ANNUAL ZONAL WORKSHOP

ANNUAL PROGRESS REPORT

JANUARY – 2022 TO DECEMBER - 2022

To be presented in Annual Zonal Workshop
will be held on 28-30 July, 2023 at Aurangabad

Senior Scientist & Head
Krishi Vigyan Kendra
Junagadh Agricultural University
Gorkhijadia – Morbi

ICAR-ATARI, Pune

DETAILS OF ANNUAL PROGRESS REPORT OF KVKs DURING 2022

(January 2022 to December 2022)

1. GENERAL INFORMATION ABOUT THE KVK

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

Address with PIN code	Telephone		E mail	Website address & No. of visitors (hits)
	Office	FAX		
Krishi Vigyan Kendra, Junagadh Agricultural University, Morbi Dist: Morbi (Gujarat) – 363641	-	-	kvkmorbi@gmail.com	www.jau.in

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

Address	Telephone		E mail	Website address
	Office	FAX		
Junagadh Agricultural University, Junagadh (Gujarat)	0285-2672080	0285-2672653	dee@jau.in	www.jau.in

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

Name	Telephone / Contact		
	Office	Mobile	Email
Dr. L. L. Jivani	-	94269 72590	lljivani@gmail.com

1.4. Date and Year of sanction: 2017 (Grant & Staff from March-2017)

1.5. Staff Position (as on December, 2022)

Si. 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	Current Grade Pay		
1.	Senior Scientist and Head	Dr. Lalji L. Jivani	9426972590	Genetics&Plant Breeding	131400 - 217100	UL-13A	01/12/20	-
2.	Subject Matter Specialist	D. A. Saradava	9426784628	Plant Protection	57700 - 182400	UL-10	01/03/17	-
3.	Subject Matter Specialist	Dr. K.N. Vadaria	9824290555	Agronomy	57700 - 182400	UL-10	01/06/22	-
4.	Subject Matter Specialist	Vacant	-	-	-	-	-	-
5.	Subject Matter Specialist	Vacant	-					
6.	Subject Matter Specialist	Vacant	-	-	-	-	-	-
7.	Subject Matter Specialist	Vacant	-	-	-	-	-	-
8.	Agriculture Officer	Gamansinh S. Zala	8780953478	B.Sc. Agri.	Fix Pay	Fix Pay	03/08/18	-
9.	Programme Assistant	Vacant	-	-	-	-	-	-
10.	Computer Programmer	R. R. Sida	-	B.C.A.	39900-126600	L-7	07/03/19	-
11.	Farm Manager	Vinuji V. Thakor	8155049089	B.Sc. Agri.	Fix Pay	Fix Pay	31/07/18	-
12.	Accountant / Superintendent	Vacant	-	-	-	-	-	-
13.	Stenographer	N.M. Vadhadiya	9925182898	M.A. B.Ed.	25500-81100	L-4	01/03/22	-
14.	Driver 1	Vacant	-	-	-	-	-	-
15.	Driver 2	Vacant	-	-	-	-	-	-
16.	Supporting staff 1 & 2	Vacant	-	-	-	-	-	-

1.6. Total land with KVK (in ha):

S. No.	Item	Area (ha)
1	Under Buildings and Road	2.0 ha
2.	Under Demonstration Units	1.8 ha
3.	Under Crops	8.0 ha
4.	Horticulture	Nil
5.	Others (Barren submerged under Machchhu-3 dam , Bund and Water drain)	14.4 ha
6.	**Total**	**26.2 ha**

1.7. Infrastructural Development:

A) Buildings

S. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Year	Plinth area (Sq.m)	Expenditure (Rs.)	Starting year	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	KVK	2019-20	575.32	143.00 Lacs	-	-	-
2.	Farmers Hostel	KVK	2019-20	443.96	61.00 Lacs	-	-	-
3.	Staff Quarters (6)	-	-	-	-	-	-	-
4.	Demonstration Units (2)	SAU	2019-20	18.0	40000/-	-	-	-
5	Fencing	JAU	2017-18	4535	7,95,480/-	-	-	-
6	Rain Water harvesting system	-	2018-19	-	2,00,000/-	-	-	-
7	Threshing floor	JAU	2020-21	400	3,15,838/-	-	-	-
8	Farm godown	-	-	-	-	-	-	-
9	ICT lab	-	-	-	-	-	-	-
10	Other (Ground water storage tank)	SAU	2019-20	1.40 lac ltr.	4.6 Lacs	-	-	-

