

ANNUAL PROGRESS REPORT - 2024(1st January 2024 to 31st December 2024)**KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR****DETAIL REPORT OF APR-2024****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 36681281

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, 2001ICAR (KVK) 2004, Letter No.F.No. 8(1)/2002-AE-II(Pt.) Dated February 5th, 2004**1.5. Staff Position (as on December 31, 2024)**

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	9427980023	Plant Protection	131400-217100	156900	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	101200	17.08.2006	
8	Farm Manager	Smt. D. G. Patel	9737933102	Agronomy	39900-126600	41100	30.07.2018	
9	Programme Assistant	Shri N. D. Ambaliya	9081291071	Agril.	39900-126600	41100	01.02.2020	
10	Computer Programmer	Shri C. P. Padhiyar		Computer Operator	39900-126600	56900	29.12.2008	Pooled at Junagadh
11	Accountant / Superintendent	Vacant		Adm.	39900-126600	-	-	
12	Stenographer	Shri. V. A. Jadav		Adm.	19900-63200	-	27.07.2021	26000/-
13	Driver	Vacant		Supt.	19900-63200	-	-	
14	Driver	Shri. D.M. Chauhan	9824173712	Supt.	21700-69100	30200	9.10.2007	
15	Supporting staff	Shri B. V. Bamaniya	9904553794	Supt.	15000-47600	21500	01.11.2014	
16	Supporting staff	Shri B. G. Mokariya		Supt.	15700-50000	31100	21.03.2003	

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	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	KVK	15-8-11	550	5500000			
2.	Farmers Hostel	KVK	15-8-11	305	3000000			
3.	Staff Quarters (6)	KVK	15-8-11	400	4000000			
4.	Demonstration Units of vegetable	KVK + ATMA	31-3-07	-	-	-	-	-
5	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 harvesting system	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	28223	Working
Mahindra Scorpio (GJ-10 GA-0535)	2019	1032156	81209	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
Physical balance	2005-06	10640	Working
Chemical balance	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	-	-
20.	03.02.2024	35	As below	As below
21.	28.01.2025	37		

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.

Suggestions made by committee members during presentation:

Sl. No.	Salient Recommendations	Action taken
1	To record feedback from farmers for extra benefit of fortified variety of Bajara FLD	Suggestion accepted and incorporated, all the FLD of Bajara have been recorded and presented in the section of FLD.
2	Awareness among farmers about special characters of GHB-1129, i.e. heat tolerance, rich in Fe & Zn content.	Suggestion accepted and incorporated, farmers are aware during training about the characters of GHB-1129 and promoted. During the Rabi Krishi Mahotshav, Dwarka and Millet Mela at Jamnagar were exhibition stall and aware the people.
3	To create awareness about ajwain gripe water through value addition training programme	Suggestion accepted and incorporated training organized on value addition in spices crops including ajwain gripe water.
4	To carry out base line survey of newly operational villages and also conduct impact study of old villages.	Suggestion accepted and incorporated. Complete the PRA survey of newly operational villages. Also conducted impact study of old operational villages.
5	Mentioned word “intervention” instead of refinement in OFT	Suggestion accepted and incorporated. Replace word “intervention” instead of refinement in all OFT.
6	To calculate the total expenses for the respective FLD and mention in action plan	Suggestion accepted and incorporated in action plan 2024.
7	Promote Agri-drone technology and natural farming among farmers	Suggestion accepted and incorporated. Dgri drone Demonstration in 8 villages with 225 farmers
8	To document and prepare video/documentary film of success stories of KVK progressive farmers with the help of AGRISNET Studio	Suggestion accepted and incorporated. Telephonic talk with AGRISNET studio for recording documentary of progressive farmers.
9	To provide Agro-met Advisory to extension functionaries for betterment of farmers usage	Suggestion accepted and incorporated. On receiving advisory from Rajkot, immediately dispatched to farmers as well as extension functionaries’ group.
10	To create awareness of use of decomposer for recycling of farm waste (wheat straw) instead of wheat straw burning	Suggestion accepted and incorporated. Aware farmers on proper use and precaution of decomposer for recycling of farm waste.
11	To create awareness on natural farming among farmers	Suggestion accepted and incorporated. For awareness on natural farming 10 training and 26 other extension programmes was organized by KVK

21st 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 km² i.e. 14.125 lakh ha area in the west of Gujarat state. The climate is arid (80%) and semi arid (20%) with a meanmoistureindex of 67.5. About 95 to 98% of annual rainfall comes during the monsoon month of June to October, July and August being the rainiest months. The co-efficient of variation ranges between 50 and 82%. The annual potentialevapo-transpiration ranges between 1500 and 1650mm, three times the precipitation, resulting in no flow in the ephemeral channels for the most of the year. The district is water scarcity area droughts are common in this region draughts of moderate to severeintensity occur once in 2 to 3 years. Although the integrateddrainagesystemfrom the story/rocky/gravelly surfaces and torrential nature of precipitation generate 40 to 60% of rainfall as runoff, steeper slopes and absence of checks allow the water to quickly flow to the sea. Being is hard rock terrain, the groundwater potential is very low, is already over exploited and mined, resulting in either the saline water ingress in the costal aquifers, or drying up of the ground water up to a depth of 100m. Consequently, a need for holistic approach to water resourcedevelopmentin the district. Wind velocity prevailing in the district is higher order (14.1 km) ha on an annual averagebasisdue to sea coast area.

According to physiographically, majorportion of the area in the district have an altitude ranging between 25 to 150 meters, which consists ten talukas having gentle slope to moderate slope. The district is marked by radical drainage 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 Saurashtra Agroclimatic Zone is spread among five districts viz., Amreli (7 taluukas out of 10), Bhavnagar (7 talukas out of 14), Jamnagar (all the 10 talukas), Rajkot (9 talukas of 13) and Surendranagar (6 talukas out of 9) covering 39 talukas in all. The influence area of the zone lies between 21°-02' to 23°-16' North Latitude and 68°-56' to 72°-12' East Longitude. It is founded in the north by the Gulf of Kutch and parts of Rajkot as well as Surendranagar districts, in the East by the Ahmedabad district and ncoastal part of Bhavnagar district, on the South by the Junagadh district and parts of Amreli as well as Rajkot district, to the west by Arabian sea. The North Saurashtra region which comprises the peninsular part of Gujarat has low to medium rainfall and shallow to medium black soils and also coastal saline alluvial soils. In this Agro-climatic zone, cotton (Bt), groundnut, pearlmillet, wheat are the major crops which contribute considerably to the economy of the state. In Saurashtra, among this zone taking in to consideration the rainfall pattern, the topography, soil characteristics, the climate and the cropping pattern have been identified in Gujarat. The North Saurashtra zone have five main / sub station cum testing centre of University like Dry Farming Research Station with KVK, Targhadia (Rajkot District), Main Millet Research Station with KVK, Jamnagar, Oilseeds Research Station (Sesamum, Mustard, Sunflower) with KVK, Amreli, Dry Farming Research Station, Nanakandhasar, (Surendranagar District) and Dry Farming Research Station, Jamkhambhalia (Jamnagar District).

b) Topography**Agro – Ecological situation in the District**

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

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

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

Shallow black soils

Medium black soils

Saline alkali soils

Costal alluvial soils

Hilly soils

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

Although, each of the situations has rainfed and irrigated condition, but irrigation has not been considered in identification of the 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 influence area of the district. The fact that this does not preclude the existence of more than one agro ecological situations within the same area.

Sl. No.	Agro Ecological Situation	Soil texture	Altitude	Principal crops	Special features	Approximate area (000ha)	Taluka included	Characteristics
AES-1	Shallow Black soils with 500-600 mm Rainfall	Sandy clay loam to clayey	75 – 150	Groundnut, wheat, sorghum, pearl millet	Well drained soils with rapid permeability	124	Kalawad, Jamjodhpur, Bhanvad, Okha	Moisture stress, temperature stress
AES-2	Shallow Black soils with 600-700 mm Rainfall	Clayey	75 – 150	Groundnut, wheat, sorghum, pearl millet	Slightly well drained soils with rapid permeability	180	Part of Kalyanpur, Jamnagar, Jamkhambharia, Lalpur, Dhrol, Jodia	Moisture stress, temperature stress
AES-3	Coastal Alluvial soils with 300-400 mm Rainfall	Clayey loam to clayey	50	Groundnut, pearl millet, sorghum, chickpea	Low nitrogen and phosphorus	181	Jodia, part of Okha, Jamkhambharia, Kalyanpur & Jamnagar	Salt affected salinity
AES-4	Coastal Alluvial soils	Silt clay	25-50	Groundnut, pearl millet,	Low nitrogen and phosphorus	299	Kalyanpur, Jodia & Jamnagar,	Salt affected salinity

	with 500-700 mm Rainfall			sorghum, chickpea			Khambhadia, Lalpur, Dwarka	
AES-5	Coastal Alluvial shallow black soils with 300-400 mm Rainfall	Sandy loam to clay loam	0-25	Sorghum, Pearl millet, Groundnut, Sesamum	Arid climate	31	Okha	Known salinity for genus ephedra seacoast very rich in Algal flora and fanner of economic importance.

2.3 Soil type

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

S. No	Soil type	Characteristics	Area in ha
1	Shallow black soils	These soils have developed from basaltic trap especially from granite and gneiss parent materials. They light grey in colour. Taxonomically, they are classified as <i>Ustorthents</i> and <i>Ustochrepts</i>. Soils depth varies from cm to 45 cm. They are gravelly but mainly they are sandy clay loam to clayey in texture. The clay content in surface soil varies from 20% to 77.49% and calcium carbonate content varies from 3.76 to 26.71 per cent. The soil structure is weak, mainly sub angular blocky and occasionally crumb. Since these soils lack distinct profile layering and are shallow, capacity to retain moisture is not sufficient. The soils are neutral to alkaline in reaction p^H ranges from 7.3 – 8.4) and from fertility point of view, these are medium in available nitrogen, low to medium in available phosphorus and adequate in availability of potash.	124000 ha (Kalawad, Jamjodhpur, Bhanvad, Okha)
2.	Medium black soils	The major portion of Jamnagar (Some part of Kalyanpur, Khambhaliya & Jamnagar, major part of Lalpur, Dhrol, Jodiataluka is covered under medium black soils. These residual soils have basaltic trap parent materials. These soils vary in depth from 30 to 60 cm or more at few places. They are calcareous in nature. A layer of murum (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 <i>Ustochrepts</i> in <i>Inceptisol</i> order. The soils are dominated by smectite group of clay minerals which give to mild cracking in dry season, due to which these are further classified as <i>Vertic – Ustochrepts</i> at sub group level.	180000 ha (Part of Kalyanpur, Jamnagar, Jamkhambhalia, Lalpur, Dhrol, Jodia)

		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^H 7.4 to 8.9). Calcium is the dominant exchangeable cation followed by magnesium. The soils are generally low to medium in available nitrogen, phosphorus and adequately supplied with potassium. The calcium carbonate contents various from 5.26 to 20.36 per cent in these soils.	
3.	Saline alkali soils	Saline alkali souls are extensively distributed on the coastal are3a as well as inlands. These soils are located in the districts of Jamnagar (Jodia, part of Okhamandal, Kalyanpur, Jamkhambhaliya and jamnagartalukas). These soils are originated as a result of higher water table, low rainfall and high evaporation losses during summer months resulting into upward movement of salts, poor drainage, use of saline ground water and ingress of sea water (in coastal areas). The souls are classified as <i>Fluvaquents</i>, <i>Halaquents</i>, and <i>Haplaquents</i> (Entisol): <i>Haplaquents</i> and <i>Haptaquepts</i> in order – <i>Inceptisol</i>. Texturally these soils vary from sandy loam to clay. The degree of salinity and alkalinity is also highly variable. 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 <i>Halaquents</i> and <i>Haplaquents</i> – Entisol and <i>Helaquepts</i> and <i>Hapdaquents</i> in Inceptisol order.	299000 ha (Kalyanpur, Jodia& Jamnagar, Khambhadia, Lalpur, Dwarka)
5.	Hilly soils	These soils occur in some parts Bhanvad and Jamjodhpurtalukas of Jamnagar district. Because of the steep slope and erosion, the profile is not developed. These soils are developed because of weathering of parent materials existing basaltic trap limestone and sand stone. These soils are shallow to moderately deep and are coarse to fine in their texture. The texture varies from loamy sand to clay loam to clay. They have under composed rock fragments and are low in fertility status. These soils are placed in to <i>Ustorthents</i> and those near foothills and valley are comparatively deeper can be placed under <i>Ustochrepts</i> and can be classified under estisol and <i>Inceptisol</i> orders respectively.	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	183517	4672343	25.46	202915	5391610	23.95
2	Sesame	6393	52167	8.16	4262	14480	7.31
3	Castor	3035	88015	29	0	0	0
4	Soybean	5998	94888	15.82	0	0	0
5	Mustard	1148	22570	19.66	5884	82190	13.97
	Total Oilseeds	200091	4929983	24.64	213061	5488280	11.31
	Cash Crops						
5	Cotton	131541	1256217	9.55	10219	61310	6
6	sugarcane	0	0	0	0	0	0
	Total Cash Crops	131541	1256217	9.55	10219	61310	6
	Food Grain						
7	Wheat	36462	1383004	37.93	8030	340150	42.36
8	Pearl millet	1073	32061	29.88	100	3100	31
9	Sorghum	0	0	0	0	0	0
10	Maize	0	0	0	0	0	0
	Total Food Grains	37535	1415065	37.7	8130	343250	36.68
	Pulse Crops						
11	Greengram	2499	24265	9.71	1979	11070	7.63
12	Blackgram	225	2385	10.6	2905	9710	8.54
13	Cowpea	0	0	0	0	0	0
14	Pigeon pea	5435	93917	17.28	0	0	0
15	Moothbean	0	0	0	0	0	0
16	Chickpea	84336	1422748	16.87	59991	1337090	22.29
17	Cluster bean	15	113	7.5	0	0	0
	Total Pulses	92510	1543428	16.68	64875	1357870	12.82
	SPICES AND CONDIMENTS						
18	Cumin	29948	272527	9.1	55958	587559	10.5
19	Fennel	23	345	15	0	0	0
20	Fenugreek	262	2620	10	61	1190	19.5
21	Coriander	16394	229516	14	32455	503053	15.5
22	Ajwan	3719	33099	8.9	154	1386	9
23	Chilli	130	2470	19	735	12863	17.5
24	Garlic	906	89603	98.9	0	0	0
25	Turmeric	6	1056	176	0	0	0
26	Suwa	272	3835	14.1	0	0	0
	Total spices	51660	635071	12.29	89363	1106051	12.38
	VEGETABLES						
27	Onion	1713	439042	256.3	55	13750	250
28	Potato	26	6500	250	100	27000	270
29	Brinjal	1206	294264	244	849	136774	161.1
30	Tomato	1460	438000	300	603	138811	230.2
31	Cauliflower	412	55208	134	196	22912	116.9

32	Cowpea	586	52154	89	293	17727	60.5
33	Cabbage	998	256486	257	394	66113	167.8
34	Okra	1590	136740	86	736	55862	75.9
35	Cucurbits	1653	324815	196.5	1402	203991	145.5
36	Cluster bean	32	2822	88.2	219	15593	71.2
37	Carrot	140	28000	200	46	9200	200
38	Sweet potato	4	1230	307.5	0	0	0
39	Spinach	8	720	90	26	1560	60
40	Reddish	70	14000	200	125	15125	121
41	Moringa	142	46292	326	46	4600	100
42	Fenugreek	90	8955	99.5	964	106040	110
43	Pea	96	5635	58.7	43	2150	50
44	Green Chilli	620	121520	196	827	100067	121
45	Other vegetable	1173	241169	205.6	2077	238647	114.9
	Total Vegetable	12019	2473552	205.8	9001	1175922	130.64
	CUCURBITACEAE VEGETABLES						
46	Bottle gourd	260	49660	191	121	11832	106
47	Bitter gourd	86	8738	101.6	85	6642	52.6
48	Musk melon	408	54590	133.8	67	11362	107.6
49	Sponge gourd	72	7445	103.4	62	4576	76.9
50	Ridge gourd	91	11193	123	61	4342	7.25
51	Cucumber	216	44496	206	211	36400	190.1
52	Water melon	520	148720	286	795	128050	163.7
	Total Cucurbitaceae	1653	324842	196.52	1402	203204	144.94
	FRUIT CROPS						
53	Chiku	159	18206	114.5	124	14012	113
54	Pomegranate	610	78995	129.5	6	726	121
55	Citrus	375	43050	114.8	101	9494	94
56	Aonla	22	2081	94.6	10	550	55
57	Guava	40	3636	90.9	18	999	55.5
58	Custard apple	82	7610	92.8	20	1420	71
59	Papaya	70	39200	560	138	44160	320
60	Coconut	166	23921	144.1	447	40901	91.5
61	Ber	193	21230	110	186	15252	82
62	Kharek	151	13620	90.2	27	1674	62
63	Banana	12	5280	440	2	600	300
64	Mango	562	43667	77.7	133	8113	61
65	Jamun	18	1451	80.6	3	190	63.3
66	Orange	16	350	21.9	3	65	21.5
67	Bael	12	2160	180	0	0	0
68	Rayan(Khirni)	20	2800	140	11	350	31.8
69	Cordia(Gunda)	26	2709	104.2	16	992	62
70	Desi Almond	0	0	0	12	840	70
71	Kamlam	42	7560	180	7	581	83
72	Other fruits	126	17350	137.7	36	2027	56.3
	Total Fruits	2702	334876	123.94	1300	142946	109.96
	FLOWERS						
73	Rose	70	6713	95.9	18	1818	101

74	Merry gold	191	15738	82.4	63	5166	82
75	Mogra	4	428	107	7	595	85
76	Gaillardia	120	12240	102	42	3906	93
77	Other flowers	132	13358	101.2	44	4004	91
	Total flowers	517	48477	93.77	174	15489	89.02

