unit (MIS)	ATIC	2018	Parcial working	1300000			
18	ICT lab	-		Not Available	-	-	-	-
19	Solar Panel	State	2016	Partical working	1000000	-	-	-
20	counter seal			Not available				
21	Other pl mention	-		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	524255	Not Working (it is required to be right off)
Hero Honda splendor(bike)GJ-10 BB-1634	2010-11	46475	26265	Working
Mahindra Scorpio (GJ-10 GA-0535)	2019	1032156	61825	Working
Tractor Mahindra B-275 DI TU (Bhoomiputra) (GJ-10GA 0885)	2019	432205	-	Working

C) Equipments& AV aids

Name of the equipment	Year of purchase	Cost (Rs.)	Presentstatus
Captain Mini Tractor	2001-02	166125	Under process for rightoff
Telephoneline	2001-02	19850	Working
Multi tool carrier complete set	2001-02	6500	Working
Photocopier	2001-02	125000	Working
Over headprojector	2001-02	17600	Working
Computer	2002-03	29500	Working
HP Laser printer	2002-03	20390	Working
U.P.S. (3 KVA)	2002-03	38000	Working
Spectrophotometer	2005-06	89160	Working
Flame photometer	2005-06		Working
Physicalbalance	2005-06	10640	Working
Chemicalbalance	2005-06	100000	Working
Water distillation still	2005-06	96118	Working
Kieldahi digestion and distillation	2005-06	49644	Working
Shaker	2005-06	80080	Working
Grinder	2005-06		Working
Refrigerator	2005-06	16772	Working
Oven	2005-06	30550	Working
Hot plate	2005-06		Working
Aspee tractor mounted sprayer	2006-07	32000	Working
Air assisted blower type sprayer	2009	98750	Working

Laptop computer (HCL)	2009	47500	Working
Digital camera (Nikon)P-90 12.1	2009	24300	Working
Cotton stalk shredder	2008-09	121000	Working
Groundnut digger-tractor operated	2009	78500	Working
Cultivator cum rotavator	2009	90000	Working
Groundnut decorticator	2009	95850	Working
Multi crop thresher	2009	114000	Working
Processing Unit	2009	1685000	Working
Plantar-tractor operator	2009	44000	Working
EPBX System	2012	44000	Working
Vertical Autoclave	2012	78190	Working
Laminar Airflow	2012	127440	Working
Electronic Balance (200 gm)	2012	12600	Working
EC/ Conductivity meter	2012	6300	Working
Portable pH Meter	2012	6300	Working
Compound microscope	2012	4410	Working
Trinocular microscope	2012	112000	Working
Digital temperature & humidity 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	-	-
17.	08.02.2021	41	-	-
18	09.03.2022	34	-	-
19	09.02.2023	50	As below	As below
20	03.02.2024	35	-	-

The Nineteenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on February 9, 2023.

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, Junagadh Agricultural University, Junagadh	➢ Analyze the pooled result of three years OFT organized in jurisdiction.	Suggestion accepted and incorporated, all the OFT completed three years have analyzed and presented by pooled results
		➢ Organized technology week with the period when maximum farmers can use newer technology and spread among maximum farmers.	Suggestion accepted and incorporated, last year organized during 21-25 August, 2023.
		➢ Arrange training on IPM in ajwain through natural farming.	Suggestion accepted and incorporated. Training on IPM in Ajwain arranged for farmers of Jodia taluka (61) participants.
		➢ Replace coriander variety GCr-3 instead of GCr-2 for FLD	Suggestion accepted and incorporated. Replace coriander variety GCr-3 instead of GCr-2 for FLD. For FLD on GCr-4 variety also planned for 2024 action plan.
		➢ In case of FLD of vegetable synchronize observation of picking	Suggestion accepted and incorporated, during current year FLD on brinjal have been organized, and collecting data on picking wise.
		➢ Arrange training on efficient use of irrigation in garlic	Suggestion accepted and incorporated. Training on irrigation management in garlic have been organized on 26.10.2023 with 60 participants.
		➢ Give more emphasis on preparation of DAMU advisory well in advance	Suggestion accepted and incorporated. On receiving of data from IMD, Ahmedabad, immediately preparation and dispatched to farmers group.
		➢ Change training title “bio-product preparation” to “production of natural farming inputs”.	Suggestion accepted and incorporated. Title of training changed “product9on of natural farming inputs” and also organized on
		➢ Give HRD training needs of scientist	Suggestion accepted and incorporated. All the scientist have been informed for HRD training needs.

2	Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh	➢ Promotion of farmers through preparation of success stories	Suggestion accepted and incorporated. Success story of farmers prepared and published in Annual progress reports and send to ICAR.
		➢ Maximize the press out of the work done by KVK	Suggestion accepted and incorporated. Maximum tried to press out.
3	Shri R. S. Gohil, District Agriculture Officer, District Panchayat, Jamnagar	➢ Create awareness on nano fertilizers during different extension programmes.	Suggestion accepted and incorporated. During different extension programs, aware farmers about use of nano fertilizers.

20th SAC proceeding along with list of participants in Annexure -1.

2. DETAILS OF DISTRICT

The district of Jamnagar is lies in North Saurashtra AgroClimatic 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 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 talukas 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	Total cultivable area	4.32 lakh ha.	2.52 lakh ha.
3	Net cultivated area	3.53 lakh ha.	2.38 lakh ha

4	Total area under forest	0.43 lakh ha.		0.1736 lakh ha	
5	Total irrigated area	0.939 lakh ha.		0.23092 lakh ha.	
6	Number of holdings	1.44 lakh		1.17 lakh	
7	Average annual rainfall	550 mm.		550 mm.	
8	Soil type	Medium black		Medium black	
9	Total number of villages	421 (8 city)		249 (8 city)	
10	Total population	13.89 lakh (2011)		7.52 lakh (2011)	
	(a) Male	7.18 lakh.		3.84 lakh.	
	(b) Female	6.71 lakh		3.64 lakh.	
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&majoragroecological 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 zoneintodistrictagroecological 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 agroecological 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.	AgroEcologicalSituation	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,

		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.	Bhanvad, Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, KHambhaliya& Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murrum (Unconsolidated material of decomposed trap and limestone) is generally found in sub soil layer. The drainage does not pose any problem, because of porous sub soil layer. Morphologically, the profile of these soils has A-C horizon characteristics, having moderate sub angular blocky structure. They are plastic and sticky and hard in consistency on drying. The colour of these soils varies from very dark brown to light grey. Taxonomically, these soils are classified as *Ustochrepts* in *Inceptisol* order. The soils are dominated by smectite group of clay minerals which give to mild cracking in dry season, due to which these are further classified as *Vertic – Ustochrepts* at sub group level. The soils are clay loam to clayey in texture. The souls are highly retentive of moisture because higher percentage of clay content. The percentage of clay content in the surface varies from 31.79 to 73.27 per cent, while no definite trend of clay content in different horizon of the profile is observed. 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	156272	4759460	25.46	202915	5391610	23.95
2	Sesame	8791	73110	8.16	4262	14480	7.31
3	Castor	5204	150930	29.00	0	0	0
4	Soybean	2449	38750	15.82	0	0	0
5	Mustard	3406	66970	19.66	5884	82190	13.97
	Total Oilseeds	**176122**	**5089220**	**20.87**	**213061**	**5488280**	**11.31**
	Cash Crops						
5	Cotton	159183	1520200	9.55	10219	61310	6.00
6	sugarcane	0	0	0	0	0	0
	Total Cash Crops	**159183**	**1520200**	**9.55**	**10219**	**61310**	**6.00**
	Food Grain						
7	Wheat	32615	1236980	37.93	8030	340150	42.36
8	Pearl millet	680	20320	29.88	100	3100	31.00
9	Sorghum	0	0	0	0	0	0
10	Maize	0	0	0	0	0	0
	Total Food Grains	**33295**	**1257300**	**33.91**	**8130**	**343250**	**36.68**
	Pulse Crops						
11	Greengram	3587	34880	9.71	1979	11070	7.63
12	Blackgram	2121	20780	10.6	2905	9710	8.54
13	Cowpea	0	0	0	0	0	0.00
14	Pigeon pea	2260	3906	17.28	0	0	0
15	Moothbean	0	0	0	0	0	0

16	Chickpea	84336	1422640	16.87	59991	1337090	22.29
17	Cluster bean	15	110	7.50	0	0	0.00
	Total Pulses	**92319**	**1482316**	**12.39**	**64875**	**1357870**	**12.82**
	SPICES AND CONDIMENTS						
18	Cumin	7296	66394	9.10	55958	587559	10.5
19	Fennel	1	15	15.0	0	0	0
20	Fenugreek	259	2952	11.4	50	975	19.5
21	Coriander	17323	242522	14.0	32455	503052	15.5
22	Ajwan	3718	35693	9.6	152	1368	9.0
23	Chilli	66	1247	18.90	722	12635	17.5
24	Garlic	938	92768	98.9	0	0	0
25	Turmeric	4	700	175.0	0	0	0
26	Suwa	128	1805	14.1	0	0	0
	Total spices	**29733**	**444096**	**40.66**	**89337**	**1105589**	**14.4**
	VEGETABLES						
27	Onion	1848	434095	234.9	55	12507	227.4
28	Potato	38	9500	250.0	141	36660	260.00
29	Brinjal	1205	291610	242.0	981	132435	135.0
30	Tomato	1499	445803	297.4	634	154062	243.0
31	Cauliflower	410	53874	131.4	190	27892	146.8
32	Cowpea	591	49585	83.9	289	19681	68.1
33	Cabbage	997	253936	254.7	388	73720	190.0
34	Okra	1614	136383	84.5	773	61222	79.2
35	Cucurbits	1671	345062	206.5	1363	203223	149.1
36	Cluster bean	346	30517	88.2	219	15593	71.2
37	Carrot	136	37074	272.6	16	2048	128.0
38	Sweet potato	4	1230	307.5	0	0	0
39	Spinach	6	530	88.3	5	300	60.0
40	Reddish	64	6010	93.9	102	10812	106.0
41	Moringa	141	45966	326.0	28	2408	86.0
42	Fenugreek	80	7960	99.5	920	79120	86.0
43	Pea	113	6735	59.6	5	250	50.0
44	Green Chilli	618	118965	192.5	726	74052	102.0
45	Other vegetable	1162	224498	193.2	1802	169028	93.8
	Total Vegetable	**12543**	**2499333**	**144.56**	**8637**	**1075013**	**126.76**
	CUCURBITACEAE VEGETABLES						
46	Bottle gourd	259	46387	179.1	116	11832	102.0
47	Bitter gourd	79	7497	94.9	82	6642	81.0
48	Musk melon	418	55928	133.8	58	11362	195.9
49	Sponge gourd	73	7548	103.4	58	4576	78.9
50	Ridge gourd	89	10911	122.6	59	4342	73.6
51	Cucumber	210	42693	203.3	202	36400	180.2
52	Water melon	543	174140	320.7	788	128050	162.5
	Total Cucurbitaceae	**1671**	**345104**	**165.4**	**1363**	**203204**	**124.87**
	FRUIT CROPS						
53	Chiku	159	18205	114.5	124	14012	113.00
54	Pomegranate	710	91448	128.8	140	16940	121.0
55	Citrus	378	43205	114.3	98	9212	94.0

56	Aonla	24	2270	94.6	10	550	55.0
57	Guava	33	3000	90.9	16	888	55.5
58	Custard apple	82	7520	91.7	17	1207	71.0
59	Papaya	56	31030	554.1	131	41920	320.0
60	Coconut	166	14874	89.6	410	36736	89.6
61	Ber	192	20659	107.6	178	14845	83.4
62	Kharek	151	13620	90.2	27	1674	62.0
63	Banana	8	3200	400.0	1	300	300.0
64	Mango	556	41144	74.00	111	6771	61.00
65	Jamun	18	1451	80.6	2	60	29.6
66	Orange	16	350	21.9	3	36	12.0
67	Bael	9	2320	257.8	0	0	0
68	Rayan(Khirni)	20	3600	180.0	11	347	31.5
69	Cordia(Gunda)	19	1980	104.2	16	992	62.0
70	Desi Almond	0	0	0	6	420	70.0
71	Kamlam	33	5782	175.2	4	330	82.5
72	Other fruits	121	16081	132.9	41	2136	52.1
	Total Fruits	**2751**	**321739**	**152.78**	**1346**	**149376**	**92.91**
	FLOWERS						
73	Rose	68	6521	95.9	16	1616	101.0
74	Merry gold	189	15536	82.2	56	4592	82.0
75	Mogra	3	320	106.7	7	595	85.0
76	Gaillardia	112	11380	101.6	40	3720	93.0
77	Other flowers	118	11942	101.2	41	3731	91.0
	Total flowers	**490**	**45699**	**97.52**	**160**	**14254**	**90.4**

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

2.5. Weather data (January-2023 to December-2023)

Weekly mean Weather data-at JAU, Jamnagar during-2023									
	Temp. °c		R.H.%		WS	BSS	Eo	Rain	Rainy
Week No	Max	Min	I	II	(kmph)	(hrs)	(mm)	(mm)	Days
1-J	25.4	13.4	59	29	6.3	9.1	3.5		
2	27.2	14.2	77	31	4.7	8.3	3.5		
3	25.5	11.6	63	24	5.1	9.6	3.6		
4	24.2	13.4	53	27	6.0	9.2	3.5		
5	27.1	13.4	72	25	5.3	9.3	4.6		
6-F	30.4	16.1	91	29	4.2	9.4	4.7		
7	32.4	15.3	68	19	4.4	10.2	5.2		
8	32.2	17.7	90	30	5.2	10.0	4.7		
9	34.1	19.2	86	27	3.7	9.6	4.6		
10-M	35.3	19.7	64	22	3.9	9.5	5.5		
11	33.7	21.1	77	31	4.4	7.1	5.1		
12	31.0	21.5	83	41	4.7	8.9	5.1	6.5	1
13	31.9	21.2	77	39	7.9	9.4	5.9		
14-A	33.2	22.2	81	37	8.4	9.0	6.5		
15	35.3	22.7	81	34	8.0	9.4	7.5		
16	35.3	24.4	83	49	9.7	9.9	8.1		
17	35.3	24.1	81	43	9.5	8.7	8.6		
18	33.3	23.9	84	49	6.7	8.6	6.7	37.5	3
19-M	37.2	25.7	84	35	9.5	11.4	9.1		
20	35.9	27.1	79	53	14.0	10.9	9.8		

21	36.4	27.4	81	53	11.8	10.9	9.8		
22	35.8	27.8	84	58	15.3	11.0	9.6		
23-J	37.0	28.1	83	48	15.2	9.5	9.6		
24	34.8	26.6	86	67	24.8	4.4	5.8	173.5	5
25	34.2	27.2	86	65	12.9	6.6	4.6		
26	32.7	26.0	95	80	7.0	3.3	3.2	316.5	5
27-J	33.6	26.9	94	74	6.9	4.6	3.5	140.0	2
28	32.7	27.1	91	72	9.8	5.6	4.1	50.0	2
29	32.8	26.8	91	82	10.7	4.2	3.5	123.0	3
30	31.5	26.7	92	80	10.1	4.0	3.3	130.0	4
31	31.5	26.4	88	75	12.7	2.0	4.5	3.0	1
32-A	32.0	26.9	87	72	14.0	3.4	5.3	1.0	
33	32.3	26.3	85	69	12.6	4.2	5.5	0.5	
34	31.8	26.1	87	64	12.1	5.0	4.9	12.5	1
35	33.0	25.2	86	59	8.4	6.3	5.4		
36-S	33.6	25.7	85	54	10.6	9.0	5.6		
37	33.6	25.9	85	59	10.1	8.7	5.7		
38	31.2	25.7	93	78	8.8	3.9	3.4	84.0	4
39	33.8	25.9	87	60	5.7	9.0	5.0	0.5	
40-O	34.9	23.5	94	53	5.6	9.1	4.7		
41	33.5	24.3	86	54	4.8	9.4	4.4		
42	33.7	23.2	85	42	4.2	8.9	4.5		
43	35.1	23.0	85	41	3.6	9.4	4.7		
44	34.4	21.5	69	32	3.3	8.3	4.3		
45-N	34.6	21.4	67	32	3.1	8.1	4.3		
46	31.4	20.2	49	32	3.5	8.5	3.9		
47	30.8	19.1	74	44	3.5	8.0	3.8		
48	27.4	19.3	87	56	5.7	6.5	3.5	2.0	
49-D	27.5	19.0	79	44	7.8	7.7	3.4		
50	27.9	14.7	76	36	3.0	8.7	3.6		
51	27.0	15.9	64	35	6.0	6.1	3.5		
52	28.1	15.4	79	35	4.5	8.2	3.7		
Mean	**32.2**	**22.2**	**81**	**48**	**7.9**	**7.9**	**5.2**	**1080.5**	**31**
Highest	**37.2**	**28.1**	**95**	**82**	**24.8**	**11.4**	**9.8**		
Lowest	**24.2**	**11.6**	**49**	**19**	**3.0**	**2.0**	**3.2**		

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

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

Category	Jamnagar district		Devbhumi Dwarka District	
	Population	Production	Population	Production
Cattle	138176	75.60 MT	126509	
Buffalo	162333	161.92 MT	287600	
Sheep	214785		62504	
Goats	130282	8.89 MT	50263	
Camel	1960	0.88 MT	1582	
Horse	410		325	
Donkey	77		69	
Rabbits				
Poultry				
Fish				

Source: Dy. Dir. Ani. Hus., Jamnagar & Devbhumi Dwarka; Assistant Directorate of Fishries, Jamnagar

2.7 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, Khengarka	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, BhupatAmbardi, Dal DevaliyaLuvarsar			
3	Jam Khambhalia	Keshod, ShedhaBhadthar, Samor, Jakasiya, Juvangadh			

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
13	Natural farming	Enhancement of natural farming through improved technologies

3. TECHNICAL ACHIEVEMENTS

3.A. Details of target and achievements of mandatory activities by KVK during 2023

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
5	5	17	17	92	92	277	277

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
38	51	**1480**	**2893**	**192**	**432**	**18166**	**43527**

Seed Production (Qtl.)		Planting material (Nos.)	
3		6	
Target	Achievement	Target	Achievement
275	354.96	1700	0

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
0	0	600	845

3.1. B. Operational areas details during 2023

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.	Katada, Jayva, Mansar (Jaliya), Kharva, Khengarka, Sonvadiya, Satapar, BhupatAmbardi, Dal Devaliya, Luvarsar, Keshod, ShedhaBhadthar, Samor, Jakasiya, Juvangadh	OFT, FLD and Training
2	Chilli	Thrips, Curling of leaves, nutritional deficiency	1300 ha	- " -	OFT, Training
3	Garlic	Puple blotch, wireworm, yellowing, tip burning	700 ha	- " -	Training
4	Onion	Purple blotch, bulb rotting	400 ha		OFT, 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, lPM, 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 (Kharif 2023, Rabi 2022-23, Summer 2023)

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		1	1							2
Integrated Pest Management										
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		**2**	**1**							**3**

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					2
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**					**2**

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

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Vermi culture	Fisheries	TOTAL
Evaluation of Breeds								
Nutrition Management								
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/Refined 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)
Varietal Evaluation	Sesame	Assessment of the performance of high yielding Sesame varieties in *summer* irrigated condition for Jamnagar District	3	3	1.8
	Chickpea	Assessment of suitable high yielding Chickpea variety in rabi season for Jamnagar District	3	3	1.8
Integrated Pest Management	Brinjal	Management of brinjal whitefly	3	3	1.8
Integrated Disease Management	Groundnut	Management of foliar diseases in groundnut	3	3	1.8
Storage Technique	Groundnut	Assessment of PICS bag for Groundnut storage	5	5	-
TOTAL			17	17	

B.2. Technologies assessed/Refined under Livestock and Fishery

Thematic areas	Name of the livestock enterprise	Name of the technology assessed	No. of trials	No. of farmers
Evaluation of breeds				
Health Management				

Dairy Management				
Nutrition management				
Disease management				
Feed and fodder management				
Processing & Value addition				
Production and management				
Composting fish culture				
Small scale income generating enterprises				
Fish production				
Other				
Total				

B.3 Technologies assessed/Refined under other enterprises

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Mushroom			
Apiary			
Vermicompost			
Tailoring			
Nutrition Garden			
Nursery Management			
Production and Management			
Eentrepreneurship development			
Engegy consrvation			
storage techniques			
House hold food security			
organic farming			
mechanization			
Bee keeping			
Seed production			
post-harvest management			
other			

B 4. Technologies assessed/Refined under Women empowerment assessment

Name of Enterprises	Name of the technology assessed	No. of trials	No. of farmers
Drudgery Reduction			
Entrepreneurship development			
Health and Nutrition			
value addition			
Kitchen gardening			
nutrition security			
other			

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

OFT-1 : Home Science: (Kharif 2022-23)

1) Title : Assessment of PICS bag for Groundnut storage

2) Problem Definition :-

- Residual effect of insecticides used for stored godown
- Insecticidal effect on germination
- High moisture retention during summer days
- Heavy attack of storage pests
- High cost of storage
- Heavy loss of food grains and seeds
- 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 :

The Perdue Improved Crop Storage (PICS) technology, triple layer bag consists of two high density inner polyethylene plastic bags (inner liners) and a third outer sack (a woven polypropylene bag). Drying the grain adequately before storage. Fill the inner bag with groundnut pod. Gently twist the lip of the most inner liner fold it and tie, then tuck the second liner as same and finally tie the woven bag. be sure to fold and tie each bag separately. Kept it for six months and observe weight loss and insect damage.

6) Thematic area : Post-harvest management

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	Labhuben Harilal Dhamsaniya	Falla	12	22.71	4	10.0	2	0.5
2	Hasmukhbhai Lavjibhai Adroja	Falla	15.4	24.36	5	10.5	1.6	2.0
3	Shilpaben Baldevbhai Khatrani	Latipur	12.6	22.55	7.2	12.0	1.8	0.5
4	Rabadiya Rasikbhai Girdharbhai	Pipartoda	16.4	26.36	4.6	11.1	3	3.2
5	Rabadiya Milanbhai Ranjibhai	Pipartoda	16	25.60	5.4	11.4	2.2	3.0
		Average	**14.48**	**24.31**	**5.24**	**11.01**	**2.12**	**1.84**

8) Final recommendation for micro level situation:

Use of Perdue Improved Crop Storage (PICS) technology, triple layer bag consists of two high density inner polyethylene plastic bags (inner liners) and a third outer sack (a woven polypropylene bag) for storage of groundnut pod up to six months were highest protection against insect damage (1.84%) and lowest weight loss (2.12%) and reduce input cost as well as hazardous effect.

9) Constraints identified and feedback for research:

- Residual and germination effect of insecticides used for stored godown have been reduced
- Reduction of storage pests attack
- Reduce cost of storage

- Heavy loss of food grains and seeds

10) Process of farmers participation and their reaction:

Farmers have good response and they have support for OFT. PICS bags have very less insect damage as well as weight loss. This treatment is chemical less and hazardless.

11) Results of On Farm Trials:

Crop/ enterprise	Technology Assessed / Refined		Healthy pod obtained out of 100 kg storage	Gross return Rs./100 kg	Storage cost Rs./100 kg	Loss of due to spoilage Rs./100 kg	Net Return (Profit) in Rs. / 100 kg	BC Ratio [Clo.18/(Col.16+17)]
1	13		14	15	16	17	18	19
Groundnut (PICS bag)	T_1	Open heaps in storage godown	85.52	5559	20	941	4598	4.78
	T_2	Local practices for storage in plastic bag /closely woven bag	94.76	6159	100	341	5718	12.97
	T_3	Storage in Triple layer hermetic "Purdue Improved Crop Storage" (PICS) bags	97.88	6362	200	138	6024	17.82

N.B.:- Price of groundnut pod calculated @ Rs. 65/- per kg

OFT – 2:- Cumin (Plant Protection) [Rabi-2022-23]

Title : Management of aphid in cumin (Rabi 2022-23)

Objective:

- ✓ To minimize the aphid incidence in cumin.
- ✓ To reduce injudicious use of chemical pesticide.
- ✓ To minimize residual effect of chemical.

Problem definition:

1. Heavy infestation of aphid was found
2. Lack of seed treatment and improper cultivation practices
3. Lack of knowledge about pest outbreaks and its management
4. Injudicious use of nitrogenous fertilizer
5. Extra irrigation rather than recommendation during cloudy weather.
6. Overlapping of the crops seasons

Problem diagram :-

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

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	State Agricultural University	T_2	Reco. practices	First spray of Afidopyropen 50 G/L DC [(Inscalis) Sefina] 0.04% was made at initiation of pest and second spray was given after 15 days.
Technology option 3		T_3	Refined practices 1	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: Junagadh Agricultural University

5) Production system : Irrigated, *rabi* crop and all agronomical practices adopted commonly.

6) Thematic area : IPM, Management of aphid in cumin

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 q/ha	No. of Aphid	Yield q/ha	No. of Aphid	Yield q/ha
1	Bhanderi Dilipbhai Hirabhai	Mandasan	36	6.50	22	8.50	24	6.88
2	Zala Narendrasinh Batuksinh	Butavadar	34	6.75	17	9.38	21	7.75
3	Zinzuvadiya Kanabhai Ranmalbhai	Butavadar	32	7.00	18	9.75	21	7.88
	Average		**34**	**6.75**	**19**	**9.21**	**22**	**7.50**

8) Final recommendation for micro level situation:

Application of Afidopyropen 50 G/L DC [(Inscalis) Sefina] 0.04% was made at initiation of pest and second spray was given after 15 days have been minimum aphid population and also obtained highest hield. The farmers who doing organic farming they are also advise to application Spray of *Bearuveria bassiana* @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval having minimize the pest (aphid) and good yield with decrease in input cost without harzardious effect.

9) Constraints identified and feedback for research :

- Time of application cannot be identified for spraying for aphid population
- High population of sucking pests, twisting of twigs
- Yield increases as compare to farmers' practices.
- Reduce the aphid as well as leaf curl incidence.

10) Process of farmers participation and their reaction:

Farmers have good response and they have support for OFT. Recommended practices having found incidence of aphid where it is repeated use. However, refined treatment is very effective treatment for the management of aphid for organic grower and harzardless effect along with maximum yied.

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	
Cumin	Irri-gated	IPM	Management of aphid in cumin	3	IPM Practices	No of aphid/3 twig and yield (q/ha)	T_1	34.00
							T_2	19.00
							T_3	22.00

Crop/ ente rprise	**Results of assessment**	**Feedback from the farmer**	**Any refinement done**	**Justification for refinement**
1	9	10	11	12
Cumin	Application of Afidopyropen 50 G/L DC [(Inscalis) Sefina] 0.04% was made at initiation of pest and second spray was given after 15 days have been minimum aphid population and also obtained highest hield. The farmers who doing organic farming they are also advise to application Spray of *Bearuveria bassiana* @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval having minimize the pest (aphid) and good yield with decrease in input cost without hazardous effect.	Farmers have good response and they have support for OFT. Recommended practices having found incidence of aphid where it is repeated use. However, refined treatment is very effective treatment for the management of aphid for organic grower and hazardless effect along with maximum yield.	Application of *Bearuveria bassiana* @ 5 g/lit of water was made at initiation of pest and subsequent spray at 15 days interval.	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 Cost Rs./ha**	**Gross return Rs./ha (Rate Rs.155/kg)**	**Net Return (Profit) in Rs./ ha)**	**BC Ratio**
1	13		14	15	16	17	18
Cumin	T_1	Injudicious use of insecticides. [use of deltamethrin, flubendiamide, imidacloprid, acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin,	675	39000	104625	65625	2.68

		carbosulfan, dimethoate after infestation of aphid repeatedly at weekly interval without follow ETL]					
	T_2	First spray of Afidopyropen 50 G/L DC [(Inscalis) Sefina] 0.04% was made at initiation of pest and second spray was given after 15 days.	921	33000	142755	109755	4.33
	T_3	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.	750	27500	116250	88750	4.23

OFT-3 Brinjal (Assessment) (Rabi 2022-23)

Title : Management of brinjal whitefly (Rabi 2022-23)

Objective:

- To manage the sucking pest infestation in brinjal
- To reduce cost of cultivation along with organic inputs
- To minimize residual toxicity of chemicals

Problem definition: attack of leaf sucking pest is increase

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

Problem diagram :-

Improper cultivation practices	**Management of brinjal whitefly**	Irregular irrigation
Mono-cropping system		Lack of knowledge about pest outbreaks and its management
No adoption of recommended practices		In judicious use of chemical pesticide
Farmer follows instruction given by the local retailer ofpesticide		Heavy incidence of pest and disease attack

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 acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin, carbosulfan, Spiromesifen, Profenophos, clothianidin, acephate + monocrotophos, after infestation of whitefly repeatedly at weekly interval without follow ETL]
Technology option 2	State Agricultural University	T_2	Reco. practices	Three sprays of chlorantraniliprole 18.5 SC @ 0.002 % (1.08 ml/10 litre water) at 15 days interval starting from the pest infestation

Technology option 3		T_3	Refined practices 1	Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % @ 60 g/10 litre of water, first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray.
Technology option 4		T_4	Refined practices 2	Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.

4) Source of Technology: Junagadh Agricultural University

5) Production system : Irrigated, *rabi* crop and all agronomical practices adopted commonly.