B) Vehicles

Type of vehicle	Year of purchase	Cost (Rs.)	Total kms. Running	Present status
Tractor Mini Captain 9.5 H.P.	2005	165000/-	-	Working
Tractor Massey DI-241	2017	607137/-	-	Working
Mahindra Bolero	2019	800000/-	47000 kms	Working

C) Equipment& AV aids

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer System Acer 18.5	2017	34115/-	Working
Computer System Acer 18.5	2017	34115/-	Working
Printer MF 3010 canon	2017	10266/-	Working
Printer LBP 6230 canon	2017	8761/-	Working

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Computer System SIS Agiledag-2277 LG	2010	24210/-	Working
Computer System Intel core i3 processor HCL		34596/-	Working
Printer MF 4350d canon		14327/-	Working
Xerox Machine RICHO Digital	2013	113755/-	Working
Computer system Acer	2009	31635/-	Working
Computer system Acer	2010	32270/-	Working
Printer Samsung	2013	4579/-	Working
Computer system Acer	2009	30968/-	Working
LG smart television	2021	189975/-	Working

1.8. Details of SAC meeting conducted in the year:

Date	Name and Designation of Participants	Salient Recommendations	Action taken
09/02/2023	**Dr. V. P. Chovatia** Hon'ble Vice Chancellor, J.A.U., Junagadh	Popularize *iKrushi Sanhita* mobile application among farmers community through extension activities.	Popularization was done in training programmes
	Dr. H. M. Gajipara Director of Research & Director of Extension Education, JAU, Junagadh	Adverse weather condition in normal season & pest attack, advance advisory to farmers community through SMS and Whats App	Such advisory was issued as and when required
	Dr. L. L. Jivani Senior Scientist & Head, KVK, JAU,Morbi, Dist. Morbi	The training on banned pesticides should be organized.	It will included in training programmes
	Dr. D. S. Hirpara ADR, DFRS, Targhadia	Advise farmers to take nematode free planting materials.	This will be advised in ensuing programmes
	Dr. H. C. Chhodvadia, Associate Extension Educationalist, DEE office, JAU, Junagadh	Accountability of FLD's should be given.	It will be given
		Organized technology week with the period when maximum farmers can use newer technology and spread among maximum farmers.	technology week was already organized and efforts are being made to involve more farmers.
	Shri A.L. Koradia Representative of District Agriculture Officer, Morbi		
	Shri S.B. Dalsania, Dy. Director of Agril. (Ext.) Seva Sadan, Morbi	Propose HRD trainings needs of scientists.	More proposals will be made for HRD trainings.
	Dr. S.K. Tiwari Nation Horticulture Research & Development Foundation, Naranaka,Rajkot.		

	Prof. D. A.Saradava Scientist –Plant Protection KVK- Morbi, Dist. Morbi		
	Dr. K.N. Vadaria Scientist –Agronomy KVK- Morbi, Dist. Morbi		
	Prof. Pinki S. Sharma AEE, DEE office, JAU, Junagadh		
	Shri B. H. Kothariya Horticultural Officer, Seva Sadan, Morbi		
	Ghanshyamsinh Jadeja Farmer, Khanpar Morbi		
	Govindbhai P. Sarsavadiya Farmer, Jivapar Morbi		
	Jethabhai A. Jetpariya Farmer, Nasitpar Morbi		

2. DETAILS OF DISTRICT / JURISDICTION AREA OF KVK

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

S. No	Farming system/enterprise
1	Cotton-Wheat/Cotton-Cumin/Groundnut-Wheat/Groundnut-Cumin/Cotton-Summer Sesame
2	Animal husbandry – crop based enterprise /Dairy product
3	Farm Waste Management/ Crop residue management
4	Value addition in Groundnut/ Sesame