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

2.5. Weather data (January-2024 to December-2024)

Weekly mean Weather data-at JAU, Jamnagar during-2024									
Week No	Temp. °c		R.H.%		WS	BSS	Eo	Rain	Rainy
	Max	Min	I	II	(kmph)	(hrs)	(mm)	(mm)	Days
1-J	25.6	13.4	77	36	5.0	9.0	3.5		
2	26.2	15.2	72	34	3.1	9.7	4.1		
3	27.3	13.8	93	30	3.2	9.1	4.2		
4	27.5	12.9	82	28	6.5	9.2	4.6		
5	29.3	16.9	87	40	6.3	8.6	4.5		
6-F	28.1	16.5	80	32	8.1	8.8	4.7		
7	29.1	16.0	67	27	8.0	8.8	5.1		
8	30.0	17.5	82	33	11.2	10.0	5.5		
9	29.8	18.9	62	34	11.6	8.2	5.6		
10-M	30.3	15.9	65	19	7.9	10.2	5.9		
11	32.4	18.7	79	28	6.4	9.9	6.3		
12	35.7	20.6	85	29	6.9	10.9	6.6		
13	33.5	22.6	91	44	9.5	10.0	6.6		
14-A	33.8	22.7	90	40	8.9	8.7	6.6		
15	36.1	24.6	85	38	8.6	9.5	7.4		
16	35.8	25.3	77	35	9.2	10.1	7.8		
17	35.1	25.0	80	41	10.1	11.3	8.0		
18	36.9	25.6	74	33	10.4	9.2	9.1		
19-M	36.2	26.8	82	44	12.7	11.1	9.3		
20	38.0	27.8	77	42	13.2	8.8	9.9	1.0	
21	36.3	28.3	81	50	19.8	10.5	9.4		
22	38.0	29.4	74	47	12.6	10.9	9.9		
23-J	36.8	28.0	74	53	12.4	10.4	9.7		
24	36.6	28.5	74	52	9.2	9.3	9.6		
25	37.5	29.0	80	58	8.9	7.7	8.5	54.5	1
26	34.6	27.9	90	71	6.2	4.8	5.5	15.0	4
27-J	33.3	27.9	89	68	10.9	2.7	4.1	84.0	1
28	34.6	27.9	88	67	10.4	6.3	5.0	24.0	2
29	34.0	26.8	96	76	6.5	5.4	3.1	163.5	5
30	31.1	27.1	92	80	9.7	1.6	3.0	122.0	2
31	30.9	26.5	93	83	8.9	1.4	3.7	49.0	4
32-A	30.8	26.4	90	81	7.9	1.7	3.1	18.0	3
33	31.6	26.1	91	79	6.5	3.7	3.3	14.5	3
34	33.3	26.7	87	69	8.8	6.8	4.1	27.5	1
35	29.6	25.2	96	79	13.1	2.8	1.8	604.0	4
36-S	32.0	26.0	94	70	6.9	6.1	3.7	1.5	
37	32.7	25.1	86	60	8.1	7.8	4.6		
38	32.9	25.1	88	62	7.1	8.7	4.8		
39	33.2	25.6	89	66	8.4	6.2	4.5	28.0	2
40-O	33.4	25.5	87	62	6.6	8.1	4.5		
41	34.5	26.2	81	55	4.8	5.8	4.9	9.0	1

42	34.3	26.1	90	58	3.8	6.5	4.8	4.0	1
43	35.7	24.7	89	41	3.8	8.2	5.0	2.5	1
44	35.8	22.0	84	34	5.0	9.8	5.0		
45-N	34.9	21.5	74	32	4.1	9.3	4.4		
46	33.3	19.1	67	29	2.6	8.4	4.3		
47	30.4	16.1	61	28	3.8	8.5	3.8		
48	29.6	15.2	63	35	4.2	8.1	3.6		
49-D	29.4	16.8	67	33	5.3	8.5	3.7		
50	25.9	13.7	51	20	7.9	9.2	3.6		
51	25.4	12.1	68	29	4.7	7.4	3.5		
52	24.4	14.8	64	36	4.0	6.6	3.5		
Mean	32.4	22.4	81	47	7.9	7.9	5.4	1222.0	35
Highest	38.0	29.4	96	83	19.8	11.3	9.9		
Lowest	24.4	12.1	51	19	2.6	1.4	1.8		

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

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

Category	Jamnagar district		Devbhumi Dwarka District	
	Population	Production	Population	Production
Cattle	139176	75.60 MT	126026	
Buffalo	162333	161.92 MT	287600	
Sheep	214785		62504	
Goats	130282	8.89 MT	50263	
Camel	1115	0.88 MT	1311	
Horse	410		325	
Donkey	77		69	
Rabbits	239		467	
Poultry	143480		12610	
Fish				

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

2.7 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, green gram, wheat, Gram, cumin, Ajwain, mustard, Soyabean, Vegetable, Fruit crops	Heavy infestation of sucking pest in cotton, stem rot disease & white grub in Groundnut, Root rot in castor, Less area under horticulture crops, Blight in cumin, salinity, pink bollworm in cotton	- 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	flowers, live-stock etc		

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 ➤ White grub management in Groundnut ➤ Wireworm management in garlic & Onion ➤ Yellowing of wheat ➤ Required value addition and storage technique to reduce spoilage of agricultural produce.
2.	Organic farming	Enhancement of organic farming through improved technologies
3.	Farm waste/ organic matter	Recycling of farm waste through composting, vermin-compost, 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.	Water	Water table moved downward and problem of saline water increase.
7.	Farm Women	Farm women empowerment by training in value addition, handy crafts, and small-scale enterprises

3. TECHNICAL ACHIEVEMENTS**3.A. Details of target and achievements of mandatory activities by KVK during 2024**

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
4	4	12	9	138.4	136.8	391	387

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
36	42	1440	1889	229	503	17557	25096

Seed Production (Qtl.)		Planting material (Nos.)	
3		6	
Target	Achievement	Target	Achievement
266.60	425.23	1700	0

Livestock, poultry strains and fingerlings (No.)		Bio-products (Kg)	
7		8	
Target	Achievement	Target	Achievement
0	0	600	2319

3.1. B. Operational areas details during 2024

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.	Vavadi, Beraja, Bhadra, Bhimkata, Manamora, Nani Rafudad, Vadpanchasara, Baghla, Nanduri, Ishwariya, Tunpani, Gorinja, Positra, Vasai, Kalyanpur	OFT, FLD and Training
2	Chilli	Thrips, Curling of leaves, nutritional deficiency	130 ha	- " -	OFT, Training
3	Garlic	Purple blotch, wireworm, yellowing, tip burning	20 ha	- " -	Training
4	Onion	Purple blotch, bulb rotting	40 ha		OFT, Training
5	Sesame	Leaf webber, mite, blight, stem rot, root rot, yellowing, replacement of old variety	1000 ha.	- " -	OFT, FLD and Training
6	Wheat	Fall army worm, Stem borer, Termite, nutritional deficiency,	5000 ha	- " -	FLD and Training
7	Vegetable mittens (Okra, Brinjal)	Drudgery reduction, cut & wounds, skin hardness, blisters and abrasions,	90 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,	2500		FLD and Training
10	Cumin	Aphid, IPM, IDM, INM, variety	26300		FLD and Training
11	Ajwain	IDM, Variety	70		FLD and Training
12	Coriander	IDM, IPM, Variety	210		FLD and Training
13	Pearl millet	Fall army worm, Stem borer, Variety, IPM, IDM	300		FLD and Training
14	Chick pea	IPM, Variety, Stunt virus, IDM	7500		FLD and Training
15	Kitchen gardening	Nutritional security	Majority farmers		FLD and Training
16					

* Support with problem-cause and interventions diagram

3.2. Technology Assessment and Refinement (Kharif 2024, Rabi 2023-24, Summer 2024)**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
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					1					1
Drudgery Reduction										
Storage Technique										
Mushroom cultivation										
Total			1		1					2

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

Thematic areas	Cereals	Oilseeds	Pulses	Commercial Crops	Vegetables	Fruits	Flower	Plantation crops	Tuber Crops	TOTAL
Integrated Nutrient Management										
Varietal Evaluation										
Integrated Pest Management					1					1
Integrated Crop Management										
Integrated Disease Management		1								1
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	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
TOTAL			9	9	

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			
Entrepreneurship development			
Engagey 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	Assessment of hemoglobin and calcium level through drumstick leaf powder and amla powder	5	5
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 Chickpea (Assessment) (Varietal) (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 [Plant Height (cm) at harvest time; No. of branches per plant; No. of pods per plant; 100 seed weight (g) and Yield (q/ha)]														
			T1 (GJG-3)					T2 (GG-5)					T3 (GJG-6)				
			Height (cm)	Branch	No of Pod	100 Seed wt.	Yield (q/ha)	Height (cm)	Branch	No of Pod	100 Seed wt.	Yield (q/ha)	Height (cm)	Branch	No of Pod	100 Seed wt.	Yield (q/ha)
1	Kapuriya Damjibhai Karshanbhai	Vagadiya, Jamnagar	34.4	10	33	21.4	21.00	44.6	15	55	21.1	28.13	34.4	10	33	21.4	19.63
2	Sanghani Lalitbhai Nathabhai	Sevak Bhatiya, Lalpur	35.3	13	36	23.4	22.00	51.5	16	62	21.5	32.13	35.3	13	36	23.4	20.63

3	Amreliya Subhashbhai Narshibhai	Konza, Jamnagar	34.5	12	34	22.7	19.75	48.3	13	53	20.8	20.38	34.5	12	34	22.7	17.88
	Average		34.73	11.67	34.33	22.5	20.92	48.13	14.67	56.67	21.13	26.88	34.73	11.67	34.33	22.5	19.38

8) Final recommendation for micro level situation:

The result of the study revealed that the sowing of chickpea GG-5 produce higher yield with the Plant Height (48.13 cm) at harvest time; No. of branches per plant (14.67); No. of pods per plant (56.67 cm); 100 seed weight (21.13 g) and Yield (26.88 q/ha). The net return (Rs. 127443) and BCR (3.44) than chickpea variety GJG-3 and GJG-6 variety.

9) Constraints identified and feedback for research :

- Lack of knowledge about newer variety.
- Non-availability of seed of ne higher hieding variety
- 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 variety GG-5 having found lower diseases occurrence as well as higher yield performance then local practices (GJG-3). However, variety GJG-6 found less effective as compare to the GJG-3 and GG5 variety.

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 [Yield (Q/ha)]	
1	2	3	4	5	6	7	8	
Chickpea	Irrig- ated	Low yield in existing Variety	Assessment of suitable high yielding Chickpea Variety in Rabi season	3	Varietal evaluation	Plant Height (cm) at harvest time; No. of branches per plant; No. of pods per plant; 100 seed weight (g) and Yield (q/ha)	T ₁	20.92
							T ₂	26.88
							T ₃	19.38

Crop/ ente rprise	Results of assessment	Feedback from the farmer	Any interventio n done	Justification for intervention
1	9	10	11	12
Chickpea	The result of the study revealed that the sowing of chickpea GG-5 produce higher yield with the Plant Height (48.13 cm) at harvest time; No. of branches per plant (14.67); No. of pods per plant (56.67 cm); 100 seed weight (21.13 g) and Yield (26.88 q/ha). The net return (Rs. 127443) and BCR (3.44) than chickpea variety GJG-3 and GJG-6 variety.	Recommended practices variety GG-5 having found lower diseases occurrence as well as higher yield performance then local practices (GJG-3)	-	-

Crop / Enter- prise	Technology Assessed / Refined		Production kg/ha	Cost of cultivation Rs./ha	Gross return Rs./ha (Rate 130/kg)	Net Return (Profit) in Rs. / ha	BC Ratio
1	13		14	15	16	17	18
Chickpea	T ₁	GJG-3	2092	50753	139850	89097	2.76
	T ₂	GG-05	2688	52250	179693	127443	3.44
	T ₃	GJG-06	1938	51450	129555	78105	2.52

OFT 1 Chickpea (Assessment) (Varietal) (Rabi 2024-25)**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	Dudhagara Ramesh Jerambhai	At. Ishwariya, Ta. Lalpur	Result awaited		
2	Aghera Jamanbhai Rameshbhai	At. Pithad, Ta. Jodiya			
3	Bhabderi Ashok Bhikhubhai	At.- Bhadra, Ta.- Jodiya			

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**OFT-2 Brinjal (Intervention) (Rabi 2023-24)****Title : Management of brinjal whitefly (Rabi 2023-24)****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 of pesticide		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	Intervention practices 1	Spray of <i>Beauveria bassiana</i> 1.15 WP (Min. 2 x 10 ⁶ 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	Intervention practices 2	Spray of Difenthruron 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	Bumtariya Divyesh Harsukhbhai	Dhrol	52	198.75	21	298.75	32	275.00	23	290.00
2	Oza Maheshbhai Gabhrubhai	Jayva	45	210.00	26	301.25	25	240.00	25	272.50
3	Ranipa Khimji Narshibhai	Jayva	47	203.75	19	303.75	30	250.00	27	287.50
	Average		48	204.17	22	301.25	29	255.00	25	283.33

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 comparison 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 hazardous 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 increases as compare to farmers' practices.
- Reduce the chemical as well as leaf curl incidence.
- Reduce cost and chemicals in the intervention 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, Intervention 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/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter Q/ha	
1	2	3	4	5	6	7	8	
Brinjal	Irrigated	IPM	Management of brinjal whitefly	3	IPM Practices	No of whitefly/leaf and yield (q/ha)	T ₁	204.17
							T ₂	301.35
							T ₃	255
							T ₄	283.33

Crop/enterprise	Results of assessment	Feedback from the farmer	Any intervention done	Justification for intervention
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 comparison of pest reduction and yield, application of <i>Beauveria bassiana</i> 1.15 WP (Min. 2 x 10 ⁶ 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, Intervention treatment is very effective treatment for the management of whitefly for organic grower and harzardless effect along with maximum yied.	application of <i>Beauveria bassiana</i> 1.15 WP (Min. 2 x 10 ⁶ 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,	20417	141000	367506	226506	2.61

		Profenophos, clothianidin, acephate + monocrotophos, after infestation of whitefly repeatedly at weekly interval without follow ETL]					
	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 chlorantraniliprole 18.5 SC, 0.002 % is one day.	30125	122000	542250	420250	4.44
	T ₃	Spray of <i>Beauveria bassiana</i> 1.15 WP (Min. 2 x 10 ⁶ 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	459000	359000	4.59
	T ₄	Spray of Difenthruron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.	28333	120000	509994	389994	4.25

OFT-2 Brinjal (Intervention) (Rabi 2024-25)

Title : Management of Brinjal whitefly (Rabi 2024-25)

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 of pesticide		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	Intervention practices 1	Spray of <i>Beauveria bassiana</i> 1.15 WP (Min. 2 x 10 ⁶ 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	Intervention practices 2	Spray of Difenthruron 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	Salimbhai Valimamad Chavda	Varvala, Ta. Dwarka								
2	Ramesh Somji Agravat	Varvala, Ta. Dwarka								
3	Ker Bhojabha Hadabha	Gorinja, Ta. Dwarka								
	Average									

8) Final recommendation for micro level situation:

9) Constraints identified and feedback for research :

10) Process of farmers participation and their reaction:

11) Results of On Farm Trials :

RESULT AWAITED

OFT-3 :- Groundnut (Intervention) (Kharif 2024-25)

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, floxistobin, 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 <i>Pseudomonas fluorescens</i> 0.5% (2x10 ⁶ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS.		
Technology option 3		T ₃	Intervention practices	Foliar Spray of Talcum powder based <i>Pseudomonas fluorescens</i> 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	Vadodariya Bharatbhai Mohanbhai	At. Ishwariya, Ta. Lalpur, Dist. Jamnagar	3	4	2	32.3	21.53	2	3	1	36.5	24.33	2	4	2	33.8	22.53
2	Rahul Haribhai Khimaniya	At. Beraja (Fallu), Ta. Jodia, Dist. Jamnagar	5	5	3	28.4	18.93	4	3	3	37	24.67	4	4	3	34.7	23.13
3	Keshubhai Arjanbhai Sonara	At. Vavadi, Ta. Jodia, Dist. Jamnagar	3	4	3	30.8	20.53	2	2	2	37.5	25	3	2	1	34.7	23.13
Average			3.67	4.33	2.67	30.5	20.33	2.67	2.67	2	37	24.67	3	3.33	2	34.4	22.93

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% (2x10⁶ 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% (2×10^6 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 hence 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, Intervention treatment is very effective treatment for the management of foliar diseases for organic grower and hazardless effect along with maximum yield.

11) Results of On Farm Trials :

Crop/enter-prise	Farm-ing situ-ation	Problem Diag-nosed	Title of OFT	No. of trials*	Technolog y Assessed	Parameters of assessment	Data on the parameter [Yield (Q/ha)]		
1	2	3	4	5	6	7	8		
Ground nut	Rainfed & Irrigated	IDM	Managem-ent of foliar diseases in groundnut	3	IDM Practices	No. of leaf infested per plant from five randomly selected plants by diseases and yield (q/ha)		Pod yield	Halm yield
							T ₁	3050	2033
							T ₂	3700	2467
							T ₃	3440	2293

Crop/ ente rprise	Results of assessment	Feedback from the farmer	Any Intervention done	Justification for Intervention
1	9	10	11	12
Groundnut	Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS + Foliar Spray of Talcum powder based <i>Pseudomonas fluorescens</i> 0.5% (2×10^6 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 <i>Pseudomonas fluorescens</i> 0.5% (2×10^6 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.	Farmers have good response and they have support for OFT. Recommended practices having found lower diseases occurrence. However, Intervention treatment is very effective treatment for the management of foliar diseases for organic grower and harzardless effect along with maximum yied.	Foliar Spray of Talcum powder based <i>Pseudomonas fluorescens</i> 0.5% (2×10^6 cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS.	It is necessary to retard the diseases occurrence in groundnut and also reduction of hazardeous effect of chemical.