6) Thematic area : IPM, Management of brinjal whitefly

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 (whitefly population from five randomly selected plants from each plot at 7 days after spray and Yield q/ha)							
			T_1		T_2		T_3		T_4	
			No. of whitefly	Yield q/ha	No. of whitefly	Yield q/ha	No. of whitefly	Yield q/ha	No. of whitefly	Yield q/ha
1	Bumatariya Chhaganbhai Mavjibhai	Dhrol	52	195.00	22	295.00	36	275.00	21	300.00
2	Viramgama Ghelabhai Bachubhai	Butavadar	46	205.00	27	290.00	27	240.00	25	275.00
3	Chandravadiya Nathubhai Arjanbhai	Butavadar	40	200.00	20	300.00	30	250.00	26	260.00
	Average		**46**	**200.00**	**23**	**295.00**	**31**	**255.00**	**24**	**278.33**

8) Final recommendation for micro level situation:

Three sprays of chlorantraniliprole 18.5 SC @ 0.002 % (1.08 ml/10 litre water) at 15 days interval starting from the pest infestation have been minimum whitefly population and highest yield. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day. As per the cost benefit ratio and comparision of pest reduction and yield, application of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % @ 60 g/10 litre of water, first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray having minimize the pest (whitefly) and good yield with decrease in input cost without harzardious effect.

9) Constraints identified and feedback for research :

- Time of application cannot be identified for spraying for whitefly population
- High population of sucking pests, twisting of twigs
- Yield increase as compare to farmers' practices.
- Reduce the chemical as well as leaf curl incidence.
- Reduce cost and chemicals in the refinement treatment.

10) Process of farmers participation and their reaction:

Farmers have good response and they have support for OFT. Recommended practices having found incidence of whitefly where it is repeated use. However, refined treatment is very effective treatment for the management of brinjal whitefly for organic grower and harzardless effect along with maximum yied.

11) Results of On Farm Trials :

Crop/ enter-prise	Farm-ing situ-ation	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	
Brinjal	Irri-gated	IPM	Management of brinjal whitefly	3	IPM Practices	No of whitefly/leaf and yield (q/ha)	T_1	200
							T_2	295
							T_3	255
							T_4	278.33

Crop/ enterprise	Results of assessment	Feedback from the farmer	Any refinement done	Justification for refinement
1	9	10	11	12
Brinjal	Three sprays of chlorantraniliprole 18.5 SC @ 0.002 % (1.08 ml/10 litre water) at 15 days interval starting from the pest infestation have been minimum whitefly population and highest yield. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day. As per the cost benefit ratio and comparision of pest reduction and yield, application of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % @ 60 g/10 litre of water, first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray having minimize the pest (whitefly) and good yield with decrease in input cost without harzardious effect.	Farmers have good response and they have support for OFT. Recommended practices having found incidence of whitefly where it is repeated use. However, refined treatment is very effective treatment for the management of whitefly for organic grower and harzardless effect along with maximum yied.	application of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % @ 60 g/10 litre of water, first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray	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 Cost Rs./ha	Gross return Rs./ha (Rate 80.00/kg	Net Return (Profit) in Rs. / ha	BC Ratio
1	13		14	15	16	17	18
Brinjal	T_1	Injudicious use of insecticides. [use of acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin, carbosulfan, Spiromesifen, Profenophos, clothianidin, acephate + monocrotophos, after infestation of whitefly repeatedly at weekly interval without follow ETL]	20000	135000	320000	185000	2.37
	T_2	Three sprays of chlorantraniliprole 18.5 SC, 0.002 %, 1.08 ml/10 litre water at 15 days interval starting from the pest infestation are recommended under South Saurashtra Agro-climatic Zone. The PHI for	29500	120000	472000	352000	3.93

		chlorantraniliprole 18.5 SC, 0.002 % is one day.					
	T_3	Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % (60 g/10 litre of water), first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray.	25500	100000	408000	308000	4.08
	T_4	Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.	27833	115000	445328	330328	3.87

OFT-4 : Sesame : (Summer-2022-23)

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	Bera Khimabhai Parbatbhai	Udepur, Jamjodhpur	54	62	69	49	53	60
2	Savaliya Babubhai Nagajibhai	Nana Vadala, Kalavad	52	60	66	45	53	58
3	Aandani Bavajibhai Kadavabhai	Pasaya Beraja, Jamnagar	53	67	66	53	59	62
	Average		53.00	63.00	67.00	49.00	55.00	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	3.10	3.30	3.42	87	83	91	912	1015	1135
2	3.50	3.68	3.70	82	82	87	890	967	1018
3	3.15	3.30	3.70	89	84	89	902	990	1020
Average	**3.25**	**3.43**	**3.61**	**86**	**83**	**89**	**901**	**991**	**1058**

8) Final recommendation for micro level situation:

The results of the study revealed that the sowing of Sesame G.Til.5 produced higher yield (1058 kg/ha), Plant height (67 cm), Capsule per plant (60), 1000 seed weight (3.61 g), net return (Rs. 70,200 /ha) and BCR (2.97) 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 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	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		yield (q/ha)
							T_1	9.01
							T_2	9.91
							T_3	10.58

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 (10.58 q/ha), Plant height (67 cm), Capsule per plant (60), 1000 seed weight (3.61 g), net return (Rs. 70200/ha) and BCR (2.97) 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)	901	90100	35600	54500	2.53
	T_2	G. Til. 3	991	99100	35600	63500	2.78
	T_3	G. Til. 5	1058	105800	35600	70200	2.97

Selling Rate: Sesame: 100 Rs per kg,

Pooled Result of On Farm Trials; Yield and economics (2019-20 to 2022-23)

Year of assessment	T1 (Farmer's practice)			T2 (GT-3)			T3 (GT-5)		
	Yield (kg/ha)	Net Return (Rs/ha)	BC ratio	Yield (kg/ha)	Net Return (Rs/ha)	BC ratio	Yield (kg/ha)	Net Return (Rs/ha)	BC ratio
2019-20	907	37990	2.49	988	43683	2.71	1100	51500	3.02
2020-21	911	38270	2.50	995	44150	2.73	1105	51850	3.03
2021-22	Crop failure due to low germination								
2022-23	901	54500	2.53	991	63500	2.78	1058	70200	2.97

The results of the study revealed that the sowing of summer sesame GT-5 produced higher yield, net return and BCR than sesame variety GT-3 and farmer's practices.

OFT-5 :- Groundnut (Kharif 2023-24)

Title: Management of foliar diseases in groundnut

Objective:

- ✓ To minimize the foliar diseases (leaf spot and rust) occurrence in groundnut.
- ✓ To reduce injudicious use of chemical fungicide.
- ✓ To minimize residual effect of chemical.

Problem definition:

1. Heavy incidence of rust in later stage
2. Heavy incidence of early and late leaf spot
3. Lack of knowledge about scheduled spray of fungicides
4. Problem in identification and diseases initiation
5. Injudicious use of fertilizer
6. Excess irrigation
7. Multi season cropping system
8. Mono cropping system
9. Overlapping of the crop's seasons
10. Treatment of diseases after savior attack

3) Details of technologies for assessment/refinement:

Category	Source of technology	Technology details		
Technology option 1	Farmer	T_1	Farmer practices	Injudicious use of fungicides. [use of hexaconazole, carbendazim, floxistrobin, Metalaxyl 8 + Mancozeb 64, Kitazin 48 EC, Kresoxim-Methyl 44.3 SC, Azoxystrobin 11 + Tebuconazole 18.3 SC, Chlorothalonil 75 WP, Cymoxanil 8 + Mancozeb 64 WP, Difenconazole 25 EC, Tebuconazole + Trifloxystrobin 75 WG, Tebuconazole 25 EC] after severe attack of diseases.
Technology option 2	State Agricultural University	T_2	Reco. practices	Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS + Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS.
Technology option 3		T_3	Refined practices	Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS.

4) Source of Technology: Department of Plant Pathology, College of Agriculture, Junagadh Agricultural University, Junagadh

5) Production system : Irrigated/rainfed, *kharif* crop and all agronomical practices adopted commonly.

6) Thematic area : IDM, Management of foliar diseases

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 [Average of Recorded early and late leaf spot and rust from five randomly selected plants from each plot at 30, 60 and 90 days after germination and at harvest stage] (No. of leaf infested per plant by diseases) and (Yield q/ha)														
			T_1					**T_2**					**T_3**				
			E	**L**	**R**	**PY**	**HY**	**E**	**L**	**R**	**PY**	**HY**	**E**	**L**	**R**	**PY**	**HY**
1	Sankhavara Babu Premjibhai	Latipur Ta. Dhrol	3	3	2	27.5	18.33	2	3	1	32.5	21.67	2	4	2	31.8	21.2
2	Bavariya Keval Rameshbhai	Sonvadiya Ta. Jam Jodhpur	5	6	2	29.5	19.67	4	3	3	36.25	24.17	4	4	3	34.6	23.07
3	Chavada Naga Dadabhai	Samor Ta. Jam Khambhalia	4	5	6	31	20.67	2	2	2	37.5	25	3	2	1	35.5	23.67
	Average		**4**	**4.67**	**3.33**	**29.33**	**19.56**	**2.67**	**2.67**	**2**	**35.42**	**23.61**	**3**	**3.33**	**2**	**33.97**	**22.65**

N.B.:- (E=Early leaf spot; L=Late leaf spot; R=Rust, PY=pod Yield, HY=Halm Yield)Recorded observations of early and late leafspot and rust from five randomly selected pants from each plot at 30, 60 and 90 days after germination and at harvest stage.

8) Final recommendation for micro level situation:

Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS + Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS having minimum diseases incidence as well as highest highest yield. The farmers who doing organic farming they are also advise to application foliar spray of *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS having also similar result and good yield with decrease in input cost without harzardious effect.

9) Constraints identified and feedback for research :

- Farmers are undecided for time of application of fungicides
- Diseases start in early stage, symptoms produce later henc difficulty in measures

10) Process of farmers participation and their reaction:

Farmers have good response and they have support for OFT. Recommended practices having found lower diseases occurrence. However, refined treatment is very effective treatment for the management of foliar diseases for organic grower and harzardless effect along with maximum yied.

11) Results of On Farm Trials :

Crop/ Enter-prise	**Technology Assessed / Refined**	**Yield (kg/ha)**		**Gross Return**			**Cost of Culti-vation**	**Net Return (Profit) in (Rs./ha)**	**B:C Ratio**
		Pod	**Halm**	**Pod**	**Halm**	**Total**			
1	*13*	*14*	*15*	*16*	*17*	*18*	*19*	*20*	*21*
Ground-nut	T_1	2933	1956	190645	9780	200425	85000	115425	1.36
	T_2	3542	2361	230230	11805	242035	78500	163535	2.08
	T_3	3397	2265	220805	11325	232130	73600	158530	2.15

OFT-6 :Home Science: (Kharif :2023-24)

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

11) Results of On Farm Trials : Awaited

OFT-7 Brinjal (Assessment) (Rabi 2023-24)

Title : Management of Brinjal whitefly

Objective: To manage the leaf sucking pest infestation in sesame

Problem definition: attack of leaf sucking pest is increase

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

Problem diagram :-

Improper cultivation practices	**Management of brinjal whitefly**	Irregular irrigation
Mono-cropping system		Lack irrigation facilities
No adoption of recommended practices		Heavy incidence of pest and disease attack
Farmer follows instruction given by the local pesticides retailer		In judicious use of chemical pesticide
		Lack of knowledge about pest outbreaks and its management

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 acetameprid, Thiamethoxam, cypermethrin, lamdacyhalothrin, carbosulfan, Spiromesifen, Profenophos, clothianidin, acephate + monocrotophos, after infestation of whitefly repeatedly at weekly interval without follow ETL]

Technology option 2	State Agricultural University	T_2	Reco. practices	Three sprays of chlorantraniliprole 18.5 SC, 0.002 %, 1.08 ml/10 litre water at 15 days interval starting from the pest infestation are recommended under South Saurashtra Agro-climatic Zone. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day.
Technology option 3		T_3	Refined practices 1	Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % (60 g/10 litre of water), first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray.
Technology option 4		T_4	Refined practices 2	Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.

11) Results of On Farm Trials : RESULTS AWAITED

OFT 7 Chickpea (Varital) (Rabi 2023-24)

1. Title: Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar District

2) Problem definition:

Chickpea crop is cultivated predominantly in Jamnagar district. The productivity of Chickpea, in Jamnagar is low due to low yield in existing variety, suffering from disease like wilt and stunt and high cost of production. Hence, an OFT was carried out with the objectives to find out suitable high yielding Chickpea variety for Rabi season

3) Details of technologies selected for assessment/ refinement

Category	Source of technology	Technology detail	
Technology option 1	Farmer	T_1	GJG-03 (Farmer Practices)
Technology option 2	JAU	T_2	GG-05
Technology option 3	JAU	T_3	GJG-06

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: Varietal evaluation

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		
			T_1	T_2	T_3
1	Kapuriya Damjibhai Karshanbhai	Vagadiya, Jamnagar	Result awated		
2	Sanghani Lalitbhai Nathabhai	Sevak Bhatiya, Lalpur			
3	Amreliya Subhashbhai Narshibhai	Konza, Jamnagar			

Observation:

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

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 2023 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	Sesame (NFSM)	ICM	Guj. Til. 5 seed, Trichoderma, Beauveria, Azotobacter, PSB	Summer -2021-22	Field days, Field visit, Radio talk, On/Off Campus Training and TV Program, Exhibition and demonstration	180	1840	12800
2	Groundnut (NFSM)	ICM	Improved var. Seed (GJG-22), Metarhizium anisopliae, Trichoderma, PSB, Rhizobium	Kharif 2022-23		215	1450	12500
3	Castor (ATIC)	Varietal	Variety GCH-9	Kharif-2022-23		28	280	375
	Pulses							
4	Chickpea (NFSM)	IPM, Varietal	Varietal (GG-5), *Trichoderma*, PSB, *Rhizobium*, *Beauveriabassiana*	Rabi-2022-23		38	390	720
	Cereals							
5	Pearl Millet	Varietal	Pearl millet Seed (GHB-1231)	Summer-2021-22		28	70	152
6	Sorghum	Varietal	Varietal (GNJ-1)	Kharif-2022-23		6	8	12
7	Wheat	Varietal	Variety –GW 451	Rabi-2022-23		15	42	85
	Spices Crops							
8	Ajwain	IPM/IDM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Kharif-2022-23		10	115	260
9	Cumin (ATIC)	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2022-23		120	1710	2350
10	Coriander (ATIC)	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	Rabi-2022-23		38	780	1580
	Others crops							
11	Cotton	IPM	Azadirachtin, Profenophos., MDP,HNPV, *Beauveria bassiana*	Kharif 2022-23		65	680	1250
12	Kitchen Gardening	Nutritional Security	Vegetable seed, Beauveria	Kharif 2022-23		75	620	250
13	Cotton	Drudgery reduction	Cotton picking Apron	Kharif-2022		17	50	190
14	Solar Cooker	Solar energy	Solar cooker	2022-23		19	35	50

B. Details of FLDs implemented during 2023 (Kharif 2023, Rabi 2022-23, Summer 2023) (Information is to be furnished in the following three tables for each category i.e. cereals, horticultural crops, oilseeds, pulses, cotton and commercial crops.)

3.2.1 Details of FLDs implemented during 2023-24

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Proposed	Actual	SC/ST	Others	Total
			Oilseeds						
1	Sesame	ICM	Improved Var.(G. Til-5), Beauveria bassiana, Trichoderma, PSB, Azotobactor	Summer-2022-23	20	20	0	50	50
2	Groundnut (NFSM)	ICM	Improved var. Seed (GJG-32), *Metarhizium anisopliae*, *Trichoderma*, *PSB, Rhizobium, Beauveria*	Kharif 2023-24	20	20	3	47	50
3	Castor	Varietal	Variety GCH-9	Kharif-2023-24	8	8	0	20	20
			Cereals						
4	Pearl millet	Varietal	Varietal (GHB-1129)	Summer-2022-23	4	4	0	10	10
5	Wheat	Varietal	Varietal GW-451	Rabi-2023-24	4	4	0	10	10
			Spices Crops						
6	Ajwain	IPM/IDM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB, Mix micro nutrient	Kharif-2023-24	4	4	0	10	10
7	Cumin	IPM/IDM/ INM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi 2023-24	8	8	0	20	20
8	Coriander	IPM/IDM/ INM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi 2023-24	8	8	0	20	20
			Others crops						
9	Cotton	IPM	Beauveria, S-NPV, Azadirachtin, Lemda cyhelothrin	Kharif 2023-24	10	10	0	25	25
10	Brinjal	Varital	GJLB-5	Kharif 2023-24	2	2	0	5	5
			Other enterprises						
11	Kitchen Gardening	Nutritional Security	Vegetable seed, Beauveria	Kharif 2023-24	2	2	0	50	50
12	Cotton	Drudgery reduction	Cotton picking Apron	Kharif 2023-24	2	2	0	5	5

13	Solar Cooker	Solar energy	Solar cooker	2023-24	-	-	0	5	5

FLD conducted during 2022-23 but result was awaited so this result was present here

Sr. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration		
					Proposed	Actual	SC/ST	Others	Total
			Oilseeds						
1	Castor (ATIC)	Varietal	Variety GCH-9	Kharif-2022-23	8	8	0	20	20
			Pulses						
2	Chickpea	ICM	Varietal (GJG-5), Trichoderma, PSB, Rhizobium, Beauveria bassiana	Rabi-2022-23	20	20	0	50	50
			Cereals						
3	Wheat	Varietal	Varietal GW-451	Rabi-2022-23	4	4	0	10	10
			Spices Crops						
4	Cumin	IPM/IDM/INM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-2022-23	8	8	0	20	20
5	Coriander	IPM/IDM/INM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB	Rabi-2022-23	8	8	0	20	20
			Others crops						
6	Cotton	ICM	*Azadirachtin, Profenophos, Beauveria bassiana*, HNPV, MDP	Kharif-2022-23	10	10	0	25	25

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	Summer-2022-23	Irrigated	MB	L	M	H	Cotton, Chickpea, Wheat	1 to 15Feb.	1 to 15 May	652	35
2	Groundnut (NFSM)	Kharif 2023-24	Rainfed	MB	L	M	H	Cotton, Chickpea, Wheat	15 to 25 June	1 Oct. to 15 Oct.	1080	31
3	Castor (ATIC)	Kharif-2023-24	Irrigated	MB	L	M	H	Cotton, wheat, g'nut,	7 to 23 August	Jan to March	1080	31
	Cereals											
4	Pearl Millet	Summer 2022-23	Irrigated	MB	L	M	H	Cotton, wheat, g'nut,	1 to 15Feb.	1 to 15 May	652	35

5	Wheat	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1080	31
	Spice											
6	Ajwain	Kharif-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	1-15 August	1-15 Mar.	1080	31
7	Cumin	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1080	31
8	Coriander	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1080	31
	Other											
10	Cotton	Kharif 2023-24	Irrigated	MB	L	M	H	Cotton, Wheat	15 to 25 June	1 Jan to 15 Jan	1080	31
11	Brinjal	Rabi-2023-24	Irrigated	MB	L	M	H	Wheat Chickpea	15 July to 15 Aug.	1 Nov to 15 Feb	1080	31
12	Kitchen gardenig	Kharif, rabi 2023-24	Irrigated	MB	L	M	H	Vegetables	May-June, Octobe r	Throug ht season	1080	31
13	Cotton picking apron	Kharif 2023-24	Irrigated	MB	L	M	H	Cotton, Wheat	1 to 4 August	15 Jan to 25Feb.	1080	31
14	Solar Cooker	2022-23	-	-	-	-	-	-	-	-	-	-

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Technology Demo.	feedback
	Oilseeds		
1	Sesame (NFSM)	Improved Var.(G. Til-5), *Beauveria bassiana, Trichoderma,* PSB, *Azotobactor*	➢ 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 ➢ Late maturity period (91 Days) ➢ Very effective products for low cost management of pests & diseases
2	Groundnut (NFSM)	Improved Var.(GJG.-32), *Metarhizium*, *Trichoderma*, PSB, *Rhizobium, Beauveria*	➢ 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 ➢ High yield 9.95% as compare to check GJGJ-22
3	Castor (ATIC)	Variety GCH-9	➢ GCH-9 is high yielding under irrigation condition ➢ Medium duration ➢ Profuse branching habit with medium plant stature ➢ Resistant to *Fusarium* wilt and *Macrophomina* root rot ➢ Thrips, leaf hopper and whitefly infestation is low
	Pluses		

4	Chickpea (NFSM)	Seed GG-5, *Beauveria*, *Trichoderma*, *Rhizobium*, *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
	Cereals		
5	Pearl Millet	Pearl millet Seed (GHB-1129)	➢ Higher yield of grain and fodder ➢ Quality of fodder is good and medium height ➢ Heat tolerance, drought resistant and medium maturity variety ➢ Sweet taste of rotla ➢ Rich in Fe (<70 ppm) and Zn (<40 ppm) content
6	Wheat	Varietal GW-463	➢ More number of tillers having require less seed rate ➢ Higher yielding variety ➢ Good for chapatti making ➢ Attractive grain colour with lustrous.
	Spices crop		
7	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 was minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
8	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 was minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
9	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 was minimized ➢ Cost of cultivation was reduced ➢ The products were easy to use
	Others		
10	Cotton	Azadirachtin, Profenophos., MDP,HNPV, *Beauveria bassiana*	➢ Advance management for pest control is benefitted for less damage in plants for higher yield ➢ MDP Technology is very effectively but sum what laboring also. ➢ *Beauveria* is very effective against sucking and chewing pest ➢ Low cost chemical control for longer time
11	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
12	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

13	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.

Farmers' reactions on specific technologies

Sl. No.	Crop	Technology Demo.	feedback
	Oilseeds		
1	Sesame-Summer (NFSM)	Improved Var.(G. Til-5), *Beauveria bassiana, Trichoderma*, PSB, *Azotobactor*	➢ Seeds are white and bold which looks better ➢ Comparatively resistant in pest and diseases variety ➢ Bio-fertilizer reduce cost of cultivation ➢ Improve soil health ➢ Good oil contents ➢ Late and higher yielding variety
2	Groundnut Kharif NFSM	Improved var. Seed (GJG-32), *Metarhizium anisopliae*, *Trichoderma*, *PSB, Rhizobium, Beauveria*	➢ GJG-32 is high yielding variety ➢ Effective control White grub with *Metariazhum* ➢ Also reduce the damage of pod borer ➢ Bio fertilizers reduce cost of fertilizer ➢ Less incidence of *Sclerotium*
3	Castor	Variety GCH-9	➢ GCH-9 is high yielding under irrigation condition ➢ Medium duration ➢ Profuse branching habit with medium plant stature ➢ Resistant to *Fusarium* wilt and *Macrophomina* root rot ➢ Thrips, leaf hopper and whitefly infestation is low
	Pluses		
4	Chickpea	Varietal (GJG-5), Trichoderma, PSB, Rhizobium, *Beauveria bassiana*	➢ GJG-5 is suitable for irrigated area ➢ GJG-5 Moderately resistant to wilt, *Ascochyta* blight, stunt, root rot ➢ Early maturity having safe for low irrigation facility ➢ 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		
5	Pearl Millet	Varietal (GHB-1129)	➢ Plant height, grain size and spike length is medium ➢ Resistant to lodging ➢ having good quality of stover along with consumer preferred seed colour ➢ high Fe and Zn content (Bio fortified variety) ➢ resistant to downy mildew. Resistant to smut, ergot stem borer and shoot fly
6	Wheat	Variety – GJW-451	➢ More number of tillers having require less seed rate ➢ Higher yielding variety ➢ Attractive grain colour with lustrous.

			➢ Early sown irrigated ➢ Diseases resistant (Black and brown rust) ➢ Excellent chapatti and bread making quality
	Spices crop		
7	Ajwain	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB, Mix micro nutrient	➢ 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
8	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
9	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		
10	Cotton	*Azadirachtin, Profenophos, Beauveria bassiana*, HNPV, MDP	➢ Advance management for pest control is benefitted for less damage in plants for higher yield ➢ MDP Technology is very effectively but sum what laboring also. ➢ *Beauveria* is very effective against sucking and chewing pest ➢ Low cost pest management for longer time
11	Solar cooker	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
12	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
13	Kitchen gardening	Vegetable seed, Beauveria	➢ 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	2	5.01.23	26	
		1	18.01.23	7	
		1	22.02.23	7	
		1	13.04.23	12	
		1	3.05.23	9	
		1	4.05.23	25	
		1	11.05.23	9	
		1	2.08.23	26	
		1	31.08.23	26	
		1	13.09.23	13	
2	Farmers training	1	12.01.23	89	
		1	18.01.23	36	
		1	27.05.23	42	
		1	5.06.23	35	
		1	4.07.23	25	
		1	6.07.23	26	
		1	27.07.23	70	
		1	21.08.23	76	
		1	26.10.23	60	
3	Media coverage	7			
4	Training for extension functionaries	1	24.03.23	43	
		1	21.09.23	78	

C. PERFORMANCE OF FRONTLINE DEMONSTRATIONS

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) (Sum-2022-23)	ICM	Improved Var.(G. Til-5), *Beauveria bassiana*, *Trichoderma*, PSB, *Azotobactor*	G.Til.-5	50	20	13.05	8.5	11.0	9.6	14.58	37840	121000	83160	3.2	40960	105600	64640	2.6
Groun-dnut (NFSM) (Kh-2023-24)	ICM	Improved Var.(GJG.-32), *Metarhizium*, *Trichoderma*, PSB, *Rhizobium*	GJG-32	50	20	22.90	15.0	17.49	15.90	9.95	48141	104916	56775	2.18	52531	95424	42893	1.82

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)(Rabi-2022-23)	IPM, Varietal	Seed GG-5, *Beauveria*, *Trichoderma*, *Azotobactor*, PSB	GG-5	50	20	28.65	21.0	25.03	22.01	13.72	50753	130970	80 216	2.58	51919	117449	65530	2.26

FLD on Other crops

Season	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												
	Oilseeds																			
Kharif 2022-23	Castor (ATIC)	Varietal	GCH-9	20	8	47.5	28.12	36.22	31.81	13.85			63355	199203	135848	3.14	64995	174969	109974	2.69
	Cereals																			
Summer 2022-23	Pearl millet	Varietal	GHB-1129	10	4	41.25	35.0	38.25	33.13	15.45			32405	76500	44095	2.36	34465	66250	31785	1.93
Rabi 2022-23	Wheat	Varietal	Variety –GW 451	10	4	52.5	45.0	49.88	45.50	9.63			38960	124688	85728	3.20	41880	113750	71870	2.72
	Spices & condiments																			
Kharif 2023-24	Ajwain	ICM	*Beauveria*, *Mix Micro Nutrient, Trichoderma*, *Azotobactor*, PSB	10	04	10.25	6.75	8.75	8.10	8.02			40500	100625	60125	2.48	42490	93150	50660	2.19
Rabi-2022-23	Cumin (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	20	8	9.38	5.63	7.25	6.66	8.86	-	-	52375	217500	165125	4.15	58060	199688	141628	3.44

Rabi-2022-23	Coriander (ATIC)*	ICM	*Beauveria*, *Trichoderma*, *Azotobactor*, PSB,	20	8	16.88	12.50	14.80	13.80	7.25	-	-	33303	92523	59221	2.78	36330	75883	39553	2.09
	Other Crops																			
Kharif 2022-23	Cotton	ICM	*Beauveria*, SNPV, MDP, *Azadirachtin*	25	10	22.5	10	15.9	13.5	17.78			56027	126800	70773	2.26	61788	107600	45812	1.75

Frontline Demonstration on Nutri cereals

Season	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										
Summer 2022-23	Pearl millet	Varietal	GHB-1129	GHB-1129	10	4	41.25	35.0	38.25	33.13	15.45	32405	76500	44095	2.36	34465	66250	31785	1.93

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)

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 + 60 kg LPG**	**86 kg LPG**
			Time saving	**51 to 57%**	**0**
Drudgery reduction	Cotton picking apron	5	Seed cotton picked (kg/hr)	**3.38**	**3.04**
			Cotton picking efficiency (%)	**11.18%**	**-**

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	535.90	438.90	22.10	-	-	4950	13397	8447	2.71	5201	10972	5771	2.11

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

FLD on Demonstration details on crop hybrids

Crop	technology demonstrated	Hybrid Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)			
					Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average						
Cereal crop													
Pearl millet	Varietal	Varietal- GHB-1231	10	4	41.25	35.0	38.25	33.13	15.45	32405	76500	44095	2.36

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	1	14	0	14	36	0	36	50
Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming	1	59	6	65	5	0	5	70
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	1	0	45	45	0	15	15	60
Integrated nutrient management				0			0	0
Production of organic inputs				0			0	0
Others (pl specify)				0			0	0
Total	**3**	**73**	**51**	**124**	**41**	**15**	**56**	**180**
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			36	0			0	0

d) Plantation crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology				0			0	0
Processing and value addition	1	0	58	58	0	5	5	63
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	**1**	**0**	**58**	**58**	**0**	**5**	**5**	**63**
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	1	16	37	53	0	4	4	57
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	0	90	90	0	0	0	90
Others (pl specify)				0			0	0
Total	**2**	**16**	**127**	**143**	**0**	**4**	**4**	**147**
IV Livestock Production and Management				0			0	0
Dairy Management	1	8	8	16	0	3	3	19
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management				0			0	0
Animal Nutrition Management				0			0	0
Disease Management				0			0	0
Feed & fodder technology	1	15	55	70	0	5	5	75
Production of quality animal products				0			0	0
Others (pl specify)				0			0	0
Total	**2**	**23**	**63**	**86**	**0**	**8**	**8**	**94**
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	0	25	25	0	5	5	30