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

S. No.	Agro-climatic Zone (Planning Commission)	Characteristics
1	North Saurashtra Agro Climatic Zone Morbi,Wankaner and Tankara (Agro – eco-situation –No.7)	Semi arid – region with annual rainfall 550 - 600 mm. Maximum temp – 44˚C, Minimum range – 5 to 12˚C & high evaporation
2	North west agro climatic Zone- 5 Maliya (mi) and Halvad block	Arid to semi arid region with annual rain fall – 500 to 550 mm maximum temp - 45˚C, Minimum range – 3 to 12˚C & high evaporation

a)Topography

S. No.	Agro ecological situation	Characteristics
1	Situation No. 7	Plain & hilly areas in Wankaner Tehsil.
2	Situation No. 5	Plain costal region (saline) affected with desertification

2.3 Soil Types

S. No	Soil type	Characteristics	Area in ha
1	Medium black clayey	Low in organic carbon, heavy cracking and clod formation	202.4
2	Alluvial Soil (sand-loam lomy)	Low fertility status, high infiltration rate	91.8
3	Hilly Soil (light)	Undulating topography, low fertility eroded soil	13.6
4	Silty Soil (loomy)	Low infiltration rate, water logging, difficult to cultivate	5.5

2.4. Area, Production and Productivity of major crops cultivated in the area of jurisdiction of KVK (2022)

S. No	Crop	Area (ha)	Production (000 T)	Productivity (Kg/ha)
	Major Field crops			
1	Groundnut	65215	144942	2223
2	Cotton (Bt)	134551	232705	1729
3	Sesame	2132	1066.23	500
4	Castor	13850	36664	2647
5	Green gram	1663	827.28	497
6	Black gram	1900	1227.8	646
7	Fodder	23868	574189	24057
8	Wheat	34294	102998	3003
9	Chickpea	39644	65222	1645
	Major Horticultural crops			
1	Vegetables	3140	77980.7	24835

Source: District agriculture department

2.5. Weather data (2022)

Month	Normal RF(mm)	Month	Normal RF(mm)
January	0	July	459.5
February	0	August	242.8
March	0	September	84
April	0	October	0
May	0	November	0
June	13	December	0
		Total	**799.3**

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

Category	Population (No)	Production	Productivity
Cattle			
Crossbred	140476		12 lit/Day
Indigenous			
Buffalo	173285		17 lit/Day
Sheep	93747		
Goats	65880		
Pigs			
Crossbred			
Indigenous			
Rabbits	79		
Poultry			
Hens (*Crossbred)*	1022000		3 kg/Bird
Desi			
Category		Production (Q.)	Productivity
Fish (Reservoir)			

2.7. Details of Operational area / Villages

Taluka / Block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Morbi	Chakampar Jivapar Dharampur Thorala Andarana	**Crops:** Groundnut, Cotton,Sesame, Wheat,Cumin, Chickpea,Onion, Garlic **Enterprises:** Dairy business, Vermi composting. Preparation of roasted groundnut and chikki from groundnut seeds	(1) Pink ball worm in cotton (2) Heavy infestation of sucking pests in cotton (3) *Phytopthora*disease in sesame (4) White grubs infestation in groundnut (5) Stem rot in groundnut (6) Wilt and blight in cumin	(1) IPM and INM in major crops of this area (2) Increase drainage of soil (3) Motivate to farmers for arid horticultural crops (4) Efficient use of irrigation water (5) Judicious use pesticides
Tankara	Otala Saraya Neknam Lakhdhirgadh Bhutkotda	**Crops:** Groundnut, Cotton, Sesame, Wheat,Cumin, Chickpea,Onion, Garlic **Enterprises:** Vermi composting. Preparation of roasted groundnut and chikki from groundnut seeds	(1) Pink ball worm in cotton (2) Heavy infestation of sucking pests in cotton (3) *Phytopthora*disease in sesame (4) White grubs infestation in groundnut (5) Stem rot in groundnut (6) Wilt and blight in cumin (7) Nutritional deficiency in animal feed and fodder (8) Less area under horticultural crops	(1)IPM and INM in major crops of this area (2) Increase the drainage of soil (3) Efficient use of irrigation water (4) Judicious use pesticides
Wankaner	Palas Panchdwarka Shekhradi Amarsar Pipaliya raj	**Crops:** Groundnut, Cotton,Sesame, Wheat,Cumin, Chickpea,Onion, Garlic **Enterprises:** Vermi composting. Preparation of roasted groundnut and chikki from groundnut seeds	(1) Pink ball worm in cotton (2) Heavy infestation of sucking pests in cotton (3) *Phytopthora*disease in sesame (4) White grubs infestation in groundnut (5) Stem rot in groundnut (6) Wilt and blight in cumin (7) Nutritional deficiency in animal feed and fodder (8) Long inter calving period in buffalo (8) Less area under horticultural crops	(1) IPM and INM in major crops of this area (2) Reducing calving period in buffalo (3) Motivate to farmers for arid horticultural crops (4) Efficient use of irrigation water (5) Judicious use pesticides