Crop/ Enter-prise	Technology Assessed / Refined	Yield (kg/ha)		Gross Return			Cost of Cultivation	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	3050	2033	198250	10165	208415	85000	123415	1.45
	T ₂	3700	2467	240500	12335	252835	78500	174335	2.22
	T ₃	3440	2293	223600	11465	235065	73600	161465	2.19

OFT-4 : Home Science: (Kharif 2023-24)**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 Purdue 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	Dudhagara Hansaben Rameshbhai	Majoth	16	22.57	6	8.0	2	1.1
2	Dudhagara Neetaben Pravinbhai	Majoth	12	28.85	5	14.2	1.6	1.4
3	Bhanuben Dineshbhai Kamani	Harshadpur	10	22.33	9	12.2	1.8	1.4
4	Kajalben Pareshbhai Jadeja	Harshadpur	16	25.89	4.6	10.2	2	1.6
5	Harshidaben Narotambhai Bhandari	Harshadpur	12	25.40	4	11.0	3	1.4
		Average	13.2	25.01	5.72	11.14	2.08	1.38

8) Final recommendation for micro level situation:

Use of Purdue 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 (1.38%) and lowest weight loss (2.08%) 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 [Col.18/(Col.16+17)]
1	13		14	15	16	17	18	19
Groundnut (PICS bag)	T ₁	Open heaps in storage godown	86.8	5729	20	871	4838	5.43
	T ₂	Local practices for storage in plastic bag /closely woven bag	94.28	6222	120	378	5724	11.49
	T ₃	Storage in Triple layer hermetic "Purdue Improved Crop Storage" (PICS) bags	97.92	6463	200	137	6126	18.18

N.B.:- Price of groundnut pod calculated @ Rs. 66/- per kg

Pooled Results of On Farm Trials:

Crop/enterprise	Year	Data on the performance indicators of the technology assessed (weight loss, Insect (Bruchid) damage in %)					
		T ₁		T ₂		T ₃	
		Open heaps in storage godown		Local practices for storage in plastic bag /closely woven bag		Storage in Triple layer hermetic "Purdue Improved Crop Storage" (PICS) bags	
		weight loss	Insect damage	weight loss	Insect damage	weight loss	Insect damage
Groundnut (PICS bag)	2021-22	16.8	25.8	5.4	10.2	1.4	2.76
	2022-23	14.48	24.31	5.24	11.01	2.12	1.84
	2023-24	13.2	25.01	5.72	11.14	2.08	1.38
	Average	14.83	25.04	5.45	10.78	1.87	1.99

Crop/enterprise	Year	T ₁			T ₂			T ₃		
		Gross return	Net Return	BC Ratio	Gross return	Net Return	BC Ratio	Gross return	Net Return	BC Ratio
Groundnut (PICS bag)	2021-22	4992	3964	3.86	5676	5252	12.39	5916	5662	22.29
	2022-23	5559	4598	4.78	6159	5718	12.97	6362	6024	17.82
	2023-24	5729	4838	5.43	6222	5724	11.49	6463	6126	18.18
	Average	5427	4467	4.69	6019	5565	12.28	6247	5937	19.43

The result of the study revealed that Use of Purdue 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 (1.99%) and lowest weight loss (1.87%) and reduce input cost as well as hazardous effect and very use full for Natural farming

OFT-5 Home Science (2024-25)

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

1) Objective :

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

2) Problem Definition :-

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

3) Details of technologies for assessment/ refinement

Category	Technology details		
Technology option 1	T ₁	Farmer practices 1	(Existing dietary pattern) [Chapati, dal, rice, butter milk, jaggari, vegetable, pulses etc. and not use of extra supplementary nutritive product in routine]
Technology option 2	T ₂	Assessment practices 1	Iron supplements as amla powder (5 gm/day) + drumstick leaf powder (5 gm/day)

4) Source of Technology:- Department of Chemical Engineering, IIT, Hyderabad

5) Production System :

Select six farm women randomly between age group of 30 to 50 years. Checkup the hemoglobin level and calcium level at the pathological laboratory. Among them select three farm women, who have hemoglobin level (12-15 g/dl) and calcium level (8.2 - 10.2 mg/dl) below reference interval. The farm women below reference interval provided supplements as amla powder (5 gm/day) + drumstick leaf powder (5 gm/day) with daily menu (farmer practices) and after three months again observe their Hemoglobin level and Calcium level. Record the pre and post treatment data for performance of the technology.

6) Thematic area : Women health care

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 of the farm women before technology performance			
			Hemoglobin Level (g/dl)		Calcium Level (mg/dl)	
			Ref. Interval	Result	Ref. Interval	Result
1	Bhanuben Dineshbhai Kamani	Harshadpur	12-15	13.4	8.2-10.2	10.02
2	Vasoya Sangitaben Ashwinbhai	Harshadpur	12-15	12.2	8.2-10.2	9.32
3	Dangariya Ashmita Rameshbhai	Harshadpur	12-15	14.1	8.2-10.2	9.32
4	Bhanderi Asmitaben Bhaveshbhai	Harshadpur	12-15	13.8	8.2-10.2	9.81
5	Kantaben Mansukhbhai Vasoya	Harshadpur	12-15	13.6	8.2-10.2	10.15
6	Geetaben Rajeshbhai Vasoya	Harshadpur	12-15	12.9	8.2-10.2	9.90

Above table showed that all six farm women selected were found hemoglobin level and calcium level above the reference level. Though above experiment was vitiated on those farm women and experiment was dropped out.

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 2024 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 -2023-24	Field days, Field visit, Radio talk, On/Off Campus Training and TV Program, Exhibition and demonstration	182	1940	12850
2	Groundnut (NFSM)	ICM	Improved var. Seed (GJG-32), Metarhizium anisopliae, Trichoderma, PSB, Rhizobium, Beauveria	Kharif 2024		230	1550	13500
3	Castor (ATIC)	Varietal	Variety GCH-9	Kharif-2024		32	296	380
	Pulses							
4	Chickpea (NFSM)	IPM, Varietal	Varietal (GG-5), Trichoderma, PSB, Rhizobium, Beauveria	Rabi-2023-24		42	410	750
	Cereals							
5	Pearl Millet	Varietal	Pearl millet Seed (GHB-1129)	Summer-2024		30	75	155
6	Wheat	Varietal	Variety –GW 451	Rabi-2023-24		17	45	105
	Spices Crops							
7	Ajwain	IPM/IDM	Beauveria, Trichoderma, Azotobacter, PSB, Mix micro nutrient	Kharif-2024		10	130	265
8	Cumin (ATIC)	IPM/IDM /INM	Beauveria, Trichoderma, Azotobacter, PSB,	Rabi-2023-24		130	1850	2400
9	Coriander (ATIC)	IPM/IDM /INM	Beauveria, Trichoderma, Azotobacter, PSB,	Rabi-2023-24		38	780	1580
	Others crops							
10	Cotton	IPM	Azadirachtin, Lemda cyhelothrin, S-NPV, Beauveria bassiana	Kharif 2024		65	690	1270
11	Kitchen Gardening	Nutritional Security	Vegetable seed, Beauveria	Kharif 2024		75	350	270
12	Cotton	Drudgery reduction	Cotton picking Apron	Kharif-2024		18	55	200

B. Details of FLDs implemented during 2024 (Kharif 2024, Rabi 2023-24, Summer 2024) (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 2024-25

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, Azotobacter	Summer-2023-24	20	20	0	50	50
2	Groundnut (NFSM)	ICM	Improved var. Seed (GJG-32), <i>Metarhizium anisopliae</i> , <i>Trichoderma</i> , PSB, <i>Rhizobium</i> , <i>Beauveria</i>	Kharif 2024-25	60	60	10	140	150
3	Castor (ATIC)	Varietal	Variety GCH-9	Kharif-2024-25	8	8	1	19	20
			Cereals						
4	Pearl millet	Varietal	Varietal (GHB-1129)	Summer-2023-24	4	4	0	10	10
5	Wheat	Varietal	Varietal GW-496	Rabi-2024-25	4	4	0	10	10
			Spices Crops						
6	Ajwain	IPM/IDM	<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB, Mix micro nutrient	Kharif-2024-25	4	4	0	10	10
7	Cumin	IPM/IDM/INM	<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB	Rabi 2024-25	8	8	0	20	20
8	Coriander	IPM/IDM/INM	Improved var. Seed(Coriander Gujarat-4),	Rabi 2024-25	8	8	3	17	20

			<i>Beauveria, Trichoderma, Azotobacter, PSB</i>						
			Others crops						
9	Cotton	IPM	Beauveria, S-NPV, Neemoil, Feromon trape/lure	Kharif 2024-25	10	10	0	25	25
10	Brinjal (ATIC)	Varital	GJLB-4	Rabi 2024-25	2	2	0	5	5
			Other enterprises						
11	Kitchen Gardening	Nutritional Security	Vegetable seed, Beauveria	Kharif 2024-25	2	2	0	50	50
12	Cotton	Drudgery reduction	Cotton picking Apron	Kharif 2024-25	2	2	0	5	5
			Total		132	132	14	361	375

FLD conducted during 2023-24 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-2023-24	8	8	0	20	20
			Cereals						
2	Wheat	Varietal	Varietal GW-451	Rabi-2023-24	4	4	0	10	10
			Spices Crops						
3	Cumin	IPM/IDM/INM	<i>Beauveria, Trichoderma, Azotobacter, PSB</i>	Rabi-2023-24	8	8	0	20	20
4	Coriander	IPM/IDM/INM	<i>Beauveria, Trichoderma, Azotobacter, PSB</i>	Rabi-2023-24	8	8	0	20	20
			Others crops						
5	Cotton	ICM	<i>Azadirachtin, S-NPV, lemda cyhelothrin, Beauveria bassiana,</i>	Kharif-2023-24	10	10	0	25	25
6	Brinjal	Varietal	Varietal GRB-5	Kharif 2023-24	2	2	0	5	5
			Total		40	40	0	100	100

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-2023-24	Irrigated	MB	L	M	H	Cotton, Chickpea, Wheat	1 to 15Feb.	1 to 15 May	1080	31
2	Groundnut (NFSM)	Kharif 2024-25	Rainfed	MB	L	M	H	Cotton, Chickpea, Wheat	15 to 25 June	1 Oct. to 15 Oct.	1222	35
3	Castor (ATIC)	Kharif-2024-25	Irrigated	MB	L	M	H	Cotton, wheat, g'nut,	7 to 23 August	Jan to March	1222	35
	Cereals											
4	Pearl Millet	Summer 2022-23	Irrigated	MB	L	M	H	Cotton, wheat, g'nut,	1 to 15Feb.	1 to 15 May	1080	31
5	Wheat	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1222	35
	Spice											
6	Ajwain	Kharif-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	1-15 August	1-15 Mar.	1222	35
7	Cumin	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1222	35
8	Coriander	Rabi-2023-24	Irrigated	MB	L	M	H	G'nut, Sesame	10-20 Nov.	15-30 Mar.	1222	35
	Other											
10	Cotton	Kharif 2023-24	Irrigated	MB	L	M	H	Cotton, Wheat	15 to 25 June	1 Jan to 15 Jan	1222	35
11	Brinjal	Rabi-2023-24	Irrigated	MB	L	M	H	Wheat Chickpea	15 July to 15 Aug.	1 Nov to 15 Feb	1222	35
12	Kitchen gardenig	Kharif, rabi 2023-24	Irrigated	MB	L	M	H	Vegetables	May-June, October	Throught season	1222	35
13	Cotton picking apron	Kharif 2023-24	Irrigated	MB	L	M	H	Cotton, Wheat	1 to 4 August	15 Jan to 25Feb.	1222	35

Technical Feedback on the demonstrated technologies

Sl. No.	Crop	Technology Demo.	feedback
	Oilseeds		
1	Sesame (NFSM)	Improved Var.(G. Til-5), <i>Beauveria bassiana</i> , <i>Trichoderma</i> , PSB, <i>Azotobacter</i>	➤ Seeds are white and bold ➤ Resistant to <i>Alternaria</i> & <i>Cercospora</i> leaf spots, <i>Phytophthora</i> 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), <i>Metarhizium</i> , <i>Trichoderma</i> , PSB, <i>Rhizobium</i> , <i>Beauveria</i>	➤ Effective control White grub with <i>Metarhizium</i> ➤ Effective control of <i>Sclerotium</i> with <i>Trichoderma</i> ➤ 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 <i>Fusarium</i> wilt and <i>Macrophomina</i> root rot ➤ Thrips, leaf hopper and whitefly infestation is low
	Cereals		
4	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
5	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	<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips, aphid and other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt was minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use
8	Cumin	<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB,	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips and also other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt was minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use
9	Coriander	<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB,	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips and also other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt was minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use

	Others		
10	Cotton	Azadirachtin, S-NPV, Lemda cyhalothrin, <i>Beauveria bassiana</i>	➤ Management of pest with minimum chemical ➤ Suppression of pest population with the help of S-NPV and Azadirachtin having reduce hazardous effect of chemicals ➤ Increase beneficiary insects ➤ Lambda Cyhalothrin used when pest ETL cross.
11	Brinjal	Varietal GRB-5	➤ Fruits are medium in size with medium round shape ➤ Fruit pulp is white with less seeds ➤ Fruits are pink purple in colour with good shining ➤ Cluster fruit bearing habit ➤ Purple shade on calyx
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), <i>Beauveria bassiana</i> , <i>Trichoderma</i> , PSB, <i>Azotobacter</i>	➤ Seeds are white ➤ Low incidence of pest and diseases ➤ Good yield potentiality ➤ Late variety
2	Groundnut Kharif NFSM	Improved var. Seed (GJG-32), <i>Metarhizium anisopliae</i> , <i>Trichoderma</i> , PSB, <i>Rhizobium</i> , <i>Beauveria</i>	➤ GJG-32 is high yielding variety ➤ Effective control White grub with <i>Metarhizium</i> ➤ Less incidence of pest and diseases ➤ Not feed by refugee animals
3	Castor	Variety GCH-9	➤ GCH-9 is high yielding under irrigation condition ➤ Medium duration of maturity ➤ Profuse branching habit with medium plant stature ➤ Resistant to <i>Fusarium</i> wilt and <i>Macrophomina</i> root rot ➤ Thrips, leaf hopper and whitefly infestation is low
	Cereals		
4	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
5	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		
6	Ajwain	<i>Beauveria, Trichoderma, Azotobacter, PSB, Mix micro nutrient</i>	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips, aphid and other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt were minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use
7	Cumin	<i>Beauveria, Trichoderma, Azotobacter, PSB</i>	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips, aphid and other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt were minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use
8	Coriander	<i>Beauveria, Trichoderma, Azotobacter, PSB</i>	➤ Use of <i>Azotobacter</i> and PSB had reduced the quantity of chemical fertilizers ➤ <i>Beauveria</i> helped in control of thrips, aphid and other pests ➤ Due to <i>Trichoderma</i> the incidence of wilt were minimized ➤ Cost of cultivation was reduced ➤ The products were easy to use
	Others		
9	Cotton	<i>Azadirachtin, S-NPV, Lemda cyheloثرin, Beauveria bassiana</i>	➤ Advance management for pest control is benefitted for less damage in plants for higher yield ➤ <i>Beauveria</i> is very effective against sucking and chewing pest ➤ Low cost pest management for longer time ➤ S-NPV is very effective for controlling the Spodoptera
10	Brinjal	<i>Variety GRB-5, Beauveria,</i>	➤ Very good and high yielding variety for late <i>kharif</i> season ➤ Fruits are medium size, round shape with pink purple in colour ➤ less seeds are preferable for end users

			➤ comparatively low incidence of whitefly, jassid and fruit borer was found.
11	Drudgery reduction	Cotton Picking Apron	➤ Useful for manual cotton picking and also vegetable harvesting ➤ Use of apron makes the women comfortable while picking cotton ➤ Prevents scratching of the skin
12	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.

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	1	5.01.24	22	
		1	8.01.24	21	
		1	12.01.24	22	
		1	8.02.24	11	
		1	9.02.24	9	
		1	20.05.24	12	
		1	23.05.24	20	
		2	20.05.24	20	
		1	15.07.24	10	
		1	26.07.24	12	
		1	30.07.24	17	
		1	24.09.24	13	
		3	26.09.24	30	
		1	24.09.24	10	
		1	26.09.24	14	
		2	29.11.24	15	
		3	22.11.24	36	
2	Farmers training	1	4.06.24	30	
		1	10.06.24	28	
		1	19.06.24	25	
		1	29.06.24	30	
		1	30.07.24	20	
		1	9.09.24	50	
		1	14.10.24	65	
		1	16.11.24	34	
3	Media coverage	6			
4	Training for extension functionaries	1	14.03.24	67	
		1	15.03.24	33	

C. PERFORMANCE OF FRONTLINE DEMONSTRATIONS

Front line demonstrations on oilseed crops

Crop	Them- atic Area	technology demonstrated	Variet y	No. of Farmer s	Area (ha)	Yield (q/ha)				% In creas e 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	Averag e										
Sesame (NFSM) (Sum- 2023-24)	ICM	Improved Var.(G. Til-5), <i>Beauveria bassiana</i> , <i>Trichoderma</i> , PSB, <i>Azotobacter</i>	G.Til.-5	50	20	16.6	8.9	11.8	10.4	13.40	37613	131235	93623	3.5	39285	115729	76443	3.0
Groundnu t (NFSM)(Kh- 2024-25)	ICM	Improved Var.(GJG.-32), <i>Beauveria</i> , <i>Metarhizium</i> , <i>Trichoderma</i> , PSB, <i>Rhizobium</i>	GJG-32	150	60	25.38	18.34	21.12	18.17	16.26	50390	126744	78124	2.55	55836	109014	53178	1.96

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										

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 2023-24	Castor (ATIC)	Varietal	GCH-9	20	8	46.25	25.0	38.75	34.06	13.76			64695	213125	148430	3.29	67210	187344	120134	2.79
	Cereals																			
Summer 2023-24	Pearl millet	Varietal	GHB-1129	10	4	45.0	32.50	39.25	34.25	14.60			33249	98125	64876	2.95	34375	85625	51250	2.49
Rabi 2023-24	Wheat	Varietal	Variety –GW 451	10	4	58.75	46.25	52.13	47.00	10.90			40070	130313	90243	3.25	41350	117500	76150	2.84
	Spices & condiments																			
Kharif 2024-25	Ajwain	IPM/IDM/INM	Beauveria, Mix Micro Nutrient, Trichoderma, Azotobacter, PSB	10	04	13.75	8.50	9.84	9.10	8.10			41461	113131	71670	2.73	43071	104650	61579	2.43
Rabi-2023-24	Cumin (ATIC)*	IPM/IDM/INM	Beauveria, Trichoderma, Azotobacter, PSB,	20	8	9.88	6.63	7.65	6.99	9.48	-	-	102710	166388	63678	1.62	112800	151978	39178	1.35
Rabi-2023-24	Coriander (ATIC)*	IPM/IDM/INM	Beauveria, Trichoderma, Azotobacter, PSB,	20	8	22.50	16.25	19.22	17.89	7.44	-	-	37950	120117	82167	3.17	38730	98381	59651	2.54

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												
	Other Crops																			
Kharif 2023-24	Cotton	IPM	Beauveria, SNPV, Azadirachtin, Lemda cyheloثرin	25	10	23.75	15	20.4	17.6	18.3			53340	145457	92117	2.73	55160	125400	70240	2.28
Kharif 2023-24	Brinjal	Varietal	GRB-5	5	2	405	375	389.75	321	21.42			126400	2143625	2017225	16.96	137000	1765500	1628500	12.89

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	45.0	32.50	39.25	34.25	14.60	33249	98125	64876	2.95	34375	85625	51250	2.49

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
Drudgery reduction	Cotton picking apron	5	Seed cotton picked (kg/hr)	3.56	3.24
			Cotton picking efficiency (%)	9.88 %	-

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 (2024)	Nutritional security	Vegetable seed	50	50	550.72	452.72	21.65	-	-	4907	13768	8861	2.81	5319	11318	5999	2.13

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-1129	10	4	45.0	32.50	39.25	34.25	14.60	33249	98125	64876	2.95

3.4 TRAINING PROGRAMME

Farmers' Training including sponsored training programmes (on campus)