Designing and development for high nutrient efficiency diet	1	0	47	47	0	0	0	47
Minimization of nutrient loss in processing				0			0	0
Processing and cooking				0			0	0
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques				0			0	0
Value addition	3	25	101	126	3	5	8	134
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)	1	0	40	40	0	10	10	50
Total	**6**	**25**	**213**	**238**	**3**	**20**	**23**	**261**
VI Agril. Engineering				0			0	0
Farm Machinary and its maintenance				0			0	0
Installation and maintenance of micro irrigation systems	1	36	0	36	0	0	0	36
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	**1**	**36**	**0**	**36**	**0**	**0**	**0**	**36**
VII Plant Protection				0			0	0
Integrated Pest Management	6	197	49	246	0	0	0	246
Integrated Disease Management	2	61	20	81	0	30	30	111
Bio-control of pests and diseases	1	70	2	72	6	0	6	78
Production of bio control agents and bio pesticides				0			0	0
Others (pl specify)	2	121	21	142	17	0	17	159
Total	**11**	**449**	**92**	**541**	**23**	**30**	**53**	**594**
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	1	0	45	45	0	0	0	45
Bio-fertilizer production				0			0	0
Vermi-compost production	1	47	3	50	7	0	7	57
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	**2**	**47**	**48**	**95**	**7**	**0**	**7**	**102**
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	**28**	**669**	**652**	**1321**	**74**	**82**	**156**	**1477**

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	87	15	102	43	0	43	145
Resource Conservation Technologies	1	89	0	89	0	0	0	89
Cropping Systems	1	117	3	120	8	0	8	128
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	1	25	5	30	0	0	0	30
Soil & water conservatioin	1	35	0	35	0	0	0	35
Integrated nutrient management				0			0	0
Production of organic inputs				0			0	0
Others (pl specify)				0			0	0
Total	**5**	**353**	**23**	**376**	**51**	**0**	**51**	**427**
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	1	152	0	152	0	0	0	152
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**	**152**	**0**	**152**	**0**	**0**	**0**	**152**
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Integrated water management				0			0	0
Integrated Nutrient Management	1	26	0	26	0	0	0	26
Production and use of organic inputs	1	18	20	38	0	0	0	38
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	1	32	0	32	10	0	10	42
Soil and Water Testing				0			0	0
Others (pl specify)				0			0	0
Total	**3**	**76**	**20**	**96**	**10**	**0**	**10**	**106**
IV Livestock Production and Management				0			0	0
Dairy Management				0			0	0
Poultry Management				0			0	0
Piggery Management				0			0	0
Rabbit Management				0			0	0
Animal Nutrition Management				0			0	0
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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	2	0	51	51	0	0	0	51
Design and development of low/minimum cost diet				0			0	0

Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Processing and cooking	1	0	0	0	0	24	24	24
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	1	0	42	42	0	0	0	42
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	**5**	**0**	**118**	**118**	**0**	**24**	**24**	**142**
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	27	6	33	0	0	0	33
Integrated Disease Management	2	96	56	152	0	0	0	152
Bio-control of pests and diseases	1	80	59	139	6	4	10	149
Production of bio control agents and bio pesticides				0			0	0
Others (pl specify)	1	77	0	77	0	0	0	77
Total	**5**	**280**	**121**	**401**	**6**	**4**	**10**	**411**
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
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				0			0	0
Organic manures production	1	26	0	26	0	0	0	26
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**	**26**	**0**	**26**	**0**	**0**	**0**	**26**
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	**20**	**887**	**282**	**1169**	**67**	**28**	**95**	**1264**

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	87	15	102	43	0	43	145
Resource Conservation Technologies	2	103	0	103	36	0	36	139
Cropping Systems	1	117	3	120	8	0	8	128
Crop Diversification	0	0	0	0	0	0	0	0
Integrated Farming	1	59	6	65	5	0	5	70
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0
Seed production	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	1	25	5	30	0	0	0	30
Soil & water conservatioin	2	35	45	80	0	15	15	95
Integrated nutrient management	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**8**	**426**	**74**	**500**	**92**	**15**	**107**	**607**
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	0	0	0	0	0	0	0	0
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net 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	1	152	0	152	0	0	0	152
Processing and value addition	1	0	58	58	0	5	5	63
g) Medicinal and Aromatic Plants	0	0	0	0	0	0	0	0
Nursery management	0	0	0	0	0	0	0	0
Production and management technology	0	0	0	0	0	0	0	0
Post harvest technology and value addition	0	0	0	0	0	0	0	0
Total	**2**	**152**	**58**	**210**	**0**	**5**	**5**	**215**
III Soil Health and Fertility Management				0			0	0
Soil fertility management	0	0	0	0	0	0	0	0
Integrated water management	0	0	0	0	0	0	0	0
Integrated Nutrient Management	1	26	0	26	0	0	0	26
Production and use of organic inputs	2	34	57	91	0	4	4	95
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	1	32	0	32	10	0	10	42
Soil and Water Testing	1	0	90	90	0	0	0	90
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**5**	**92**	**147**	**239**	**10**	**4**	**14**	**253**
IV Livestock Production and Management				0			0	0
Dairy Management	1	8	8	16	0	3	3	19
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	0	0	0	0	0	0	0	0
Disease Management	0	0	0	0	0	0	0	0
Feed & fodder technology	1	15	55	70	0	5	5	75
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	**2**	**23**	**63**	**86**	**0**	**8**	**8**	**94**
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	2	0	51	51	0	0	0	51
Design and development of low/minimum cost diet	1	0	25	25	0	5	5	30
Designing and development for high nutrient efficiency diet	1	0	47	47	0	0	0	47

Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0
Processing and cooking	1	0	0	0	0	24	24	24
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	4	25	126	151	3	5	8	159
Women empowerment	1	0	42	42	0	0	0	42
Location specific drudgery reduction technologies	0	0	0	0	0	0	0	0
Rural Crafts	0	0	0	0	0	0	0	0
Women and child care	0	0	0	0	0	0	0	0
Others (pl specify)	1	0	40	40	0	10	10	50
Total	**11**	**25**	**331**	**356**	**3**	**44**	**47**	**403**
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	1	36	0	36	0	0	0	36
Use of Plastics in farming practices	0	0	0	0	0	0	0	0
Production of small tools and implements	0	0	0	0	0	0	0	0
Repair and maintenance of farm machinery and implements	0	0	0	0	0	0	0	0
Small scale processing and value addition	0	0	0	0	0	0	0	0
Post Harvest Technology	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	**1**	**36**	**0**	**36**	**0**	**0**	**0**	**36**
VII Plant Protection				0			0	0
Integrated Pest Management	7	224	55	279	0	0	0	279
Integrated Disease Management	4	157	76	233	0	30	30	263
Bio-control of pests and diseases	2	150	61	211	12	4	16	227
Production of bio control agents and bio pesticides	0	0	0	0	0	0	0	0
Others (pl specify)	3	198	21	219	17	0	17	236
Total	**16**	**729**	**213**	**942**	**29**	**34**	**63**	**1005**
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	0	0	0	0	0	0	0	0
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	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site				0			0	0
Seed Production	0	0	0	0	0	0	0	0
Planting material production	0	0	0	0	0	0	0	0
Bio-agents production	0	0	0	0	0	0	0	0
Bio-pesticides production	1	0	45	45	0	0	0	45
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	1	47	3	50	7	0	7	57
Organic manures production	1	26	0	26	0	0	0	26
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**	**73**	**48**	**121**	**7**	**0**	**7**	**128**
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	**48**	**1556**	**934**	**2490**	**141**	**110**	**251**	**2741**

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

(B) RURAL YOUTH								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Protected cultivation of vegetable crops								
Commercial fruit production								
Integrated farming								
Seed production								
Production of organic inputs								
Planting material production								
Vermi-culture								

Mushroom Production								
Bee-keeping								
Sericulture								
Repair and maintenance of farm machinery and implements								
Value addition								
Small scale processing	1	0	31	31	0	0	0	31
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Any other (pl.specify)								
TOTAL	**1**	**0**	**31**	**31**	**0**	**0**	**0**	**31**

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

(B) RURAL YOUTH								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Protected cultivation of vegetable crops								
Commercial fruit production								
Integrated farming								
Seed production								
Production of organic inputs								
Planting material production								
Vermi-culture								
Mushroom Production								
Bee-keeping								
Sericulture								
Repair and maintenance of farm machinery and implements								
Value addition								
Small scale processing								
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								

Rabbit farming								
Poultry production								
Ornamental fisheries								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Any other (pl.specify)								
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

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

(B) RURAL YOUTH								
Nursery Management of Horticulture crops								
Training and pruning of orchards								
Protected cultivation of vegetable crops								
Commercial fruit production								
Integrated farming								
Seed production								
Production of organic inputs								
Planting material production								
Vermi-culture								
Mushroom Production								
Bee-keeping								
Sericulture								
Repair and maintenance of farm machinery and implements								
Value addition								
Small scale processing	1	0	31	31	0	0	0	31
Post Harvest Technology								
Tailoring and Stitching								
Rural Crafts								
Production of quality animal products								
Dairying								
Sheep and goat rearing								
Quail farming								
Piggery								
Rabbit farming								
Poultry production								
Ornamental fisheries								
Composite fish culture								
Freshwater prawn culture								
Shrimp farming								
Pearl culture								
Cold water fisheries								
Fish harvest and processing technology								
Fry and fingerling rearing								
Any other (pl.specify)								
TOTAL	**1**	**0**	**31**	**31**	**0**	**0**	**0**	**31**

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

(C) Extension Personnel								
Productivity enhancement in field crops	**2**	107	14	121	0	0	0	121
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology								
Production and use of organic inputs								
Care and maintenance of farm machinery and implements								
Gender mainstreaming through SHGs								
Formation and Management of SHGs								
Women and Child care								
Low cost and nutrient efficient diet designing								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Any other (pl.specify)								
TOTAL	**2**	**107**	**14**	**121**	**0**	**0**	**0**	**121**

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

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

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

(C) Extension Personnel								
Productivity enhancement in field crops	2	107	14	121	0	0	0	121
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								

Protected cultivation technology								
Production and use of organic inputs								
Care and maintenance of farm machinery and implements								
Gender mainstreaming through SHGs								
Formation and Management of SHGs								
Women and Child care								
Low cost and nutrient efficient diet designing								
Group Dynamics and farmers organization								
Information networking among farmers								
Capacity building for ICT application								
Management in farm animals								
Livestock feed and fodder production								
Household food security								
Any other (pl.specify)								
TOTAL	**2**	**107**	**14**	**121**	**0**	**0**	**0**	**121**

SUMMARY OF TRAINING PROGRAMME

On Campus summery

Thematic Area	Target No. of Courses	Achieved No. of Courses	No. of Participants								
			Others			SC/ST			Total		
			M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women											
Crop Production	2	3	73	51	124	41	15	56	114	66	180
Horticulture	1	1	0	58	58	0	5	5	0	63	63
Soil Health and Fertility Management	1	2	16	127	143	0	4	4	16	131	147
Livestock production and management	1	2	23	63	86	0	8	8	23	71	94
Home Science/Women empowerment	2	6	25	213	238	3	20	23	28	233	261
Agricultural Engineering	0	1	36	0	36	0	0	0	36	0	36
Plant Protection	5	11	449	92	541	23	30	53	472	122	594
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	1	2	47	48	95	7	0	7	54	48	102
Capacity Building	0	0	0	0	0	0	0	0	0	0	0
Agro-forestry	0	0	0	0	0	0	0	0	0	0	0
Total	**13**	**28**	**669**	**652**	**1321**	**74**	**82**	**156**	**743**	**734**	**1477**
(B) RURAL YOUTH	**1**	1	0	31	31	0	0	0	0	31	31
(C) Extension Personnel	**2**	2	107	14	121	0	0	0	107	14	121
Grand Total	**16**	**31**	**776**	**697**	**1473**	**74**	**82**	**156**	**850**	**779**	**1629**

Off Campus summery

Thematic Area	Target No. of Courses	Achieved No. of Courses	No. of Participants								
			Others			SC/ST			Total		
			M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women											
Crop Production	3	5	353	23	376	51	0	51	404	23	427
Horticulture	1	1	152	0	152	0	0	0	152	0	152
Soil Health & Fertility Management	3	3	76	20	96	10	0	10	86	20	106
Livestock production and management	1	0	0	0	0	0	0	0	0	0	0
Home Science/Women empowerment	5	5	0	118	118	0	24	24	0	142	142
Agricultural Engineering	1	0	0	0	0	0	0	0	0	0	0
Plant Protection	5	5	280	121	401	6	4	10	286	125	411
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	1	1	26	0	26	0	0	0	26	0	26
Capacity Building	0	0	0	0	0	0	0	0	0	0	0
Agro-forestry	0	0	0	0	0	0	0	0	0	0	0
Total	**20**	**20**	**887**	**282**	**1169**	**67**	**28**	**95**	**954**	**310**	**1264**
(B) RURAL YOUTH	**0**	0	0	0	0	0	0	0	0	0	0
(C) Extension Personnel	**2**	0	0	0	0	0	0	0	0	0	0
Grand Total	**22**	**20**	**887**	**282**	**1169**	**67**	**28**	**95**	**954**	**310**	**1264**

Consolidated table (On & Off Campus)

Thematic Area	Target No. of Courses	Achieved No. of Courses	No. of Participants								
			Others			SC/ST			Total		
			M	F	T	M	F	T	M	F	T
(A) Farmers & Farm Women											
Crop Production	5	8	426	74	500	92	15	107	518	89	607
Horticulture	2	2	152	58	210	0	5	5	152	63	215
Soil Health and Fertility Management	4	5	92	147	239	10	4	14	102	151	253
Livestock production and management	2	2	23	63	86	0	8	8	23	71	94
Home Science/Women empowerment	7	11	25	331	356	3	44	47	28	375	403
Agricultural Engineering	1	1	36	0	36	0	0	0	36	0	36
Plant Protection	10	16	729	213	942	29	34	63	758	247	1005
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	2	3	73	48	121	7	0	7	80	48	128
Capacity Building	0	0	0	0	0	0	0	0	0	0	0
Agro-forestry	0	0	0	0	0	0	0	0	0	0	0
Total	**33**	**48**	**1556**	**934**	**2490**	**141**	**110**	**251**	**1697**	**1044**	**2741**
(B) RURAL YOUTH	1	1	0	31	31	0	0	0	0	31	31
(C) Extension Personnel	4	2	107	14	121	0	0	0	107	14	121
Grand Total	**38**	**51**	**1663**	**979**	**2642**	**141**	**110**	**251**	**1804**	**1089**	**2893**

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	7	435	98	533	54	15	69	489	113	602
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants										
Spices crops	1	152	0	152	0	0	0	152	0	152
Soil health and fertility management	2	18	110	128	0	0	0	18	110	128
Production of Inputs at site	2	47	48	95	7	0	7	54	48	102
Methods of protective cultivation										
Integrated Disease and Pest Management	8	302	182	484	12	34	46	314	216	530
Total	**20**	**954**	**438**	**1392**	**73**	**49**	**122**	**1027**	**487**	**1514**
Post-harvest technology and value addition										
Processing and value addition										
Store grain pests and its management for minimize the storage loss	2	163	0	163	14	0	14	177	0	177
Total	**2**	**163**	**0**	**163**	**14**	**0**	**14**	**177**	**0**	**177**
Farm machinery										
Farm machinery, tools and implements	1	36	0	36	0	0	0	36	0	36
Others (pl. specify)										
Total	**1**	**36**	**0**	**36**	**0**	**0**	**0**	**36**	**0**	**36**
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management										
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Home Science										
Household nutritional security	2	0	87	87	0	10	10	0	97	97
Economic empowerment of women	2	0	60	60	0	0	0	0	60	60

Drudgery reduction of women										
Others (pl. specify)										
Total	**4**	**0**	**147**	**147**	**0**	**10**	**10**	**0**	**157**	**157**
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	**27**	**1153**	**585**	**1738**	**87**	**59**	**146**	**1240**	**644**	**1884**

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

Sponsored Training Programmes Details

Sr. No.	Date	Discipline	Duration	No. of Participant									Sponsored Agency
				General			SC/ST			Total			
				M	F	T	M	F	T	M	F	T	
1	4.01.23	Plant pro.	1	77	0	77	0	0	0	77	0	77	Agakhan trust
2	6.01.23	Plant pro.	1	53	56	109	0	0	0	53	56	109	Horti dep.
3	11.01.23	Plant pro.	1	21	0	21	0	0	0	21	0	21	GGRC
4	12.01.23	Crop Pro.	1	89	0	89	0	0	0	89	0	89	ATMA
5	18.01.23	Soil Health	1	18	20	38	0	0	0	18	20	38	ATMA
6	1.02.23	Plant pro.	1	86	0	86	14	0	14	100	0	100	Agakhan trust
7	01.02.23	Home Sci.	1	0	47	47	0	0	0	0	47	47	ATMA
8	22.02.23	Crop Pro.	1	117	3	120	8	0	8	125	3	128	Agakhan trust
9	1-3.03.23	Plant pro.	3	0	45	45	0	0	0	0	45	45	ATMA
10	1.03.23	Production of input at a site	1	0	45	45	0	0	0	0	45	45	ATMA
11	1.03.23	Home Sci.	1	0	40	40	0	10	10	0	50	50	ATMA
12	9.03.23	Soil Health	1	0	90	90	0	0	0	0	90	90	ATMA
13	18.03.23	Agri Eng	1	36	0	36	0	0	0	36	0	36	GGRC
14	24.03.23	Plant pro.	1	36	7	43	0	0	0	36	7	43	DAO
15	5.04.03	Plant pro.	1	80	59	139	6	4	10	86	63	149	Agakhan trust
16	25.04.23	Production of input at a site	1	47	3	50	7	0	7	54	3	57	DAO
17	28.04.23	Plant pro.	1	35	21	56	3	0	3	38	21	59	NSC
18	29.05.23	Plant pro.	1	70	2	72	6	0	6	76	2	78	ATMA
19	2.08.23	Plant pro.	1	43	0	43	0	0	0	43	0	43	ATMA
20	8.08.23	Plant pro.	1	35	0	35	0	0	0	35	0	35	ACT
21	21.09.23	Plant pro.	1	71	7	78	0	0	0	71	7	78	ATMA
23	25-29.09.23	Home Sci.	5	0	30	30	0	0	0	0	30	30	Horti.
24	16-20.10.23	Home Sci.	5	0	30	30	0	0	0	0	30	30	Horti
25	17.10.23	Plant pro.	1	0	20	20	0	30	30	0	50	50	ATMA
26	26.10.23	Crop Pro.	1	0	45	45	0	15	15	0	60	60	ATMA
27	9.12.23	Horti.	1	152	0	152	0	0	0	152	0	152	Horti
28	18.12.23	Crop Pro.	1	87	15	102	43	0	43	130	15	145	AFPRO
29	18-22.12.23	Home Sci.	5	0	31	31	0	0	0	0	31	31	Horti.

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	31	31	0	0	0	0	31	31
Others (pl. specify)										
Total	1	0	31	31	0	0	0	0	31	31
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**	**31**	**31**	**0**	**0**	**0**	**0**	**31**	**31**

3.5 Extension Programmes (including activities of FLD programmes)

Activities	No. of Programme	No. of farmers	No. of Extension Personnel	Total
Advisory Services	4058	6158	111	6269
Diagnostic visits	7	38	10	48
Field Day	11	140	20	160
Group discussions	2	24	4	28
Kisan Ghosthi	8	2122	22	2144
Film Show	7	420	30	450
Self -help groups	1	39	3	42
Farm Science Club formation	2	22	0	22
Exhibition	4	2817	128	2945
Scientists' visit to farmers field	19	260	46	306
Farmers' seminar/workshop	9	1929	1517	3446
Method Demonstrations	32	229	7	236
Celebration of important days	5	797	75	872
Special day celebration	7	686	71	757
Lecture delivered	168	17048	960	18008
Implement/Crop Demonstration	11	978	50	1028
Collobrative training	4	270	12	282
Kisan Mela	1	10197	22	10219
Crop shibir/farmers shibir	2	1350	13	1363
Night meeting	4	261	24	285
Total	**4362**	**45785**	**3125**	**48910**

Other Extension Activity

Sr. No.	Scientist Activity (give Number)	No. ofActivity
1	Electronic Media (CD./DVD)	0
2	Extension Literature	2421
3	Newspaper coverage	9
4	Popular articles	6
5	Radio Talks	5
6	TV Talks	1
7	Animal health camps (Number of animals treated)	0
8	Social Media (No. of platforms used)	3
9	Publications	3
	Total	**2448**

3.6 Online activities during year 2023

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	8.08.23	Google meet	online training programme on Pink bollworm management in cotton	1	35
	Total			**1**	**35**
B	**Farmers scientist's interaction programme**				
	Total				
C	**Farmers seminars**				
1	15.07.23	You tube live	Online kisan goshthi on IPM and IDm in Groundnut	1	929
2	9.12.23	Zoom meeting on you tube live	Online Kisan Gosthi was organized by KVK with collaboration International Maher Supreme Council on Seed production technologies	1	804
	Total			**2**	**1733**
D	**Expert lectures**				
1	8.08.23	Google meet	Lecture delivered on IPM in cotton	1	35
	Total			**1**	**35**
E	**Any other (Pl. specify)**				
1	4.05.23	Review Workshop	Review workshop of KVKs of ATARI zone-VIII on Newly introduced programmes in KVKs and interacting meeting with DEES of SAUs in the Zone	1	92
	Total			**1**	**92**
	Grand Total (A+B+C+D+E)			**5**	**1895**

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)	Rate/unit (Rs.)	Expected Value(Rs)	Expected Number of farmers
Cereals	Wheat	GW-496		43.84	3750	164400	54
Oilseed	Castor	GCH-9		47.17	6100	287737	0
Oilseed	Groundnut	GJG-9		11.40	17000	193800	75
Oilseed	Groundnut	GJG-32		96.90	8100	784890	147
Oilseed	Groundnut	GJG-32		39.30	8100	318330	50
Pulses	Chickpea	GJG-6		30.00	13000	390000	87
Pulses	Chickpea	GJG-6		19.25	6400	123200	61
Total						**2262357**	**474**

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						
Fruit						
Total						

Production of Bio-Products

Bio Products	Name of the bio-product	Quantity		Value (Rs.)	No. of Farmers
		No.	kg		
Bio Fertilizers	*Azotobactor*	120			120
	Rhizobium	50			50
	PSB	170			170
Bio-pesticide	*Beauveria Bassiana*		195		195
	Metarizium		50		50
	SNPV	25			25
	MDP	25			25
Bio-fungicide	*Trichoderma*		210		190
Total		**390**	**455**		**825**

N.B. * Product was produced by JAU University and provided to farmers by KVK

Table: Production of livestock materials

Particulars of Live stock	Name of the animal / bird / aquatics	Name of the breed	Number	Value (Rs.)	No. of Farmers
Dairy animals					
Cows	Cow	Gir	2	5800	-
Buffaloes					
Calves	Calves	Gir	1	1056	-
Others (Pl. specify)					
Fisheries					
Indian carp					
Exotic carp					
Others (Pl. specify)					
Vermi Compost					
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, 2023
2. April to June, 2023
3. July to Sept., 2023
4. Oct. to Dec. 2023

Number of copies distributed: JAU Newsletter

B. Literature developed/published

Item	Title	Authors name	Number of copies
Popular Articles	Kevu raheshe varsh 2023 ma nairutynu chomasu? Jano havaman khatani aagahi, Krushi prabhat, 12 April, 2023(17)	AV savaliya, ND Ambaliya, KP Baraiya	
	Kevu raheshe varsh 2023 ma nairutynu chomasu? Sanjog news, 17 April, 2023(6)	AV savaliya, ND Ambaliya, KP Baraiya	

	Khetima havaman agahini agtyata, Krushi prabhat, 6 August, 2023(15)	AV savaliya, ND Ambaliya, KP Baraiya	
	Jiruna vavetar pahela dhyanma rakhva jevee babto, Krushi Prabhat, 26 October, 2023(21)	AV savaliya, ND Ambaliya, KP Baraiya	
	Jiruna vavetar pahela dhyanma rakhva jevee babto, Sanjog News, 30 October, 2023(6)	AV savaliya, ND Ambaliya, KP Baraiya	
	Chhodne Jaruri eva poshak tatvona karyoni tunki samaj, Krushi Prabhat, 7 November, 2023(21)	AV savaliya, ND Ambaliya, KP Baraiya	
	Success story- Entrepreneurship Development through Organic Farming & Value addition: Khirsariya Rajnikantbhai (Bhupatbhai) Karsanbhai, 18th Annual report 2021-22 of JAU:113-116	KP Baraiya, AK Baraiya	
	Succes story –Organic Exotic Fruit and Vegetable cultivation with its Value addition: Jesadiya Vishalbhai Lavjibhai: 18th Annual report 2021-22 of JAU:117-121	KP Baraiya, AK Baraiya, Godhani SH	
Technical reports	Annual Progress Report : 2022	Smt. A. K. Baraiya, Dr. K. P. Baraiya	7
	19th AGRESCO Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	49
	39rd ZREAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	54
	40th ZREAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	54
	19th SAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	35
	Annual Report of ATIC(2023)	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. Details of Social Media Platforms Created / Used

S. No.	Type of social media platform	Title of social media	Number of Followers / Subscribers
1	YouTube Channel	-	-
2	Facebook page/ Account	KVK,Jamnagar	4800
3	Mobile Apps	-	-
4	WhatsApp groups	Jay Kishan	214
		KB Pragatishil Gujarat	605
		Agro Lovers	33

		Jay Sardar	47
		Vermicomposting	87
		SPNF Prakrutik kheti	82
		1 SPNF kheti Jamnagar	197
		Krish E Mahindra Groups (1 to 6)	1889
		Nagli jay kisan	107
		Uma Agro Jashapur	57
		Matrukrupa organic farming	174
		Kisan Safar Prakrutik kheti	2764
		Krushi Rushi Gujarat	171
		Agni Hotra Krushi	163
		Khetivadi Samachar	24
		Organic skill KVK JMN	20
		Farmers Group	205
		Krishi e demop JMN	88
		Gay PrakrutikKheti	170
		Sadguru Organic Farm	135
		Innovative Farmers	13
		B Van Vihar	17
		ATMA Group 1 Dhrol	355
		KVK, Jamnagar Kalavad	605
		KVK, Jamnagar Dhrol	368
		KVK, Jamnagar Dhrol-2	147
		KVK, Jamnagar Jodiya	541
		KVK, Jamnagar Jodiya-2	115
		KVK, Jamnagar Jodiya-3	140
		KVK, Jamnagar Lalpur	327
		KVK, Jamnagar Lalpur-2	119
		KVK, Jamnagar Jamnagar	971
		KVK, Jamnagar Jamnagar-2	153
		KVK, Jamnagar Jamnagar-3	133
		KVK, JamnagarJamjodhpur	312
		KVK, Jamnagar Jamjodhpur-2	76
		Damu Jam Khambhaliya Taluka	57
		Damu Jam Kalyanpur Taluka	75
		Damu Jam Bhanvad Taluka	42
		Damu Jam Dwarka Taluka	27
		KVK Jamnagar	57
		Jashapar Samachar Group	464
		PPAG Directory New 1	976
		Goral Farm	133
		Ahar Arogya ayurved	108
		Jashapur Seva Sahkari Mandali	178
		46 Groups	**13741**
5	Twitter Account	-	-
6	Telegram	Krishi Vigyan Kendra, Jamnagar	140
	Any other (Pl. Specify)		

E. Success Story/CASE STUDIES

5.1 Case study/ Success story

1. Case study/ Success story

PROFILE OF FARM INNOVATORS

Thematic Area: Mix cropping and value addition

"Date Palm and Dragon Fruit Farming through Natural Farming & Value addition"

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

1. Personal Profile		
Name of farmer	:	Jentilal Nathubhai Faldu
Contact No.	:	9825425183
Address Res.	:	At. Jashapur, Ta. Kalavad, Dist. Jamnagar
Address Farming	:	As above
Age/D.O.B.	:	01.03.1964
Education	:	09 Standard (10 Std Fail)
Land holding	:	5.28 ha
Crops grown	:	Dragon fruit, date, mango, custard apple, coriander, chickpea, pea, okra, groundnut, wheat, cumin
Livestock	:	Cow-2 Gir breed
Business	:	Organic Farming, Animal keeping & marketing with Value addition
Special recognition	:	Innovative and Progressive farmer

2. Problem/ challenge Faced

Jentilal Nathubhai Faldu is only 9 class educated, having 2 Gir cow, owns 5.28 ha land with different ordinary cropping pattern. He lived in village Jashapur Ta. Kalavad of District Jamnagar.