2.8. Priority thrust areas:

Crop/Enterprise	Thrust area
Groundnut, Sesame etc	Increasing the productivity of the major crops by adopting recommendation of dry farming technologies and to create awareness for value addition.
Water conservation	*In situ* soil moisture conservation and rainwater harvesting. Use of cotton stalk for organic manure.
Cotton	Motivating cotton growers to adopt IPM and INM practices for reducing the cost of production.

Women empowerment	Providing self employment through skill oriented income generating activities
Agriculture	Developing interest among youth for agriculture as a profession.
Horticulture	Value addition in agriculture produces through proper grading, processing, marketing and information technology.
Income generating activities	Self employment among rural youth and skill oriented income generating activities.
Nutrition management	Care and importance of nutrition in children & pregnant women.
Spices crop	Adopt recommended practice of IDM in spices crop i.e. cumin &ajwain.

3. TECHNICAL ACHIEVEMENTS

3.1. A. Details of target and achievements of mandatory activities

OFT				FLD			
1				2			
Number of OFTs		Number of farmers		Number of FLDs		Number of farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
3	3	9	9	7	7	65	65

Training				Extension Programmes			
3				4			
Number of Courses		Number of Participants		Number of Programmes		Number of participants	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
43	49	1115	5729	-	198	-	9997

Seed Production (Qtl.)		Planting materials (Nos.)	
5		6	
Target	Achievement	Target	Achievement
26.00	22.67	100	100

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

3.1. B. Operational areas details during 2022

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	Intervention (OFT, FLD, Training, extension activity etc.)*
1	Bt. cotton	Sucking Pest, Para Wilt, Pink Boll Worm	1,12,000 ha	Halvad, Tankara, Wakaner, Morbi block	FLD on pink boll worm management. Training on pink boll worm management
2	Groundnut	White Grub Stem Root	42,000 ha	Tankara , Halvad block	OFT on White grub management in groundnut. Training on pest and Disease management in groundnut.
3	Cumin	Wilt and Blight	3900 ha	Morbi, Halvad, Maliya	FLD and OFT on Wilt management and also training for IDM in Cumin.
4	Pomegranate	Seed rot and nematode	1000 ha	Morbi, Halvad and Maliya	Training programmed and crop seminar

3.2. Technology Assessment (Kharif 2022, Rabi 2021-22, Summer 2022)

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
Varietal Evaluation	-	1	-	-	-	-	-	-	-	**1**
Integrated Pest Management	-	1	-	-	-	-	-	-	-	**1**
Integrated Disease Management	-	-	-	1	-	-	-	-	-	**1**
Total	-	**2**	-	**1**	-	-	-	-	-	**3**

A2. Abstract on the number of technologies assessed in respect of livestock enterprises : Nil

B. Achievements on technologies Assessed

B.1. Technologies Assessed under various Crops

Thematic areas	Crop	Name of the technology assessed	No. of trials	Number of farmers	Area in ha (Per trial covering all the Technological Options)
Varietal Evaluation	Sesame	Assessment of new variety of sesame	3	9	1.20
Integrated Pest Management	Groundnut	Management of White Grub in Groundnut crop	3	9	1.20
Integrated Disease Management	Cumin	Minimize the disease intensity through line sowing in cumin crop	3	9	1.20
Total			**9**	**24**	**3.60**