Thematic Area	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management				0			0	0
Resource Conservation Technologies				0			0	0
Cropping Systems	1	5	25	30	4	0	4	34
Crop Diversification				0			0	0
Integrated Farming				0			0	0
Micro Irrigation/irrigation				0			0	0
Seed production	1	49	4	53	0	0	0	53
Nursery management				0			0	0
Integrated Crop Management				0			0	0
Soil & water conservatioin				0			0	0
Integrated nutrient management				0			0	0
Production of organic inputs				0			0	0
Others (pl specify)				0			0	0
Total	2	54	29	83	4	0	4	87
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops				0			0	0
Off-season vegetables				0			0	0
Nursery raising	1	5	25	30	0	0	0	30
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0

d) Plantation crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
g) Medicinal and Aromatic Plants				0			0	0
Nursery management				0			0	0
Production and management technology				0			0	0
Post harvest technology and value addition				0			0	0
Total	1	5	25	30	0	0	0	30
III Soil Health and Fertility Management				0			0	0
Soil fertility management				0			0	0
Integrated water management				0			0	0
Integrated Nutrient Management				0			0	0
Production and use of organic inputs				0			0	0
Management of Problematic soils				0			0	0
Micro nutrient deficiency in crops				0			0	0
Nutrient Use Efficiency				0			0	0
Balance use of fertilizers				0			0	0
Soil and Water Testing				0			0	0
Others (pl specify)				0			0	0
Total	0	0	0	0	0	0	0	0
IV Livestock Production and Management				0			0	0
Dairy Management	1	15	8	23	0	0	0	23
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	0	60	60	0	9	9	69
Production of quality animal products				0			0	0
Others (pl specify)				0			0	0
Total	2	15	68	83	0	9	9	92
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening				0			0	0
Design and development of low/minimum cost diet				0			0	0

Designing and development for high nutrient efficiency diet				0			0	0
Minimization of nutrient loss in processing				0			0	0
Processing and cooking	1	0	44	44	0	0	0	44
Gender mainstreaming through SHGs				0			0	0
Storage loss minimization techniques	1	24	0	24	0	0	0	24
Value addition	2	0	91	91	0	5	5	96
Women empowerment	1	0	50	50	0	0	0	50
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	24	185	209	0	5	5	214
VI Agril. Engineering				0			0	0
Farm Machinery 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	2	83	0	83	0	0	0	83
Integrated Disease Management	2	104	0	104	0	0	0	104
Bio-control of pests and diseases	1	87	0	87	0	0	0	87
Production of bio control agents and bio pesticides				0			0	0
Others (pl specify)	2	55	30	85			0	85
Total	7	329	30	359	0	0	0	359
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	1	40	0	40	0	0	0	40
Bio-pesticides production				0			0	0
Bio-fertilizer production				0			0	0
Vermi-compost production				0			0	0
Organic manures production				0			0	0
Production of fry and fingerlings				0			0	0
Production of Bee-colonies and wax sheets	1	114	0	114	6	0	6	120
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	154	0	154	6	0	6	160
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	19	581	337	918	10	14	24	942

Farmers' Training including sponsored training programmes (off campus)

Thematic Area	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	1	30	0	30	0	0	0	30
Resource Conservation Technologies				0			0	0
Cropping Systems				0			0	0
Crop Diversification				0			0	0
Integrated Farming	1	21	0	21	0	0	0	21
Micro Irrigation/irrigation				0			0	0
Seed production				0			0	0
Nursery management				0			0	0
Integrated Crop Management	1	25	3	28	0	0	0	28
Soil & water conservatioin				0			0	0
Integrated nutrient management				0			0	0
Production of organic inputs				0			0	0
Others (pl specify)				0			0	0
Total	3	76	3	79	0	0	0	79
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops				0			0	0
Off-season vegetables				0			0	0
Nursery raising				0			0	0
Exotic vegetables like Broccoli				0			0	0
Export potential vegetables				0			0	0
Grading and standardization				0			0	0
Protective cultivation (Green Houses, Shade Net etc.)				0			0	0
b) Fruits				0			0	0
Training and Pruning				0			0	0
Layout and Management of Orchards				0			0	0
Cultivation of Fruit				0			0	0
Management of young plants/orchards				0			0	0
Rejuvenation of old orchards				0			0	0
Export potential fruits				0			0	0
Micro irrigation systems of orchards				0			0	0
Plant propagation techniques				0			0	0
c) Ornamental Plants				0			0	0
Nursery Management				0			0	0
Management of potted plants				0			0	0
Export potential of ornamental plants				0			0	0
Propagation techniques of Ornamental Plants				0			0	0
d) Plantation crops				0			0	0
Production and Management technology				0			0	0

Processing and value addition				0			0	0
e) Tuber crops				0			0	0
Production and Management technology				0			0	0
Processing and value addition				0			0	0
f) Spices				0			0	0
Production and Management technology				0			0	0
Processing and value addition	1	135	0	135	13	0	13	148
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	135	0	135	13	0	13	148
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	55	0	55	0	0	0	55
Production and use of organic inputs	1	23	3	26	0	0	0	26
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	57	0	57	2	0	2	59
Soil and Water Testing	1	52	0	52	14	0	14	66
Others (pl specify)				0			0	0
Total	4	187	3	190	16	0	16	206
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	1	0	30	30	0	0	0	30
Design and development of low/minimum cost diet	1	0	30	30	0	0	0	30
Designing and development for high nutrient efficiency diet				0			0	0

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				0			0	0
Women empowerment	1	5	20	25	0	0	0	25
Location specific drudgery reduction technologies				0			0	0
Rural Crafts				0			0	0
Women and child care	1	0	28	28	0	0	0	28
Others (pl specify)				0			0	0
Total	4	5	108	113	0	0	0	113
VI Agril. Engineering				0			0	0
Farm Machinery and its maintenance				0			0	0
Installation and maintenance of micro irrigation systems	1	138	0	138	13	0	13	151
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	138	0	138	13	0	13	151
VII Plant Protection				0			0	0
Integrated Pest Management	3	76	4	80	0	0	0	80
Integrated Disease Management	1	22	2	24	0	0	0	24
Bio-control of pests and diseases	2	31	42	73	0	0	0	73
Production of bio control agents and bio pesticides	1	40	0	40	0	0	0	40
Others (pl specify)				0			0	0
Total	7	169	48	217	0	0	0	217
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				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	0	0	0	0	0	0	0	0
X Capacity Building and Group Dynamics				0			0	0
Leadership development				0			0	0
Group dynamics				0			0	0
Formation and Management of SHGs				0			0	0
Mobilization of social capital				0			0	0
Entrepreneurial development of farmers/youths				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	710	162	872	42	0	42	914

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

Thematic Area	No. of courses	No. of participant						Grand Total
		others			SC/ST			
		Male	Female	Total	Male	Female	Total	
(A) Farmers & Farm Women								
I Crop Production								
Weed Management	1	30	0	30	0	0	0	30
Resource Conservation Technologies	0	0	0	0	0	0	0	0
Cropping Systems	1	5	25	30	4	0	4	34
Crop Diversification	0	0	0	0	0	0	0	0
Integrated Farming	1	21	0	21	0	0	0	21
Micro Irrigation/irrigation	0	0	0	0	0	0	0	0
Seed production	1	49	4	53	0	0	0	53
Nursery management	0	0	0	0	0	0	0	0
Integrated Crop Management	1	25	3	28	0	0	0	28
Soil & water conservatioin	0	0	0	0	0	0	0	0
Integrated nutrient management	0	0	0	0	0	0	0	0
Production of organic inputs	0	0	0	0	0	0	0	0
Others (pl specify)	0	0	0	0	0	0	0	0
Total	5	130	32	162	4	0	4	166
II Horticulture				0			0	0
a) Vegetable Crops				0			0	0
Production of low volume and high value crops	0	0	0	0	0	0	0	0
Off-season vegetables	0	0	0	0	0	0	0	0
Nursery raising	1	5	25	30	0	0	0	30
Exotic vegetables like Broccoli	0	0	0	0	0	0	0	0
Export potential vegetables	0	0	0	0	0	0	0	0
Grading and standardization	0	0	0	0	0	0	0	0
Protective cultivation (Green Houses, Shade Net etc.)	0	0	0	0	0	0	0	0
b) Fruits	0	0	0	0	0	0	0	0
Training and Pruning	0	0	0	0	0	0	0	0
Layout and Management of Orchards	0	0	0	0	0	0	0	0
Cultivation of Fruit	0	0	0	0	0	0	0	0
Management of young plants/orchards	0	0	0	0	0	0	0	0
Rejuvenation of old orchards	0	0	0	0	0	0	0	0
Export potential fruits	0	0	0	0	0	0	0	0
Micro irrigation systems of orchards	0	0	0	0	0	0	0	0
Plant propagation techniques	0	0	0	0	0	0	0	0
c) Ornamental Plants	0	0	0	0	0	0	0	0
Nursery Management	0	0	0	0	0	0	0	0
Management of potted plants	0	0	0	0	0	0	0	0
Export potential of ornamental plants	0	0	0	0	0	0	0	0
Propagation techniques of Ornamental Plants	0	0	0	0	0	0	0	0
d) Plantation crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0

Processing and value addition	0	0	0	0	0	0	0	0
e) Tuber crops	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	0	0	0	0	0	0	0	0
f) Spices	0	0	0	0	0	0	0	0
Production and Management technology	0	0	0	0	0	0	0	0
Processing and value addition	1	135	0	135	13	0	13	148
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	140	25	165	13	0	13	178
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	55	0	55	0	0	0	55
Production and use of organic inputs	1	23	3	26	0	0	0	26
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	57	0	57	2	0	2	59
Soil and Water Testing	1	52	0	52	14	0	14	66
Others (pl specify)	0	0	0	0	0	0	0	0
Total	4	187	3	190	16	0	16	206
IV Livestock Production and Management				0			0	0
Dairy Management	1	15	8	23	0	0	0	23
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	0	60	60	0	9	9	69
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	15	68	83	0	9	9	92
V Home Science/Women empowerment				0			0	0
Household food security by kitchen gardening and nutrition gardening	1	0	30	30	0	0	0	30
Design and development of low/minimum cost diet	1	0	30	30	0	0	0	30
Designing and development for high nutrient efficiency diet	0	0	0	0	0	0	0	0

Minimization of nutrient loss in processing	0	0	0	0	0	0	0	0
Processing and cooking	1	0	44	44	0	0	0	44
Gender mainstreaming through SHGs	0	0	0	0	0	0	0	0
Storage loss minimization techniques	1	24	0	24	0	0	0	24
Value addition	2	0	91	91	0	5	5	96
Women empowerment	2	5	70	75	0	0	0	75
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	1	0	28	28	0	0	0	28
Others (pl specify)	0	0	0	0	0	0	0	0
Total	9	29	293	322	0	5	5	327
VI Agril. Engineering				0			0	0
Farm Machinery and its maintenance	0	0	0	0	0	0	0	0
Installation and maintenance of micro irrigation systems	1	138	0	138	13	0	13	151
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	138	0	138	13	0	13	151
VII Plant Protection				0			0	0
Integrated Pest Management	5	159	4	163	0	0	0	163
Integrated Disease Management	3	126	2	128	0	0	0	128
Bio-control of pests and diseases	3	118	42	160	0	0	0	160
Production of bio control agents and bio pesticides	1	40	0	40	0	0	0	40
Others (pl specify)	2	55	30	85	0	0	0	85
Total	14	498	78	576	0	0	0	576
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	1	40	0	40	0	0	0	40
Bio-pesticides production	0	0	0	0	0	0	0	0
Bio-fertilizer production	0	0	0	0	0	0	0	0
Vermi-compost production	0	0	0	0	0	0	0	0
Organic manures production	0	0	0	0	0	0	0	0
Production of fry and fingerlings	0	0	0	0	0	0	0	0
Production of Bee-colonies and wax sheets	1	114	0	114	6	0	6	120
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	2	154	0	154	6	0	6	160
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	39	1291	499	1790	52	14	66	1856

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	1	0	21	21	0	8	8	29
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	1	0	21	21	0	8	8	29

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	1	0	21	21	0	8	8	29
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	1	0	21	21	0	8	8	29

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

(C) Extension Personnel								
Productivity enhancement in field crops								
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								
Protected cultivation technology	1	61	6	67	0	0	0	67
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	1	61	6	67	0	0	0	67

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

(C) Extension Personnel								
Productivity enhancement in field crops	1	27	6	33	0	0	0	33
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	1	27	6	33	0	0	0	33

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

(C) Extension Personnel								
Productivity enhancement in field crops	1	27	6	33	0	0	0	33
Integrated Pest Management								
Integrated Nutrient management								
Rejuvenation of old orchards								

Protected cultivation technology	1	61	6	67	0	0	0	67
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	88	12	100	0	0	0	100

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	2	54	29	83	4	0	4	58	29	87
Horticulture	1	1	5	25	30	0	0	0	5	25	30
Soil Health and Fertility Management	1	0	0	0	0	0	0	0	0	0	0
Livestock production and management	1	2	15	68	83	0	9	9	15	77	92
Home Science/Women empowerment	2	5	24	185	209	0	5	5	24	190	214
Agricultural Engineering	0	0	0	0	0	0	0	0	0	0	0
Plant Protection	5	7	329	30	359	0	0	0	329	30	359
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	1	2	154	0	154	6	0	6	160	0	160
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	19	581	337	918	10	14	24	591	351	942
(B) RURAL YOUTH	1	1	0	21	21	0	8	8	0	29	29
(C) Extension Personnel	2	1	61	6	67	0	0	0	61	6	67
Grand Total	16	21	642	364	1006	10	22	32	652	386	1038

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	3	76	3	79	0	0	0	76	3	79
Horticulture	1	1	135	0	135	13	0	13	148	0	148
Soil Health & Fertility Management	3	4	187	3	190	16	0	16	203	3	206
Livestock production and management	1	0	0	0	0	0	0	0	0	0	0
Home Science/Women empowerment	5	4	5	108	113	0	0	0	5	108	113
Agricultural Engineering	1	1	138	0	138	13	0	13	151	0	151
Plant Protection	5	7	169	48	217	0	0	0	169	48	217
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	1	0	0	0	0	0	0	0	0	0	0
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	710	162	872	42	0	42	752	162	914
(B) RURAL YOUTH	0	0	0	0	0	0	0	0	0	0	0
(C) Extension Personnel	2	1	27	6	33	0	0	0	27	6	33
Grand Total	22	21	737	168	905	42	0	42	779	168	947

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	5	130	32	162	4	0	4	134	32	166
Horticulture	2	2	140	25	165	13	0	13	153	25	178
Soil Health and Fertility Management	4	4	187	3	190	16	0	16	203	3	206
Livestock production and management	2	2	15	68	83	0	9	9	15	77	92
Home Science/Women empowerment	7	9	29	293	322	0	5	5	29	298	327
Agricultural Engineering	1	1	138	0	138	13	0	13	151	0	151
Plant Protection	10	14	498	78	576	0	0	0	498	78	576
Fisheries	0	0	0	0	0	0	0	0	0	0	0
Production of Inputs at site	2	2	154	0	154	6	0	6	160	0	160
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	39	1291	499	1790	52	14	66	1343	513	1856
(B) RURAL YOUTH	1	1	0	21	21	0	8	8	0	29	29
(C) Extension Personnel	4	2	88	12	100	0	0	0	88	12	100
Grand Total	38	42	1379	532	1911	52	22	74	1431	554	1985

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	4	193	12	205	0	0	0	193	12	205
Commercial production of vegetables										
Production and value addition										
Fruit Plants										
Ornamental plants	1	5	25	30	0	0	0	5	25	30
Spices crops	1	135	0	135	13	0	13	148	0	148
Soil health and fertility management	2	112	0	112	2	0	2	114	0	114
Production of Inputs at site	1	114	0	114	6	0	6	120	0	120
Methods of protective cultivation										
Integrated Disease and Pest Management	3	148	42	190	0	0	0	148	42	190
Total	12	707	79	786	21	0	21	728	79	807
Post-harvest technology and value addition										
Processing and value addition	2	24	59	83	0	5	5	24	64	88
Store grain pests and its management for minimize the storage loss	1	55	0	55	0	0	0	55	0	55
Total	3	79	59	138	0	5	5	79	64	143
Farm machinery										
Farm machinery, tools and implements	1	138	0	138	13	0	13	151	0	151
Others (pl. specify)										
Total	1	138	0	138	13	0	13	151	0	151
Livestock and fisheries										
Livestock production and management										
Animal Nutrition Management										
Animal Disease Management	1	0	60	60	0	9	9	0	69	69
Fisheries Nutrition										
Fisheries Management										
Others (pl. specify)										
Total	1	0	60	60	0	9	9	0	69	69
Home Science										
Household nutritional security										
Economic empowerment of women	3	0	97	97	0	8	8	0	105	105
Drudgery reduction of women										

Others (pl. specify)										
Total	3	0	97	97	0	8	8	0	105	105
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	20	924	295	1219	34	22	56	958	317	1275

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

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	21	21	0	8	8	0	29	29
Others (pl. specify)										
Total										
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	21	21	0	8	8	0	29	29

3.5 Extension Programmes (including activities of FLD programmes)

Activities	No. of Programme	No. of farmers	No. of Extension Personnel	Total
Advisory Services	3567	6094	148	6242
Diagnostic visits	12	70	21	91
Field Day	23	272	39	311
Group discussions	9	126	24	150
Kisan Ghosthi	7	186	23	209
Film Show	8	548	23	571
Self -help groups	2	22	0	22
Exposure visits	1	16	1	17
Exhibition	3	4633	138	4771
Scientists' visit to farmers field	18	195	30	225
Farmers' seminar/workshop	5	739	46	785
Method Demonstrations	15	297	13	310
Celebration of important days	5	585	48	633
Special day celebration	5	537	44	581
Lecture delivered	127	12297	679	12976
Implement/Crop Demonstration	20	297	42	339
Colloborative training	1	64	2	66
Kisan Mela	0	0	0	0
Crop shibir/farmers shibir	1	570	6	576
Night meeting	2	136	7	143
Total	3831	27684	1334	29018

Other Extension Activity

Sr. No.	Scientist Activity (give Number)	No. of Activity
1	Electronic Media (CD./DVD)	0
2	Extension Literature	4837
3	Newspaper coverage	25
4	Popular articles	5
5	Radio Talks	7
6	TV Talks	5
7	Animal health camps (Number of animals treated)	0
8	Publication	11
9	No. of message through whats App	11975
	Total	16865

3.6 Online activities during year 2024

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				
	Total				
B	Farmers scientist's interaction programme				
	Total				
C	Farmers seminars				
	Total				
D	Expert lectures				
	Total				
E	Any other (Pl. specify)				
	Total				
	Grand Total (A+B+C+D+E)				

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		24.50	37.5	91875	54
Pulses	Chickpea	GJG-3		27.02	92	248584	43
Cereals	Bajra	Parent seed		3.15	35	11025	0
Oilseed crops	Groundnut	GG-37		35.957	75	2696775	285
Oilseed crops	Castor	GCH-9		14.16	60	84960	0
Total						3133219	382