He faces many challenges in his life listed here

- Low education (9 Std.)
- Old age (60 Years)
- Labour Chryseis & high cost
- Poor understanding
- Lack of marketing
- High production cost
- High chemical fertilizer, pesticides etc. usages.
- Resurgence of pest & Disease
- Poor soil fertility
- Lack of scientific technology know how
- From starting, grow traditional cropping pattern *viz.,* groundnut, cotton, wheat, he used more pesticide and Chemical fertilizer due to that increase cost of cultivation and reduce net profit.
- Before 2010, he was not in position to repayment of crop insurance/loan

3 Description of innovative practice/technology

- Started cow based organic farming from 2010.
- Kept 2 Gir cow unit
- Date palm, Dragon fruit, Mango, Custard apple are main orchard. Coriander, chickpea, pea, okra, groundnut, wheat, cumin and other vegetables cultivation as inter as well as sole crop
- No hazardous effect of chemicals in this natural farming
- Attractive packaging, value addition and direct marketing
- application of *Jivamrut* and cow urine.
- Processing Unit for Post-Harvest treatment for products.

After completion of education, he started CNC machine in Rajkot GIDC for manufacturing of iron materials for two years. He has not success in this business. After, he

	changed the business as diamond business at Surat (1980-1982). He shifted at Rajkot again and started diamond business side by side he started farming in traditional way with his father (1982 to 2010). During 2010, he joined from Jamnagar to "Mata na Madh" (Kutch district). On the way, he shows date palm. Then, after contacted to many farmers of date palm growers, and scientist of KVK and University at Kutch and Jamnagar also. Learn date palm scientific farming practices from scientist of KVK Jamnagar. Finally, Department of Horticulture, encourage for providing subsidy for plantation of the date palm plantation. Distance for the 30 x 30 feet =47 plants per acre shown in two acre (94 plants @ 2500/sapling with 1250 subsidy. The KVK and ATMA officers inspired for value addition, as well as cow based organic farming. Frequent visit of Date Palm Research Station, Mundra for training and cultivation of practices. His family supported him for cultivation, value addition, marketing process for new innovations. After success in the date palm cultivation, plantation of dragon fruit (during 2015) (red variety) and custard apple (during 2017) with NMK variety. During 2015, first time test dragon fruit by purchasing from Rajkot fruit market. Gain knowledge of dragon fruit cultivation from KVK, Horticulture department and online. Know history of dragon fruit as well as importance for health, origin, climate requirement etc. Then decide to showing of dragon fruit at 2.5m X 3.7m distance = 432 pole per acre. Sapling bring from Kutch @ Rs.100/sapling). With the help of subsidy from Department of Horticulture, Jamnagar.
4	**Silent features** ➢ One step chemical less produce ➢ Direct selling of the product from farm. ➢ Farm in on Kalavad-Rajkot high way ➢ Health and hygienic produce ➢ Best farmers award (Sardar Puraskar Award) ➢ Life member of Indian Date Palm Society ➢ Support to other farmers for marketing ➢ Farmers to farmers dissemination of technology
5	**Practical utility** ➢ Labour saving, ➢ Reduce weed problem ➢ Reduce cost of cultivation ➢ High marketing price ➢ Consult him for value addition ➢ Sales pieces of plants for sapling preparation to the nursery grower.
6	**Source of information** Continuous contact with KVK, Horticulture department and ATMA also exposure visit, he motivates for date palm, Dragon fruit, custard apple and vegetable cultivation. He has continuous active with social media and watch different video information from different channels and you-tube. He attend many seminars, frequently visit of research station, KVK and other special experts.
7	**Economics/Profitability of innovative practice/ technology (costs and return) (per intervention or area or household)** The comparison of innovative practice and non-innovative practice is 40% more profit given below along with profitability.

Year	Crop	Area ha.	Production kg/ha	Total Income Rs.	Total Cost Rs.	Net Income Rs.
2010-11	Date Palm	0.8	0	0	157500	-157500
	Vegetables & Field Crops	4.5		475000	276000	199000
	Total			**475000**	**433500**	**41500**
2012-13	Date Palm	0.8	0	0	25000	-25000
	Vegetables & Field Crops	4.5		58000	250000	-192000
	Total			**58000**	**275000**	**-217000**
2013-14	Date Palm	0.8	3580	537000	35000	502000
	Vegetables & Field Crops	4.5		470000	300000	170000
	Total			**1007000**	**335000**	**672000**
2014-15	Date Palm	0.8	7520	1128000	45000	1083000
	Vegetables & Field Crops	4.5		450000	280000	170000
	Total			**1578000**	**325000**	**1253000**
2015-16	Dragon fruit	0.4	0	0	70000	-70000
	Date Palm	0.8	7990	958800	45000	913800
	Vegetables & Field Crops	4.5		390000	260000	130000
	Total			**1348800**	**375000**	**973800**
2016-17	Dragon fruit	0.4	1296	453600	30000	423600
	Date Palm	0.8	13500	1350000	45000	1305000
	Vegetables & Field Crops	4.5		370000	276000	94000
	Total			**2173600**	**351000**	**1822600**
2017-18	Dragon fruit	0.4	5184	1296000	30000	1266000
	Date Palm	0.8	14000	1400000	45000	1355000
	Vegetables & Field Crops	4.5		400000	250000	150000
	Total			**3096000**	**325000**	**2771000**
2018-19	Dragon fruit	0.4	8640	1728000	30000	1698000
	Date Palm	0.8	12500	1250000	45000	1205000
	Vegetables & Field Crops	4.5		460000	220000	240000
	Total			**3438000**	**295000**	**3143000**
2019-20	Dragon fruit	0.4	10800	1620000	30000	1590000
	Date Palm	0.8	13000	1300000	45000	1255000
	Vegetables & Field Crops	4.5		570000	250000	320000
	Total			**3490000**	**325000**	**3165000**
2021-22	Dragon fruit	0.4	11664	1341360	30000	1311360
	Date Palm	0.8	13000	1300000	45000	1255000
	Vegetables & Field Crops	4.5		650000	300000	350000
	Total			**3291360**	**375000**	**2916360**
2022-23	Dragon fruit	0.4	11232	1291680	30000	1261680
	Vegetables & Field Crops	4.5		830000	325000	505000
	Total			**2121680**	**355000**	**1766680**

8 Potential: Acceptance level, horizontal spread of innovation and number of farmer adopting

During the era of organic farming, she has appreciated for the cultivation of organic date palm, dragon fruit and custard apple cultivation and started one steps in an innovative work. His farm in on highway, then many farmers, consumers were visited his farm. He got many awards for the animal keeping and Date palm and dragon fruit cultivation. TV channels has special recorded his success story and broadcast. Many extension programmes organized at Balaji Kharek Farm. Thus, horizontal of the technology in district as well as whole state through telecasting.

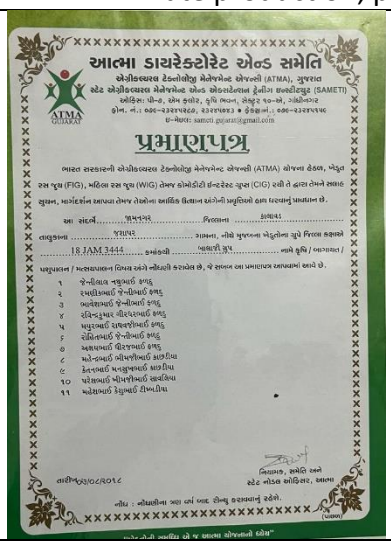
9. Illustrate with high quality photos with caption, graphs


બાગાયત ખાતુ અને કૃષિ વિજ્ઞાન કેન્દ્ર,જામનગર
દ્વારા આયોજીત
"ખારેક પ્રોડકશન ટેકનોલોજી સેમિનાર"
પ્રમાણપત્ર
શ્રી/શ્રીમતી, ગામ : તાલુકો:
આજરોજ આયોજીત ખારેક ફળ પ્રદર્શન અને હરીફાઇ સ્પર્ધામાં ઉત્સાહ પૂર્વક ભાગ લીધેલ છે.
તારીખ : ૧૩-૦૭-૨૦૧૮, શુક્રવાર

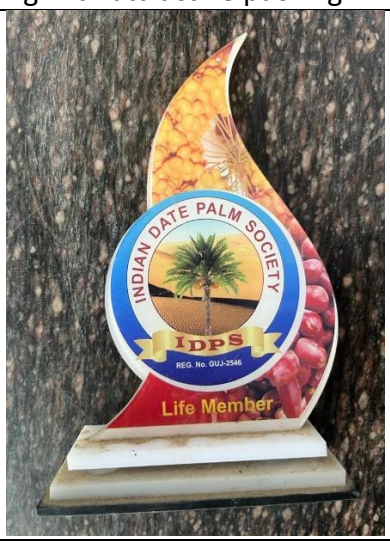
Seminar attended on Date Palm Production | Gir cow

Dragon Fruit Field view | Balaji Farm Sky view

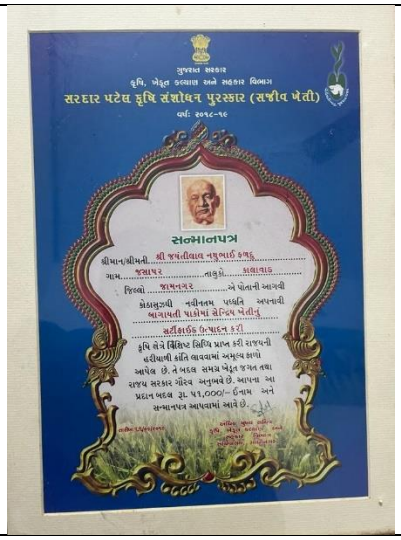
Date production, packing | Date marketing with attractive packing


આત્મા ડાયરેક્ટોરેટ એન્ડ સમિતિ
પ્રમાણપત્ર

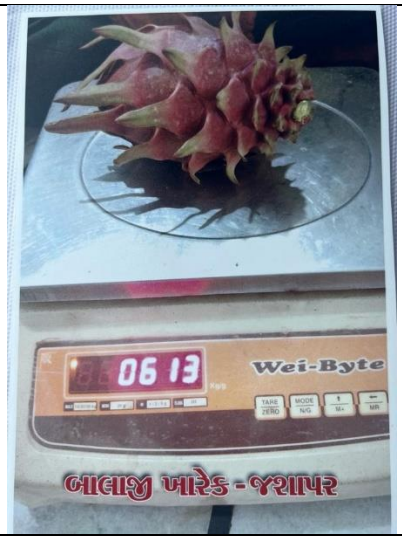

Agricultural Technology Management Agency Gujarat
BEST ATMA Farmer Award for 2017-18
Taluka level
કાલરુ જયંતીલાલ નથુભાઇ
ગામ : જસાપર
તા. : કાલાવડ , જિ. : જામનગર


INDIAN DATE PALM SOCIETY
IDPS
REG. No. GUJ-2546
Life Member

ATMA Group leaders | Best ATMA Farmer award 2017-18 | Life member IDPS



Sardar patel sanshodhan purashkar award (Organic Farming (2018-19)



Dragon fruit weight

Date fruit packing

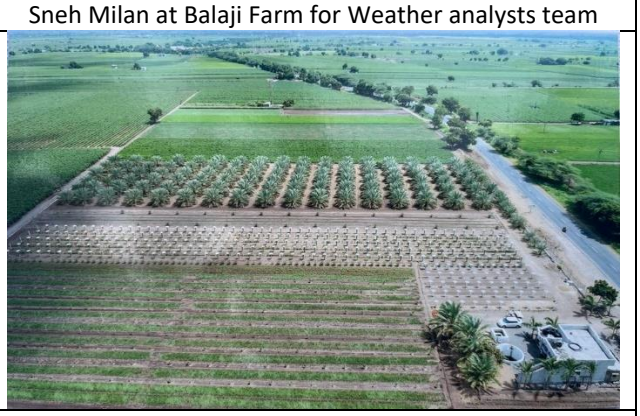
Sneh Milan at Balaji Farm for Weather analysts team

Sneh Milan at Balaji Farm for Weather analysts team

Sneh Milan at Balaji Farm for Weather analysts team

Sneh Milan at Balaji Farm for Weather analysts team

Press note for Balaji Farm



Field view of Dragon frui & Date Palm Balaji Farm

2. Case study/ Success story

PROFILE OF FARM INNOVATORS
Thematic Area:

Improvement in income through ago advisory services through District Agromet Unit under Gramin Krushi Mausam seva scheme

Shree A. V. Savaliya, Dr. K. P. Baraiya, Smt. A. K. Baraiya

Personal Profile			Problem/ challenge Faced
Name of farmer	:	Bera Khimabhai Parbatbhai	Shree Bera Khimabhai Parbatbhai is only 12th class educated, having 3.4 ha land with different ordinary cropping pattern. He lived in very interior village Udepur, Ta. Jamjodhpur of Jamnagar district. He faces following challenges in his life ➢ Low education (10th std) ➢ Labour chrysies & high cost ➢ High input production cost ➢ Uneven weather condition during cultivation ➢ Unseasonal rainfall ➢ Poor knowledge of study weather condition/ observation in social media
Contact No.	:	9979462275	
Address	:	At.- Udepur, Ta.- Jamjodhpur Dist.- Jamnagar	
Age	:	56	
Education	:	10th pass	
Land holding	:	3.4 hactor	**Description of intervention practice/technology**
Crops grown	:	groundnut, cotton, wheat, coriander, green gram	Shree Bera Khimabhai Parbatbhai is living in Udepur village of Jamjodhpur Block of Jamnagar district. He cultivated groundnut and cotton in Kharif season, chickpea and coriander in Rabi season and in summer gown green gram crop in his 3.4 hector lands. He carried out traditional farming for survival of 5 family members. His annual income during 2018-19 was Rs. 2,74,750 /- per year before any intervention.
Livestock	:	Buffalo- 3	
Business	:	Farming	
Special recognition	:		

Due to lack of technical knowledge on weather based agro advisory and improved crop cultivation, he was not getting the more income. Later on, after the adoption under Gramin Krushi Mausam seva (GKMS), District Agromet Unit (DAMU) project, he came in contact with Agrometeorologist and other scientists of Krishi Vigyan Kendra (KVK), Jamnagar Gujarat in the year 2020-21. Agrometeorologist and other KVK scientists provided technical knowledge on improved crop cultivation, selection of suitable crops/varieties and weather based agroadvisory services to Khimabhai. He followed Agromet Advisory services and technical guidance in his farm for growing Groundnut, Cotton crops for kharif season, Chickpea, Cumin and Coriander for rabi season and Sesame and Greengram for ssummer season. He followed advisory and planted university recommended crop varieties in his field. He also planted vegetable crops in small area for family consumption.

By adopting Agro met. Advisory services, crop diversification, he was benefited more from more different crop cultivation in same season compare to other farmers. He was benefited with enhanced

income of Rs. 8,43,863 /- during the year 2022-23. He is one of the successful farmers of the locality and well known among farmers of the village.

Economics

Name of Farmers	Land Holding (ha.)	Yield and income per Annum							
		Season	Before intervention 2018-19				After intervention		
			Crop	Area (ha.)	Yield (q)	Net Income (Rs)	Crop	Area (ha.)	Yield (q)	Net Income (Rs)
Bera Khimabhai Parbatbhai	**3.4 hactor**	Kharif	groundnut	2.0	30	127500	groundnut	2.5	47	239063
			Cotton	1.3	21	95063	Cotton	0.8	15	101250
		Rabi	Coriander, wheat	1.5	11	42188	Chickpea	1.2	27	139050
							Cumin	0.6	5	85500
							Fennel	0.5	5	87000
							Coriander	01	10	55000
		Summer	Green gram	0.5	3	10000	Green gram	0.5	5	24500
							Sesame	1.0	11	112500
Total Income						**274750**				**843863**

9. Illustrate with high quality photos with caption, graphs

Coriander cultivation

Cumin cultivation

Wheat cultivation

Animal keeping

F. 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, whatsapp, face book, Instagram etc.

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
- Agri Drawn Sprayer
- Introduction of new variety i.e.GG-3, GG-5, GG-6 of Chickpea, GJG-22, GJG-23, GJG-32, GJG-41 of Groundnut, GW-463, GW-451 of wheat, GHB-1129, GHB-1231, GHB-1225 of Pearl Millet, Castor GCH-9 variety.
- Natural farming technologies
- Cultivation and aswreness of millets
- Use of trap crop, pheromone trap etc. as a IPM component
- Cotton stalk shredder for recycling of farm waste
- Storage techniques, PICS bag etc.
- Kitchen gardening awareness

G. 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	Organic farmng	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 farmer's field ➢ For collaborative training and demonstration Programme
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	➢ Collaborative On/ Off campus training programme ➢ For providing hostel facilities to participants and organizing collaborative Krishi Mela ➢ Organize all government programmes collelctively
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	Tata Chemical Society for Rural Development Foundation, At. Mithapur, Ta.-Dwarka, Dist.-Jamnagar	➢ Impart training on Agril. aspects ➢ Collaborative on/off campus training programme
2	Agakhan Rural Development Trust	
3	ANARDE foundation trust	
4	Mahindra Tractor, Jamnagar	
5	BAIF Singach	
6	ACT	

C. List special programmes undertaken by the KVK and operational now, which have been financed by State Govt./Other Agencies 2023-24

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
Establishment of Agricultural Technology Information Centre (ATIC)	2019-20	State Govt.	1200000/-
Cluster Frontline demonstration of Oilseeds under NMOOP (B.H.:- 2704-51)	2019-20	ICAR	340000/-
Cluster Frontline demonstration of pulses under NSFM (B.H.:- 2704-50)	2019-20	ICAR	-
District Agromet Units (DAMUs) (B.H.2704-59)	2020-21	ICAR	1334034/-
Swachhta Action Plan (B.H. 2704-65)	2021-22	ICAR	24390/-
Farmer Outreach programme for Natural Farming (B.H. 2704-73)	2022-23	ICAR	354120/-
Kishan Bhagidari Prathmikta Hamari (B.H. 2704-72)	2022-23	ICAR	-

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 KrishiMela
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	8	1	
02	**Research projects**	-	-	-	-
03	**Training programmes**	On/ Off Campus training programme	12	4	
04	**Demonstrations**	Method Demonstration	2	3	
05	**Extension Programmes**				
	Extension programmes		24	9	
	Kisan mela		8	0	
	Technology Week		0	1	
	Exposure visit		2	0	
	Exhibition		4	0	
	Soil health camps		-	0	
	Animal Health Campaigns				
	Farmers Field School (FFS)		2	0	
	Capaciy Developmen		2	1	
	Agri-preneurs development		1	1	
	Others (Pl. specify)				
06	**Publications**				
	Video Films				
	Books				
	Extension Literature				
	Pamphlets				
	Others (Pl. specify)				
07	**Other Activities** (Pl.specify)				
	Watershed approach				
	Integrated Farm Development				
	Agri-preneurs development				

D. Give details of programmes implemented under National Horticultural Mission

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

7. Convergence with other agencies and departments:

Period	Activity details	Place of activity	Officers present
9.02.23	SAC meeting with line Department	KVK, Jamnagar	50
24.02.23	ATMA AGB Meeting of Jamnagar	DDO, Jamnagar	15
1.03.23	DLPC under RKVY	DDO, Jamnagar	15
16.05.23	CWWG meeting by DAO(Extension), Jamnagar	Online	6
19.05.23	ATMA AMC meeting of Devbhumi Dwarka	Online (Google meet)	14
26.05.23	ATMA AGB Meeting of Jamnagar	Jilla Panchayat Bhavan, Jamnagar	19
6.06.23	ATMA AMC meeting of Jamnagar	ATMA office	13
3.07.23	District level monitoring committee meeting (DLMC) of Horticulture	District Collector Office, Jamnagar	8
9.10.23	ATMA AMC meeting of Devbhumi Dwarka	Online (Google meet)	14
6.11.23	Meeting regarding Rabi Krushi Mahotsav	Collector office	26
28.12.23	Crop Weather watch group meeting	Online	16

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
- 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.
- Need to be effective control of whitegrub in groundnut.
- Day by day serious problem of mite endangering the crops
- 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 2023 : Yes

Period of observing Technology Week : From August 21-25, 2023
Online / Offline : Offline
Total number of farmers visited : 402
Total number of agencies involved : 3
Number of demonstrations visited by the farmers within KVK campus: 4

Technology week was celebrated at Krishi Vigyan Kendra, JAU, Jamnagar during August 21st to August 25th, 2023. The programme was Organized under the guidance of Dr. N. B. Jadav, Director of Extension Education, Junagadh Agricultural University, Junagadh. This programme was organized by Dr. K. P. Baraiya, Senior Scientist and Head, KVK, Jamnagar and KVK team with the support of ATMA and FTC Officers.

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar welcomed dignitaries and house. He advice to farmers for more and more participate in the different training programs to gain in knowledge. He also gave special emphasis on use new technology for natural farming and value addition for direct marketing. He has advice to farmers for go through Natural farming and minimize the inputs and optimize the yield of crops. He welcomes to farmers for continuous visit of KVK for proper development of their agriculture.

After inaugural function, different scientists of KVK have given talk on different subjects and information from the Krishi Vigyan Kendra. The day-to-day theme was kept on different aspects for maximize overcome the problems of the farmers and KVK Scientist delivered relevant lectures on respective topics during the technology week.

Date wise Theme for Technology week

Date	Theme of Technology transfer	Concern Scientist	No. of Participants		
			Male	Female	Total
21.08.23	IPM for *Kharif* crop with special emphasis on pink bollworm & white grub	**Dr. K. P. Baraiya**	82	2	84
22.08.23	IPM, IDM and INM in Natural farming	**Dr. K. P. Baraiya**	68	2	70
			28	0	28
23.08.23	Women empowerment through Kitchen gardening and Livestock management	**Prof. A. K. Baraiya**	20	62	82
24.08.23	Value addition and awareness about the millets	**Prof. A. K. Baraiya**	3	65	68
25.08.23	IPM and IDM in kharif crops	**Mr. N. D. Ambaliya**	68	2	70
	TOTAL		**269**	**133**	**402**

The day-to-day activities are as under. In which 402 Farmers/farm women from different blocks were participated.

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	6	402	➢ IPM for *Kharif* crop with special emphasis on pink bollworm & white grub ➢ Natural farming ➢ Kitchen gardening, ➢ Weather effect on *kharif* & *rabi* crop production and precaution measures ➢ Livestock management & Natural farming ➢ Recent advances in Organic/Natural Farming for minimization of cost of cultivation
Lectures organized	20	402	1. Integrated Management of Pink boll worm 2. Mitigation of the whitegrub problems in kharif groundnut. 3. Irrigation management in crops 4. Fertilizers and micro nutrients management in major Kharif crops 5. Natural farming for minimization of cost of cultivation

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
			6. Awareness about Millets and value addition 7. Importance Kitchen gardening 8. IPM and IDM in Groundnut 9. Integrated pest management in cotton 10. Value addition in agriculture produce 11. Feed and fodder management in livestock 12. key points for clean milk production 13. Weather forecast for minimize the effect of storm and rainfall along with pest outbreaks.
Exhibition	4	304	Farm implements were put for exhibition cum demonstration purpose
Film show	4	304	Film Show of different technologies were presented
Fair	0	0	
Farm Visit	4	304	During farm visit farmers were demonstrate crop cafeteria of kharif crop as well as minor millets and seed production plot along with different varieties of pearl millet were visited
Diagnostic Practices	14	194	Field diagnostics of farmers at KVK farm for pest, disease and nutritional problems were identified on field. Farmer also bring their own samples for diagnosis purpose.
Supply of Literature (No.)	6	865	Different subject literature distributed
Supply of Seed (q)	0	0	
Supply of Planting materials (No.)	0	0	
Bio Product supply (Kg)	0	0	
Bio Fertilizers (q)	0	0	
Supply of fingerlings	0	0	
Supply of Livestock specimen (No.)	0	0	
Total number of farmers visited the technology week	6	402	
Number of organizations participated	4	228	

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

A. Introduction of alternate crops/varieties

State	Crops/cultivars	Area (ha)	Number of beneficiaries
Gujarat			

B. Major area coverage under alternate crops/varieties

Crops	Area (ha)	Number of beneficiaries
Oilseeds		
Pulses		
Cereals		
Vegetable crops		
Tuber crops		
Total		

C. Farmers-scientists' interaction on livestock management

State	Livestock components	Number of interactions	No. of participants
Total			

D. Animal health camps organized

State	Number of camps	No.of animals	No. of farmers
Total			

E. Seed distribution in drought hit states (Seed distribution/sold by KVK)

State	Crops	Quantity (qtl)	Coverage of area (ha)	Number of farmers
Total				

F. Large scale adoption of resource conservation technologies

State	Crops/cultivars and gist of resource conservation technologies introduced	Area (ha)	Number of farmers
Total			

G. Awareness campaign

State	Meetings		Gosthies		Field days		Farmers fair		Exhibition		Film show	
	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers	No.	No. of farmers
Total												

13. IMPACT

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

Name of specific technology/skill transferred	No. of participants	% of adoption	Change in income (Rs.)	
			Before (Rs./Unit)	After (Rs./Unit)
Sesame G.Til.-5	1460	26	22892	32500
Groundnut variety GJG-22	1520	39	42100	48950
Chickpea IPM & Variety GG-5	685	42	70908	92929
Castor variety GCH-9	273	61	105416	129716
Pearl Millet GHB-1231	65	12	28058	43370
Sorghum GNJ-1	25	2	55000	72000
Wheat GW-463	40	17	46351	82840
Ajwain IPM (*Beauveria*, *Trichoderma*, Biofertilizers)	110	28	18098	28890
Cumin IPM IDM (*Beauveria*, *Trichoderma*, Biofertilizers)	1680	32	76800	92725
Coriander (*Beauveria*, *Trichoderma*, Biofertilizers)	468	14	66894	78248
Cotton ICM (*Beauveria*, *Azadirectin*, Profenophos, MDP, hNPV)	680	22	69940	92460
Kitchen Gardening (Vegetable seed kit, *Beauveria*)	540	26	4153	5637
Storage techniques through PICS bag	35	8	3964 per 100 kg (25.8% insect damage)	5662 per 100 kg (2.76% insect damage)
Groundnut variety GJG-32	1150	30	70785	125230

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

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

Sr.	Significant Achievements		Details of achievements
1	Natural farming promotion	:	Farmers were aware about natural farming, through adopting technology of input material produce on their own farm. Enhancing humas in the soil, recycling of farm waste, conservation of natural enemies, potential use of bio fertilizers, bio pesticides etc. use of indigenous technology for reducing cost of cultivation. Proper value addition and marketing strategies for higher earning from the valuable products.
2	Promotion of organic farming	:	Farmers were aware about organic farming, skill training conducted skill development of organic growers. Horizontal spread in more than 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.

3	Employment generation through seed production	:	Skill training on "Organic Grower" and "quality seed grower was conducted and horizontal spread"
4	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 and GJG-32 by availability of seed on about 31%
5	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 350000 ha.
6	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 370000 ha.
7	Popularization of different varieties	:	Sesame : G.Til.-3, 4; 5, 6 Pearl Millet- GHB-558, 538, 732, 1129, 1231 Chickpea :- GG-5, GJG-3, GJG-6
8	New crop introduction	:	Coriander is the fourth-major crop of *rabi* crops after cumin, wheat and chickpea. It was introduced by KVK, JAU, Jamnagar from 2012-13.
9	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
10	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-1129	JAU, Junagadh Year of release: 2010-11	530	42	218	48.00	42300	
Coriander GC-2	SAU	3725	164	384	13.27	77350	
Green Gram GM-4	GAU	6525	348	687	12.00	28500	
Chickpea GJG-3	JAU	220	315	650	26.35	69500	
Chickpea GG-5	JAU, Junagadh Year of release: 2013-14	285	28	250	31.25	82000	
Chickpea GG-6	JAU	15	3	52	27.35	79500	
IDM							
Trichoderma in Groundnut	JAU, Junagadh	3540	85	650	28.00	42000	
Groundnut GJG-32	JAU, Junagadh	750	80	350	36.25	114000	
Groundnut GJG-9	JAU, Junagadh	850	152	650	31.60	97600	

N.B.:- Villages were selected for the period of 2021 to 2023 for working therefore, the detail impact will given after completion of this period.