B.2. Technologies assessed under Livestock & fishery assessment: Nil

B.3 Technologies assessed under other enterprises: Nil

B 4.Technologies assessed under Women empowerment assessment: Nil

C. 1. Results of Technologies Assessed

Results of On Farm Trial

Crop/ enterprise	Farming situation	Problem definition	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment	Data on the parameter			Results of assessment	Feedback from the farmer	Any refinement needed	Justification for refinement
1	2	3	4	5	6	7	8			9	10	11	12
Ground nut	Limited irrigation	Heavy infestation of white grub in groundnut	Management of White Grub in Groundnut crop	3	management of white grub in Groundnut	Yield and percentage of dry plant	**Dry plants (%)**			23.03 percentage higher yield received over farmer practice in T_2 where as 32.89 percentage Higher in T_3 over farmer practice.	Application of *Metarhiziumanisoplii* @ 5 kg/ha with 300 kg/ha castor cake at time of sowing is effective to reduce the infestation of white grub.	Nil	Nil
							T_1	**T_2**	**T_3**				
							11.0	2.9	2.0				
Cumin	Irrigated	Heavy incidence of blight disease in cumin	Minimize the disease intensity through line sowing in cumin crop	3	Disease management through line sowing	Yield and score of blight disease	**Blight score (1-9)**			6.26 percent higher yield obtain in T_2 and 17.44 percent higher in T_3 than farmer practice.	line sowing in cumin crop is very effective to control the blight disease	Nil	Nil
							T_1	**T_2**	**T_3**				
							3.00	1.33	1.67				
Sesame	Irrigated	Low yield of sesame in summer	Assessment of new variety of sesame	3	Assessment of new variety of sesame	Yield and No. of capsules	**No. of capsules/plant**			27.32 percent higher yield obtain in T_2 and 31.04 percent higher in T_3 than farmer practice.	GT – 5 is bold and white seeded and higher yielder (summer).	Nil	Nil
							T_1	**T_2**	**T_3**				
							30.6	35.6	37.0				

Contd..

Technology Assessed	Source of Technology	Production	Please give the unit (kg/ha, t/ha, lit/animal, nuts/palm, nuts/palm/year)	Net Return (Profit) in Rs. / unit	B:C Ratio
13	14	15	16	17	18
OFT-1					
Sowing of groundnut without Seed treatment. Farmers adopt drenching of Chlorphyriphos or quinalphos @ 6 lit/ha with irrigation at initiation of pest incidence. (Farmers practice)	-	1520	kg/ ha	33340	1.53
Seed treatment with imidacloprid 600 F.S. 4 ml/kg seed. (JAU Reco.2020)	Junagadh Agriculture University	1870	kg/ ha	54860	1.85
Soil application of *metarhizium anisoplii* @ 5 kg/ha with 300 kg/ha castor cake at the time of sowing. (JAU Reco.)	Junagadh Agricultural University	2020	kg/ ha	65900	1.98
OFT-2					
Sowing of cumin with broad casting method (Farmer practice)	-	671	kg/ ha	32875	1.64
Sowing of cumin at 30cm distance between two rows (JAU Recommended practices.)	Junagadh Agriculture University	713	kg/ ha	37625	1.73
Sowing of cumin at 15 cm distance between two rows (Intervention).	-	788	kg/ ha	45900	1.87
OFT-3					
G Til - 2 or Local (Farmer Practice).		538	kg/ ha	220	1.00
G Til – 3 (JAU Recommendation for ummer)	Junagadh Agricultural University	685	kg/ ha	13450	1.28
G Til – 5 (JAU Recommendation for summer)		705	kg/ ha	15250	1.32

C. 2. Details of each On Farm Trial for assessment to be furnished in the following format separately as per the following details:

OFT-1

1	Title of Technology Assessed	:	Management of white grub in groundnut crop.
2	Problem Definition	:	Heavy infestation of white grub in ground nut.
3	Details of technologies selected for assessment	:	Soil application of *metarhizium anisoplii* @ 5 kg/ha with 300 kg/ha castor cake at the time of sowing..
4	Source of technology	:	Junagadh Agricultural University
5	Production system and thematic area	:	Integrated pest management.
6	Performance of the Technology with performance Indicators	:	-----
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring Techniques	:	Matrix scoring is 8 out of 10 done by farmer.
8	Final recommendation for micro level situation	:	Sowing of groundnut with application of Metarhiziumanisoplii @ 5 kg/ha with 300 kg/ha castor cake at time of sowing is effective to reduce the infestation of white grub .
9	Constraints identified and feedback for research	:	-----
10	Process of farmer's participation and their reaction	:	Seed treatment is the best and cheapest method for management of white grub.