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	<i>Azotobactor</i>	100			100
	<i>Rhizobium</i>	150			150
	<i>PSB</i>	250			250
Bio-pesticide	<i>Beauveria Bassiana</i>		513		328
	<i>Metarizium</i>		300		150
	<i>SNPV</i>	6.25			25
	Pheromone Trap & Lure	500			25
Bio-fungicide	<i>Trichoderma</i>		500		250
Total		1006.25	1313		1278

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					
Buffaloes					
Calves					
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, 2024
2. April to June, 2024
3. July to Sept., 2024
4. Oct. to Dec. 2024

Number of copies distributed: JAU Newsletter

B. Literature developed/published

Item	Title	Authors name	Nass Rating/ Impact Factor
Research Paper	Bio rationals management of mango hopper infesting mango (<i>Mangifera indica</i> L.) cv. Kesar.(2024), International Journal of Agricultural Sciences, 21(1):10-14	HN Patel, KP Baraiya, D. R. Kanzariya2, H. J. Senjaliya3 and N. N. Chauhan	4.58 /6.05 3
	Effect of fertilizer on sucking pest population in sesame(2024), International Journal of Advanced Biochemistry Research 2024; SP-8(9): 1375-1381	AA Ram, KP Baraiya and BJ Solanki	5.32/ 5.29

	Comprehensive study on climatic and ecological drivers of seasonal fluctuation of guava fruit fly(2024), International Journal of Advanced Biochemistry Research 2024; SP-8(11): 803-807	Thumar JM, Baraiya KP, Patel HN and Makwana AG	5.32/ 5.29
Abstract	Impact of front line demonstrations on boosting productivity of Coriander, Compendium SEEG National Seminar6-7 January,2024(P-288)	Baraiya KP, Baraiya AK, Savaliya AV and Ambaliya ND	
	Impact of front line demonstrations on productivity of cumin, Compendium SEEG National Seminar6-7 January,2024(P-289)	Baraiya AK, Baraiya KP, Savaliya AV and Ambaliya ND	
	Productivity enhancement in Bt. Cotton through IPM technology, Compendium SEEG National Seminar6-7 January,2024(P-295)	Savaliya AV, Baraiya KP and Ambaliya N D	
	Impact of front line demonstration on yield and economics of Wheat, Compendium SEEG National Seminar 6-7 January,2024(P-303)	Savaliya AV, Baraiya KP and Baraiya AK	
	Knowledge of farm women about kitchen gardening in Jamnagar and Devbhumi Dwarka districts of Gujarat, Souvenir International Conference on Climate-Smart Nutri-Sensitive Integrated Farming System for Gender-equitable Sustainable Agriculture: Prospects and Challenges (ICNSFS-2024), November 06-08, 2024(41-42)	Baraiya AK, Baraiya KP, Jadav NB	
	Impact of front-line demonstrations on productivity of Cumin in Jamnagar & Devbhumi Dwarka district Compendium National Seminar on Agricultural Extension for Viksit Bharat: Innovations and Strategies for Sustainable Development 27-28, December 2024(269)	Baraiya KP, Baraiya AK, Savaliya AV & Ambaliya ND	
	Self-confidence and self-reliance impact of women through Self Help Group with special reference to Gujarat. Compendium National Seminar on Agricultural Extension for Viksit Bharat: Innovations and Strategies for Sustainable Development 27-28, December 2024(397)	Padsumbiya HH, Neha Tiwari, Thakar DS and Baraiya AK	
	Knowledge of farm women about kitchen gardening in Jamnagar and Devbhumi Dwarka district of Gujarat. Compendium National Seminar on Agricultural Extension for Viksit Bharat: Innovations and Strategies for Sustainable Development 27-28, December 2024(411)	Baraiya AK, Baraiya KP, Jadav NB and Padsumbiya HH	
Popular Articles	Khetima havaman agahini agtyata, Krushi Jagran, Febuary-2024, (30-33)	AV savaliya, ND Ambaliya, AK Baraiya, KP Baraiya	
	Unalu talni kheti chavirup muda, Krushi Prabhat, pg No. 17, Date 05-02-2024	KP Baraiya, AV savaliya, ND Ambaliya, AK Baraiya,	

	Rasoi banavva mate yogypadhdhti vapriye ane poshan bachaviye, Krushi Vigyan, July 2024:50(6):17	AK Baraiya KP Baraiya, SH Lakhani	
	Alsiyanu khatar bnavvani saral rit temaj mahtv	SH Lakhani, AK Baraiya KP Baraiya,	
	Khetima havaman agahi, Krishi Vigyan, September 2024:50(8):13	AV savaliya, ND Ambaliya, AK Baraiya, KP Baraiya	
Technical reports	Annual Progress Report : 2023	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	20 th AGRESCO Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	41 st ZREAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	42 nd ZREAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	20 th SAC Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	Annual Report of ATIC(2023)	Smt. A. K. Baraiya, Dr. K. P. Baraiya	
	NMOOP & NFSM FLD result report	Mr. N. D. Ambaliya, Dr. K. P. Baraiya	
	DAMU Project Annual Report	Smt. A. K. Baraiya, Dr. K. P. Baraiya	

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	218
		KB Pragatishil Gujarat	609
		Agro Lovers	32
		Jay Sardar	47
		Vermicomposting	87
		SPNF Prakrutik kheti	82
		1 SPNF kheti Jamnagar	182
		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

		Krushhi Rushi Gujarat	152
		Agni Hotra Krushi	163
		Khetivadi Samachar	24
		Organic skill KVK JMN	20
		Farmers Group	186
		Krishi e demop JMN	69
		Gay PrakrutikKheti	170
		Sadguru Organic Farm	135
		Innovative Farmers	13
		B Van Vihar	17
		ATMA Group 1 Dhrol	416
		KVK, Jamnagar Kalavad	503
		KVK, Jamnagar Dhrol	380
		KVK, Jamnagar Dhrol-2	147
		KVK, Jamnagar Jodiya	464
		KVK, Jamnagar Jodiya-2	115
		KVK, Jamnagar Jodiya-3	140
		KVK, Jamnagar Lalpur	3280
		KVK, Jamnagar Lalpur-2	119
		KVK, Jamnagar Jamnagar	812
		KVK, Jamnagar Jamnagar-2	135
		KVK, Jamnagar Jamnagar-3	133
		KVK, JamnagarJamjodhpur	247
		KVK, Jamnagar Jamjodhpur-2	76
		Damu Jam Khambhaliya Taluka	50
		Damu Jam Kalyanpur Taluka	48
		Damu Jam Bhanvad Taluka	34
		Damu Jam Dwarka Taluka	20
		KVK Jamnagar	44
		Jashapar Samachar Group	505
		PPAG Directory New 1	976
		Goral Farm	259
		Ahar Arogya ayurved	92
		Jashapur Seva Sahkari Mandali	226
		Friends groups Jamnagar	99
		Agriculture Group	35
		Gujrat Kishan	249
		Sarda	74
		Krishi Mahiti & Jankari	175
		PPAG Directory 2	979
		Jay Siddhnath Nursery	252
		53 Groups	18281
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

“Natural Farming and Value addition in Pulses”

Dr. K. P. Baraiya¹, Smt. A. K. Baraiya², Smt. D. G. Patel³ & Shri N. D. Ambaliya⁴

[1- Senior Scientist& Head; 2- Scientist and 3,4- Agril. Officer, KVK, JAU, Jamnagar]

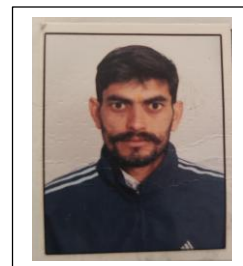
Name of Farmer : Ajaysinh Balvantsinh Jadeja

Village : Bhimkata

Taluka : Jodiya

District : Jamnagar

Education : 9th



Introduction

Shri Ajaysinh Balvantsinh Jadeja is young farmer of very interior village Bhimkata of Jodiya block of Jamnagar district. Bhimkata came on bank of seashore nearby ten miles from gulf of Kutch. It comes under the North Saurashtra Agro-Climatic Zone having very low and erratic rainfall receive hardly 350 to 400 mm annually. Ground water is also scar in this area and also salty water problems found. Ajaysinh and his family completely dependent on farming. He has no any side income from any business. He started farming from 2008 with Natural farming practices viz., Pigeon pea, Wheat, Chickpea, cotton and other fodder crops.

Training and guidance of KVK

He also used more pesticide and Chemical fertilizer due to that increase cost of cultivation and reduce net profit Ajaysinh was helpless about farming business. In 2008 he comes in contact with scientists of ATMA and KVK, JAU, Jamnagar, then after he regularly visit KVK and attends trainings, farmer and scientist interface, exposure visit, and other programme organized by KVK and other agriculture offices. In 2009 Ajaysinh linkage with ATMA project through KVK, JAU, Jamnagar. He was interested in Natural farming and increase his farm income.

He was also purchased five cows for Natural farming. He has changed his way of cultivation for chemical to Natural cultivation. He does not use any type of chemical for protection as well as crop production. He uses Cow urine, bio fertilizer, well decomposed FYM, vermi-compost and bio pesticide in farming.

Practices adopted

Ajaysinh adopted natural farming since 2012. He cultivated Chickpea, Wheat, Pigeon pea, Groundnut for value added products by Natural farming. He also Prepared and used beejamrit for

seed treatment, Jivamrit and Ghan Jivamrut for nutrition management and agniasttra, Brahmastra dasparni ark for pest control. He cultivated mixed crop and border crop for managing insects. He guide to other farmers regarding Natural Farming.

Comparison between Natural Farming and Conventional Farming

Parameters	Natural Farming (Area in ha)	Conventional Farming (Area in ha)
Name of Crop	Chickpea (Vaishali)	Chickpea (Vaishali)
Cost of cultivation (Rs)	45000/-	57000/-
Production (q)	22 q	26 q
Gross return (₹)	192000/-	168000/-
Net return (₹)	147000/-	111000/-
BC ratio	4.26	2.95

Benefits and achievements

Improved soil health in term of chemical, physical and biological status of soil. The availability of soil moisture and macro - micronutrients also increased with the adoption of natural farming practices. Chemical free and quality food was produced. Reduce cost of cultivation and enhanced higher profit.

Achieved certificate by shri Ramkrushn Paramhans trust on Chintan Farm- Prakrutik Gam” Attended training certificate on Shri Subhas Palekar prakrutik kheti shibir at Ahmedabad Attended work as a Speaker in Subhas Palekar Prakrutik Krushi Padhdhati workshop

Impact of the Technology

Many farmers of Jamnagar districts and surround districts were visited farm at Bhimkata village of Jodiya block of Jamnagar district and take information about the Natural Farming and they started on their own farm. Ajaysinh have proven for Natural farming as a best cultivation as well as low cost farming with high value of Produce.

	
Visiteing card for Marketing	Small pacaket Pacakge for selling

	
Prepare of Agniastra	Prepare of Jivamrut
	
Pulse mill preparing dal	Chickpea with sunflower field for natural farming

2. Case study/ Success story

Case study/ Success story

	PROFILE OF FARM INNOVATORS Thematic Area: Nutritional security “Nutritional Security through Kitchen Gardening” <i>Smt. A. K. Baraiya, Dr. K. P. Baraiya</i>
1 Personal Profile	
Name	: ➤ Vibhaben Dharmeshbhai Bechara
Age/D.O.B.	: ➤ 15.01.1984
Education	: ➤ 10 Standard
Land holding	: ➤ 3.04 ha.
Size of family	: ➤ 6 member
Address Res.	: ➤ At. Sonvadiya, Ta. Jamjodhpur, Dist. Jamnagar
Vibhaben Dharmeshbhai Bechara is a younger woman farmer, she is a very enthusiastic and innovative farm woman. She joined with different self-help group. She is attached to Krishi	

	Vigyan Kendra, Jamnagar, and attends different activities carried out by KVK. KVK Scientists visit regularly Sonvadiya village and give information regarding kitchen gardening. Farm women from Sonvadiya are exposed to developing kitchen gardening and provide training. Vibhaben has taken leading for the development of kitchen gardening at her own home and field also. Her village is very far from the city. Therefore, they suffer problems with different vegetable availability. She has started kitchen gardening in with the help of the Scientist of KVK, JAU, Jamnagar.
4	Crops grown in a nutrition garden The area of 400 sqm grown in backyard and in also field with different crops given below ➤ Kharif: Brinjal, Okra, Sponge gourd, Cucumber, cow pee, Tomato, bottle gourd, ridge gourd, Spinach, Amaranths, chili, Indian beans, cluster beans, bitter gourd ➤ Rabi: Valor, Brinjal, radish, cucumber, coriander, ➤ Summer: cluster beans, bottle gourd, Okra, ridge gourd ➤ Perennial plantation : papaya, lemon, drum stick etc crops grown around the field
5	Growing conditions (conventional/organic/natural farming) ➤ Crops were grown organically and naturally. They are sown at different season-wise and mixed-row cultivation systems. In the kitchen garden climbers and tomatoes are given support as the telephone system. Irrigation is given through a micro irrigation system from the top-level water tank. Regularly care was taken for nutrition as well pest and disease management through natural farming inputs. Old straw was used for mulching of the kitchen garden area which helps in weed management as well as moisture retention. ➤ Papaya, lemon, and drumsticks grown on the border of the kitchen garden
6	Success point ➤ Approximately Rs. 20000/- worth of vegetables were produced from her kitchen gardening with 600 kg wt. among them 397 kg consume for own family while, 203 kg vegetable sales worth Rs. 6210. ➤ Mulching helps in the suppression of weeds as well as moisture retention. ➤ Fresh, chemical-free, and natural tasty vegetables available at the doorstep ➤ Low production cost
7	Feedback ➤ Complete vegetables are grown without agro-chemicals and fertilizers having low hazardous ➤ Time can pass easily with kitchen gardening ➤ Low production cost ➤ Delicious in taste for naturally produced vegetable

8. Good quality photographs



Back yard kitchen gardening



Training on kitchen gardening



Field of Kitchen gardening



Training on kitchen gardening



Input kit distribution for kitchen gardening

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 leaflet to 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 awareness 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 farming	Use of yellow sticky 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
2	District Rural Development Agency, Jamnagar&Devbhumi Dwarka	➤ For collaborative training and demonstration Programme
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 collectively
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 2024-25

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	1151160/-
District Agromet Units (DAMUs) (B.H.2704-59)	2020-21	ICAR	294879/-
Swachhta Action Plan (B.H. 2704-65)	2021-22	ICAR	23170/-
Farmer Outreach programme for Natural farming (B.H. 2704-73)	2021-22	ICAR	40160/-
Policy on Promotion of Organic Fertilizer (Fermented Organic Manures=FOM)4245	2024-25	ICAR	289100/-
P M Kisan Sanmman Nidhi Yojna Programme (B.H. 2704-77)	2024-25	ICAR	10700/-

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	Celebrate 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	9	3	
02	Research projects	-	0	0	-
03	Training programmes	On/ Off Campus training programme	8	5	
04	Demonstrations	Method Demonstration	4	3	
05	Extension Programmes				
	Extension programmes		10	4	
	Kisan mela		2	1	
	Technology Week		0	1	
	Exposure visit		0	0	
	Exhibition		3	1	
	Soil health camps		0	0	
	Animal Health Campaigns		0	0	
	Farmers Field School (FFS)		0	0	
	Capacity Development		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
	-	-	-	-	-

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
18.01.24	ATMA AGB Meeting of Jamnagar	Jilla Panchayat Bhavan, Jamnagar	14
3.02.24	SAC meeting with line Department	KVK, Jamnagar	35
14.05.24	ATMA AMC meeting of Jamnagar	ATMA office	15
22.5.24	HRT meeting for Demo kit guidance	Online (Google meet)	4
23.05.24	ATMA AGB Meeting of Jamnagar	Jilla Panchayat Bhavan, Jamnagar	13
4.06.24	District level monitoring committee meeting (DLMC) of Horticulture	District Collector Office, Jamnagar	6
20.06.24	FLD Input kits meeting with JDA, DAO for input kits of Jamnagar	Online (Google meet)	14
28.06.24	ATMA AGB Meeting of of Devbhumi Dwarka		16
16.10.24	Online meeting with JDA, DAO for input kits (Rabi-Summer) of Jamnagar	Online (Google meet)	
16.10.24	Online meeting with JDA, DAO for input kits (Rabi-Summer) of Devbhumi Dwarka	Online (Google meet)	
24.10.24	ATMA AMC meeting of Devbhumi Dwarka	Online (Google meet)	12
24.10.24	ATMA AMC meeting of Jamnagar	Online (Google meet)	14
16.12.24	CWWG meeting by DAO(Extension), Jamnagar	Online	6
20.12.24	Millets FLD Input kits meeting of Devbhumi Dwarka	DAO office, Devbhumi Dwarka	9

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 different programmes is sufficient
- Limit of food provision during training and other cost should be increase along with stipend and transportation facility (Approximately Rs. 500 to 1000 per head per training required)
- Timely release of grant for successful and perfect conducting of FLD and OFT
- Contingency grant is sufficient (It should be minimum 30 lakhs per KVK)
- Provide grant for farm protection wall and other infrastructure facilities

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*, *Paecilomyces* 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 2024 : Yes/No, If Yes

Period of observing Technology Week : From to September 23 to 28, 2024
 Online / Offline : Offline
 Total number of farmers visited : 567
 Total number of agencies involved : 4
 Number of demonstrations visited by the farmers with in KVK campus: 4

The Technology Week was celebrated at Krishi Vigyan Kendra (KVK), Junagadh Agricultural University (JAU), Jamnagar, from September 23 to 28, 2024. The event was organized under the guidance of Dr. N. B. Jadav, Director of Extension Education at Junagadh Agricultural University. Dr. K. P. Baraiya, Senior Scientist and Head of KVK, Jamnagar, along with the dedicated KVK team, successfully coordinated and organized the program. This week-long event focused on enhancing

agricultural knowledge, addressing farmer challenges, and promoting the adoption of modern farming techniques.

Dr. K. P. Baraiya, Senior Scientist and Head of Krishi Vigyan Kendra (KVK) at Junagadh Agricultural University, Jamnagar, extended a warm welcome to the dignitaries and attendees present at the event. He emphasized the importance of farmers actively participating in various training programs to enhance their knowledge and skills. Dr. Baraiya also highlighted the significance of adopting new technologies, particularly for natural farming, as well as the value addition of agricultural products for direct marketing. He encouraged farmers to shift towards natural farming practices, reduce external inputs, and focus on optimizing crop yields. Additionally, he invited farmers to visit KVK regularly for continuous support and guidance, ensuring the proper development and advancement of their agricultural practices.

After the inaugural function, various scientists from the Krishi Vigyan Kendra (KVK) delivered insightful talks on a range of subjects, sharing valuable information with the attendees. The theme of the day focused on addressing the challenges faced by farmers and providing solutions to overcome them. Throughout the technology week, KVK scientists gave lectures on relevant topics, offering practical advice and innovative solutions to enhance farming practices and improve agricultural productivity. The sessions aimed to equip farmers with the latest knowledge and techniques to tackle common farming issues effectively.