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Aware-ness	Other enterprise	Total
Jamnagar	Text only							
	Voice only							
	Voice & Text both							
	Total Messages							
	Total farmers Benefitted							

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demonstration Units	Year of Establi-shment	Area	Details of production			Amount (Rs.)		Remark
				Variety	produce	Quantity (No.)	Cost of inputs	Grossin come	
1	Nursery Unit	2016	-	-	Planting material	-	-	-	
2	Kitchen gardening	2021	-	-	Vegetables	-	-	-	

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	
Groundnut	22.06.23	1.2	GJG-9	Seed (Breeder) Haulm	1205 5580	65000	197050 41843	
Groundnut	19.06.23	7.0	GJG-32	Seed (Breeder) Haulm	10810 33175	485000	1686420 235358	
Groundnut	21.06.23	2.9	GJG-32	Seed (TF) Haulm	4460 13290	190900	346500 96000	
Wheat	28.11.22	1.6	GW-496	Seed	4510	36500	167078	
Chickpea	21.11.22	2.0	GJG-6	Seed (Breeder)	3580	95600	413200	
Chickpea	18.11.22	1.2	GJG-6	Seed (TF)	2215	53400	134800	
Castor	7.08.23	2.0	GCH-9	Seed	4717	130000	290490	
Sorghum	23.06.23	0.5	Gundri	Green fodder	4000	6400	12000	

B. 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*	120				120	
2		*Rhizobium*	50				50	
3		*PSB*	170				170	
4	Bio-pesticide	*Beauveria Bassiana*		195			195	
5		*Metarizium*		50			50	
6		*SNPV*	25				25	
7		*MDP*	25				25	
8	Bio-fungicide	*Trichoderma*		210			190	
	Total		**390**	**455**			**825**	

N.B. *Product was produced by JAU University and distributed by KVK

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	Cow	Gir	Cow	3	-	6856	
			FYM	9 qtl	-	9000	
2	Vermi compost	Eicenia fetida	Verms culture	-	-	-	
			Compost	6 Qtl	-	1800	

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)
January **2023**	0	0	
February **2023**	92	7	
March **2023**	112	5	
April **2023**	5	3	
May **2023**	0	0	
June **2023**	5	4	
July **2023**	0	0	
August **2023**	23	1	
September **2023**	23	25	
October **2023**	2	2	
November **2023**	0	0	
December **2023**	17	12	
Total	**279**	**59**	

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-strations	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
0.2	Vegetable crops	Brinjal, Indian bean, cowpea, carrot, coriander, ridge gourd, bottle gourd, fenugreek, radish, palak, okra, cluster bean,	1068
	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
2	Vegetable crops	Brinjal, Indian bean, cowpea, carrot, coriander, ridge gourd, bottle gourd, fenugreek, radish, palak, okra, cluster bean	50
	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
1									

16. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	State Bank of India						
With KVK	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	Training Organizer	10319002389	361002098	12211

B1. Utilization of KVK funds during the year 2022-23 (Rs. in lakh)

S. No.	Head	R.E 2022-23	Opening Balance as on 01.04.2022	Refund During 2022-23, if any	Fund received during 2022-23	Expenditure during 2022-23	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**	0	0	0	0	0	0
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)	**0**	**0**	**0**	**0**	**0**	**0**
Grants in Aid - Salaries (REVENUE)							
9	**Establishment Expenses**						
	A. Salaries	11293000	1186054	0	11293000	7547141	4931913
	B. 7th CPC arrears		0	0	0	0	0
	Total-SALARIES (9)	**11293000**	**1186054**	**0**	**11293000**	**7547141**	**4931913**
Grants in Aid - General (REVENUE)							
10	**Pension & Other Retirement Benefits**	0	0	0	0	0	0
11	**Travelling Allowance**	65853	0	0	65853	65853	0
12	**Research & Operational Exp.**						0
	A. Research Expenses	603147	0	0	603147	603147	0
	B. Operational Expenses	450000	0	0	450000	450000	0
	Total - Res. & Operational Exp.	**1119000**	**0**	**0**	**1119000**	**1119000**	0
13	**Administrative Expenses**	150000	0		150000	150000	0
	A. Infrastructure	1053147	0	0			0
	B. Communication		0	0			0
	C. Repairs & Maintenance						0
	i. Equipments, Vehicles & Others		0	0			0
	ii. Office building		0	0			0
	iii. Residential building		0	0			0
	iv. Minor Works		0	0			0
	D. Other		0	0			0

	Total - Administrative Expenses	**150000**	**0**	**0**	**150000**	**150000**	**0**
14	**Miscellaneous Expenses**						0
	A. HRD					0	0
Total Grants in Aid – General (10+11+12+13+14)		**1269000**	**0**	**0**	**1269000**	**1269000**	**0**
Grand Total (Capital + Salaries+ General)		**12562000**	**1186054**	**0**	**12562000**	**8816141**	**4931913**

B2. Utilization of KVK funds during the year up to December-2023 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Opening balance	Released	Expenditure	Balance
A.	**Recurring Contingencies**					
1	Pay& Allowances	9951306	4931913	4700000	6613615	3018298
2	Traveling allowances	100000	0	100000	26161	73839
3	Contingencies	1450000	0	1000000	699813	300187
	TOTAL (A)	**11501306**	**4931913**	**5800000**	**7339589**	**3392324**
B.	**Non-Recurring Contingencies**	0	0	0	0	0
C.	**REVOLVING FUND**	0	0	0	0	0
	GRAND TOTAL (A+B+C)	**11501306**	**4931913**	**5800000**	**7339589**	**3392324**

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 on31st March, 2018 of this year
1st April 2020 to 31st March, 2021	7638808	3673303	1078597	10233514
1st April 2021 to 31st March, 2022	10233514	2765536	498894	12500156
1st April 2022 to 31st March, 2023	12500156	2364284	7752728*	7111712
1st April 2023 to 31st December, 2023	7111712	4020638**	1679649	9452701 (1,52,71,413/-)

*** RS. 7000000/- Loan to KVK Pipaliya**

**** Repayment of Loan (First Installment) From KVK Pipaliya Rs. 1181288/-**

17. 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/ Offline)	Dates
Dr. K. P. Baraiya	SS&H	Seminar on Jamin Janya Rog-Jivatonu Sankalit Niyantran	JAU, Junagadh	Offline	24.02.23
Dr. K. P. Baraiya	SS&H	Training Programme on "Competency Skills Enhancement for Extension Professional"	JAU, Junagadh	Offline	24-26.04.23
Prof. A. K. Baraiya	SMS	Online Review workshop of KVKs of ATARI zone-VIII	Online	Offline	4.05.23
Shri N. D. Ambaliya	AO	Annual Zonal Workshop of Action plan on KVKs of Gujarat	AAU, Anand	Offline	14-16. 05.2023
Prof. A. K. Baraiya	SMS	Modern Agricultural Practices of Coconut : Problems and Remedies	JAU, Junagadh	Offline	6.06.23

Dr. K. P. Baraiya	SS&H	Modern Agricultural Practices of Coconut : Problems and Remedies	JAU, Junagadh	Offline	6.06.23
Dr. K. P. Baraiya	SS&H	Annual Zonal Workshop of KVKs of Gujarat, Goa and Maharashtra ATARI Zone-VIII	VMKV,Aurangabad	Offline	28-30.07.23
Dr. K. P. Baraiya	SS&H	PPAG Silver Jubilee Programme and One day State Level Seminar and Market Management	AAU, Anand	Offline	30.09.2023
Dr. K. P. Baraiya	SS&H	Training on Natural farming	Swami dayanand Sarasvati hall, Gandhinagar	Offline	6.10.23
Dr. K. P. Baraiya	SS&H	"SHORT VISIT CUM TRAINING" under NAHEP-IDP on "natural farming, practically view	Gurukul, Kurukshetra Haryana	Offline	20-22.11.23

18. Details of progress in Doubling Farmers Income (DFI) villages adopted by KVKs (*2021-22*)

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in net income (Rs/unit)	
				Before	After
Gadhka	1450	Crop Diversification, new crop & enterprises introduction, value addition, natural farming, bio-fertilizers and bio-pesticides, FLD, OFT & Training, awareness programmesetc	25	69000	250822
Khoja Beraja	390		22	110416	329295
Nani Banugar	285		22	83981	232480
Lothiya	291		22	82426	221459
Chandragadh	315		22	7509	240147
Total	**2731**		**113**	**83780**	**254734**

19. 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
1	FLD, Training, Kishan Gosthi, Awareness Campaigns, Nutri Kit distributed, Field visit, Plantating material distribution,	2	Seed Distribution, awareness training, discussion, planting material districution, etc.	14	593

20. 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	

21. Details of SAP (Swachchhta Action Plan)

S. No.	Types of major Activity conducted- Swachhta Pakhwada, Cleaning, Awareness Workshop, **Miccobial based Agricultural Waste Management by Vermicomposting** etc.	No. of Programmes conducted	No. of Participants
1	Cleaning, awareness on vermicomposting and wate management	3	114

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

22.1 ESTABLISHMENT OF AGRICULTURAL TECHNOLOGY INFORMATION CENTRE (ATIC) (YEAR-2023).

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	1756
2.	KVK, Jamnagar	Technology Products	365

C. Facilities in ATIC (Operational):

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

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	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	Phone calls	3601	284	1667	1182	23	46	30	61	308
	2. Video shows	450	0	84	70	0	75	0	75	146

	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	415	0	121	109	0	0	63	75	97
	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	74	Nil	74
3.		Tech. inventory	Nil	Nil	Nil
4.		CDs	Nil	Nil	Nil
5.		DVDs	Nil	Nil	Nil
6.		Leaflet	771	Nil	285
7.		Folders	1650	Nil	523
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)	Groundnut (GJG-32)	99.65	Quintal	557122	147
(ii)	Groundnut (GJG-9)	75.41	Quintal	122158	75
(iii)	Groundnut (GJG-32) (TF)	19.69	Quintal	155565	50
(iv)	Wheat (GW-496)	45.10	Quintal	167078	54
(v)	Chickpea(GJG-6)(TF)	22.15	Quintal	134800	61
(vi)	Chickpea(GJG-6)	35.80	Quintal	413200	87
(vii)	Castor (GCH-9)	47.17	Quintal	290490	-
2.	**Planting materials**	-	-	-	-
3.	**Live stock(Vermi compost)**	-	-	-	-
4.	**Poultry birds**	-	-	-	-
5.	**Bio Product**		**Quintal**	-	-
	1. *Beauveria bassiana*	195	Kg	-	195
	2. *Trichoderma*	210	Kg	-	190
	3. PSB	170	Li.	-	170
	4. *Rhizobium*	50	Li.	-	50
	5. *Azotobactor*	120	Li.	-	120
	6. *Metarhizium*	50	Kg	-	50
	7. SNPV	25	Li.	-	25
	8. MDP	25	Tube	-	25

C. Technology services provided:

Name of ATIC	Particulars	No. of farmers benefitted
KVK, Jamnagar	Soil and Water testing	0
	Plant diagnosis	79
	Services to line department	121
	Others (Group Meeting, Field Visit, Field Day)	1390

D. FLD conducted:

Sr. No.	Month	Crop/Inputs	Season	Variety	No. of Farmers/ Demonstration		
					Others	SC/ST	Total
1.	January to December 2023	**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 2023	Store grain pests and its management for minimize the storage loss	86	0	86	14	0	14
2		Pest management in natural farming	21	0	21	0	0	0
3		Insect pest control in rabi season crop	27	6	33	0	0	0
4		Fruit and Vegetable preservation	0	25	25	0	0	0
5		Income generation activity for empowerment of women	0	42	42	0	0	0
6		House hold food security by kitchen gardening and nutrition gardening	0	25	25	0	0	0
7		Management of Pinkbollworm in Cotton & white grub in Groundnut and other Kharif crops	76	0	76	0	0	0
8		Processing and value addition in Spices and Other agriculture produce	0	58	58	0	5	5
9		Nutritional Value of Millets and design of low/Minimum cost diet	0	25	25	0	5	5
		Tota	**210**	**181**	**391**	**14**	**10**	**24**

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.	9	270	56	326
2	Field visit/Field Day	8	97	7	104
3	Literature	15	169	650	819
4	Plant Diagnosis services	7	50	91	141

22.2 District Agro-Met Units (DAMU) under Gramin Krishi Mausam Sewa (GKMS) Scheme(2023)

India Meteorological Department (IMD), Ministry of Earth Sciences (MoES), Govt. of India, NewDelhi is operating an integrated Agro-Meteorological Advisory Service (AAS) at district level, inIndia, which represents a small step towards agriculture management in rhythm with weatherand climate variability leading to weather proofing for farm production. Under AAS, needs offarming 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 GraminKrishiMaushamSewa (GKMS). The target of the project is to provide Agromet services directly to all the farming households.

Agrometeorological Advisory Service (AAS) are being rendered by India Meteorological Department (IMD), Ministry of Earth Sciences (MoES) under GraminKrishiMausamSewa (GKMS) scheme as a step towards contribution to weather information-based crop/livestock management strategies and operations dedicated to enhancing crop production.

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)
- Maintaining Weather data record
- Dissemination of weather bulletin through different social media level
- Collecting Feedback of farmers to usefulness of weather bulletin

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 Bothlanguage (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.Regularly Prepare weather advisory bulletin District wise and Block wise of Jamnagar district. We also prepare Devbhumi Dwarka District Block wise weather bulletin on date 04th May, 2021.

Number of Weather Bulletin prepare from Jan-Dec, 2023

	No. of Bulletins
District Name	
Jamnagar	103

Jamnagar District Block name	
Dhrol	103
Jamjodhpur	103
Jodiya	103
Jamnagar	103
Kalavad	103
Lalpur	103
Total No. of Block wise Weather Bulletin	**618**

Devbhumi Dwarka District Block name	
Kalyanpur	103
Khambhaliya	103
Okhamandal	103
Total No. of Block wise Weather Bulletin	**309**

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 Whatsapp groups, Facebook page, mKishan Portal, Telegram channel, JAU website and IMD Agrimet Website (http://imdagrimet.gov.in/)etc.

Number of farmers Connected

Particular	No. of contact farmers
Whatsapp Group-19	4110
KVK Facebook page	4800 followers
KVK Telegram Channel	120 Subscribers

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.

Different kind of activity organized by KVK, JAU, Jamnagar under DAMU Project During - 2023

a) Farmers Awareness Program (FAP)

S. No.	Date	Location			Approx. No. of Farmers/ Participant
		Village	Block	District	
1	05-01-2023	Mansar	Dhrol	Jamnagar	33
2	06-01-2023	Matva	Jamnagar	Jamnagar	30
3	18-01-2023	Luvarsar	Jamjodhpur	Jamnagar	6
4	17-02-2023	Kolva	Khambhadiya	Devbhumi Dwarka	125
5	22-02-2023	Moti Khokhari	Khambhadiya	Devbhumi Dwarka	128
6	03-05-2023	Matva	Jamnagar	Jamnagar	8
7	04-05-2023	Satapar	Jamjodhpur	Jamnagar	42
8	11-05-2023	Sarvaniya	Kalavad	Jamnagar	8
9	06-07-2023	Sonvadiya	Jamjodhpur	Jamnagar	26
10	07-07-2023	daldevadiya	Jamjodhpur	Jamnagar	26
11	27-07-2023	KVK, Jamnagar	Jamnagar	Jamnagar	75

12	02-08-2023	Jayva	Dhrol	Jamnagar	26
13	31-08-2023	Khengarka	Dhrol	Jamnagar	26
14	24-09-2023	KVK, Jamnagar	Jamnagar	Jamnagar	65
15	27-09-2023	Theba	Jamnagar	Jamnagar	280
16	30-09-2023	Dwarka	Dwarka	Devbhumi Dwarka	350
17	26-10-2023	KVK, Jamnagar	Jamnagar	Jamnagar	60
18	30-10-2023	FTC hall	Jamnagar	Jamnagar	25
19	24-11-2023	latipar	dhrol	Jamnagar	539
20	04-12-2023	KVK, Jamnagar	Jamnagar	Jamnagar	50
21	15-12-2023	Haripar	Lalpur	Jamnagar	30
22	18-12-2023	Jamjodhpur	Jamjodhpur	Jamnagar	161
Total					**2119**

b) Meghdoot Application Popularization Activity

S. No.	Date	Location			Approx. No. of Farmers/ Participant
		Village	Block	District	
1	04-01-2023	Juvangadh	Khambhadiya	Devbhumi Dwarka	2
2	18-01-2023	Luvarsar	Jamjodhpur	Jamnagar	6
3	13-04-2023	Jashapar	Jodiya	Jamnagar	6
4	04-05-2023	Satapar	Jamjodhpur	Jamnagar	20
5	27-07-2023	KVK, Jamnagar	Jamnagar	Jamnagar	75
Total					**109**

c) AWS Site Visit

S. No.	Date	Location	Approx. No. of Farmers/ Participant
1	17-01-2023	KVK, Jamnagar	74
2	23-02-2023	KVK, Jamnagar	19
3	01-03-2023	KVK, Jamnagar	83
4	22-08-2023	KVK, Jamnagar	45
Total			**221**

d) Field Visit

S. No.	Date	Location			Approx. No. of Farmers/ Participant
		Village	Block	District	
1	04-01-2023	Juvangadh	Khambhadiya	Devbhumi Dwarka	2
2	18-01-2023	Luvarsar	Jamjodhpur	Jamnagar	6
3	13-04-2023	Jashapar	Jodiya	Jamnagar	5
4	03-05-2023	Matva	Jamnagar	Jamnagar	6
5	07-07-2023	daldevadiya	Jamjodhpur	Jamnagar	2
6	31-08-2023	Khengarka	Dhrol	Jamnagar	26
7	13-09-2023	Jamdudhai	Jodia	Jamnagar	7
8	20-10-2023	Falla	Jamnagar	Jamnagar	4
9	25-11-2023	latipar	dhrol	Jamnagar	20
Total					**78**

22.3 MGMG_Annual Progress report for the year 2023

Detailed Progress: Krishi Vigyan Kendra, JAU, Jamnagar

Table 1- Institute Summary

No. of Team of Scientists	No. of Scientists	No. of Villages	No. of Blocks	No. of Districts	Bench Mark Survey conducted (No. of villages)
2	**6**	**10**	**8**	**2**	**10**

Table 2 - Activities organized under MGMG

Activities organised by ICAR Institutes/ SAUs under MGMG

S. No.	Name of activity	No. of activities conducted	No. of farmers participated & benefitted
1.	Visit to village by teams	22	306
2.	Interface meeting/ *Goshthies*	20	314
3.	Training organized	8	246
4.	Demonstrations conducted	17	42
5.	Mobile based advisories	117	796
6.	Literature support provided **(No)**	24	388
7.	Awareness created (No)	33	639
	Total	**241**	**2731**

Table-3: Facilitation under MGMG

2	Facilitation	2023		
	i) Technology (No)	Name of technology	Area (ha)	Farmers Benefitted (No)
		ICM in Coriander (*Beauveria*, *Trichoderma*, *Azotobactor*, PSB)	8	20

22.4 Out Scaling of Natural farming

Different kind of activity organized by KVK, JAU, Jamnagar under Natural farming during – 2023

A. FLD conducted:

Sr. No.	Crop	Inputs	Season	Area in ha.	No. of Farmers/ Demonstration
1.	Wheat	Jivamrut preparation kit (Plastic drum, gram floor, jaggary, bucket)	*Rabi*-2022-23	6.4	16

Results of Growth Parameters

Sr. No.	Crop	Parameters	Results	
			Natural Farming	Non-Natural Farming
1	Wheat	Yield	30.64 q/ha	45.12 q/ha
		Seed / spike	42-44	45-55
		No. of spikelet	17-21	18-21
		Days of maturity	105-120	103-124
		1000 seed wt.	45-48 g	42-46 g

Results of Economic Parameters

Crops	Farming Situation	Average Yield (q/ha)	Percentage Increase in yield over Non-natural Farming (%)	Total cost of cultivation (Rs/ha)	Gross returns (Rs/ha)	Net returns (Rs/ha)	B:C ratio (Rs/ha)
Crop Wheat	Natural Farming	30.64	-32.05	25350	130223	104873	5.20
	Non-Natural Farming	45.12	-	40875	112805	71930	2.77

Farmers/KVKs Feedback

Natural Farming	Non-Natural Farming
➢ Good market value ➢ Low production cost ➢ Chemical less having no hazardous effect ➢ Safe for environment ➢ Pest and disease attack ➢ Reduce risk for water lodging condition ➢ High water storage in soil ➢ Earth worms increase in soil. hence increase soil fertility.	➢ Normal market value ➢ high production cost ➢ Found hazardous effect ➢ Environment, soil pollution ➢ Lower pest and disease attack ➢ High risk for water lodging condition water stress is high ➢ Down soil fertility

B. Extension Programmes

Sr. No.	Name of Activity	Total Program	participate		
			M	F	Total
1	Training Program	15	798	292	1090
2	Method Demonstration	1	28	46	74
3	Seminar	2	129	90	219
4	Kishan Gosthi	3	310	10	320
5	Lecture Delivered	33	4356	2717	7073
Total		**54**	**5621**	**3155**	**8776**

C. Expenditure Details (Rs. In Lakhs)

Financial Year	Opening Balance	Fund received from ATARI Pune	Total fund available	Expenditure	Closing Balance
	A	***B***	***C=A+B***	***D***	***E=A-D***
2022-23	0	2.66	2.66	2.66	0
2023-24	0	3.5412	3.5412	3.5412	0

22.5 OTHER PROGRAMME CELEBRATED

Scientific Advisory Committee meeting

The 19th Scientific Advisory Committee Meeting of KVK, JAU, Jamnagar was held on February 9, 2023 at Training Hall, KVK, Jamnagr for the presentation and reviewing of the work done byt eh KVK and actin plan fr the next coming year. The meting was chaired by Dr. V. P. Chovatiya, Hon'ble Vice Chancellor, JAU, Junagadh. Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh and other officers of line department and Progressive farmers remained present in this meeting. Total 50 members remain present in the ensuring meeting. Dr. K. P. Baraiya, Senior Scientist & Head, presented the Annual Progress Report (2022) and Action Plan (2023) of KVK Jamnagar. Scientists of KVK Jamnagar presented their subject wise report and action plan. Committee members promoted and appreciated their work and given valuable suggestions.

PM Kisan Samman Nidhi Programme 27th February, 2023

Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar celebrated PM Kisan Samman Nidhi Programme on 27th February, 2023. In this celebration organized awareness Camp on PM Kisan samman nidhi yojna and also joint live telecast programme of Hon'ble PM. Total 65 participants participated in this programme.

INTERNATIONAL MILLET YEAR

On the occasion of International Year of Millet (IYoM) 2023, KVK, Jamnagar celebrate different programs throughout the year 2023. Awareness carried out on IYoM by different activity *viz*., lectures, seminar and training on nutritional value of millets and its health benefit, value addition and processing in millets, scientific farming of millets and different minor millets etc. Farmers aware through participation in exhibition on IYoM, field visit by farmers at KVK, farmers visit to Museum for live specimens of millets and participation in millet mela at Taluka level. Thus, Krishi Vigyan Kendra, JAU, Jamnagar conducted 33 programs with 7230 participants.

Sr. No.	Name of Activity	Total Program	Total participant
1	Training Program	4	152
2	Crop Demonstration	3	168
3	Farmers Seminar	2	274
4	Exhibition	2	1261
5	Lecture Delivered	17	1387
6	Participation in Millets mela	5	3988
Total		**33**	**7230**

INTERNATIONAL WOMEN DAY

KVK Jamnagar celebrated "International women day" on 3th March, 2023 at Vinjalpar, Ta. Jamkhambhaliya Dist. Devbhumi Dwarka with collaboration of Agakhan Rural Development Trust. In this programme female sarpanch, members of Gram Panchayat and 141 farm women remain present. In this programme discussed about success farm women stories. Smt. A. K. Baraiya, Scientist (Home Science) KVK, JAU, Jamnagar aware farmwomen about value addition, marketing, input production in natural farming, vermi-composting, decomposing, animal keeping, kitchen gardening, preservation of fruit and vegetable etc. were promoted. Thus, women farmers were motivated by different kind of activities to sustain in the society.

WORLD WATER DAY

KVK Jamnagar celebrated "World Water Day" on March 22, 2023 at Singach Village of Lalpur Taluka of Jamnagar in collaboration with the ACT and BIAF. The programme was organized at

demonstration filed of BIAF. Dr. K. P. Baraiya, Senionr Scientist & Head, KVK, JAU, Jamnagar delivered the talk on water conservation, reduction of runoff losses during the rainy season, use of micro irrigation for efficient use of water, well recharge. Field demonstrations were shown at the field level on micro irrigation, rain gun, sprinkler system, porous pipes for orchard and crops shown area. They are also aware about soil reclamation and reduction of salty water problems by BIAF & ACT. Total 105 farmers remain present in this programme

Hon'ble Prime Minister's interaction with beneficiaries of schemes live telecast programme

Under the Pradhan Mantri Kishan Samman Nidhi Yojana organized farmer Awareness Program at Krishi Vigyan Kendra, Jamnagar on 27th july,2023. In which 14th installment was released in the account of farmers under Pradhan Mantri Kishan Samman Nidhi Yojana by Hon'ble Prime Minister Shri Narendrabhai Modi from Nagor District of Rajasthan and this program live broadcasted at Krishi Vigyan Kendra, JAU, Jamnagar. 79 farmers and farm women participated and shown the programme.

ICAR FOUNDATION DAY

The ICAR is celebrating 95th ICAR Foundation day and technology day throughout the India, as a part of this event, Krishi Vigyan Kendra, JAU, Jamnagar celebrated on 17th,July 2023. During the ICAR foundation day arrangement of Farmers seminar on awareness about the millets, its health benefits and value addition in millets under the celebration of International millet year 2023. Lecture delivered on natural farming in saline and alkaline soils, remedies for IPM, IDM, INM in low land water logged soil. Farmers were also discussion on the remedies for saline and alkaline soil reclamation. Different technologies were demonstrated for the *kharif* crop production, water harvesting and conservation of water, increase water use efficiency were the key discussion points during the celebration. Total 163 farmers were actively participated in the seminar

PARTHENIUM AWARENESS WEEK 16.08.23 TO 22.08.23

KVK, Jamnagar organized awareness programme during the Parthenium awareness week on August 16 to 22, 2023. In this celebration farmers were made aware of Parthenium grass at kvk campus and village level. Removal of Parthenium by all staff members with the help of kvk labours in KVK campus and kept surrounding area Parthenium free. Total 174 farmers and 22 kvk members were participated and to create awareness about skin diseases caused by parthenium and its remedy

TECHNOLOGY WEEK CELEBRATION (21ST TO 25TH AUGUST, 2023)

KVK, JAU, Jamnagar celebrated technology week during August 21th to 25th, 2023 at KVK, Jamnagar. In which total 402 farmers/farm women from different blocks were participated and also provided extension literature to each participant. During this week, different theme were kept for transfer of newer technology to the farmers as IPM and IDM for *Kharif* crops, Kitchen gardening & Awareness about the Millets, Concept of Organic and Natural Farming, Livestock management and Special emphasis given on white grub management of groundnut. They also encourage for Natural farming as well as reduction of cost of cultivation with improved technologies. Special emphases were given on value addition of agricultural produce for more income generation. Many demonstration, Kisan goshthi and video shows were arranged during this programme.

National Nutrition Month Celebration (1st to 30th September)

KVK, Jamnagar organized nutrition awareness programmes under the celebration of National Nutrition Month on16th September, 25th September and 30th September 2023. In these programmes discussion on Balance diet, Nutri cereal role in human health and their product, Importance of Kitchen gardening and information about micro greens. 30 vegetable seed kit distributed to women. Total 160 women participated and aware about nutrition through this celebration.

MAHILA KISAN DIVAS

Mahila kisan Divas celebrated by Krishi Vigyan Kendra, Jamnagar on 15th October, 2023. On this day organized farm women training at KVK Campus on Nutritional value of Millets and design of low /minimum cost diet. During this training to aware farm women from different millets and discussion on processing of millets, How to include millets in daily diet and health benefits of millets. Practical were also done on Bajra biscuits, *Juvar* biscuits and ragi cake . Total 30 farm women actively participated and visited to KVK demo unit and museum in this celebration.

SWACHHTA ABHIYAN

Cleanliness office building and surrounding as a part of cleanliness drive on the occasion of Gandhi Jayanti by the KVK staff. Total 16 staff member participated in this cleanliness drive.

RABI KRUSHI MAHOTSAV (24-25.11.2023)

During the Rabi Krushi Mahotsav in Dwarka Organized kishan gosthi and arrangement of stall by KVK Scientist. The main attraction on Millets samples for awareness on millets and information of rabi crop cultivation through natural farming in the exhibition. 260 farmer and 290 farm women visited the KVK stall. Shri Pabubha Manek, MLA, Dwarka remain present and inspired farmers for natural farming and millets cultivation. At the end of programme, he visited all the stall and encourage participants of exhibition. Different dignitaries from taluka level also remain present in the Krishi Mahotsav.

WORLD SOIL HEALTH DAY (5.12.2023)

Krishi Vigyan Kendra, JAU, Jamnagar organized a Kishan Gosthi with collaboration of AFPRO, Lalpur on occasion of the celebration of "world soil health day" on 5th Dec 2023 at village Lalpur, Ta. Lalpur, Di. Jamnagar, around 188 farmers are participated in this programme, Dr. K. P. Baraiya, Senior Scientist & Head, KVK, Jamnagar focused on Natural farming, soil reclamation, vermi compost, bio-fertilizer, re-cycling of farm waste and improvement of soil fertility by using natural resources, then after farmers gives good response and positive discussion about standing crops at the end of program. Farmers were also aware about good quality cotton production system, their difficulties about cotton production and how to overcome were the hot discussion during the programme. related literatures were distribution to the farmers.

Student Training

RAWE Student training programme organized at KVK, JAU, Jamnagar from the Amreli, Junagadh, College of Horticulture, Junagadh etc as per the below details

Student training programme organized for gain first hand practical and theoretical experience on the functioning the Krishi Vigyan Kendra. 20 Students from economics department, College of Agriculture, JAU, Junagadh visited to KVK under READY & AIA programme during November 19 to December 3, 2023. In this training discussion about various activities carried out by the Krishi Vigyan Kendra and shared direct experiences from scientist and the way of working with the farmers.

One student from College of agriculture, Sardarkrushinagar Dantiwada Agricultural University, Sardar Krushinagar come for Training programme under RAWEP during 13 to 16, September, 2023 at KVK, Jamnagar

Student from Agricultural Polytechnic college, Sidsar visited to KVK Jamnagaron the day 28 february, 2023. 34 student visited at KVK Campus. During this training programme student were informed about various activities carried out by the Krishi Vigyan Kendra

Drone demonstration

Agri drone demonstration organized in different villages of Jamnagar district during 2023 with the collaboration of Department of Farm Power and Machinery, College of Agricultural Engineering and Technology, Junagadh Agriculture University, Junagadh.