OFTs

OFT on Sesame

OFT on Groundnut

OFT-2

1	Title of Technology Assessed	:	Minimize the disease intensity through line sowing in cumin crop
2	Problem Definition	:	Fifteen to twenty percent yield reduction due to blight disease
3	Details of technologies selected for assessment	:	Sowing of cumin at 15 cm distance between two rows
4	Source of technology	:	Junagadh Agricultural University, Junagadh
5	Production system and thematic area	:	Integrated disease management.
6	Performance of the Technology with performance Indicators	:	-----
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring Techniques	:	Disease Score
8	Final recommendation for micro level situation	:	line sowing in cumin crop is very effective to control the blight disease
9	Constraints identified and feedback for research	:	-----
10	Process of farmer's participation and their reaction	:	Seed treatment is the best and cheapest method for management of white grub.

OFT-3

1	Title of Technology Assessed	:	Assessment of new variety of sesame
2	Problem Definition	:	Low yield of sesame in summer.
3	Details of technologies selected for assessment	:	New variety of sesame (GT-5)
4	Source of technology	:	Junagadh Agricultural University, Junagadh
5	Production system and thematic area	:	Varietal Evaluation
6	Performance of the Technology with performance Indicators	:	-----
7.	Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring Techniques	:	7 out of 10 scoring
8	Final recommendation for micro level situation	:	GT – 5 is bold and white seeded and higher yielder (summer).
9	Constraints identified and feedback for research	:	Nil
10	Process of farmer's participation and their reaction	:	GT – 5 is bold and white seeded and higher yielder (summer).

3.3. FRONTLINE DEMONSTRATIONS

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

List of technologies demonstrated during previous year and popularized during 2022 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Groundnut	INM	Seed treatment of *Rhizobium* Leguminosarum Isolated-1 a 10 ml/kg seed	Integrated nutrient management through use of *Rhizobium* Leguminosarum	10	20	8.0
2	Cotton	IPM	Management of pink ball worm through MDP	Management of pink ball worm through MDP	5	10	4.0
3	Cumin	New variety	New variety of cumin GC - 5	To test yield potentiality of newly released cumin variety	5	10	2.0
4	Pearl millet	New hybrid	New hybrid of Pearl millet GHB-538	To test yield potentiality of newly released pearlmillet hybrid	5	5	2.0
5	Chickpea	New variety	New variety of chickpea GG - 5	To test yield potentiality of newly released chickpea variety	5	10	4.0
6	Pearl Millet	New hybrid	New Bio fortified hybrid of Pearl millet GHB-1129	To test yield potentiality of newly released pearlmillet Bio fortified hybrid	8	15	6.0

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

S. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Reasons for shortfall in achievement
					Proposed	Actual	SC/ST	Others	Total	
1	Groundnut	INM	Seed treatment of *Rhizobium* Leguminosarum Isolated-1 a 10 ml/kg seed	*Kharif* 2022	8.0	8.0	2	18	20	-
2	Cotton	IPM	Management of pink ball worm through MDP	*Kharif* 2022	4.0	4.0	1	9	10	-
3	Cumin	New variety	New variety of cumin GC - 5	*Rabi* 2021-22	4.0	4.0	2	8	10	-
4	Pearl millet	New hybrid	New Bio fortified hybrid of Pearl millet	Summer 2022	2.0	2.0	-	5	5	-
5	Chickpea	New variety	Popularized new variety GG-5	*Rabi* 2021-22	4.0	4.0	1	9	10	-
6	Pear millet	New hybrid	New Bio fortified hybrid of Pearl millet	*Kharif* 2022	6.0	6.0	3	12	15	Crop was failed due to continuous rain fall and water logged condition for long period.