Date wise Theme for Technology week

Date	Theme of Technology transfer	Concern Scientist	No. of Participants		
			Male	Female	Total
23.09.2024	<i>Innovative Agricultural Practices for Sustainable Farming and Livelihood Enhancement</i>	Dr. K. P. Baraiya	105	40	145
24.09.2024	<i>Crop Diversification and Best Practices</i>	Dr. K. P. Baraiya	27	0	27
25.09.2024	<i>Agri-Business and Value Addition</i>	Smt. A. K. Baraiya	1	64	65
26.09.2024	<i>Livestock Management and Allied Agriculture</i>	Smt. A. K. Baraiya	49	38	87
27.09.2024	<i>Financial and Government Support for Farmers</i>	Shri N. D. Ambaliya	37	0	37
28.09.2024	Concept of Organic/Natural Farming for minimization of cost of cultivation	Smt. D. G. Patel	174	32	206
TOTAL			393	174	567

The day-to-day activities are as under. In which 567 Farmers/farm women from different blocks were participated.

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	5	481	➤ IPM for <i>Kharif</i> crop with special emphasis on Pink bollworm & white grub ➤ Natural farming ➤ Kitchen gardening, ➤ Weather effect on <i>kharif</i> & <i>rabi</i> crop production and precaution measures

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
			➤ Livestock management & Natural farming ➤ Recent advances in Organic/Natural Farming for minimization of cost of cultivation
Lectures organized	10	567	1. Integrated Pest and diseases management in groundnut 2. Importance of organic farming 3. Selection of crops and varieties of different crops during rabi crop sowing. 4. Value addition in agriculture produce 5. Integrated Pest and diseases management in cotton 6. Irrigation management in crops 7. Mitigation of the white grub problems in kharif groundnut. 8. Fertilizers and micro nutrients management in major Kharif crops 9. Natural farming for minimization of cost of cultivation 10. Improvement of animal breed and diseases management
Exhibition	2	351	Farm implements were put for exhibition cum demonstration purpose
Film show	1	87	Film Show of different technologies were presented
Fair	0	0	
Farm Visit	12	254	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	16	133	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.)	9	1500	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	9	567	
Number of organizations participated	4	503	

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 (<i>Beauveria</i> , <i>Trichoderma</i> , Biofertilizers)	110	28	18098	28890
Cumin IPM IDM (<i>Beauveria</i> , <i>Trichoderma</i> , Biofertilizers)	1680	32	76800	92725
Coriander (<i>Beauveria</i> , <i>Trichoderma</i> , Biofertilizers)	468	14	66894	78248
Cotton ICM (<i>Beauveria</i> , <i>Azadirachtin</i> , Profenophos, MDP, hNPV)	680	22	69940	92460
Kitchen Gardening (Vegetable seed kit, <i>Beauveria</i>)	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.

Most Successful Technology	Source of Technology with Year of Released/ Developed	Parameters/Indicators/Determinants for Large Scale Adoption or Most Successful					
		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	

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 humus 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 <i>Beauveria</i>	:	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 <i>Beauveria bassiana</i> 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 <i>Trichoderma</i>	:	Most successful biological fungicide used in groundnut cultivation for the management of stem rot (<i>Sclerotium rolfsii</i>) 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 <i>rabi</i> 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

IMPACT OF KRISHI VIGYAN KENDRA, JAU, JAMNAGAR IN OPERATIONAL VILLAGES 2021 TO 2023

Krishi Vigyan Kendras (KVKs) - Agricultural Science Centers, have played a pivotal role as frontline extension systems in India's agricultural landscape. These district-level institutions have been instrumental in shaping the trajectory of Indian agriculture, driving innovation, and empowering farmers with scientific knowledge and techniques. KVK has been proved to be one of the best options for improvement of knowledge, attitude and skill level in farming community of rural India through Trainings, On Farm Trials (OFT), Front Line Demonstrations (FLD), other extension activities and on mass campaign.

Krishi Vigyan Kendra is the innovative scientific training institutes which have been established throughout the country with the mandates to impart need based and skill-oriented trainings to practicing farmers, in-service field level extension workers and to those who wish to go for self-employment. The basic objective of Krishi Vigyan Kendra is focused on demonstrating the recent technology at the farmer's field and imparting skill oriented vocational trainings to the farmers. The Krishi Vigyan Kendra at Jamnagar was established in 2003-04, the main aim of establishing the Krishi Vigyan Kendra was to bring about improvement in production and economy of the farmers. In order to achieve this objective, the Krishi Vigyan Kendra Jamnagar carries out a number of training programmes and various other activities on crop production and allied fields. The specific objective of the present paper was to assess the impact of KVK activities in Jamnagar districts.

METHODOLOGY

The present investigation was undertaken in operational villages of Jamnagar & Devbhumi Dwarka districts of Gujarat state. Both districts consist of total 10 blocks, out of which Dhrol, Jamjodhpur and Jam Khambhalia were selected for different extension activities carried out by Krishi Vigyan Kendra, Junagadh Agricultural University, Jamnagar. Two irrigated and three rain fed villages selected from each block. Thus, total fifteen villages were operational area of Krishi Vigyan Kendra for the period of 2021 to 2023. These fifteen villages were considered as the study sample for this investigation. For selection of respondents, 20 respondents were selected randomly from each operational village. Thus, total number of respondents was 300. For the collection of data, a simple structured schedule developed by Chandra (1991) was used with some modifications. The data collected from each respondent by personal interview method.

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

Sr. No.	Village	Taluka	District	Farming Situation	No. of Respondent
1	Katada	Dhrol	Jamnagar	Rainfed	20
2	Jayva	Dhrol	Jamnagar	Irrigated	20
3	Mansar (Jaliya)	Dhrol	Jamnagar	Irrigated	20
4	Kharva	Dhrol	Jamnagar	Rainfed	20
5	Khendgarka	Dhrol	Jamnagar	Rainfed	20
6	Sonvadiya	Jam Jodhpur	Jamnagar	Irrigated	20
7	Satapar	Jam Jodhpur	Jamnagar	Irrigated	20
8	Bhupat Ambardi	Jam Jodhpur	Jamnagar	Rainfed	20
9	Dal Devaliya	Jam Jodhpur	Jamnagar	Rainfed	20
10	Luvarsar	Jam Jodhpur	Jamnagar	Rainfed	20
11	Keshod	Jam Khambhalia	Devbhumi Dwarka	Rainfed	20
12	Shedha Bhadthar	Jam Khambhalia	Devbhumi Dwarka	Irrigated	20
13	Samor	Jam Khambhalia	Devbhumi Dwarka	Irrigated	20
14	Jakasiya	Jam Khambhalia	Devbhumi Dwarka	Rainfed	20
15	Juvangadh	Jam Khambhalia	Devbhumi Dwarka	Rainfed	20
				Total Respondent	300

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

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

Socio economic profile of the respondents

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

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

Sr No	Socio-economic characteristics	Selected respondents (n=300)		
		Frequency	Per cent	Mean $\pm$ S.D.
1	2	3	4	
1	Age			

	Young age group (up to 35 year)	47	15.67	2.14±0.66
	Middle age group (36 to 50 year)	163	54.33	
	Old age group (above 50 year)	90	30.00	
	Total	300	100	
2	Education			
	Illiterate	4	1.33	4.14±1.22
	Read & Write	23	7.67	
	Primary education (Up to 7 th std.)	52	17.33	
	Secondary education (Up to 10 th std.)	127	42.33	
	High Secondary education (up to 12 th std.)	36	12.00	
	Graduate and above	58	19.33	
	Total	300	100	
3	Family type			
	Nuclear family (> 5 member)	204	68	1.32±0.47
	Join tfamily (< 5 member)	96	32	
	Total	300	100	
4	Social Participation			
	Membership in one organization	33	11	2.15±0.66
	Membership in two organization	201	67	
	Membership in three organization	53	17.67	
	Membership in more than three organization	13	4.33	
	Total	300	100	
5	Extension Contact			
	Low extension participation (> 2.8 score)	21	7.0	5.88±2.26
	Medium extension participation (2.8 to 7.5 score)	182	60.67	
	High extension participation (<7.5 score)	97	32.33	
	Total	300	100	
6	Land Holding			
	up to 1 acre of land	0	0.00	9.09±6.75
	1.01 to 2 acre of land	5	1.67	
	2.01 to 4 acre of land	40	13.33	
	More than 4 acre of land	255	85.00	
	Total	300	100	
7	Farm mechanization index			
	Low FMI (Mean – S.D.)	51	17	4.19±1.25
	Medium FMI (Mean ± S.D.)	143	47.67	
	High FMI (Mean + S.D.)	106	35.33	
	Total	300	100	
8	Herd size			
	No milch animal	83	27.07	1.92±2.24
	Up to 2 milch animals	128	42.67	
	3 to 5 milch animals	77	25.67	
	More than 5 milch animals	12	4.00	
	Total	300	100	
9	Occupation			
	Farming	94	31.33	2.01±0.92

	Farming + A. H.	139	46.33	
	Farming + Service/ Business	37	12.33	
	Farming + A. H.+ Service/ Business	30	10.00	
	Total	300	100	
10	Annual income			
	Up to Rs. 50,000 /-	12	4	3.92±1.13
	Rs. 50,001 to Rs. 1,00,000 /-	27	9	
	Rs. 1,00,001 to Rs. 1,50,000 /-	51	17	
	Rs. 1,50,001 to Rs. 2,00,000 /-	93	31	
	Above Rs. 2,00,000 /-	117	39	
	Total	300	100	

Age

The data presented in table 2 showed that more than half (54.33%) of the farmers belonged to the middle age group (36 to 50 years), followed by 30.00 per cent of old age farmers (above 50 years) and remaining 15.67 per cent of them were in young age group (up to 35 year).

Education

Slightly less than half (42.33 %) of the farmers had secondary education, followed by 19.33 per cent of farmers who had education up to graduate and above followed by 17.33 per cent of farmers who had education up to primary level followed by 12.00 per cent of farmers who had education up to higher secondary level. However, very few were illiterate (1.33 %) and very low were only read and write (7.67%).

Family type

Nearly two-third of farmers (68.00 per cent) of farmers belongs to a joint family; remaining quarter number of Famers belongs to a nuclear family.

Social Participation

Two-third of farmers (67.00 per cent) farmers have a membership with two organization, followed by 17.67 per cent of farmers who have a membership with three organization, followed by 11.00 per cent of farmers who have a membership with one organization. Only 4.33 per cent of farmers have participated in more than three organizations.

Extension Contact

Majority of the respondent have been medium extension participation (60.67%), the next best score for high extension participation (32.33%) and the lowest persons have low extension participation (7%).

Landholding

More than half (85.00%) of the farmers had more than 4 acres of land holding, followed by 13.33 per cent had a 2 to 4 acres of landholding. Only 1.67 per cent of the farmers had a 2 to 4 acres of land holding. No one farmer observed who had up to 1 acre land holding.

Farm mechanization index

The data presented in table 2 showed that near to half (47.67%) of the farmers belonged to the medium farm mechanization, followed by 35.33 per cent of high farm mechanization and remaining 17 per cent of them were lower farm mechanization.

Herd Size

Less than half (42.67 per cent) farmers having up to 2 milch animals, followed by a 27.07 per cent farmers not having any milch animal and 25.67 per cent farmers having 3 to 5 milch animals, whereas, only 4.00 per cent farmers are having more than 5 milch animals.

Occupation

Slightly less than half (46.33 per cent) of the farmers were practicing farming along with animal husbandry, followed by nearly one third (31.33 per cent) farmers engaged with only farming, whereas 12.33 per cent of farmers are doing farming and service or business. Only 10.00 per cent of farmers engaged with farming, animal husbandry with service and business.

Annual income

More than one third (39 per cent) of the farmers had income above 2 lakhs, followed by the group of farmers (31 per cent) earning 1.5 to 2.0 lakh and the farmers (17.00 per cent) getting 1.0 to 1.5 lakhs annually and 9.00 per cent of farmers are earning Rs. 50 thousand to 1.0 lakh. Whereas, only 4.00 per cent of farmers had less than or equal to Rs. 50 thousand annual incomes.

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 using radio.

3. Impact of extension indicator

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

Table: 3 Distribution of the respondents according to its extension intervention (N = 300)

Sr. No.	Extension indicator	Impact of Krishi Vigyan Kendra				Diffe- rence	Rank
		Before		After			
		Frequenc y	Percent	Frequenc y	Percent		

1	Knowledge about technology and package of practices	151	50.33	271	90.33	40.00	IV
2	Extent of awareness	128	42.67	287	95.67	53.00	III
3	Change in attitude	97	32.33	271	90.33	58.00	II
4	Improvement in work performance / skill	107	35.67	224	74.67	39.00	V
5	Extent of spread of technology	86	28.67	282	94.00	65.33	I
6	Increase in SHGs / FIGs	101	33.67	185	61.67	28.00	VI
7	Formation / establishment of cooperative	98	32.67	132	44.00	11.33	VII

The perusal of data presented in table 3 revealed that more than 50.00 per cent difference noticed in case of spread of technology (65.63 %) followed by change in attitude (58 %) and extent of awareness (53 %), respectively.

In case of other extension indicators, the difference observed was less than 50.00 per cent are gain in knowledge about technology and package of practices, improvement in work performance/ skill and increase in SHGs /CIGs with 40, 39 and 28 per cent, respectively. The least difference was observed in case of formation and establishment of cooperative (11.33 %).

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

4. Impact of technological indicator

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

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

Sr. No.	Technological indicator	Before		After		Difference	Rank
		Frequency	Percent	Frequency	Percent		
1	Introduction of new varieties	125.18	41.73	217.91	72.64	30.91	I
2	Increase in yield / productivity	161.45	53.82	216.00	72.00	18.18	X
3	Increase in area	148.55	49.52	235.27	78.42	28.91	V
4	Increase in production	166.64	55.55	235.73	78.58	23.03	VII
5	Extent of adoption	175	58.33	265	88.33	30.00	III
6	Increase in income	205	68.33	285	95.00	26.67	VI
7	Generation of employment	189	63.00	254	84.67	21.67	VIII
8	Expansion of an enterprise	145	48.33	175	58.33	10.00	XII
9	Introduction of new enterprise	89	29.67	142	47.33	17.67	XI
10	Improvement in market facility of farm produce	134	44.67	225	75.00	30.33	II
11	Creation of infrastructure	170	56.67	225	75.00	18.33	IX
12	Opening of farm school	128	42.67	140	46.67	4.00	XIII
13	Decrease in yield gaps	126	42.00	215	71.67	29.67	IV

It is concluded from above table: 4 that the highest difference (30.91%) was observed in introduction of new varieties followed by Improvement in market facility of farm produce (30.33%), Extent of adoption (30%), decrease in yield gaps (29.67%) increase in area (28.91%) and increase in income (26.67%).

The fluctuation found moderately with increase production (23.03%), generation of employment (21.67%) creation of infrastructure (18.33%), increase in yield /productivity per hectare (18.18%) and introduction of new enterprise (17.67%).

The comparatively lower technology gap was observed in Expansion of an enterprise (10%) and opening of farm school (4%).

From above discussion it can be concluded that introduction of new varieties (ranked first), Improvement in market facility of farm produce (ranked second), Extent of adoption (ranked third), decrease in yield gap (ranked fourth) and increase in area of crps (ranked fifth) and increase in income (ranked sixth).

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

5. Extent of adoption of new technology for farming

Table: 5. Impact of farm mechanization, INM and IPM

(Year :-2021 to 2023)

Table 5 A. Farm Mechanization

(n=300)

Sr. No.	Practices	Before	After	Per cent increase	Rank
		Year 2022	Year 2024		
1	Tractor (No.)	45	185	311.11	IV
2	Rotavator	7	34	385.71	III
3	Thresher (No.)	55	94	70.91	V
4	Electric Motor (No.)	151	207	37.09	VII
5	Oil Engine (No.)	98	18	-81.63	VIII
6	Sprayer (No.)	165	245	48.48	VI
7	Drip irrigation set	5	38	660	II
8	Sprinkler irrigation set	3	25	733.33	I

It can be concluded from above Table:5 that in case of farm mechanization, the highest per cent increase was in sprinkler irrigation system (733.33 %) and remain first rank in adoption, followed by second rank of drip irrigation system (660%), third rank by rotavator (385.71%), and fourth rank by tractor (311.11%). While least percent increase was observed in thresher, spray pump and electric motor with 70.91, 48.48 and 37.09 per cent, respectively. But this trend was reverse in case of oil engine (-81.63%) which was due to replacement of oil engine with electric motor. Use of drip and sprinkler increased because of scarcity of irrigation water, proper guidance from KVK scientist, and help from GGRC and Government.

Table 5 b. Integrated nutrient management

(n=300)

Sr. No.	Practices	Before	After	Per cent increase	Rank
		Year 2022	Year 2024		
1	Use of FYM	142	175	23.24	IV
2	Judicious use of Urea	135	110	-18.52	VIII
3	Judicious use of DAP	78	85	8.97	VII
4	Judicious use of SSP	65	77	18.46	VI

5	Judicious use of Potash	52	64	23.08	V
6	Use of Mineral mixer	25	78	212.00	III
7	Use of Bio-fertilizers	28	225	703.57	I
8	Gypsum / Sulphur (t)	12	47	291.67	II

Farmers of selected villages were aware about importance of integrated nutrient management (INM) through on and off campus trainings, FLDs, field days and mobile phones. In integrated nutrient management the highest per cent rise was observed in use of bio-fertilizers (703.57%) with first rank, use of gypsum/Sulphur (291.67%) with second rank. The third rank for use of mineral mixer with 212 per cent. The moderate change in use of FYM (23.24%) stand fourth rank, judicious use of potash (23.08%) stands fifth rank, judicious use of single super phosphate (18.46%) stands sixth rank, judicious use of DAP (8.97%) stands seventh rank. However, the use of urea (-18.52%) recorded reverse trend in the farmers.

Table 5 C. IPM

(n=300)

Sr. No.	Practices	Before	After	Per cent increase	Rank
		Year 2022	Year 2024		
1	Use of Trichoderma	42	295	602.38	I
2	Pheromone Trap (no)	32	95	196.88	V
3	NPV (no)	25	68	172.00	VI
4	Neem oil (no)	72	143	98.61	VIII
5	<i>Beauveria</i>	51	282	452.94	II
6	neem cake for soil born pest	12	48	300.00	III
7	Yellow sticky trap	24	73	204.17	IV
8	Dashparni ark/Brahmastra	21	46	119.05	VII

Now a day's IPM is the most important factor from production technology point of view. Due to continuous efforts of KVK scientists, regular visit of farmer's field and guidance through mobile phone, the use of bio control agents were remarkably enhanced. In operational villages the highest percent increase was observed in use of *Trichoderma* (602.38%) followed by use of *Beauveria* (452.94%). The moderate increase with third rank of neem cake for soil born pest (300%), fourth rank stands for yellow sticky trap (204.17%), fifth rank of pheromone trap (196.88%) and sixth rank of NPV usages (172%). However, the remain practices like dash parni ark and neem oil have comparatively low increase 119.05 and 98.61 per cent, respectively.