Date	Village	No. of farmers
20.10.23	Falla ta.- Jamnagar	27
20.10.23	Jayva Ta.- Dhrol	12
20.10.23	Vankiya Ta.- Dhrol	13
21.10.23	APMC Bhanvad	419
15.12.23	Lothiya ta.- Jamnagar	14
15.12.23	Haripar ta.- Lalpur	35
15.12.23	Lalpur	36
9.02.24	Sumari Ta.- Jamnagar	27
9.02.24	Dhudasiya Ta.- Jamnagar	22
9.02.24	Bharatpur Ta.- Jamnagar	31
9.02.24	Nandpur Ta.- Jamnagar	26
	Total	662

22.6 DETAILS OF SOIL, WATER AND PLANT ANALYSIS

Details	No. of Samples	No. of Farmers	No. of Villages	Amount to be realized
Soil Samples				
Water				
Plant	79	65	36	-
Manure				
Others (pl.specify)				
Total	79	65	36	**-**

22.7 DIGRITORIES VISITED KVK, JAU, JAMNAGAR

Different dignitaries visited at Krishi Vigyan Kendra, JAU, Jamnagar during the 2023 year.

Sr. No.	Name & Designation of dignitaries	Date o visit
1	Dr. V.P. Chovatiya, Vice Chancellor, JAU, Junagadh visited to KVK, Jamnagar	9.02.23
2	Dr. H. M. Gajipara, DEE, JAU, Junagadh visited to KVK, Jamnagar	9.02.23
3	Dr. V.P. Chovatiya, Vice Chancellor, JAU, Junagadh visited to KVK, Jamnagar	11.07.23
4	Dr. R. B. Madariya Sir, Director of Research, JAU, Junagadh visited to KVK, Jamnagar	11.07.23
5	Smt. Punamben Maadam, MP, Jamnagar visited to KVK during rabi Krishi Mahotsav	24.11.2023
6	Shri. Mulubhai Bera, MLA, Khambhaliya visited to KVK during rabi Krishi Mahotsav	24.11.2023
8	Rivaba Jadeja, MLA, Gujarat visited during rabi Krushi Mahotshav	24.11.2023

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	23	564	414	978
Rural youths	1	0	31	31
Extension functionaries	2	107	14	121
Sponsored Training	23	1133	570	1703
Vocational Training	2	0	60	60
Grand Total	**51**	**1804**	**1089**	**2893**

2. Frontline demonstrations

Enterprise	Area(ha)	No. of Farmers	Units/Animals
Oilseeds	48	120	
Pulses			
Cereals	8	20	
Vegetables	2	5	
Other crops	30	75	
Hybrid crops			
Total	**88**	**220**	
Livestock & Fisheries			
Other enterprises	4	60	
Total			
Grand Total	**92**	**280**	

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	3	9	9
Livestock			
Various enterprises	1	5	5
Total	**4**	**14**	**14**
Technology Refined			
Crops	1	3	3
Livestock			
Various enterprises			
Total	**1**	**3**	**3**
Grand Total	**5**	**17**	**17**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	4362	48910
Other extension activities	2445	
Total	**6807**	**48910**

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							
	Voice only							
	Voice & Text both							
	Total Messages							
	Total farmers Benefitted							

6. Seed & Planting Material Production

	Quintal/Number	Value Rs.
Seed (q)	287.86	2262357
Planting material (No.)	0	0
Bio-Products (kg)	845	0
Livestock Production (No.)	0	0
Fishery production (No.)		

7. Soil, water & plant Analysis

Samples	No. of Samples	No. of Beneficiaries	Amount realized (Rs.)
Soil			
Water			
Plant	**79**	**65**	-
Total	**79**	**65**	

8. HRD and Publications

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

ANNEXURE –I

PROCEEDING OF THE 20th SCIENTIFIC ADVISORY COMMITTEE MEETING OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR HELD ON FEBRUARY 3, 2024

The Twentieth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, JAU, Jamnagar was held at Training Hall, Krishi Vigyan Kendra, JAU, Jamnagar on February 3, 2024. The meeting was chaired by Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, Dr. V. P. Chovatia Sir.

The following members were remained present in the meeting.

Sr. No.	Name & Designation	Position
1	Dr. V. P. Chovatia, Vice Chancellor, Junagadh Agricultural University, Junagadh.	Chairman
2	Dr. N. B. Jadav, Director of Extension Education, Junagadh Agricultural University, Junagadh	Member
3	Dr. D. S. Hirpara, Research Scientist, MDFRS, Junagadh Agricultural University, Targhadia (Rajkot).	Member
4	Dr. K. D. Mungra, Research Scientist (Millet), Main Millet Research Station, Junagadh Agricultural University, Jamnagar- 361 006.	Member
5	Shri R. S. Gohel, District Agricultural Officer, District Panchayat, Jamnagar	Member
6	Su. Shri M. M. Kathad, Project Director, District Watershed Development Unit, District Rural Development Agency, old collector office, Lal Bungalow Compound, Jamnagar.	Member
7	Dr. Tejas Shukla, Dy. Director of Animal Husbandry, Dept. of Veterinary & Animal Husbandry, District Panchayat, Jamnagar	Member
8	Dy. Director of Horticulture, Seva Sadan-IV, Nr. Ganesh Cold Storage, Jamnagar Rajkot Highway, Jamnagar	Member
9	Shri B. M. Agath, Dy. Director of Agriculture (Extension), Lalbunglow, Nr. Trazery office, Jamnagar	Member
10	Mr. Kiran Bhimsen, Dy. Director of Agriculture, Farmers Training Centre, Air Force Road, Opp. Digjam Mill, Jamnagar.	Member
11	Mr. Jignesh Bambharoliya Dy. Project Director, Agricultural Technology Management Agency (ATMA), Air Force Road, Opp. Digjam Mill, Jamnagar.	Member
12	Patel Sir, District Manager, State Bank of India, Lead Bank, Lal bunglow, Jamnagar	Member
13	Mukesh Patel, Research Officer, Fisheries Research Station, Okha	Member
14	Progressive farmer (Horticulture) : Dilipbhai Gordhanbhai Sanghani, At.- Hadmatiya, Ta.-Jamnagar, Dist.- Jamnagar	Member
15	Progressive farmer (Horticulture) : Vishalbhai Jeshadiya, At.- Anandpar, Ta.- Kalavad, Dist.- Jamnagar	Member
16	Progressive farmer (Organic) : Shri Vallabhbhai Nathabhai Bunsha, At. Sarvaniya, Ta.:- Kalavad, Dist. Jamnagar	Member
17	Progressive farmer (Organic) : Shri Hiteshbhai Harilal Dhamsaniya, At. Falla, Ta.:- Jamnagar, Dist. Jamnagar	Member
18	Progressive farm women (G): Smt. Chetnaben Dilipbhai Sanghani, At.- Hadmatiya, Ta.- Jamnagar, Dist.- Jamnagar	Member
19	Progressive farm women (G): Smt. Payalben Mansukhbhai Kantariya, At.- Arablush, Ta.:-Lalpur, Dist. Jamnagar.	Member
20	Progressive farm women (G): Smt. Chandrikaben Kantilal Gadara, At.- Arablush, Ta.:- Lalpur, Dist. Jamnagar.	Member

21	Shri Vithalbhai Sakhiya, Extension Education Council member (JAU, Junagadh), At. Devpar, Ta. Kalavad, Dist. Jamnagar	Invitee
22	Prof. Anjanaben K. Baraiya, Scientist (Home Science), KVK, JAU, Jamnagar	Member
23	Dr. H. C. Chhodvadia, Associate Extension Educationist, DEE Office, JAU, Junagadh	Invitee
24	Mr. N. D. Ambaliya, Agri. Officer, KVK, Jamnagar	
25	Daxabahen Patel, Agri. Officer, KVK, Jamnagar	Invitee
26	Mr. A. V. Savaliya, SMS, (Agromet), DAMU, KVK, Jamnagar	Invitee
27	Dr. M. M. Talapda, Associate Research Scientist, Pearl Millet Research Station, JAU, Jamnagar	Invitee
28	Progressive farmer (Invitee), Sanghani Dilipbhai Hirabhai, At. Theba, Ta. & Dist. Jamnagar	Invitee
29	Progressive farmer (Invitee), Khatrani Baldevbhai Bhanjibhai, At. Kanpur (Latipur), Ta. Dhrol, Dist. Jamnagar	Invitee
30	Progressive farmer (Invitee), Ambabhai Panchabhai Ramani, At. Kanpur (Latipur), Ta. Dhrol, Dist. Jamnagar	Invitee
31	Progressive farmer (Invitee), Jayantibhai Naranbhai Parsana At. Haripar, Ta. Lalpur, Dist. Jamnagar	Invitee
32	Progressive farmer (Invitee), Bharatbhai Jesadiya At.- Anandpar, Ta.- Kalavad, Dist.- Jamnagar	Invitee
33	Progressive farmer (Invitee), Shri Kishorbhai Laljibhai Pedhadiya, Progressive Farmer, At. Sumari, Ta. & Dist. Jamnagar	Invitee
34	Progressive farmer (Invitee), Dangariya Mukeshbhai D. At. Kalavad Dist. Jamnagar	Invitee
35	Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar	Member Secretary

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar welcomed the dignitaries and all the members of the SAC members highlighted the brief achievements of the centre. Dignitaries on the dais are welcomed by words and flowers. Dignitaries inaugurated the meeting by lighting the lamp.

Dr. K. P. Baraiya, Senior Scientist & Head, Krishi Vigyan Kendra, JAU, Jamnagar presented the action taken report of the minutes of the 19th SAC meeting, Annual Progress Report (January to December-2023) and Action Plan (January to December- 2024). All KVK scientists Dr. K. P. Baraiya (Plant Protection), Smt. A. K. Baraiya, Scientist (Home Science), Shri A. V. Savaliya (SMS- DAMU) presented the Annual progress report for 2023 (Jan.–Dec. 2023) and the Annual action plan for the disciplines of Plant protection, Home science, Animal Husbandry, Horticulture, Crop production and Agri. Engineering respectively.

The following suggestions were made by SAC members during the meeting:

1. To record feedback from farmers for extra benefit of fortified variety of Bajara FLD.
2. Awareness among farmers about special characters of GHB-1129, i.e. heat tolerance, rich in Fe & Zn content.
3. To carry out base line survey of newly adopted villages and also conduct impact study of old villages.
4. Mentioned word “intervention” instead of refinement in OFT.
5. To calculate the total expenses for the respective FLD and mention in action plan.
6. Promote Agri-drawn technology and natural farming among farmers.

7. To provide Agro-met Advisory to extension functionaries for betterment of farmers usage.
8. To create awareness of use of decomposer for recycling of farm waste (wheat straw) instead of wheat straw burning.
9. To document and prepare video/documentary film of success stories of KVK progressive farmers with the help of AGRISNET Studio.
10. To create awareness on natural farming among farmers.
11. To create awareness about ajwain gripe water through value addition training programme.

Dr. N. B. Jadav, Director of Extension Education, JAU, Junagadh appreciated collaborative work of KVK with all line departments of the district. He emphasized to keep record of successful farmers and give exposure to them.

Dr. V. P. Chovatia sir, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, on his chairmen's remarks.

On his chairmen's remarks, Dr. V. P. Chovatia sir, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, he appreciated collective efforts done by scientists, stake holders, ginners, agro input dealers for the minimize the damage of pink boll worm in cotton. He also advised to farmer's community to come forwards and take necessary steps towards management of white grubs. He remarked the alarming situation of infestation of fruit fly in fruit and vegetables and emphasized to create awareness among the farmers. He also noted the importance of soil health management as well as use of high-tech implements and agri-drawn in farming.

The meeting ended with a vote of thanks by Smt. A. K. Baraiya, Scientist (Home Science), Krishi Vigyan Kendra, JAU, Jamnagar.

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

Director of Extension Education,
Junagadh Agricultural University
Junagadh

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

Annexure II

Front line Demonstration Beneficiaries Farmers List

Summer Sesame (GujTil. 5) CFLDs under NMOOP Scheme (2022-23)

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

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Rathod Valabhai Govindbhai	Satapar	Jamjodhpur	Jamnagar	9737542314
2	Vadhre Bahadurbhai Murubhai	Satapar	Jamjodhpur	Jamnagar	9687744254
3	Herma Govindbhai Khengarbhai	Satapar	Jamjodhpur	Jamnagar	6354665468
4	Nakum Kananbhai Ratnabhai	Satapar	Jamjodhpur	Jamnagar	9724872304
5	Jala Lakhabhai Valabhai	Satapar	Jamjodhpur	Jamnagar	9662660657
6	Dodiya Karshanbhai Nathabhai	Satapar	Jamjodhpur	Jamnagar	9904742546
7	Parmar Arvindbhai Nathabhai	Satapar	Jamjodhpur	Jamnagar	9998429481
8	Parmar Vajubhai Nathabhai	Satapar	Jamjodhpur	Jamnagar	9725728457
9	Gholetar Savdashbhai Valabhai	Satapar	Jamjodhpur	Jamnagar	9687741101
10	Jala Ranjitbhai Lakhabhai	Satapar	Jamjodhpur	Jamnagar	9662660657
11	Parmar Jayeshbhai Ajmalbhai	Satapar	Jamjodhpur	Jamnagar	9725270610
12	Parmar Bhaveshbhai Manibhai	Satapar	Jamjodhpur	Jamnagar	9725316149
13	Vadhre Hiteshbhai Hajabhai	Satapar	Jamjodhpur	Jamnagar	9898928096
14	Parmar Hajabhai Thobhanbhai	Satapar	Jamjodhpur	Jamnagar	9725370465
15	Dodiya Rajeshbhai Babubhai	Satapar	Jamjodhpur	Jamnagar	9558138400
16	Ulva Jesabhai Kishabhai	Satapar	Jamjodhpur	Jamnagar	8530700700
17	Parmar Rameshbhai Abhubhai	Satapar	Jamjodhpur	Jamnagar	9427433701
18	Parmar Kishorbhai Khodabhai	Satapar	Jamjodhpur	Jamnagar	8264519380
19	Parmar Hareshbhai Gandabhai	Satapar	Jamjodhpur	Jamnagar	9414557424
20	Rajput Govindlal Khengarlal	Satapar	Jamjodhpur	Jamnagar	7046114292
21	Dodiya Rudabhai Mulubhai	Satapar	Jamjodhpur	Jamnagar	9898720800
22	Parmar Jagdishbhai Arjanbhai	Satapar	Jamjodhpur	Jamnagar	7061088099
23	Dodiya Balubhai Rudabhai	Satapar	Jamjodhpur	Jamnagar	9601872688
24	Parmar Kishorbhai Khodabhai	Satapar	Jamjodhpur	Jamnagar	9624746480
25	Parmar Hareshbhai Gandabhai	Satapar	Jamjodhpur	Jamnagar	9714659484
26	Bera Markhibhai Rajabhai	Satapar	Jamjodhpur	Jamnagar	9979009732
27	Bera Rajabhai Rajshibhai	Satapar	Jamjodhpur	Jamnagar	9909529636
28	Singhal Tapubhai Mesurbhai	Satapar	Jamjodhpur	Jamnagar	6354543809
29	Bera Sarmanbhai Parbatbhai	Satapar	Jamjodhpur	Jamnagar	9979082031
30	Bera Ashmitaben Karshanbhai	Satapar	Jamjodhpur	Jamnagar	9913635553
31	Bera Gautambhai Karshanbhai	Satapar	Jamjodhpur	Jamnagar	8140195116
32	Bera Khimabhai Parbatbhai	Satapar	Jamjodhpur	Jamnagar	9979462275
33	Nandaniya Naranbhai Maldebhai	Satapar	Jamjodhpur	Jamnagar	9687965863
34	Nandaniya Shantaben Naranbhai	Satapar	Jamjodhpur	Jamnagar	9825740632
35	Bera Karshanbhai Parbatbhai	Satapar	Jamjodhpur	Jamnagar	9924643273
36	Makvana Bharatbhai Keshubhai	Aliya	Jamnagar	Jamnagar	7016063017
37	Makvana Hemantbhai Keshubhai	Aliya	Jamnagar	Jamnagar	8780690199
38	Makvana Maniben Prabhatbhai	Aliya	Jamnagar	Jamnagar	8511325056
39	Makvana Kamuben Gopalbhai	Aliya	Jamnagar	Jamnagar	8000898035
40	Makvana Sarojben Keshubhai	Aliya	Jamnagar	Jamnagar	9428320158
41	Marakna Vinodbhai Babubhai	Nana Vadala	Kalavad	Jamnagar	9898281260
42	Marakna Babubhai Ravjibhai	Nana Vadala	Kalavad	Jamnagar	-
43	Amipara Mathurbhai Ravjibhai	Nana Vadala	Kalavad	Jamnagar	7777952336
44	Savaliya Girdharbhai Chhganbhai	Nana Vadala	Kalavad	Jamnagar	9825632416
45	Savaliya Mukeshbhai Chhaganbhai	Nana Vadala	Kalavad	Jamnagar	9978775437
46	Rathod Damjibhai Dhanjibhai	Bhensadal	Dhrol	Jamnagar	9924491616

47	Rathod Natavarlal Jivrajbhai	Bhensadal	Dhrol	Jamnagar	-
48	Chotaliya Lalitbhai Narsinhbhai	Bhensadal	Dhrol	Jamnagar	-
49	Chotaliya Rameshbhai Dyaljibhai	Bhensadal	Dhrol	Jamnagar	-
50	Chotaliya Gangdashbhai Gopalbhai	Bhensadal	Dhrol	Jamnagar	-

Groundnut (GJG-32) under NMOOP SchemeCFLD (*Kharif* – 2023)

(Inputs: Groundnut Seed (GJG-32) - 30.0 kg, *Metarhizium anisopliae* – 2.0 kg, *Beauveria bassiana*-2.0 kg, *Trichoderma* - 2.0 kg, *Rhizobium* -1 Lit, PSB- 1 Lit)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Virani Nimishbhai Govindbhai	Daldevadiya	Jamjodhpur	Jamnagar	6351930149
2	Virani Laljibhai Shamjibhai	Daldevadiya	Jamjodhpur	Jamnagar	9913791942
3	Virani Harishbhai Karshanbhai	Daldevadiya	Jamjodhpur	Jamnagar	6353784342
4	Virani Mukeshbhai Karshanbhai	Daldevadiya	Jamjodhpur	Jamnagar	9429141448
5	Virani Ghanshyambhai Popatbhai	Daldevadiya	Jamjodhpur	Jamnagar	9878140844
6	Virani BHikhubhai Popatbhai	Daldevadiya	Jamjodhpur	Jamnagar	9428126367
7	Virani Jayantilal Harjibhai	Daldevadiya	Jamjodhpur	Jamnagar	9978140817
8	Virani jivanbhai Panchabhai	Daldevadiya	Jamjodhpur	Jamnagar	9328723316
9	Virani Babubhai Jadavbhai	Daldevadiya	Jamjodhpur	Jamnagar	9909897793
10	Thummar Rameshbhai Mavjibhai	Daldevadiya	Jamjodhpur	Jamnagar	9978140337
11	Thummar Mansukhbhai Mavajibhai	Daldevadiya	Jamjodhpur	Jamnagar	9979730875
12	Virani Naranbhai Limbabhai	Daldevadiya	Jamjodhpur	Jamnagar	9978149110
13	Virani Nagajibhai Valajibhai	Daldevadiya	Jamjodhpur	Jamnagar	9879414046
14	Virani Jamanbhai Valajibhai	Daldevadiya	Jamjodhpur	Jamnagar	9925421537
15	Solanki Karshanbhai Somabhai	Daldevadiya	Jamjodhpur	Jamnagar	9726626413
16	Parmar Babubhai Parbatbhai	Daldevadiya	Jamjodhpur	Jamnagar	9664566863
17	Virani Govindbhai Chhaganbhai	Daldevadiya	Jamjodhpur	Jamnagar	9512809252
18	Ramoliya Vallabhbhai Narshibhai	Daldevadiya	Jamjodhpur	Jamnagar	9825415870
19	Ajudiya Mansukhbhai Ravjibhai	Daldevadiya	Jamjodhpur	Jamnagar	9428493162
20	Ajudiya Ravjibhai Mulajibhai	Daldevadiya	Jamjodhpur	Jamnagar	9428493132
21	Jadeja Navalsinh Devajisinh	Daldevadiya	Jamjodhpur	Jamnagar	9574697047
22	Jadeja Hemantsinh Jorubha	Daldevadiya	Jamjodhpur	Jamnagar	9574697047
23	Ramoliya Ghanshyambhai Govindbhai	Daldevadiya	Jamjodhpur	Jamnagar	9624427632
24	Ramoliya Mukundbhai Mohanbhai	Daldevadiya	Jamjodhpur	Jamnagar	9978140754
25	Jadeja Balvansinh Jorubha	Daldevadiya	Jamjodhpur	Jamnagar	9725627388
26	Chhatrara Hargovindbhai Mohanbhai	Jayva	Dhrol	Jamnagar	9879117784
27	Dadhaniya Ramaben Veljibhai	Jayva	Dhrol	Jamnagar	9824239578
28	Raparka Dineshbhai Nanjibhai	Jayva	Dhrol	Jamnagar	9824361427
29	Zala Hivabhai Bhikhabhai	Jayva	Dhrol	Jamnagar	6351556253
30	Chhatrara amitbhai jayantilala	Jayva	Dhrol	Jamnagar	8469700699
31	Chhatrara Damjibhai Tejabhai	Jayva	Dhrol	Jamnagar	9726573639
32	Bhesadadiya Sevantilal Savajibhai	Jayva	Dhrol	Jamnagar	7984153398
33	Dadhaniya Champaben Dayaljibhai	Jayva	Dhrol	Jamnagar	9427657272
34	Dudhagara Jadavbhai Bhurabhai	Jayva	Dhrol	Jamnagar	6354450420
35	Mungara Mansukhbhai Pragajibhai	Jayva	Dhrol	Jamnagar	9429941423
36	Dadhaniya Govindbhai Lavajibhai	Jayva	Dhrol	Jamnagar	6353290310
37	Mungara Hansrajbhai Popatbhai	Jayva	Dhrol	Jamnagar	9427942830
38	Sudhaguniya Salimbhai Valimamadbhai	Jayva	Dhrol	Jamnagar	9824940700
39	Sinojiya Tejabhai Odhabhai	Jayva	Dhrol	Jamnagar	9727412506
40	Dadhaniya Mavajibhai Lavajibhai	Jayva	Dhrol	Jamnagar	9913925399
41	BHesadadiya Laljibhai Mohanbhai	Jayva	Dhrol	Jamnagar	9998259159
42	Jadeja Surendrasinh Ranjitsinh	Jayva	Dhrol	Jamnagar	9913393393

43	Chhatrara Mahendrabhai Mulajibhai	Jayva	Dhrol	Jamnagar	9428016802
44	Vegad Shantilal Dharmshibhai	Jayva	Dhrol	Jamnagar	9327636354
45	Ranipa Khimajibhai Narsinhbhai	Jayva	Dhrol	Jamnagar	9429466443
46	Chhatrara Bhanuben Labhubhai	Jayva	Dhrol	Jamnagar	9408535337
47	Oza Maheshbhai Gabharubhai	Jayva	Dhrol	Jamnagar	-
48	Dadhaniya Manjulaben Mavajibhai	Jayva	Dhrol	Jamnagar	9409533494
49	Dadhaniya Ashokbhai Jadavajibhai	Jayva	Dhrol	Jamnagar	-
50	Parmar Bhogilal Nanjibhai	Jayva	Dhrol	Jamnagar	6334636528

ATIC-Castor (Varietal) Kharif :2023-24, 8 ha. 20 farmers

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

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Mahendrabhai Lakhmanbhai Rathod	Satapar	Jamjodhpur	Jamnagar	9898690316
2	Rajeshbhai Karabhai Nakum	Satapar	Jamjodhpur	Jamnagar	9714559358
3	Polabhai Ratnabhai Nakum	Satapar	Jamjodhpur	Jamnagar	6353961102
4	Rajeshbhai Savdasbhai Rathod	Satapar	Jamjodhpur	Jamnagar	9724872283
5	Karshanbhai Ratnabhai Nakum	Satapar	Jamjodhpur	Jamnagar	9737557911
6	Labhuben Harilal Dhamsaniya	Falla	Jamnagar	Jamnagar	9974452723
7	Rajendrasinh Ganpatsinh Jadeja	Khandhera	Kalavad	Jamnagar	9825856916
8	Karangiya Goganbhai Jetabhai	Nanduri	Lalpur	Jamnagar	9427465055
9	Tarpara Ramnikbhai Lakshmanbhai	Khimani Sanosara	Kalavad	Jamnagar	9978138906
10	Vithalbhai Nathabhai Tarpara	Khimani Sanosara	Kalavad	Jamnagar	9340440272
11	Sureshbhai Amrutlal Bhensdadiya	Moti Banugar	Jamnagar	Jamnagar	9726905420
12	Rajnikant Mavjibhai Bhensadadiya	Moti Banugar	Jamnagar	Jamnagar	9426216346
13	Jaydipbhai Gordhanbhai Sanghani	Majoth	Dhrol	Jamnagar	9898654599
14	Kiritbhai Gordhanbhai Sanghani	Majoth	Dhrol	Jamnagar	9974026865
15	Jerambhai Mavjibhai Dudhagara	Majoth	Dhrol	Jamnagar	9898102451
16	Girdharbhai Harkhabhai Panara	Jasapar	Jodia	Jamnagar	9904856966
17	Jadabhai Raghubhai Parmar	Jivapar	Jamnagar	Jamnagar	9427773898
18	Irfanbhai Gulmamadbhai Sapiya	Nana Khadba	Lalpur	Jamnagar	9825067286
19	Maheshbhai Kalyanjibhai Nakum	Shekhpat	Jamnagar	Jamnagar	9879849303
20	Nathabhai Premjibhai Sanghani	Theba	Jamnagar	Jamnagar	9898814305

Pearl millet- KVK Scheme, Summer 2023-24

(Inputs: Pearl millet Seed (GHB-1129)

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Bhanderi Kaushikbhai Chandubhai	Matva	Jamnagar	Jamnagar	9909491764
2	BHanderi Jayantibhai Lakhabhai	Matva	Jamnagar	Jamnagar	9825990270
3	Bhanderi Kishorbhai Ladhabhai	Matva	Jamnagar	Jamnagar	9924590385
4	Varsani Bhikhabhai Jerambhai	Matva	Jamnagar	Jamnagar	8347508086
5	Sanghani Jamanbhai Damjibhai	Matva	Jamnagar	Jamnagar	9727583981
6	Dhameliya Mukeshbhai Vitthalbhai	Matva	Jamnagar	Jamnagar	9879397207
7	Dhameliya Lakhamanbhai Manjibhai	Matva	Jamnagar	Jamnagar	9974780909
8	Nariya Viatthalbhai Chanabhai	Sarvaniya	Kalavad	Jamnagar	9909651923
9	Baraiya Dharmeshbhai Parshottambhai	Jashapar	Jodiya	Jamnagar	9733514996
10	Panara Jaysukhbhai Harkhabhai	Jashapar	Jodiya	Jamnagar	9544759656

Wheat (GW-451) FLDs under KVK Scheme Rabi 2023-24

(Inputs: GW-451 seed – 40 kg)

Sr.No.	Name	Village	Taluka	District	Cell Number
1	Kantilal Arjanbhai Hinsu	Kharva	Dhrol	Jamnagar	9904600672
2	Dakshaben Rameshbhai Hinsu	Kharva	Dhrol	Jamnagar	
3	Rameshbhai Shamjibhai Hinsu	Kharva	Dhrol	Jamnagar	9925303747
4	Bhagvanjibhai Jethabhai Hinsu	Kharva	Dhrol	Jamnagar	9228210268
5	Mansukhbhai Shamjibhai Ghetiya	Kharva	Dhrol	Jamnagar	9924949886
6	Jentilal Makanbhai Ghetiya	Kharva	Dhrol	Jamnagar	9904198624
7	Arvindbhai Nanjibhai Ghetiya	Kharva	Dhrol	Jamnagar	9714932250
8	Hareshbhai Shamjibhai Sapovadiya	Kharva	Dhrol	Jamnagar	9879065276
9	Devshibhai Shamjibhai Sapovadiya	Kharva	Dhrol	Jamnagar	9979975590
10	Rakeshbhai Shamjibhai Sapovadiya	Kharva	Dhrol	Jamnagar	9825773299

AJWAIN FLDs under KVK Scheme Kharif 2023

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

Sr. No.	Name	Village	Taluka	District	Cell Number
1	Gambhava Ratilal Ghelabhai	Jamdudhai	Jodiya	Jamnagar	8320656001
2	Mendpara Ratilal Thakarshibhai	Jamdudhai	Jodiya	Jamnagar	9713050268
3	Mendpara Mukeshbhai Mulajibhai	Jamdudhai	Jodiya	Jamnagar	9979383639
4	Gambhava Devajibhai Govindbhai	Jamdudhai	Jodiya	Jamnagar	9925450825
5	Gambhava Narbherambhai popatbhai	Jamdudhai	Jodiya	Jamnagar	9726772961
6	Gambhava Dineshbhai Becharbhai	Jamdudhai	Jodiya	Jamnagar	9925396169
7	Gambhava Dineshbhai Jadavajibhai	Jamdudhai	Jodiya	Jamnagar	9913393341
8	Gambhava Kantilal Veljibhai	Jamdudhai	Jodiya	Jamnagar	9726720387
9	Gambhava Jadavajibhai Premajibhai	Jamdudhai	Jodiya	Jamnagar	9724377785
10	Gambhava Mukeshbhai Ladhabhai	Jamdudhai	Jodiya	Jamnagar	9879661268