Details of farming situation

Crop	Season	Farming situation (RF/Irrigated)	Soil type	Status of soil			Previous crop	Sowing date	Harvest date	Seasonal rainfall (mm)	No. of rainy days
				N	P	K					
Groundnut	*Kharif*	RF	Medium Black	Low	Low	High	Cotton	25th to 31st May	1st to 5th Oct.	799.3	-
Cotton	*Kharif*	RF	Medium Black	Low	Low	High	Cotton	25th to 31st May	15th to 30th Dec.	799.3	-
Cumin	*Rabi*	Irrigated	Medium Black	Low	Low	High	Groundnut	8th to 13th Nov.	23rd Feb	-	-
Pearl millet	*Summer*	Irrigated	Medium Black	Low	Low	High	Cotton	20th to 28th Feb.	25th May	-	-
Chickpea	*Rabi*	Irrigated	Medium Black	Low	Low	High	Groundnut / Sesame early cotton	2nd to 10th Dec.	16th to 23rd Mar	-	-
Pearl millet	*Kharif*	RF	Medium Black	Low	Low	High	Cotton	20th to 25th June	12th to 15th Oct.	799.3	-

Technical Feedback on the demonstrated technologies

S. No	Feed Back
1	Variety GJG–32 is resistant against tikka and rust disease in heavy rainfall condition as compared to TG-45 ,GJG–22 ,TAG–24.
2	Application of Metarhiziumanisoplii @ 5 kg/ha with 300 kg/ha castor cake at time of sowing is effective to reduce the infestation of white grub .
3	Line sowing in cumin crop is very effective to control blight disease
4	Pheromone trap is very useful for mass trapping of pink boll worm moth in cotton crop.
5	Chickpea variety GG-5 is high yielding as well as disease resistant compared to GG-2, GJG-3.
6	Sesamum GT–5 is bold and white seeded and higher yielder (summer).

Farmers' reactions on specific technologies

S. No	Feed Back
1	Research needs for control of insect-pest and disease in organic farming.
2	Salinity problem in Maliya, Halvad and part of Morbi taluka.
3	Seed rot problem in pomegranate fruit.
4	Nematode problem in pomegranate crop.
5	Variety GJG–32 is resistant against tikka and rust disease in heavy rainfall condition as compared to TG-45 ,GJG–22 ,TAG–24.
6	Wilt in cumin Crop.(GC-4)
7	Chickpea variety GG-5 is resistant to wilt &blight and change of adverse condition (Chilling effect) as compared to GG-2 and GJG-3.
8	For better germination socking of cumin GC-4 seed in water for 2 to 4 hrs. Then dry in shade.
9	Pod borer problem in groundnut.
10	Ketosis, Mastitis, FMD, Brucellosis problems in cow and buffalo
11	Soft rot disease on onion.

Extension and Training activities under FLD

Sl.No.	Activity	No. of activities organized	Date	Number of participants	Remarks
1	Field days	3	January, February and August	117	-
2	Farmers Training	3	January to December	150	-
3	Media coverage	4	January to December	-	-
4	Training for extension functionaries	3	March, June and November	109	-

C. Performance of frontline demonstrations

Frontline demonstrations on oilseed crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Groundnut	INM	Seed treatment of *Rhizobium Leguminosarum* Isolated-1a 10 ml/kg seed	GG-20, GG-22, GJG-32	20	8.0	19.97	15.86	17.72	16.70	6.11	63300	111229	47929	1.76	62800	104827	42027	1.67

Frontline demonstration on pulse crops

Crop	Thematic Area	technology demonstrated	Variety	No. of Farmers	Area (ha)	Yield (q/ha)				% Increase in yield	Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
						Demo			Check		Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
						High	Low	Average										
Chickpea	New Variety	Popularization of new variety	GG-5	10	4.0	21.75	14.70	19.51	18.46	5.69	40400	99501	59101	2.46	40400	94146	53746	2.33

Frontline demonstration on other crops

Category & Crop	Thematic Area	Name of the technology	No. of Farmers	Area (ha)	Yield (q/ha)				% Change in Yield	Other Parameters		Economics of demonstration (Rs./ha)				Economics of check (Rs./ha)			
					Demo			Check		Demo	Check	Gross Cost	Gross Return	Net Return	BCR (R/C)	Gross Cost	Gross Return	Net Return	BCR (R/C)
					High	Low	Average												
Spices & condiments																			
Cumin																			
Cumin	New Variety	Popularization of new variety GC-5	5	2.0	11.25	2.90	5.12	5.11	0.20	-	-	40900	97280	56380	2.38	40900	96900	56000	2.38
Commercial Crops																			
Cotton										**Ball damage (%)**									
Cotton	IPM	Pink boll worm management through MDP pest	10	4.0	28.70	14.50	21.76	20.90	4.11	1.16	1.90	59670	174080	110610	2.92	58470	167200	108730	2.86

Frontline demonstration on nutri cereals

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										
Pearl-millet																		
Pearlmillet	New Hybrid	Popularization of good quality chapati hybrid	GHB-538	5	2.0	36.7	33.4	34.8	34.8	1.57	47000	69240	22240	1.47	47000	59850	12850	1.27
Pearlmillet	New Hybrid	Popularization of biofortified hybrid	GHB-1129	15	6.0	Crop was failed due to continuous rain fall and water logged condition for long period.												