Table: 6. Differentiate in area, production, productivity and introduction of new varieties of major crops in operational villages in last three year (2021 to 2023)

Table 6.1 Increase in area

(n=300)

Sr. No.	Crop	Before		After		Diffe- rence	Rank
		Frequency	Percent	Frequency	Percent		
1	Cotton	268	89.33	181	60.33	-29.00	XI
2	Groundnut	155	51.67	290	96.67	45.00	II
3	Castor	155	51.67	240	80.00	28.33	VIII
4	Wheat	180	60.00	281	93.67	33.67	IV
5	Cumin	165	55.00	181	60.33	5.33	X
6	Chickpea	185	61.67	278	92.67	31.00	VI
7	Sesame	145	48.33	245	81.67	33.33	V
8	Coriander	70	23.33	280	93.33	70.00	I
9	Pearl Millet	150	50.00	235	78.33	28.33	VIII

10	Onion	71	23.67	195	65.00	41.33	III
11	Garlic	90	30.00	182	60.67	30.67	VII
	Average	148.55	49.52	235.27	78.42	28.91	

Data presented Table 6.1 revealed that the area of all crops were increase except cotton due to intervention of KVK with operational village for water use efficiency and water harvesting practices. The highest increase in area of coriander (70%) having first rank. Groundnut (45%) and Onion (41.33%) have next best crop area increase. Wheat (33.67%) stands on fourth rank, sesame (33.33%) fifth rank, Chickpea (31%) sixth rank, garlic (30.67%) seventh rank, both pearl millet (28.33%) as well as castor (28.33%) eighth rank and cumin (5.33%) tenth rank. However, cotton (-29%) having reduction of the cultivation area.

Table 6.2 Increase in production**(n=300)**

Sr. No.	Crop	Before		After		Difference	Rank
		Frequency	Percent	Frequency	Percent		
1	Cotton	268	89.33	165	55.00	-34.33	XI
2	Groundnut	187	62.33	294	98.00	35.67	III
3	Castor	186	62.00	280	93.33	31.33	IV
4	Wheat	220	73.33	270	90.00	16.67	X
5	Cumin	195	65.00	275	91.67	26.67	VII
6	Chickpea	160	53.33	228	76.00	22.67	IX
7	Sesame	160	53.33	235	78.33	25.00	VIII
8	Coriander	148	49.33	230	76.67	27.33	V
9	Pearl Millet	145	48.33	260	86.67	38.33	I
10	Onion	90	30.00	171	57.00	27.00	VI
11	Garlic	74	24.67	185	61.67	37.00	II
	Average	166.64	55.55	235.73	78.58	23.03	

In case of increase total production in the KVK area are showed in the above table 6.2 data indicate that maximum persons have been received in pearl millet production difference (38.33%). Garlic (37%), groundnut (35.67%), castor (31.33%) and coriander (27.33%) with chronologically second to fifth rank. However, cotton having the reverse trend found to decrease in total production (-34.33%). The remaining crops onion, cumin, sesame, chickpea and wheat having less difference in production 27, 26.67, 25, 22.67 and 16.67, respectively.

Table 6.3 Increase in yield / productivity**(n=300)**

Sr. No.	Crop	Before		After		Difference	Rank
		Frequency	Percent	Frequency	Percent		
1	Cotton	260	86.67	151	50.33	-36.33	XI
2	Groundnut	221	73.67	298	99.33	25.67	IV
3	Castor	189	63.00	235	78.33	15.33	X
4	Wheat	215	71.67	268	89.33	17.67	VIII
5	Cumin	220	73.33	271	90.33	17.00	IX
6	Chickpea	174	58.00	254	84.67	26.67	III
7	Sesame	161	53.67	223	74.33	20.67	VI
8	Coriander	84	28.00	172	57.33	29.33	II
9	Pearl Millet	178	59.33	239	79.67	20.33	VII

10	Onion	43	14.33	167	55.67	41.33	I
11	Garlic	31	10.33	98	32.67	22.33	V
	Average	161.45	53.82	216.00	72.00	18.18	

Data presented in table 6.3 observed productivity of onion(41.33%) have been increase highest persons with first rank. The second rank of coriander (29.33%), third rank of chickpea (26.67%), fourth rank of groundnut (25.67%), fifth rank of garlic (22.33%), sixth rank of sesame (20.67%), seventh rank of pearl millet (20.33%) found. The cotton having negative yield/productivity (-36.33%). The remaining crops were negligible difference in productivity.

Table 6.4 Introduction of new verities**(n=300)**

Sr. No.	Technological indicator	Before		After		Diffe- rence	Rank
		Frequency	Percent	Frequency	Percent		
1	Cotton	185	61.67	242	80.67	19.00	X
2	Groundnut	183	61.00	263	87.67	26.67	VII
3	Castor	118	39.33	183	61.00	21.67	VIII
4	Wheat	226	75.33	281	93.67	18.33	XI
5	Cumin	183	61.00	270	90.00	29.00	V
6	Chickpea	165	55.00	284	94.67	39.67	III
7	Sesame	165	55.00	254	84.67	29.67	IV
8	Coriander	18	6.00	186	62.00	56.00	I
9	Pearl Millet	56	18.67	213	71.00	52.33	II
10	Onion	52	17.33	112	37.33	20.00	IX
11	Garlic	26	8.67	109	36.33	27.67	VI
	Average	125.18	41.73	217.91	72.64	30.91	

From the above table, it is clear that highest introduction of new varieties in farmers for the crop coriander (56%). Peral millet (52.33%) stand on second rank, chickpea (39.67%) stands on third rank, sesame (29.67%) stands on fourth rank, cumin (39%) stands on fifth rank, garlic (27.67%) stands on sixth rank, groundnut (26.67%) stands on seventh rank, castor (21.67%) stands on eighth rank, onion (20%) stands on ninth rank, cotton (19%) stands on tenth rank and on last rank stand by wheat (18.33%) crop in variety introduction.

Conclusion:-

Krishi Vigyan Kendra has been playing pivotal role for the allover improvement of farming community. To concentrate its efforts 15 villages were operational for different activities for the period of 2021 to 2023. Farmers use social media, television and KVK for gain in knowledge. Due to constant and concrete efforts of KVK scientists, like organizing On and Off campus trainings, Front Line demonstrations (FLDs), field days, use of social media, radio talk, TV talks, sharing of technology through cell phones, distribution of literature, celebration of technology weeks, krushi mahotshav, agricultural exhibitions, soil health day, exposure visits, etc. had provided scientific know-how to farmers which led them to adopt new technology and finally to a better life.

After completion of three years in operational villages the major outcomes are : Introduction of new variety in different crops stand first in all technological indicators. With a view to mechanization micro irrigation, bio fertilizer and use of Trichoderma secure first rank in adoption of mechanization, INM and IPM, respectively. Maximum increase in area in coriander; production in pearl millet and productivity (yield) in onion with the intervention of KVK. The yield of onion, coriander, chickpea and groundnut were increased by 41.33, 29.33, 26.67 and 25.67 per cent, respectively.

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

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	Marketing	Awareness	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 Establishment	Area	Details of production			Amount (Rs.)		Remark
				Variety	produce	Quantity (No.)	Cost of inputs	Gross income	
1	Nursery Unit	2016	-	-	Planting material	-	-	-	
2	Kitchen gardening	2021	-	-	Vegetables	250 kg	-	5535	

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	30.06.2024	12.9	GG-37	Seed (Breeder) Haulm	31002 30363	9,70,000	50,82,420 90,000	
Groundnut (NF)	28.06.2024	1.2	GG-37	Seed (Breeder) Haulm	2505 3970	145000	4,15,750 14,500	
Groundnut	16.06.2024	2.4	GG-37	Seed (TF)	2450	156000	2,35,650	

Wheat	01.11.2023	1.0	GW-496	Seed	2450	22812	90000	
Chickpea	04.11.23 & 20.11.23	2.0	GJG-3	Seed (Breeder)	2702	95600	166400	
Pearl millet	19.02.2024	0.2	Parent seed	Seed	315	8000	10875	
Castor	7.08.23	1.5	GCH-9	Seed	1416	76500	84960	

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

Bio Products	Name of the bio-product	Quantity		Value (Rs.)	No. of Farmers
		Lit.	Kg /No		
Bio Fertilizers	<i>Azotobacter</i>	100			100
	<i>Rhizobium</i>	150			150
	<i>PSB</i>	250			250
Bio-pesticide	<i>Beauveria Bassiana</i>		513		328
	<i>Metarhizium</i>		300		150
	<i>SNPV</i>	6.25			25
	<i>Pheromone Trap & Lure</i>		500		25
Bio-fungicide	<i>Trichoderma</i>		500		250
Total		506.25	1813		1278

N.B. *Product was produced by JAU University and provided to farmers 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	-	-	-	
			FYM	-	-	-	
2	Vermi compost	Eicenia fetida	Vermis culture	-	-	-	
			Compost	-	-	-	

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 2024			
February 2024	161	9	
March 2024	99	3	
April 2024			
May 2024			
June 202			
July 20234			
August 2024			
September 2024	56	5	
October 2024			
November 2024	91	11	

December 2024			
Total	407	28	

F. Database management

S. No	Database target	Database created

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

Amount sanctioned (Rs.)	Expenditure (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 Demonstrations	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
0.04	Vegetable crops	Brinjal, Indian bean, cowpea, carrot, coriander, ridge gourd, bottle gourd, fenugreek, radish, palak, okra, cluster bean	2095
	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		

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	Scheme Code in PFMS	Vender Code in PFMS
With Host Institute							
	State Bank of India						
DAMU	Bank of Maharashtra	JUNAGADH(1202) RANAVAV CHOWK M G ROAD JUNAGADH	MAHB0001202	Gramin Krishi Mausam Sewa (Across Scheme) JAU Junagadh	60421297473		
With KVK							
KVK	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	Training Organizer	10319002389	1270 ICAR Headquarters	
CFLD Oilseed	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	CFLD Oilseeds KVK JAU Jamnagar	42939948978	4138 Krishi Unnat Yojana	VAGJJA00088554
CFLD Pulses	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	CFLD Pulses KVK JAU Jamnagar	42939841526		VAGJJA00088561
Natural Farming	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	KVK JAU Jamnagar	42087631852		VAGJJA00088560
KVK Salary	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	SALARY KVK JAU Jamnagar	42085673398		VAGJJA00088559
KVK Capital	State Bank of India	Khodiyar Colony, Jamnagar	SBIN 0012211	CAPITAL KVK JAU Jamnagar	42089878722, 10319002389	4232 Strengthening of Krishi Vigyan Kendra	VAGJJA00088558
DAMU	Bank of Maharashtra	Kanku Hall, Tin Batti Chowk, Jamnagar, Gujarat - 361001	MAHB0000401	Krishi Vigyan Kendra JAU Jamnagar	60425352759		

B1. Utilization of KVK funds during the year 2023-24 (Rs. in lakh)

S. No.	Head	R.E 2023-24	Opening Balance as on 01.04.2023	Fund received during 2023-24	Expenditure during 2023-24	Closing Balance (04+05-06-07)
1	2	3	4	5	6	8
Grants for creation of Capital Assets (CAPITAL)						
1	Works	0	0	0	0	0
	A. Land	0	0	0	0	0
	B. Building	0	0	0	0	0
	i. Office building	0	0	0	0	0
	ii. Residential building	0	0	0	0	0
	iii. Minor works	0	0	0	0	0
2	Equipments	0	0	0	0	0
3	Information Technology	0	0	0	0	0

4	Library Books and Journals	0	0	0	0	0
5	Vehicles & Vessels	0	0	0	0	0
6	Livestock	0	0	0	0	0
7	Furniture & Fixtures	0	0	0	0	0
8	Others	0	0	0	0	0
	Total-CAPITAL (1+2+3+4+5+6+7+8)	0	0	0	0	0
Grants in Aid - Salaries (REVENUE)						
9	Establishment Expenses					
	A. Salaries	9951306	4931913	5025087	8881853	1075147
	B. 7th CPC arrears	0	0	0	0	0
	Total-SALARIES (9)	9951306	4931913	5025087	8881853	1075147
Grants in Aid - General (REVENUE)						
10	Pension & Other Retirement Benefits	0	0	0	0	0
11	Travelling Allowance	51522	0	51522	51522	0
12	Research & Operational Exp.					0
	A. Research Expenses	616478	0	616478	616478	0
	B. Operational Expenses	280000	0	280000	280000	0
	Total - Res. & Operational Exp.	948000	0	948000	948000	0
13	Administrative Expenses	152000	0	152000	152000	0
	A. Infrastructure		0			0
	B. Communication		0			0
	C. Repairs & Maintenance					0
	i. Equipments, Vehicles & Others		0			0
	ii. Office building		0			0
	iii. Residential building		0			0
	iv. Minor Works		0			0
	D. Other		0			0
	Total - Administrative Expenses	152000	0	152000	152000	0
14	Miscellaneous Expenses					0
	A. HRD				0	0
	Total Grants in Aid – General (10+11+12+13+14)	1100000	0	1100000	1100000	0
	Grand Total (Capital + Salaries+ General)	11051306	4931913	6125087	9981853	1075147

B2. Utilization of KVK funds during the year up to December-2024 (Rs. in lakh)

S. No.	Particulars	Sanctioned	Opening balance	Released	Expenditure	Balance
A.	Recurring Contingencies					
1	Pay& Allowances	10200000	1075147	6583090	7436290	221947
2	Traveling allowances	100000	0	25000	22109	2891
3	Contingencies	1000000	0	775000	759350	15650
	TOTAL (A)	11300000	1075147	7383090	8217749	240488
B.	Non-Recurring Contingencies	0	0	0	0	0
C.	REVOLVING FUND	0	0	0	0	0
	GRAND TOTAL (A+B+C)	11300000	1075147	7383090	8217749	240488

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

Year	Opening balance as on 1 st April	Income during the year	Expenditure during the year	Net balance in hand as on 31 st March, 2018 of this year
1 st April 2021 to 31 st March, 2022	10233514	2765536	498894	12500156
1 st April 2022 to 31 st March, 2023	12500156	2364284	7752728*	7111712
1 st April 2023 to 31 st March, 2024	7111712	4807360	1679779	10239293
1 st April 2024 to 31 st December, 2024	10239293	8602826	1932737	16909382 (1,88,08,094/-)

* RS. 7000000/- Loan to KVK Pipaliya

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

RS. 7000000 – 1181288 (pay in 2023-24) = 5818712

** Repayment of Loan (Second Installment) From KVK Pipaliya Rs. 3920000 /-

Rs 5818712 – 3920000 = 1898712/- Loan to KVK Pipaliya

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

1	19.03.24 to 21.03.24	Prof. A. K. Baraiya	Training Programme on Research Methodology in Social Science and Management Skills	JAU, Junagadh	DEE, JAU, Junagadh	3
2	19.03.24 to 21.03.24	Smt. D.G.Patel	Training Programme on Research Methodology in Social Science and Management Skills	JAU, Junagadh	DEE, JAU, Junagadh	3
3	19.03.24 to 21.03.24	Shri N. D. Ambaliya	Training Programme on Research Methodology in Social Science and Management Skills	JAU, Junagadh	DEE, JAU, Junagadh	3
4	16.05.24 to 17.05.24	Dr. K. P. Baraiya	Annual Action plan and Natural farming workshop of KVKs of Gujarat	AAU, Anand	ATARI, Pune	2
5	16.05.24	Smt. D.G.Patel	Reginal Consultation on science of Natural farming	Pune	Dep. Of Agriculture and Farmers welfare, GOI	1
6	28.05.24 to 31.05.24	Dr. K. P. Baraiya	National Conference on Paradigm and Dynamics Digital Horticulture for food, Nutrition and Entrepreneurship	JAU, Junagadh	JAU, Junagadh	4
7	7.08.24	Dr. K. P. Baraiya	Prakrutik Krushi Karyshala	Gandhinagar	Sameti, ATMA	1
8	04.09.16 to 6.09.16	Dr. K. P. Baraiya	Annual Zonal Workshop of KVKs of Gujarat, Goa and Maharashtra ATARI Zone-VIII	Junagadh	DEE, JAU, Junagadh and ATARI, Pune	3

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 programmes etc	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 distribution, etc.	9	319

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, Microbial based Agricultural Waste Management by Vermicomposting etc.	No. of Programmes conducted	No. of Participants
1	Cleaning, awareness on vermicomposting and waste management	3	123

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)

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	9427980032	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	1807
2.	KVK, Jamnagar	Technology Products	288

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	3989	561	1575	1241	54	79	34	67	378
	2. Video shows	571	0	397	140	0	0	0	0	34
	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	268	28	42	63	30	0	0	0	105
	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	52	Nil	52
3.		Tech. inventory	Nil	Nil	Nil
4.		CDs	Nil	Nil	Nil
5.		DVDs	Nil	Nil	Nil
6.		Leaflet	260	Nil	260
7.		Folders	4577	Nil	913
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) (TF)	24.30	Quintal	196830	81
(ii)	Groundnut (GJG-9)	11.40	Quintal	92340	22
(iii)	Groundnut (GJG-32)	96.90	Quintal	784890	145
(iv)	Wheat (GW-496)	24.00	Quintal	90000	18
(v)	Chickpea(GJG-3)	26.00	Quintal	166400	43
(vi)	Castor (GCH-9)	0.40	Quintal	-	20
(vii)	Coriander (CG-4)	0.40	Quintal	-	20
2.	Planting materials	-	-	-	-
3.	Live stock(Vermi compost)	-	-	-	-
4.	Poultry birds	-	-	-	-
5.	Bio Product		Quintal	-	-
	1. <i>Beauveria bassiana</i>	513	Kg	-	328
	2. <i>Trichoderma</i>	500	Kg	-	250
	3. PSB	250	Li.	-	250
	4. <i>Rhizobium</i>	150	Li.	-	150

5. <i>Azotobacter</i>	100	Li.	-	100
6. <i>Metarhizium</i>	300	Kg	-	150
7. <i>SNPV</i>	6.250	Li.	-	25
8. <i>Pheromone trap & Lure</i>	500	No.	-	25

C. Technology services provided:

Name of ATIC	Particulars	No. of farmers benefitted
KVK, Jamnagar	Soil and Water testing	0
	Plant diagnosis	76
	Services to line department	100
	Others (Group Meeting, Field Visit, Field Day)	1002

D. FLD conducted: 2024

Sr. No.	Month	Crop/Inputs	Season	Variety	No. of Farmers/ Demonstration		
					Others	SC/ST	Total
1.	January to December 2024	Castor Variety GCH-9	<i>Kharif</i>	GCH-9	20	0	20
2.		Cumin PSB, <i>Azotobacter</i> , <i>Beauveria</i> , <i>Trichoderma</i>	<i>Rabi</i>	GC-4	20	0	20
3.		Coriander PSB, <i>Azotobacter</i> , <i>Beauveria</i> , <i>Trichoderma</i>	<i>Rabi</i>	GC-2	20	0	20
Total					60	0	60