ATIC - Cumin (IPM) Rabi 2023-24 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	Maheshbhai Girdharbhai Chhatrara	Jayva	Dhrol	Jamnagar	9067768919
2	Chamanbhai Tapubhai Bhensdadiya	Jayva	Dhrol	Jamnagar	9426047042
3	Salim Valimamad Sudhaguniya	Jayva	Dhrol	Jamnagar	9824940700
4	Asvinbhai Rugnathbhai Dadhaniya	Jayva	Dhrol	Jamnagar	8849568480
5	Mavjibhai Lavjibhai Dadhaniya	Jayva	Dhrol	Jamnagar	9913925311
6	Govindbhai Lavjibhai Dadhaniya	Jayva	Dhrol	Jamnagar	6353290310
7	Husenbhai Hasambhai Sumra	Jayva	Dhrol	Jamnagar	6351618128
8	Tejabhai Odhavajibhai Sinojiya	Jayva	Dhrol	Jamnagar	9327412506
9	Nileshbhai Ramjibhai Chhatara	Jayva	Dhrol	Jamnagar	6354091261
10	Sureshbhai Shantilal Vegad	Jayva	Dhrol	Jamnagar	8320916579
11	Muktaben Ganeshbhai Mungra	Jayva	Dhrol	Jamnagar	9106036686
12	Kishorbhai Gangdasbhai Dadhaniya	Jayva	Dhrol	Jamnagar	9428861296
13	Jadavajibhai Bhurabhai Dudhagara	Jayva	Dhrol	Jamnagar	6354450420
14	Virsodiya Maheshbhai Mohanbhai	Jayva	Dhrol	Jamnagar	9428986829
15	Maheshbhai Gabhru Oza	Jayva	Dhrol	Jamnagar	9428865366
16	Jentilal Ratilal Chhatrara	Jayva	Dhrol	Jamnagar	9979574515
17	Parsotambhai Ladhabhai Mungara	Jayva	Dhrol	Jamnagar	9428059056
18	Ganeshbhai Jadavajibhai Mungara	Jayva	Dhrol	Jamnagar	8200622722
19	Laljibhai Avacharbhai Virsodiya	Jayva	Dhrol	Jamnagar	8401215315

20	Nagjibhai Ravjibhai Bhensdadiya	Jayva	Dhrol	Jamnagar	9408033244

ATIC-Coriander (IPM) (Rabi 2023-24) 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	Mansukhbhai Kheemabhai Hirpara	Sadodar	Jamjodhpur	Jamnagar	9974542244
2	Govindbhai Boghabhai Bamrotiya	Sadodar	Jamjodhpur	Jamnagar	9904019308
3	Mukeshbhai Khimabhai Hirpara	Sadodar	Jamjodhpur	Jamnagar	9825581821
4	Dhanjibhai Bavanjibhai Bamrotiya	Sadodar	Jamjodhpur	Jamnagar	9978351687
5	Bheekhabhai Ukabhai Gadhethariya	Sadodar	Jamjodhpur	Jamnagar	9687280446
6	Bansibhai Dhirajlal Bhimani	Sadodar	Jamjodhpur	Jamnagar	7069581328
7	Hansaben Mahendrabhai Kambariya	Sadodar	Jamjodhpur	Jamnagar	9909659653
8	Bhavanbhai Dhanabhai Dudhagara	Sadodar	Jamjodhpur	Jamnagar	7600069585
9	Hareshbhai Bheekhabhai Hirpara	Sadodar	Jamjodhpur	Jamnagar	9727458162
10	Malviya Dhirubhai Popatbhai	Sadodar	Jamjodhpur	Jamnagar	9313028953
11	Arvindbhai Bhadabhai Gadhethariya	Sadodar	Jamjodhpur	Jamnagar	9724627668
12	Karabhai Ukabhai Bamrotiya	Sadodar	Jamjodhpur	Jamnagar	9724498174
13	Mansukhbhai Amrashibhai Bhadru	Sadodar	Jamjodhpur	Jamnagar	9727151267
14	Motiben Karabhai Bera	Sadodar	Jamjodhpur	Jamnagar	9978351806
15	Govindbhai Nathabhai Pagda	Sadodar	Jamjodhpur	Jamnagar	6353348209
16	Devsibhai Bhimsibhai Bamrotiya	Sadodar	Jamjodhpur	Jamnagar	9662745297
17	Anilbhai Sumatbhai Bamrotiya	Sadodar	Jamjodhpur	Jamnagar	9974414976
18	Hiteshbhai Laljibhai Sorathiya	Sadodar	Jamjodhpur	Jamnagar	9898353494
19	Rajabhai Hirabhai Bhusa	Sadodar	Jamjodhpur	Jamnagar	9978386247
20	Khimabhai Raghavbhai Hirpara	Sadodar	Jamjodhpur	Jamnagar	9825581821

Cotton FLDs under KVK Scheme Kharif : 2023

(Inputs: Beauvaria -1.0 kg, S-NPV -250.0 ml, Azadirachtin -1 lit, Lambda cyhalothrin - 1 li.)

Sr. No.	Name	Village	Taluka	District	Mobile No.
1	Piyushbhai Chhaganbhai Kagathara	Khengaraka	Dhrol	Jamnagar	97258844404
2	Chhaganbhai Tikubhai Kagathara	Khengaraka	Dhrol	Jamnagar	9998721919
3	Ashokbhai Ajibhai Kagathara	Khengaraka	Dhrol	Jamnagar	7600881400
4	Bipinbhai Karubhai Kagathara	Khengaraka	Dhrol	Jamnagar	9998252922
5	Narendrabhai Alabhai Kagathara	Khengaraka	Dhrol	Jamnagar	9998452575
6	Becharbhai Ajibhai Kagathara	Khengaraka	Dhrol	Jamnagar	9898911891
7	Lavjibhai Parsotambhai Kagathara	Khengaraka	Dhrol	Jamnagar	9898216009
8	Jigneshsinh Ajitsinh Jadeja	Khengaraka	Dhrol	Jamnagar	9724558542
9	Rameshbhai Ambabhai Kagathara	Khengaraka	Dhrol	Jamnagar	9727080933
10	Divyrajsinh Vijaysinh Jadeja	Khengaraka	Dhrol	Jamnagar	7600249053
11	Dayaljibhai Devjibhai Gadara	Khengaraka	Dhrol	Jamnagar	9724558499
12	Pravinsinh Batukbha Jadeja	Khengaraka	Dhrol	Jamnagar	9898336560
13	Dahyabhai Ramjibhai Gadara	Khengaraka	Dhrol	Jamnagar	9998257709
14	Jayntibhai Ajibhai Kagathara	Khengaraka	Dhrol	Jamnagar	7046634668
15	Prafulbhai Bhavanbhai Kagathara	Khengaraka	Dhrol	Jamnagar	9429119914
16	Dhirubhai Mohanbhai Bhalodiya	Khengaraka	Dhrol	Jamnagar	7600881099
17	Mahendrabhai Muljibhai Chhatrara	Jayva	Dhrol	Jamnagar	9428016802
18	Tejabhai Odhabhai Sinojiya	Jayva	Dhrol	Jamnagar	9727412506
19	Dineshbhai Nanjibhai Raparaka	Jayva	Dhrol	Jamnagar	9824361427
20	Damjibhai Tejabhai Chhatrara	Jayva	Dhrol	Jamnagar	9725673639

21	Hansrajbhai Popatbhai Mungara	Jayva	Dhrol	Jamnagar	9927942830
22	Arvindbhai nanjibhai Ghetiya	Kharva	Dhrol	Jamnagar	9714932250
23	Devshibhai Nanjibhai Sapovadiya	Kharva	Dhrol	Jamnagar	9979975590
24	Hareshbhai Shamjibhai Sapovadiya	Kharva	Dhrol	Jamnagar	9879065276
25	Bhagvanjibhai Jethabhai Hinsu	Kharva	Dhrol	Jamnagar	9228210268

ATIC-Brinjal (GRB-5) (Rabi 2023-24) 2 ha. 5 farmers

(Inputs: Brinjal GRB-5 seed – 25 gm)

Sr.No.	Name	Village	Taluka	District	Mobile No.
1	Thakarshibhai Rupabhai Parmar	Dhrol	Dhrol	Jamnagar	9979360540
2	Maganbhai Kachrabhai Nakum	Dhrol	Dhrol	Jamnagar	9426780996
3	Natubha Bhagvanjibha Jadeja	Sodha Targhadi	Khambhaliya	Devbhumi Dwarka	9712613343
4	Devrambhai Madhabhai Rathod	Singach	Lalpur	Jamnagar	9978756436
5	Masura Bharmalbhai Mansurbhai	Parodiya	Khambhaliya	Devbhumi Dwarka	9723207630

Kitchen gardening – KVK, Kharif- 2022, Ha.-4, No. of Farmers-50

(Inputs : Different vegetable seed packets - Brinjal GRB-7; Lady's Finger GJO-6; 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(PNB); Bitter Gourd; Ridge Gourd(GRB-2); Spinach, Amaranths, Chilli, Radish and Beauveria Bassiana)

S.N.	Farmer name	Village	Taluka	District	Mobile No.
1	Baraiya Arpitaben hasmukhbhai	Mansar	Dhrol	Jamnagar	
2	Gadara Ramaben Pravinbhai	Mansar	Dhrol	Jamnagar	8511419048
3	Gadara Manjuben Chhaganbhai	Mansar	Dhrol	Jamnagar	
4	Vijyaben Vallabhbhai Ramoliya	Mansar	Dhrol	Jamnagar	7567726301
5	Samjuben Aanandbhai Baraiya	Mansar	Dhrol	Jamnagar	9727672162
6	Ramoliya Chandrikaben Ashvinbhai	Mansar	Dhrol	Jamnagar	9978392983
7	Shilpaben Pravinbhai Kagathara	Mansar	Dhrol	Jamnagar	9979462546
8	Jashuben Ganeshbhai Baraiya	Mansar	Dhrol	Jamnagar	7048222869
9	Lataben Sundarajibhai Baraiya	Mansar	Dhrol	Jamnagar	9913393450
10	Jignashaben Piyushbhai Kagathara	Mansar	Dhrol	Jamnagar	6354903819
11	Savitaben Murjibhai Viramgama	Mansar	Dhrol	Jamnagar	9727622526
12	Pravinaben Harsukhbhai Baraiya	Mansar	Dhrol	Jamnagar	9979046361
13	Veliben Premjibhai Ramoliya	Mansar	Dhrol	Jamnagar	9725990993
14	Meenaben Dilipbhai Ramoliya	Mansar	Dhrol	Jamnagar	8128772252
15	Ranjanben Sureshbhai Ramoliya	Mansar	Dhrol	Jamnagar	9712581209
16	Geetaben Rasikbhai Gadara	Mansar	Dhrol	Jamnagar	7228818336
17	Sonalben Raghavjibhai Bhundiya	Mansar	Dhrol	Jamnagar	9978267103
18	Manjulaben Lakhmanbhai Bediya	Mansar	Dhrol	Jamnagar	
19	Jamkuben Karamashibhai Baraiya	Mansar	Dhrol	Jamnagar	
20	Rajniben Dheerubhai Ramoliya	Mansar	Dhrol	Jamnagar	9726161029
21	Hansaben Laljibhai Bediya	Mansar	Dhrol	Jamnagar	
22	Rasilaben Chandubhai Bediya	Mansar	Dhrol	Jamnagar	9879126973
23	Gauriben Kantilal Ramoliya	Mansar	Dhrol	Jamnagar	9974013686
24	Jasuben Mansukhbhai Bediya	Mansar	Dhrol	Jamnagar	9712672244
25	Neetaben Jiteshbhai Viramgama	Mansar	Dhrol	Jamnagar	9998890813
26	Kanchanben Hasmukhbhai Bhuva	Sonvadiya	Jamjodhpur	Jamnagar	9408164774
27	Urvishaben Kevalbhai Bavariya	Sonvadiya	Jamjodhpur	Jamnagar	9879322944

28	Narmadaben Gordhanbhai Sapariya	Sonvadiya	Jamjodhpur	Jamnagar	9408238125
29	Radhuben Mukeshbhai Kadivar	Sonvadiya	Jamjodhpur	Jamnagar	9409698473
30	Beenaben Kiritbhai Kadivar	Sonvadiya	Jamjodhpur	Jamnagar	6353867334
31	Hansaben Chandubhai Bechara	Sonvadiya	Jamjodhpur	Jamnagar	9824409268
32	Geetaben jentibhai Ramani	Sonvadiya	Jamjodhpur	Jamnagar	9727161513
33	Jayshriben Rupeshbhai Sapariya	Sonvadiya	Jamjodhpur	Jamnagar	9712276472
34	Manjuben Raydebhai Vasara	Sonvadiya	Jamjodhpur	Jamnagar	7862900963
35	Kantaben Ashvinbhai Bechara	Sonvadiya	Jamjodhpur	Jamnagar	9408535029
36	Champaben Sureshbhai Javiya	Sonvadiya	Jamjodhpur	Jamnagar	9327035114
37	Bhartiben Narendrabhai makavana	Sonvadiya	Jamjodhpur	Jamnagar	6351425312
38	Payalben Punitbhai Javiya	Sonvadiya	Jamjodhpur	Jamnagar	7016830049
39	Ilaben Rajeshbhai Padaliya	Sonvadiya	Jamjodhpur	Jamnagar	7862954949
40	Manjulaben Kishorbhai Ramani	Sonvadiya	Jamjodhpur	Jamnagar	9408230496
41	Dakshaben Sureshbhai Javiya	Sonvadiya	Jamjodhpur	Jamnagar	9904852401
42	Dakshaben Ashokbhai Kadivar	Sonvadiya	Jamjodhpur	Jamnagar	9016068864
43	Chetnaben Sohagbhai Bavariya	Sonvadiya	Jamjodhpur	Jamnagar	9427572064
44	Varshben Denishbhai Kadavala	Sonvadiya	Jamjodhpur	Jamnagar	8141588343
45	Rinkalben Dharmeshbhai Javiya	Sonvadiya	Jamjodhpur	Jamnagar	7862951030
46	Chandrikaben Manjibhai Javiya	Sonvadiya	Jamjodhpur	Jamnagar	8799097874
47	Chetnaben Bhupatbhai Kadivar	Sonvadiya	Jamjodhpur	Jamnagar	9408251620
48	Shilpaben Sagarbhai Kadivar	Sonvadiya	Jamjodhpur	Jamnagar	7016058978
49	Vanitaben Devendrabhai Bechara	Sonvadiya	Jamjodhpur	Jamnagar	9409390581
50	Vibhaben Dharmeshbhai Bechara	Sonvadiya	Jamjodhpur	Jamnagar	9316135409

KVK-Cotton Picking Apron (Kharif :2023-24) 2 ha. 5 farmers

(Inputs: Cotton Picking Apron -1)

S.N.	Farmer name	Village	Taluka	District	Mobile No.
1	Chovatiya Ansuyaben Gulabbhai	Mota Thavariya	Jamnagar	Jamnagar	9998181331
2	Induben Kamleshbhai Chovatiya	Mota Thavariya	Jamnagar	Jamnagar	9723477488
3	Narmadaben Pravinbhai Chovatiya	Mota Thavariya	Jamnagar	Jamnagar	9714015632
4	Bansiben Gopalbhai Chovatiya	Mota Thavariya	Jamnagar	Jamnagar	7890500357
5	Joshnaben Bharatbhai Chovatiya	Mota Thavariya	Jamnagar	Jamnagar	9924028829

KVK- Solar cooker (2023-24) 5 farm women

(Inputs: Solar cooker -1)

S. No.	Farmer name	Village	Taluka	District	Mobile No.
1	Aghera Kailasben Devjibhai	Katda	Dhrol	Jamnagar	9913596922
2	Aghera Nehalben Maheshkumar	Katda	Dhrol	Jamnagar	9558842421
3	Akbari Bhavanaben Hareshbhai	Katda	Dhrol	Jamnagar	9725809520
4	Marakana Meenaben Dipakbhai	Katda	Dhrol	Jamnagar	7096729234
5	Aghera Asmitaben Amarashibhai	Katda	Dhrol	Jamnagar	9081348153

Annexure-III

10.3 Result of Technical Project Proposal (Home Science)

Technical Project 1 (Home Science)

Title : Knowledge of farm women about kitchen gardening in Jamnagar and Devbhumi Dwarka districts

Principle investigator

1. Smt. A. K. Baraiya Scientist (Home Science), KVK, JAU, Jamnagar

Co-investigator

1. Dr. K. P. Baraiya, Senior Scientist & Head, KVK, JAU, Jamnagar
2. Dr. N. B. Jadav, Director of Extension Education, JAU, Junagadh
3. Dr. H. M. Gajipara, Ex. Director of Extension Education, JAU, Junagadh

INTRODUCTION :

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. But still, they lack in adequate consumption of vitamins and minerals because of unorganized cultivation of vegetables. The importance of vegetables in daily diets and its low availability, the Krishi Vigyan Kendra has conducted various training and demonstrations on kitchen gardening in an entire districts. Keeping in this view, it is worthwhile to measure the knowledge and adoption level of kitchen gardening beneficiaries.

OBJECTIVES

1. To study the profile of respondents
2. To measure the knowledge level of farm women about kitchen gardening
3. To access adoption level of respondents about kitchen gardening
4. To identify the constraints faced by respondents in adoption of kitchen gardening

METHODOLOGY

The study was conducted in Jamnagar and Devbhumi Dwarka districts. In which three blocks Jodia, Dhrol of Jamnagar District and Khambhaliya of Devbhumi Dwarka district were selected purposively based on kitchen gardening beneficiaries. From each block five villages were selected and from each selected villages twenty women respondents were selected randomly for the study. Thus, total 300 women was constituting the sample size for this study. For collection of the data personal interview technique was used. Data was collected with the help of structured interview schedule. Frequencies, percentage and mean score was used for analysing the data statistically.

District Name	Taluka Name	Village Name	No. of Respondent
Jamnagar	Jodiya	Bhadara, Kesiya,Jodia, Anada, Limbuda	100
Jamnagar	Dhrol	Khengaraka, Katda, Jayva, Majoth, Mansar	100
Devbhumi Dwarka	Khambhaliya	Samor, Kesod, Zakasiya, Viramdad, Shaktinagar	100
Total	**3**	**15**	**300**

RESULTS AND DISCUSSION

1. Profile of the respondents

Table 1: Personal Characteristics of respondents Rural Women (n=300)

Sr. No.	Personal Characteristics	Frequency	Percentage
1	**Age**		
	a) Young age (18 – 35 years)	70	23.33
	b) Middle age (36 – 50 years)	188	62.67
	c) Old age (50 above)	42	14.00
2	**Education**		
	a) Illiterate	12	4.00
	b) Primary (up to VII Std.)	59	19.67
	c) Secondary School (VIII to X Std.)	78	26.00
	d) Higher Secondary (XI &XII Std.)	48	16.00
	e) Graduate	84	28.00
	f) Post graduate	19	6.33
3	**Family structure**		
(i)	Family Type		
	a) Nuclear	147	49.00
	b) Joint	153	51.00
(ii)	Family Size		
	a) Small (up to 4)	144	48.00
	b) Medium (5-8)	141	47.00
	c) Large (above 8)	15	5.00
4	**Occupation**		
	a) Farming	123	41.00
	b) Farming + Animal Husbandry	127	42.33
	c) Farm Labour	12	4.00
	d) Farming + other activity	38	12.67
5	**No. of animals**		
	a) No animal	173	57.67
	b) Up to 1 animals	65	21.67
	c) 2 to 5 animals	41	13.67
	d) Above 5 animals	21	7.00
6	**Annual income**		
	a) Low annual income (up to Rs. 1 Lakh)	15	5.00

	b) Medium annual income (Rs. 1 to 2 lakh)	132	44.00
	c) High annual income (Rs. 2 to 5 Lakh)	99	33.00
	d) Very high annual income (Above Rs. 5 Lakh)	54	18.00

Table 1 revealed that the majority (62.67 per cent) of respondents were middle age group (36 to 50 years), while, 23.33 per cent and 14.00 percent of the respondents were from young age group (18 to 35 years) and old age group (above 50 years), respectively.

In case of education level 28.00 per cent of the respondents educated up to graduate level, 26.00 per cent of the respondents educated secondary school level, while, 19.67 per cent respondents from primary standards group, 16.00 per cent respondents were from higher secondary and only 06.33 per cent of respondents educated up to post graduate and 04.00 per cent respondents were illiterate.

Looking to the family structure, 51.00 per cent respondents lived in joint family, followed by 49.00 per cent respondents were lived in nuclear family. Similar way, 48 per cent of the respondents had small size of family followed by 47 per cent and 05.00 per cent respondents had medium and large size of the family, respectively.

According to family occupation the majority (42.33 per cent) of farm women were engaged in agriculture + animal husbandry field, whereas 41.00 per cent of farm women were engaged in agriculture, 12.67 per cent of farm women in farming + service and only 04.00 per cent of farm women were engaged as farm labor. Along with the occupation number of animal keeping groups only 07.00 per cent farm women have more than 5 animals, 13.67 per cent farm women having 2 to 5 animals, 21.67 per cent farm women having only one animal and more than half (57.67 per cent) of farm women having no animals.

According to annual income majority (44 per cent) had medium annual income (Rs. 1 to 2 lakh) followed by, 33 per cent and 18 per cent had high annual income (Rs. 2 to 5 Lakh) and very high annual income (Above Rs. 5 Lakh), respectively. Only 05.00 per cent had very low annual income (up to Rs. 1 Lakh).

2. Use of Mass media for increasing the knowledge

How frequently do you use the following mass media for kitchen gardening cultivation?

Table 2: Distribution of respondents according to their use of mass media (n=300)

Sr. No.	Mass Media Exposure	Regularly (4)	Once in a week (3)	Frequently (2)	Not at all (1)	Mean Score	Rank
1	Radio	0	2	7	291	1.04	IX
2	Television	148	60	54	38	3.06	II
3	News paper	4	16	124	156	1.56	V
4	Printed literature	15	52	120	113	1.89	IV
5	Agril. Exhibition	2	4	85	209	1.33	VIII
6	Demonstration	0	0	118	182	1.39	VI
7	University level (KVK)	40	64	34	162	1.94	III
8	Kisan call center	0	0	103	197	1.34	VII
9	Social media	162	68	40	30	3.20	I

It can be concluded from table 2, social media was proved the most favorite of each and every woman. It stands on first rank for media usage with 3.20 mean score. Another media usages

chronologically, television stand second rank (3.06), University level (KVK) stand third rank (1.94), printed literature stands fourth rank (1.89), visit to newspaper stand fifth rank (1.56), demonstration in village were stand sixth rank (1.39), kishan call centre stands on seventh rank (1.34), agricultural exhibition stand on eighth rank (1.33) and radio stand last rank (1.04) for mass media usage by farm women. These finding can be proven that very few respondents were use radio.

3. Knowledge of farm women regarding kitchen gardening

In India nearly 75.00 per cent of the population lives in rural areas. These rural women especially belonging to agricultural families are mostly engaged in agriculture activities with household responsibilities like kitchen gardening, animal keeping, cooking, cleaning, care of family members especially children and adults.

In the present study knowledge refers to know-how about the different practices of kitchen gardening adopted by the farm women. Adequate knowledge is essential to farm women for the successful and profitable kitchen gardening. It was therefore thought necessary to obtain information from the farm women regarding knowledge about kitchen gardening. The data regarding level of knowledge are given in table 3.

Table 3: Distribution of respondents according to their level of knowledge regarding kitchen gardening. (n=300)

Sr. No.	Level of Knowledge	Frequency	Per cent
1	Low level of knowledge (<Mean – S.D.)	52 (up to 6.34)	17.33
2	Medium level of knowledge (Mean ± S.D.)	204 (6.34 to 12.11)	68.00
3	High level of knowledge (>Mean + S.D.)	44 (above 12.11)	14.67
	Total	**300**	**100**
Mean = 9.23			**S. D. = 2.89**

It can be observed from the table 3 that majority (68.00 per cent) of the farm women had medium level of knowledge regarding kitchen gardening, while 17.33 per cent and 14.67 per cent of the farm women had low and high level of knowledge regarding kitchen gardening, respectively. The probable reason might be that most of the farm women were educated and medium level of mass media exposure, so that they could easily understand and acquire skills and knowledge about kitchen gardening.

4. Adoption of farm women regarding kitchen gardening

Adoption level of farm women regarding kitchen gardening was calculated based on maximum score obtained by them. Farm women were classified into three categories on the basis of mean and standard deviation as low, medium and high adoption.

Table 4: Distribution of respondents according to their level of knowledge regarding kitchen gardening. (n=300)

Sr. No.	Level of Adoption	Frequency	Per cent
1	Low level of adoption (<Mean – S.D.)	52 (up to 6.27)	18.67

2	Medium level of adoption (Mean ± S.D.)	204 (6.27 to 12.49)	65.33
3	High level of adoption (>Mean + S.D.)	44 (above 12.49)	16.00
	Total	**300**	**100**
Mean = 9.38			**S. D. = 3.11**

It can be observed from the table 4 that majority (65.33 per cent) of the farm women had medium level of adoption regarding kitchen gardening, while 18.67 per cent and 16.00 per cent of the farm women had low and high level of adoption regarding kitchen gardening, respectively. The probable reason might be that most of the farm women were educated, they had medium level of mass media exposure and knowledge regarding the kitchen gardening.

5. Association between level of knowledge about kitchen gardening and profile of the respondents

In the present study the knowledge of farm women regarding kitchen gardening was considered as dependent variable. The selected characteristics were considered as independent variables. The correlation co-efficient (r value) was used with a view to find out the relationship between dependent and independent variables.

Table 5: Correlation between knowledge about kitchen gardening and the independent variable (n=300)

Sr. No.	Name of independent variable	r - Value
1	Age	-0.1159*
2	Education	0.2123**
3	Family type	0.1038^{NS}
4	Family size	0.0940^{NS}
5	Occupation	0.1352*
6	No. of animals	0.1239*
7	Annual income	0.1460*
8	Use of mass media	0.2025**

The data presented in table 5 revealed that there was negative and significant relationship between the age and knowledge of farm women regarding kitchen gardening. Education and use of mass media had positive and highly significant relationship with the knowledge regarding kitchen gardening. While, occupation, no. of animals and annual income had positive and significant relationship with the knowledge. Family type and family size had non-significant relationship with the knowledge of farm women regarding kitchen gardening.

6. Association between level of adoption about kitchen gardening and profile of the respondents

In the present study the level of adoption of farm women regarding kitchen gardening was considered as dependent variable. The selected characteristics were considered as independent variables. The correlation co-efficient (r value) was used with a view to find out the relationship between dependent and independent variables.

Table 6: Correlation between adoption about kitchen gardening and the independent variable (n=300)

Sr. No.	Name of independent variable	r - Value
1	Age	-0.1242*
2	Education	0.2056**
3	Family type	0.0670^{NS}
4	Family size	0.1040^{NS}
5	Occupation	0.1275*
6	No. of animals	0.1365*
7	Annual income	0.1196*
8	Use of mass media	0.1563**

The data presented in table 6 revealed that there was negative and significant relationship between the age and adoption of farm women regarding kitchen gardening. Education and use of mass media had positive and highly significant relationship with the adoption regarding kitchen gardening. While, occupation, no. of animals and annual income had positive and significant relationship with the adoption. Family type and family size had non-significant relationship with the adoption of farm women regarding kitchen gardening.

6. Major constraints perceived in the establishment of kitchen gardening

Constraints in establishment of kitchen gardening never end. However, they can be minimized. The farm women were requested to express the constraints faced by them in adoption of kitchen gardening. Frequency and percentage for each constraint were calculated and on that basis, the constraints were ranked and presented in table 6.

Table 6: Constraints perceived in the establishment of kitchen gardening (n=300)

Sr. No.	Constraints	Frequency	Percentage	Rank
1	Water crises for irrigation	189	63.00	III
2	Lack of technical knowledge about kitchen gardening	137	45.67	V
3	Difficult to control of pest and diseases in kitchen gardening	250	83.33	I
4	Lack of awareness about nutritional value of vegetable	154	51.33	IV
5	Less priority to kitchen gardening as compare to other farm activity	233	77.67	II

The different constraints faced by the farm women in establishment of kitchen gardening were; difficult to control of pest and diseases in kitchen gardening was ranked first (83.33 per cent); less priority to kitchen gardening as compare to other farm activity was ranked second (77.67 per cent); water crises for irrigation was ranked third (63.00 per cent); lack of awareness about nutritional value of vegetable was ranked fourth (51.33 per cent) and lack of technical knowledge about kitchen gardening was ranked fifth (45.67 per cent).

7. Suggestions from respondents to overcome the constraints faced by them in establishment of kitchen garden (n=300)

An attempt was made to ascertain the suggestions from farm women to overcome various constraints faced by them in establishment of kitchen garden. The farm women were requested to offer their valuable suggestions against difficulties faced by them in the establishment of kitchen garden. The data were collected and summarized in table 7.