Performance of Frontline demonstrations in detail (2023)

Season	Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)			Check	% Change in Yield
						Demo				
						High	Low	Average		
1	2	3	4	5	6	7	8	9	10	11
Kharif 2023-24	Castor (ATIC)	Varietal	GCH-9	20	8	46.25	25.0	38.75	34.06	13.76
Rabi-2023-24	Cumin (ATIC)*	IPM/IDM/INM	Beauveria, Trichoderma, Azotobacter, PSB,	20	8	9.88	6.63	7.65	6.99	9.48
Rabi-2023-24	Coriander (ATIC)*	IPM/IDM/INM	Beauveria, Trichoderma, Azotobacter, PSB,	20	8	22.50	16.25	19.22	17.89	7.44

Season	Category & Crop	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
1	2	12	13	14	15	16	17	18	19
Kharif 2023-24	Castor (ATIC)	64695	213125	148430	3.29	67210	187344	120134	2.79
Rabi-2023-24	Cumin (ATIC)	102710	166388	63678	1.62	112800	151978	39178	1.35
Rabi-2023-24	Coriander (ATIC)	37950	120117	82167	3.17	38730	98381	59651	2.54

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		Insect pest control in rabi season crop	22	0	22	0	0	0
2		IPM and IDM in Vegetable crops : Onion and Garlic	22	2	24	0	0	0

3	January to December 2024	Scientific farming of Summer Sesame on Natural basis	25	3	28	0	0	0
4		Health benefits of Millets and Value addition in Millets	0	50	50	0	0	0
5		Integrated weed management	30	0	30	0	0	0
6		Pest and disease management in kharif crops through natural farming	20	0	20	0	0	0
7		Pest and Disease management in Rabi crop in natural farming	39	0	39	0	0	0
8		Income generation activity for rural women	5	20	25	0	0	0
9		House hold food security by kitchen gardening and nutrition gardening	0	30	30	0	0	0
Total			210	181	391	0	0	0

F. Extension Activity:

Sr. No.	Name of Activity	No. of Activity	No. of Participant		
			M	F	T
1	Group meeting, Kishan goshti, Night meeting etc.	10	341	67	408
2	Field visit/Field Day	9	121	23	144
3	Literature	11	173	153	326
4	Plant Diagnosis services	14	121	3	124

22.2 District Agro-Met Units (DAMU) under Gramin Krishi Mausam Sewa (GKMS) Scheme(2024)

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 GraminKrishiMausamSewa (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, Jamnoddhpur, 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, 2024

	No. of Bulletins	No. of Farmers
Jamnagar District Block name		
Dhrol	104	324
Jamnoddhpur	104	262
Jodiya	104	488
Jamnagar	104	999
Kalavad	104	530
Lalpur	104	295
Total No. of Block wise Weather Bulletin	624	2898

Devbhumi Dwarka District Block name		
Kalyanpur	104	51
Khambhaliya	104	52
Okhamandal	104	21
Bhanvad	104	38
Total No. of Block wise Weather Bulletin	312	162

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-11	3060
KVK Facebook page	4170 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	05.01.2024	Majoth	Dhrol	Jamnagar	22
2	08-01-2024	Jayva	Dhrol	Jamnagar	21
3	17-02-2024	Vavdi	Jodiya	Jamnagar	28

b) AWS Site Visit

S. No.	Date	Location	Approx. No. of Farmers/ Participant
1	10.01.24	KVK, Jamnagar	58
2	12.01.24	KVK, Jamnagar	47
2	9.02.24	KVK, Jamnagar	42
3	18.04.24	KVK, Jamnagar	56
4	5.08.24	KVK, Jamnagar	66
Total			269

22.3 MGMG_Annual Progress report for the year 2024

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	219
2.	Interface meeting/ <i>Goshthies</i>	9	101
3.	Training organized	4	118
4.	Demonstrations conducted	19	46
5.	Mobile based advisories	129	852
6.	Literature support provided (No)	11	199
7.	Awareness created (No)	15	252
	Total	209	1787

Table-3: Facilitation under MGMG

2	Facilitation	2024		
		Name of technology	Area (ha)	Farmers Benefitted (No)
	i) Technology (No)	ICM in Coriander (<i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB)	8	20
		ICM in Sesame (seed G Til-5, <i>Beauveria</i> , <i>Trichoderma</i> , <i>Azotobacter</i> , PSB)	10	25
		Chickpea (Variety GG-5 & GJG-6)	1.2	1

22.4 Out Scaling of Natural farming

Different kind of activity organized by KVK, JAU, Jamnagar under Natural farming during – 2024

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-2023-24	2.8	7
2	Chickpea	Jivamrut preparation kit (Plastic drum, gram floor, jaggary, bucket)	Rabi-2023-24	2	5

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. Performance of Frontline demonstrations in detail

Season	Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)			% Change in Yield	
						Demo		Check		
						High	Low			Average
1	2	3	4	5	6	7	8	9	10	11
Rabi 2023-24	Wheat	Natural farming	Jivamrut preparation kit	7	2.8	35.50	29.0	32.13	44.89	-28.33
Rabi 2023-24	Chickpea	Natural farming	Jivamrut preparation kit	5	2	22.40	18.90	20.50	25.24	-18.78

Season	Category & Crop	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
1	2	12	13	14	15	16	17	18	19
Rabi 2023-24	Wheat	33197	136531	103334	4.12	52644	134679	82084	2.56
Rabi 2023-24	Chickpea	43160	184500	141340	4.27	56967	164060	107093	2.88

B. Extension Programmes

Sr. No.	Name of Activity	Total Program	participate		
			M	F	Total
1	Training Program	10	433	58	491
2	Method Demonstration	2	45	0	45
3	Seminar	2	389	0	389
4	Kishan Gosthi	1	17	0	17
5	Lecture Delivered	21	2482	2052	4534
Total		36	3366	2110	5476

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
2024-25	0	0.40160	0.40160	0.40160	0

22.5 OTHER PROGRAMME CELEBRATED**Scientific Advisory Committee meeting**

The 20th Scientific Advisory Committee meeting of KVK, JAU, Jamnagar was held on February 3, 2023 at Training Hall, KVK, JAU, Jamnagar for the presentation and reviewing of the work done by the KVK and action plan for the next coming year. The meeting was chaired by Dr. V. P. Chovatia, Hon'ble Vice Chancellor, JAU, Junagadh. Dr. N. B. Jadav, Director of Extension Education, JAU, Junagadh and other officers of line department and Progressive farmers remained present in this meeting. Total 35 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. Dr. V.P.Chovatia Sir and Dr. N.B. Jadav sir appreciated collaborative work of KVK with all line department of the District and collective efforts done by scientist.

Committee members also promoted their work and given valuable suggestions. And at the end of the meeting the farmers of Jamnagar district who got awards were honored with certificates.

PM Kisan Samman Nidhi Programme 18th June, 2024

Pradhan Mantri Kisan Samman Nidhi yojna awareness programme organized on 18th June, 2024 at Vanavad village with collaboration of KVK and ATMA. During this programme live telecast was shown of "Khedut Sammelan" has been organized at Varanasi, Uttar Pradesh for payment of 17th instalment of PMKSNY. After this programme arranged kisan goshti on Natural farming, field visit and diagnosis also organized. Total 32 participants were present in this programme.

WORLD ENVIRONMENT DAY 5TH June, 2024

Krishi Vigyan Kendra, JAU, Jamnagar; Science Centre Dhrol and Forest department jointly organized celebration of World Environment Day on 5th June, 2024 at Falla Village. In this programme create awareness about effects of pesticides on the environment and measures to keep the environment clean and benefits of natural farming. Motivate farmers for plantation of more and more trees. Distribution of saplings of different forestry and Ayurveda plant to participated farmers. Total 62 farmers and 11 officers were participated in this programme.

ICAR MONITORING TEAM VISIT TO KVK

With the guidelines of Government of India, Director, ATARI, ICAR, Pune, Zone-VI deputed the team of ICAR scientist for visit and evaluation of KVKs. The monitoring team of DGR, ICAR center Dr. Chandra Sekhar Praharaj, Principal Scientist & Head (Crop Production and Social Sciences Unit), Mrs. Shanmuka Adupa, Scientist (Ag. Extension) and Dr. Manjunatha Paled, Scientist (Ag.Economics) visited to KVK, Jamnagar on August 14, 2024. KVK provide status reports from the last three years ahead and feedback form of 33 points to the scientists visiting KVKs. ICAR Scientist team discussed with all scientist of KVK Jamnagar about working pattern. They visited museum, laboratories, Demonstration units, seed production plot and Natural farming plot and appreciate the team work of KVK.

INTERNATIONAL WOMEN DAY

KVK Jamnagar and Agakhan Rural Development Trust jointly celebrated "International women day" on 5th March, 2024 at Vadatra village, Ta. Jam khambhaliya Dist. Devbhumi Dwarka. Women members of Gram Panchayat and Taluka Panchayat were present in this celebration and motivated to farm women for empowerment. In this programme discussed about success farm women, value addition, marketing, vermi-composting, Dairy management, kitchen gardening, preservation of fruit and vegetable etc. Encouraged farm women to start small scale home industries to sustain in the society by Smt. A. K. Baraiya, Scientist, KVK, JAU, Jamnagar. Total 43 farmers and 187 farm women participated in this programme.

WORLD PULSES DAY 10th February, 2024

Krishi Vigyan Kendra celebrated world pulses day on 10th February, 2024 at Dhudsiya village. On the day organized kisan goshti at chickpea field and discussed about health benefits and nutritional security by pulses, soil improvement by pulses farming and present scenario of pulses. In this programme encouraged farmers to cultivate pulses.

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

KVK Jamnagar organized Live telecast programme of Prime Minister Shri Narendra Modi will release 109 high yielding, climate resilient and biofortified varieties of crops on 11 August, 2024 at India Agricultural Research Institute, New Delhi. Prime Minister will also interact with the farmers and scientists on the occasion. Total 108 farmers participated the above programme.

PARTHENIUM AWARENESS WEEK 16.08.24 TO 22.08.24

KVK, Jamnagar organized awareness programme during the Parthenium awareness week on August 16 to 22, 2024. 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 82 farmers and 18 KVK members were participated and to create awareness about skin diseases caused by parthenium and its remedy

KRISHAK SWARN SAMRUDDHI (TECHNOLOGY) WEEK CELEBRATION (23RD TO 28TH SEPT., 2024)

KVK, JAU, Jamnagar celebrated Krishak Swarn Samruddhi Week program from 23-28 September 2024. This event aims to empower farmers by introducing them to cutting-edge agricultural practices and focused on advancing sustainable agriculture and improving farmer livelihoods. In the Inaugural Program of Krishak Swarna Samruddhi week welcomed by Dr. K. P. Baraiya, Head of Krishi Vigyan Kendra, Jamnagar of all the guests and farmers and gave information about the functioning of the centre. The chairmanship of this program was graced by Mr. Meghijibhai Chavda, Honorable Member of Parliament 76-Kalavad and encouraged to the farmers who quench the hunger of the hungry as the wealth of the world. Farmers called for turning the land towards toxin-free farming, as well as improving the health of everyone in the society and making it affordable and cultivating different millets as an opportunity for farmers to serve more people by adding value to them. Dr. K.D. Mungra, Head of Bajra Research Center emphasized on how to farmer should produce his own seeds and also pointed out the ways to reduce their costs and to aware about importance of minor millets and their cultivation method. Dr. N. B. Jadav, Director of Extension Education, Junagadh Agricultural University, Junagadh, informed the farmers to adopt new technology in cotton dense plantation, plant in a chain and produce in a short period of time to harvest the winter crop. Apart from this, he recommended to irrigate crops alternately as needed, reduce farming costs by efficient use of medicine and produce healthy crops by using micronutrients as needed. During this week different programmes like workshop, goshti, field visit, field day, night meeting etc. organized at different villages of Jamnagar and Devbhumi dwarka district. In which total 567 farmers/farm women from different blocks were participated and also provided extension literature to each participant.

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

KVK, Jamnagar organized nutrition awareness programmes under the celebration of National Nutrition Month on 10th September, 24th September and 30th September 2024. 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. Total 160 women participated and aware about nutrition through 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 (6-7.12.2024)

Rabi Krushi Mahotsav Organized on December 6-7, 2024 in all taluka of Gujarat. during the celebration, JAU kept stall in exhibition at all taluka of Jamnagar and Dwarka District. KVK kept exhibiton at Dwarka. The main attraction in the exhibition were varieties of different crops, millets, cultivation practices of different *rabi* crops, natural farming technologies, mechanism of value addition, improved implements, soil reclamation techniques, cropping after water logged condition, importance of minor millets etc. About 288 farmers and 834 farm women participated and visited the KVK exhibition stall and received information. Shri Pabubha Manek, MLA, Dwarka also visited the exhibition and take information about natural farming and value addition. During the krushi mahotshav scientists of KVK delivered lectures on production of inputs of natural farming, seed production, *rabi* crop production technologies, value addition in agriculture produce, importance of millets and value addition and market facilities at Dwarka and JamKhambhali.

WORLD SOIL HEALTH DAY (5.12.2024)

Krishi Vigyan Kendra, JAU, Jamnagar organized Off Campus training on “Importance of Soil and water testing” on the occasion of the world soil health day on 5th December, 2024 at Dwarka taluka Dist. Devbhumi Dwarka. Around 69 farmers were actively participated in this programme, Dr. K. P. Baraiya, Senior Scientist & Head, KVK, Jamnagar focused on Soil Health Management, soil reclamation, Natural farming, vermi compost, bio-fertilizer, re-cycling of farm waste and improvement of soil fertility by using natural resources. Farmers were also aware about Coriander and Chickpea crop production system then after farmers gives good response and positive discussion about standing crops. End of the programme hot discussion on water logging area and their difficulties about their Soil.

KISAN DIVAS 23.12.2024

On the celebration of Kisan Divas special programme “Kisan Kumbh” organized by DEE, JAU Junagadh. Farmers from Jamnagar district participated in this programme and visited to JAU Campus and SSK museum. 18 farmers were participated in the same kisan divas.

Drone demonstration

Agri drone demonstration organized in different villages of Jamnagar district during 2024 with the collaboration of Department of Farm Power and Machinery, College of Agricultural Engineering and Technology, Junagadh Agriculture University, Junagadh.

Sr. No.	Date	Village	No. of farmers
1	09.02.2024	Sumari Ta.-& Dist Jamnagar	27
2	09.02.2024	Nandpur Ta.-& Dist Jamnagar	26
3	09.02.2024	Bharatpur Ta.-& Dist Jamnagar	31
4	09.02.2024	Dhudasiya Ta.-& Dist Jamnagar	22
5	21.11.2024	Rampar Ta. Lalpur Dist.- Jamnagar	32
6	21.11.2024	Veravad Ta. Lalpur Dist.- Jamnagar	28
7	21.11.2024	Dadiya, Ta & Dist.- Jamnagar	33
8	21.11.2024	Makvana, Ta & Dist.- Jamnagar	26
		Total	225

Student Training

RAWE Student training programme organized at KVK, JAU, Jamnagar from the College of Agriculture, 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. 24 Students from economics department, College of Agriculture, JAU, Junagadh visited to KVK under READY & AIA programme during November 11 to 16, 2024. 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.

Five students from College of Horticulture, Junagadh Agricultural University, Junagadh come for Training programme under RAWEP during March 4-6, 2024 at KVK, Jamnagar

Twenty Five students from College of Agriculture, Sardarkrushinagar Dantiwada Agricultural University, Sardar Krushinagar come for Training programme under RAWEP during September 6-9, 2024 at KVK, Jamnagar

Student from College of Agricultural, SKRAU, Bikaner visited to KVK Jamnagar on December 28, 2024. Total 34 student visited at KVK Campus. During this training programme student were informed about various activities carried out by the Krishi Vigyan Kendra

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	76	76	53	-
Manure				
Others (pl.specify)				
Total	76	76	53	-

22.7 DIGRITORIES VISITED KVK, JAU, JAMNAGAR

Different dignitaries visited at Krishi Vigyan Kendra, JAU, Jamnagar during the 2024 year.

Sr. No.	Name & Designation of dignitaries	Date o visit
1	Dr. V.P. Chovatiya, Vice Chancellor, JAU, Junagadh visited to KVK, Jamnagar	03.02.2024
2	Dr. N. B. Jadav, DEE, JAU, Junagadh visited to KVK, Jamnagar	03.02.2024
3	Dr. Boga Nirja Prabhakar, V.C., Horticulture University, Talangana	27.05.2024
4	Dr. Chandrashekhar Prahraj & His team, DGR office, ICAR, Junagadh	14.08.2024
5	Shri Meghajibhai Chavda, MLA, Gujarat (Dhrol),	23.09.2024
6	Dr. N. B. Jadav, DEE, JAU, Junagadh visited to KVK, Jamnagar	23.09.2024

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	Marketing	Awareness	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 Vallabhbbhai 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	Daxababen 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 Hareeshbhai 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 Hareeshbhai 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 Chhaganbhai	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 Jivrajibhai	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 Hansrajibhai 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	Shekhpatt	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 Ladhhabhai	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	Hareishbhai 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 Ladhahbhai	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., Azotobacter- 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	Virsoniya Maheshbhai Mohanbhai	Jayva	Dhrol	Jamnagar	9428986829
15	Maheshbhai Gabhru Oza	Jayva	Dhrol	Jamnagar	9428865366
16	Jentilal Ratilal Chhatrara	Jayva	Dhrol	Jamnagar	9979574515
17	Parsotambhai Ladhahbhai Mungara	Jayva	Dhrol	Jamnagar	9428059056
18	Ganeshbhai Jadavajibhai Mungara	Jayva	Dhrol	Jamnagar	8200622722
19	Lalajibhai Avacharbhai Virsoniya	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: Beauveria -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	Divyraisinh 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	Hansrajibhai 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	Vijayaben 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 Harehbhai	Katda	Dhrol	Jamnagar	9725809520
4	Marakana Meenaben Dipakbhai	Katda	Dhrol	Jamnagar	7096729234
5	Aghera Asmitaben Amarashibhai	Katda	Dhrol	Jamnagar	9081348153

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 ($< \text{Mean} - \text{S.D.}$)	52 (up to 6.34)	17.33
2	Medium level of knowledge ($\text{Mean} \pm \text{S.D.}$)	204 (6.34 to 12.11)	68.00
3	High level of knowledge ($> \text{Mean} + \text{S.D.}$)	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 ($< \text{Mean} - \text{S.D.}$)	52 (up to 6.27)	18.67

2	Medium level of adoption (Mean $\pm$ 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.