Table 7: Suggestions given by the respondents to overcome constraints faced by them (n=300)

Sr. No.	Suggestions	Frequency	Percentage	Rank
1.	Arrange training on kitchen gardening and nutritional management in crop growing	242	80.67	I
2.	Give training on reduce hazardous effect of chemical fertilizers and pesticides on human health through kitchen gardening	214	71.33	II
3.	Training on natural farming techniques for IPM and IDM.	200	66.68	III
4.	Training on nutritional value of vegetables from kitchen gardening	172	57.33	IV
5.	Training on effect of pesticides causes diseases in human being and animals	146	48.67	V

The data in table 7 revealed that the valuable suggestions given by respondents to overcome the constraints faced by them in establishment of kitchen garden were; arrange training on kitchen gardening and nutritional management in crop growing was ranked I (80.67 per cent); give training on reduce hazardous effect of chemical fertilizers and pesticides on human health through kitchen gardening was ranked II (71.33 per cent); training on natural farming techniques for IPM and IDM was ranked III (66.68 per cent); training on nutritional value of vegetables from kitchen gardening was ranked IV (57.33 per cent) and training on effect of pesticides causes diseases in human being and animals was ranked V (48.67 per cent).

CONCLUSION

It can be concluded that the majority of farm women belonged to the middle age group, had educated up to graduation level, majority of farm women doing farming along with animal husbandry practices, more than half population have no animals, majority of farm women had medium annual income ranges from 1 to 2 lakhs, majority lived in small family but they belong to a joint family also. Social media and television are the important source of mass media for knowledge gain. Majority of the respondents had medium level of knowledge and adoption about kitchen gardening. Variables like use of mass media, education, no. of animals annual income and occupation had positive and significant relationship with the knowledge and adoption regarding kitchen gardening. Majority of farm women faced constraints like difficult to control pest and diseases in kitchen gardening, less priority to kitchen gardening as compare to other farm activity and water crisis for irrigation. Suggestions given by the farm women were arrange training on kitchen gardening and nutritional management in crop growing, give training on reduce hazardous effect of chemical fertilizers and pesticides on human health through kitchen gardening.

MESSAGE

Create awareness about kitchen gardening, extension functionaries should advised to conduct training programme on kitchen gardening and selection of trainee based on higher education, more numbers of animal possession and more mass media contact farmers.

ANNUAL ACTION PLAN
(January 2024 to December 2024)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1. Details of Operational area/ Villages (2024 to 2026)

Sl No	Taluka	Name of the village	Major crops & enterprises	Major problem identified	Identified thrust area
1	Jodia	Vavadi, Beraja, Bhadra, Bhimkata, Manamora	Cotton, groundnut, sesame, castor, greengram, wheat, Gram, cumin, Ajwain, mustard, Soyabean, Vegetable, Fruit crops flowers, live-stock etc	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 - Soil Reclamation - Farm women empowerment - Farm mechanization - Natural farming - Value addition
2	Lalpur	Nani Rafudad, Vadpanchasara, Baghla, Nanduri, Ishwariya			
3	Dwarka	Tunpani, Gorinja, Positra, Vasai, Kalyanpur			

2. Priority thrust areas

Sl. No	Crop/ Enterprise	Thrust area
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ Whitegrub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micronutrient management in wheat
2.	Organic/Natural farming	Enhancement of organic/natural 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.	Improved Implements	Popularization of the mechanized technological know how
8.	Plant protection	Pinkboll worm in cotton and white grub in groundnut,
9.	Horticultural area	Enhancement of pomegranate, date palm, draganfruit,
10	Storage facility	Requirement of storage techniques and value addition in farm produce
11.	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 / Summary of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
4	12	178.4	491

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
36	1440	229	17557

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (kg)	Soil Samples
(5)	(6)	(7)	(8)
138.50	1700	0	350

3.2. Details of On Farm Trial / Technology Assessment/Refinement during 2023

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT
1	Brinjal	Infestation of sucking pests in Brinjal	Management of Brinjal whitefly
2	Chickpea	Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar
3	Groundnut	Heavy incidence of leaf spot & rust in later stage	Management of foliar diseases in groundnut
4	Home Science	Anemia due to iron deficiency and Arthritis due to calcium deficiency in women	Assessment of hemoglobin and calcium level through drumstick leaf powder and amla

B. Details of On Farm Trial / Technology Assessment during 2024

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
1	Brinjal	Heavy infestation of leaf sucking pest was found	**Management of brinjal whitefly**	**(Farmers practices).** Injudicious use of insecticides. (Spray insecticides at weekly interval)	FP				3		1.Record no. of whitefly per leaf 2. Yield data.	Dr. K.P.Baraiya
				2. **Recommendation)**Three sprays of chlorantraniliprole 18.5 SC, 0.002 %, 1.08 ml/10 litre water at 15 days interval starting from the pest infestation are recommended under South Saurashtra Agro-climatic Zone. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day.	SAU	chlorantraniliprole	30 ml	500	3	1500		

				3. **(Refinement 1)** Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % (60 g/10 litre of water), first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray	-	*Beauveria bassiana*	2 kg	220	3	660		
				4. **(Refinement 2)** Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.	-	Difenthuron	1 kg	900	3	1800		
2	Chickpea	Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar	1. GJG-3 2. GG-5 3. GJG-6	JAU, Junagadh	Seed	25 kg seed of both variety	5000	3	15000	yield (kg/ha), Plant Height (cm) at harvest time, No. of branches per plant , No. of pods per plant , 100 seed weight (g), Economics	N. D. Ambaliya
4	Home Science	Anemia	Assessment of hemoglobin and calcium level through drumstick leaf powder and amla powder in farm women.	T_1– Farmer Practices (Existing dietary pattern) [Chapati, dal, rice, butter milk, jaggari, vegetable, pulses etc. and not use of extra supplementary nutritive product in routine] T_2– Assessment practice: Iron supplements as amla powder (5 gm/day) + drumstick leaf powder (5 gm/day) 3.Storage in Triple layer hermetic "Purdue Improved Crop Storage"(PICS) bags	Department of Chemical Engineering, IIT, Hyderabad	amla powder + drumstick leaf powder	3	1500	3	4500	Hemoglobin level. Calcium level	A.K.Baraiya and Dr. K.P.Baraiya
5	**Groundnut**	Heavy incidence of leaf spot & rust in later stage	Management of foliar diseases in ground nut	**1. Farmer's Practices**:- Injudicious use of fungicides. [use of hexaconazole, carbendazim, floxistrobin, Metalaxyl 8 + Mancozeb 64, Kitazin 48 EC, Kresoxim-Methyl 44.3 SC, Azoxystrobin 11 + Tebuconazole 18.3 SC, Chlorothalonil 75 WP, Cymoxanil 8 + Mancozeb 64 WP, Difenconazole 25 EC, Tebuconazole + Trifloxystrobin 75 WG, Tebuconazole 25 EC] after severe attack of diseases.	SAU	-	-	-	3	3600	Record early and late leaf spot and rust from five randomly selected plants from each plot at 30, 60 and 90 days after germinati	Dr. K.P.Baraiya
				2. Recommendation :-Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS	SAU	Hexaconazole	500 ml, 2 kg	1900	3			

				+ Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS.		5% sc, Pseudomonas					on and at harvest stage and yield kg/ha	
				3. **Refinement:-** Foliar spray of Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS.	SAU	*Pseudomonas fluorescens*	3 kg	1500	3			

OFT-1 Brinjal (Assessment)

Title: Management of Brinjal whitefly

Objective: To manage the leaf sucking pest infestation in sesame

Problem definition: attack of leaf sucking pest is increase

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

Problem diagram :-

Improper cultivation practices	**Management of brinjal whitefly**	Irregular irrigation
Mono-cropping system		Lack of knowledge about pest outbreaks and its management
No adoption of recommended practices		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. Three sprays of chlorantraniliprole 18.5 SC, 0.002 %, 1.08 ml/10 litre water at 15 days interval starting from the pest infestation are recommended under South Saurashtra Agro-climatic Zone. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day.**(Recommendation)**
3. Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % (60 g/10 litre of water), first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray.**(Refinement 1)**
4. Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation. **(Refinement 2)**

No. of Replication: 3 (Farmers)

Observations:

1. Record no. of whitefly per leaf.
2. Yield data.

OFT:2

1. Title : Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar District

2. Objective : To find out suitable high yielding Chickpea variety for Rabi season

Problem definition:

1. Low yield.

2. Threat to the sustainability of crop production
3. High cost of production
4. Suffering from disease like wilt and stunt

Problem diagram :-

<table>
<tr><td>Improper cultivation practices</td><td rowspan="4">Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar District</td><td>Multi season cropping system</td></tr>
<tr><td>Low yielding variety</td><td>Mono-cropping system</td></tr>
<tr><td rowspan="2">Heavy incidence of pest and disease attack</td><td>Lack of knowledge about nutrient management</td></tr>
<tr><td rowspan="2">In judicious use of chemical fertilizer</td></tr>
<tr><td>In judicious use of pesticide</td></tr>
</table>

Treatments:

T_1 :- GJG-03 (Farmer Practices)
T_2 :- GG-05
T_3 :- GJG-06

Characterization :-

	Year Of Notification	Released For	Maturity days	Disease reaction
T 1 :- GJG-03	2010	Rainfed	98	Moderately Resistant to wilt and stunt
T 2 :- GG-05	2017	Irrigated	103	Moderately Resistant to wilt and resistant to stunt
T 3 :- GJG-06	2016	Rainfed	112	Resistant to wilt and stunt

No. of Replication :- 3 (Farmers)
Source of Technology: - Junagadh Agricultural University, Junagadh
Thematic area: Varietal evaluation

Observation:

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

OFT-3

Title: Management of foliar diseases in groundnut

Objective: To minimize the foliar diseases (leaf spot and rust) in groundnut

Problem definition:

1. Heavy incidence of rust in later stage
2. Heavy incidence of leaf spot
3. Lack of knowledge about scheduled spray of fungicides
4. Problem in identification and diseases initiation
5. Injudicious use of fertilizer
6. Excess irrigation
7. Multi season cropping system
8. Mono cropping system
9. Overlapping of the crop's seasons
10. Treatment of diseases after savior attack

Problem diagram :-

Heavy incidence of rust in later stage	**Management of foliar diseases (leaf spot and rust) in groundnut**	Treatment of diseases after savior attack
Mono cropping system		Overlapping of the crop's seasons
Heavy incidence of leaf spot		Multi season cropping system
Excess irrigation		Injudicious use of fertilizer
Problem in identification and diseases initiation		Lack of knowledge about scheduled spray of fungicides

Treatments:

1. **Farmer's Practices**:-Injudicious use of fungicides. [use of hexaconazole, carbendazim, floxistrobin, Metalaxyl 8 + Mancozeb 64, Kitazin 48 EC, Kresoxim-Methyl 44.3 SC, Azoxystrobin 11 + Tebuconazole 18.3 SC, Chlorothalonil 75 WP, Cymoxanil 8 + Mancozeb 64 WP, Difenconazole 25 EC, Tebuconazole + Trifloxystrobin 75 WG, Tebuconazole 25 EC] after severe attack of diseases.
2. **Recommendation** :-Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS + Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS.
3. **Refinement:-** Foliar spray of Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS.

No. of Replication: 3 (Farmers)

Source of Technology: - Department of Plant Pathology, COA, JAU, Junagadh

Thematic area: IDM

Observations:

1. Record early and late leaf spot and rust from five randomly selected plants from each plot at 30, 60 and 90 days after germination and at harvest stage
2. Record yield.

OFT-4 Home Science

Title : Assessment of hemoglobin and calcium level through drumstick leaf powder and amla powder in farm women.

Objective :

1. To assess the level of hemoglobin and calcium among farm women
2. To improving the hemoglobin and calcium level in farm women

Problem Definition :-

1. Anemia
2. Arthritis due to calcium deficiency in women
3. Lake of knowledge about nutrition
4. Lack of awareness about balanced diet

Treatment

T_1–Farmer Practices (Existing dietary pattern) [Chapati, dal, rice, butter milk, jaggari, vegetable, pulses etc. and not use of extra supplementary nutritive product in routine]

T_2– Assessment practice-1 : Iron supplements as amla powder (5 gm/day) + drumstick leaf powder (5 gm/day)

No. of Replication/farmers :- 3

Source of Technology : Department of Chemical Engineering, IIT, Hyderabad

Observation : Pre and Post (after three month)

1. Hemoglobin level
2. Calcium level

Cost of OFT : (Rs. 1500/- per person)

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	Cost per trial (Rs.)
1	Cotton	Bt. Cotton	IPM/INM	Insecticide, Bio pesticide	*Azadirechtin*, Pheromone trap, SNPV, *Beauveria bassiana*	Kh-24	10	25	yield	3550
2	Wheat	GW- 451/ 463/513	Varietal	Variety	Seed	Rabi-24	4	10	Yield	1800
3	Ajwain	Gujarat Ajwain-2	IPM/IDM	Bio pesticide Bio fertilizer	Trichoderma, *Beauveria bassiana* Azotobacter, PSB, Mix micronutrient	Rabi-24	4	10	Yield	1180
4	Pearl millet	GHB-1129	Varietal	Variety	Seed	Sum-24	4	10	Yield	300
Other Scheme										
5	**NMOOP**-Groundnut	GJG 32	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GJG-32), *Metarhizium anisopliae*, *Trichoderma*, PSB, Rhizobium, *Beauveria bassiana*	KH-24	60	150	Yield, % pod damage	3780
6	**NMOOP**-Sesame	GTil -3/5/6	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GTil-3/5), *Beauveria bassian*, Trichoderma, PSB, Azotobacter	Sum-24	20	50	Yield, % pod damage	2850
7	**NFSM**-Chickpea	GG-5/7	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed(GG-5), *Beauveria bassiana*, *Trichoderma*, PSB, *Rhizobium*	Rabi-24	20	50	Yield, % pod damage	3600

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	Cost per trial (Rs.)
8	**NFSM**-Black Gram	Gujarat Urad 2 (GU 2)	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GU-2), *Beauveria bassiana*, *Trichoderma*, PSB, *Rhizobium*	Sum.-24	10	25	Yield, % pod damage	2000
9	**ATIC** Castor	GCH-9	Varietal	Variety	Seed (GCH-9)	Kh-24	8	20	Yield	600
10	**ATIC** Cumin	GC-5	ICM	Improved seed Bio pesticide Bio fertilizer	Seed, *Beauveria bassiana*, PSB, *Azotobector Trichoderma*, Yello sticky trap	Rabi-24	8	20	Yield	1930
11	**ATIC** Coriander	GC-3	ICM	Improved variety, Bio pesticide Bio fertilizer	Seed, PSB, *Azotobector*, *Beauveria bassiana*, *Trichoderma*, Yello sticky trap	Rabi-24	8	20	Yield	950
12	**ATIC** Brinjal	GJBH-4	Varietal	Variety	Seed	Rabi-24	2	5	Yield	750
13	**Natural farming**	Wheat	INM	Jivamrut	Materials for jivamrut	Rabi-2024	6.4	16	Yield	2820
14					**Total**		**174.4**	**436**		

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	Cost per trial (Rs.)
Cotton Picking Apron	Cotton	Kharif-24	5	2	Apron	Picking efficiency	500

b. FLD on Other enterprises

Enterprise	Name of the technology demonstrated	No. of farmers	No. of units	Critical inputs	Performance parameters / indicators	Cost per trial (Rs.)
Kitchen gardening	Nutritional gardening	50	2 ha	Vegetable seeds, *Beauveria bassiana*	Yield	350

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	2	55	0	55	5	0	5	60
II Horticulture	1	0	30	30	0	0	0	30
III Soil Health and Fertility Management	1	25	0	25	5	0	5	30
IV Livestock Production and Management	1	0	30	30	0	0	0	30
V Home Science/Women empowerment	2	0	50	50	0	10	10	60
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	5	140	0	140	10	0	10	150
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	1	30	0	30	0	0	0	30
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**	**250**	**110**	**360**	**20**	**10**	**30**	**390**
(B) RURAL YOUTH	1	0	25	25	0	5	5	30
(C) Extension Personnel	1	25	0	25	5	0	5	30
Grand Total (A+B+C)	**15**	**275**	**135**	**410**	**25**	**15**	**40**	**450**

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	135	10	145	5	0	5	150
II Horticulture	1	40	0	40	10	0	10	50
III Soil Health and Fertility Management	3	110	35	145	5	0	5	150
IV Livestock Production and Management	1	0	45	45	0	5	5	50
V Home Science/Women empowerment	5	0	230	230	0	20	20	250
VI Agril. Engineering	1	30	0	30	0	0	0	30
VII Plant Protection	5	220	15	235	15	0	15	250
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	1	30	0	30	0	0	0	30
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)	**20**	**565**	**335**	**900**	**35**	**25**	**60**	**960**
(B) RURAL YOUTH	0	0	0	0	0	0	0	0
(C) Extension Personnel	1	25	0	25	5	0	5	30
Grand Total (A+B+C)	**21**	**590**	**335**	**925**	**40**	**25**	**65**	**990**

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	5	190	10	200	10	0	10	210
II Horticulture	2	40	30	70	10	0	10	80
III Soil Health and Fertility Management	4	135	35	170	10	0	10	180
IV Livestock Production and Management	2	0	75	75	0	5	5	80
V Home Science/Women empowerment	7	0	280	280	0	30	30	310
VI Agril. Engineering	1	30	0	30	0	0	0	30
VII Plant Protection	10	360	15	375	25	0	25	400
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	2	60	0	60	0	0	0	60
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)	**33**	**815**	**445**	**1260**	**55**	**35**	**90**	**1350**
(B) RURAL YOUTH	1	0	25	25	0	5	5	30
(C) Extension Personnel	2	50	0	50	10	0	10	60
Grand Total (A+B+C)	**36**	**865**	**470**	**1335**	**65**	**40**	**105**	**1440**

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

3.5. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	No. of activities	Farmers			Extension Officials			Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Field Day	9	190	30	220	25	10	35	215	40	255
Kisan Mela	1	250	50	300	50	20	70	300	70	370
Kisan Ghosthi	6	180	25	205	25	15	40	205	40	245
Exhibition	2	150	230	380	40	10	50	190	240	430
Film Show	15	850	350	1200	115	35	150	965	385	1350
Method demonstration	3	25	15	40	10	5	15	35	20	55
Farmers Seminar	5	150	40	190	40	10	50	190	50	240
Workshop	1	200	100	300	25	10	35	225	110	335
Group meetings	5	50	10	60	15	5	20	65	15	80
Lectures delivered as resource persons	25	3200	600	3800	1100	350	1450	4300	950	5250

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	4	0	0	0	0	0	0	0	0	0
Extension Literature	12	1100	100	1200	500	50	550	1600	150	1750
Advisory Services	50	250	50	300	100	10	110	350	60	410
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
Krishi Mahotsav	5	0	20	20	0	20	20	0	40	40
KrishiRath	1	40	0	40	20	0	20	60	0	60
Pre Kharif workshop	3	80	0	80	30	0	30	110	0	110
Pre Rabi workshop	4	100	20	120	15	3	18	115	23	138
PPVFRA workshop	1	20	10	30	10	5	15	30	15	45

Any Other (Specify)	5	220	20	240	90	10	100	310	30	340
Total	**229**	**11485**	**2255**	**13740**	**2942**	**875**	**3817**	**14427**	**3130**	**17557**

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
		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
		Total	**1700**

Bio-products

Sl. No.	Product Name	Species	Quantity	
			No/Li.	(kg)
1	*Beauveria*			5000
2	*Trichoderma*			10000
3	PSB		200	
4	*Azaobactor*		200	
5	Rhizobium		200	
		Total	**600**	**15000**

LIVESTOCK

Sl. No.	Type	Breed	Quantity	
			(Nos)	Unit
0	0	0	0	0

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**	

5. ACTION PLAN OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production (expected)	Expected Amount (Rs.)	Remarks

				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Crop Cafeteria	Every year	0.5	-	-	-	20000	-	
2	Vermicompost	2008	0.1	-	-	-	10000	20000	
3	Nursery	2012	0.05	Sapling	1700	No	20000	30000	

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

Name of the crop	Area (ha)	Details of production (expected)			Expected Amount (Rs.)		Remarks
		Variety	Type of Produce	Qty. (Qtl)	Cost of inputs	Gross income	
Cereals							
Wheat	2	GW-463	Truthful	75	50000	225000	
Pulses							
Green gram	2	GM-4	Truthful	7.5	38000	67500	
Oilseeds							
Groundnut	4	GJG-9	Breeder	55	320000	700000	
Groundnut	3.5	GJG-32	Breeder	40	280000	800000	
Sesame	2	G.Til.-5	TF	6	40000	115000	
Fibers							
Spices & Plantation crops							
Floriculture							
Fruits							
Vegetables							
Others (specify)							

6 Additional Activities Planned including sponsored projects (ProCRA / Pro SOIL/NARI/DAESI/DAMU/ DFI, etc.) / schemes during 2022-23, if involved.

Out scaling of Natural Farming

S.No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
1	Out scaling of Natural Farming	Training	10	268000	Dr. K. P. Baraiya Smt. A. K. Baraiya
		Awareness programme	25		
		Demonstration	16		

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-1st	PF	Seed production and storage technique through natural farming	1	30	0	30	0	0	0	30
Quarter-4th	PF	Integrated farming system	1	25	0	25	5	0	5	30
Horticulture										
Quarter– 1st	PF	Nursery raising and its management	1	0	30	30	0	0	0	30
Soil Health										
Quarter-2nd	PF	Importance of Soil and water testing	1	25	0	25	5	0	5	30
Livestock prod.										
Quarter-2nd	PF	Dairy Management and Value addition of milk	1	0	30	30	0	0	0	30
Home Sc.										
Quarter-1st	PF	Value addition in fruits, vegetables and agriculture produce for doubling farmers income	1	0	20	20	0	10	10	30
Quarter-4th	PF	Health benefits of millets and value addition in millets	1	0	30	30	0	0	0	30
Plan Prot.										
Quarter-1st	PF	Integrated Disease and pest management through natural farming in Rabi crop	1	30	0	30	0	0	0	30
Quarter-2nd	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	25	0	25	5	0	5	30
Quarter-3rd	PF	Naturally management of pest and diseases in *kharif* crops	1	30	0	30	0	0	0	30
Quarter-4th	PF	IPM in vegetable crops: onion & garlic	1	25	0	25	5	0	5	30

Quarter-4th	PF	Store grain pests and its management for reduction the storage loss	1	30	0	30	0	0	0	30
Fisheries										
Production of Inputs at site										
Quarter-4th	PF	Production of Vermi-compost and inputs for natural farming	1	30	0	30	0	0	0	30
		Total	**13**	**201**	**97**	**298**	**19**	**13**	**32**	**330**

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-1st	PF	summer crop production practices on Natural basis	1	45	0	45	5	0	5	50
Quarter-2nd	PF	Integrated weed management in oilseed crops	1	40	10	50	0	0	0	50
Quarter-4th	PF	Crop production technology of Millets	1	50	0	50	0	0	0	50
Horticulture										
Quarter– 4th	PF	Processing and value addition in Spices crop	1	40	0	40	10	0	10	50
Livestock prod.										
Quarter-1st	PF	Importance of Nutrients and Feed Management in Animal Husbandry to increase milk production	1	0	45	45	0	5	5	50
Home Sc.										
Quarter-1st	PF	Boosting immunity through fruits and vegetables and aware about Nutritional disease	1	0	50	50	0	0	0	50
Quarter-1st	PF	food processing and value addition in fruit, vegetable, and other agricultural produce	1	0	50	50	0	0	0	50
Quarter-2nd	PF	Income generation activities for empowerment of women	1	0	45	45	0	5	5	50

Quarter-3rd	PF	House hold food security by kitchen gardening and nutrition gardening	1	0	40	40	0	10	10	50
Quarter-4th	PF	Nutritional Value of Millets and design of Low/ Minimum cost diet	1	0	45	45	0	5	5	50
Agril. Engineering										
Quarter-3rd	PF	Installation and Maintenance of micro irrigation system	1	30	0	30	0	0	0	30
Plan prot.										
Quarter-1st	PF	IPM-IDM in rabi crops (cumin coriander and chickpea)	1	50	0	50	0	0	0	50
Quarter-1st	PF	Storage techniques for pest management and reduction the storage loss	1	45	0	45	5	0	5	50
Quarter-2nd	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	45	0	45	5	0	5	50
Quarter-3rd	PF	Pest and disease management in *kharif* crops through natural farming	1	40	10	50	0	0	0	50
Quarter-4th	PF	Integrated Disease and pest management in Rabi crop	1	40	5	45	5	0	5	50
Fisheries										
Production of Inputs at site										
Quarter –3rd	PF	Production of natural farming inputs	1	30	0	30	0	0	0	30
Soil Health										
Quarter-2nd	PF	Use of Bio fertilizer & recycling of farm waste through composting	1	45	0	45	5	0	5	50
Quarter-3rd	PF	Integrated nutrient management in Kharif crop	1	25	25	50	0	0	0	50
Quarter-4th	PF	Improvement of soil fertility through balance use of fertilizer	1	40	10	50	0	0	0	50
			20	**565**	**335**	**900**	**35**	**25**	**60**	**960**

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	
Value addition	women Empowerment	Value addition in fruits and vegetables	Feb	4	0	25	25	0	5	5	30

iii) Training programme for extension functionaries

Date	Clientele	Title of the training programme	Dura-tion in days	No. of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
On Campus										
Quarter-2nd	EF	Pre-seasonal training on *kharif* crops (Pigeon pea, Green gram, Groundnut, Cotton) production technology through natural resources	2	20	0	20	5	0	5	25
Off Campus										
Quarter-4rd	EF	Pre-seasonal training on *rabi* crops (Cumin, Gram, Wheat, Onion, Garlic production technology through natural resources)	2	20	0	20	5	0	5	25

Quarter and discipline wise summary of training programme :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP	1			1	**2**	1	1		1	**3**	**5**
II Horticulture	HO	1				**1**				1	**1**	**2**
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	1			1	**2**	2	1	1	1	**5**	**7**
VI Agril. Engineering	AEG					**0**			1		**1**	**1**
VII Plant Protection	PLP	1	1	1	2	**5**	2	1	1	1	**5**	**10**
VIII Fisheries	FIS					**0**					**0**	**0**
IX Production of Inputs at site	PI				1	**1**			1		**1**	**2**
X Capacity Building and Group Dynamics	CBD					**0**					**0**	**0**
Total		4	3	1	5	**13**	6	4	5	5	**20**	**33**
(B) Extension Functionaries	EF		1			**1**				1	**1**	**2**
(C) Rural youth	RY	1				**1**					**0**	**1**
Total		**5**	**4**	**1**	**5**	**15**	**6**	**4**	**5**	**6**	**21**	**36**

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 (2024-25) based on proposed action plan

S. No.	Particulars	BE 2024-25 proposed (Rs.)
25.1	**Recurring Contingencies**	
25.1.1	**Pay & Allowances**	**130**
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 demonstrations 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**	**167**
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**	**218**

Annexure-III

Details of Works proposed during 2021-26 for KVK, JAU, JAMNAGAR

Sr. No.	Name of works	Estimated cost for work / renovation etc. (Rs. In Lakh)	Justification for works required to be carried out
1.	**China mosaic on terrace of the building** 1. KVK Office building (400 Sq m)	6.0	There problem of water tank overflow, rain water drainage. Therefore, condition of the ceiling become dangerous, and will be destroyed shortly. Therefore, it is to be required to be renovation. Fitting of china mosaic on the terrace is to be require for long life of the building.
	2. Hostel Building (300 sq m)	4.5	
	3. Training Hall (200 sq m)	3.0	
	4. Quarter E type (135 sq m)	2.03	
	5. Quarter D type (125 sq m x 2 No.) =250 sq m	3.75	
	6. Quarter Ctype (110 sq m x 3 No.)=330 sq m	4.95	
	Total	**24.23 lakh**	
2.	**Wall painting of the building** 1. KVK Office building (400 Sq m)	2.0	Building is to old therefore, whitewash painting is required
	2. Hostel Building (300 sq m)	1.5	
	3. Training Hall (200 sq m)	1.0	
	4. Quarter E type (135 sq m)	0.67	
	5. Quarter D type (125 sq m x 2 No.) =250 sq m	1.25	
	6. Quarter Ctype (110 sq m x 3 No.)=330 sq m	1.65	
	Total	**8.07 lakh**	
3	Farm Fencing wall (L-640 m x h- 3m+1m plinth+1m base = 3200 sq m	40	
4	Open well	25	
5	Farm Development	25	
6	Office equipment	35	
7	Soil testing laboratory	25	
8	Information technology	10	
9	Over Head Water Tank	40	
10	Two wheeler	1.20	
11	Multi crop thressure (Auto feeder)	8.0	
12	LED Display	10	
13	Water storage sump 5 lakh litres	30	
14	Rat proof godown cum farmers outlet	40	This office works for farmers and distributed seeds, bio-products from KVK, ➢ This center produce many oilseeds, pulses and cereal crops breeder as well as labeled seed production for farmers. ➢ Such seeds required to be store for longer time.

			➢ It is required for sales out late for selling different products from university. ➢ There is very high humidity, therefore, it is requiring to good godown.
15	Parking shed	20	➢ Every day, farmers, officers, scientist and student with dignitaries visited this esteemed organization. ➢ This is district level training center, continuously farmers visit daily. ➢ They parked their vehicle irrespectively.
16	Irrigation facilities Submersible pump set with pipe line facilities	40	It is required for irrigation of 20 hector farm