FLDs

FLD on Pearlmillet GHB-538 **FLD on Groundnut (INM)**

FLD on Chickpea GG-5 **FLD on Cumin GC-5**

FLD on Cotton (IPM)

3.4. Training Programmes (Online programmes if any should be included under On Campus category)

Farmers' Training including sponsored training programmes (on campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Cropping Systems	1	133	0	133	7	0	7	140	0	140
Integrated Farming	1	41	0	41	5	0	5	46	0	46
Integrated Crop Management	1	80	0	80	5	0	5	85	0	85
Integrated nutrient management	1	72	0	72	3	0	3	75	0	75
Total	**4**	**326**	**0**	**326**	**20**	**0**	**20**	**346**	**0**	**346**
II Horticulture										
a) Vegetable Crops										
Nursery Management	1	90	3	93	10	0	10	100	3	103
Value addition in vegetables	1	25	8	33	7	0	7	32	8	40
Seed production	1	76	0	76	0	0	0	76	0	76
Total (a)	**3**	**191**	**11**	**202**	**17**	**0**	**17**	**208**	**11**	**219**
b) Fruits										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (f)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
g) Medicinal and Aromatic Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total (a to g)	**3**	**191**	**11**	**202**	**17**	**0**	**17**	**208**	**11**	**219**
III Soil Health and Fertility Management										
Soil and Water Testing	1	25	0	25	5	0	5	30	0	30
Total	**1**	**25**	**0**	**25**	**5**	**0**	**5**	**30**	**0**	**30**
IV Livestock Production and Management										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	0	22	22	0	0	0	0	22	22
Processing and cooking	1	0	68	68	0	0	0	0	68	68
Total	**2**	**0**	**90**	**90**	**0**	**0**	**0**	**0**	**90**	**90**
VI Agril. Engineering										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	3	67	12	79	3	0	3	70	12	82
Integrated Disease Management	1	38	0	38	0	0	0	38	0	38
Bio-control of pests and diseases	1	24	0	24	0	0	0	24	0	24
Others (pl specify) Judicious use of pesticides	1	65	0	65	3	0	3	68	0	68
Total	**6**	**194**	**12**	**206**	**6**	**0**	**6**	**200**	**12**	**212**
VIII Fisheries										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X CapacityBuilding and Group Dynamics										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**16**	**736**	**113**	**849**	**48**	**0**	**48**	**784**	**113**	**897**

Farmers' Training including sponsored training programmes (off campus)

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Cropping Systems	1	27	0	27	1	0	1	28	0	28
Integrated Farming Systems	1	88	0	88	14	0	14	102	0	102
Integrated nutrient management	1	62	0	62	4	0	4	66	0	66
Total	**3**	**177**	**0**	**177**	**19**	**0**	**19**	**196**	**0**	**196**
II Horticulture										
a) Vegetable Crops										
Nursery Management	1	54	0	54	2	0	2	56	0	56
Total (a)	**1**	**54**	**0**	**54**	**2**	**0**	**2**	**56**	**0**	**56**
b) Fruits										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology	1	19	0	19	3	0	3	22	0	22
Total (f)	**1**	**19**	**0**	**19**	**3**	**0**	**3**	**22**	**0**	**22**
g) Medicinal and Aromatic Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total (a to g)	**2**	**73**	**0**	**73**	**5**	**0**	**5**	**78**	**0**	**78**
III Soil Health and Fertility Management										
Production and use of organic inputs	1	29	0	29	0	0	0	29	0	29
Soil and Water Testing	1	19	0	19	0	0	0	19	0	19
Total	**2**	**48**	**0**	**48**	**0**	**0**	**0**	**48**	**0**	**48**
IV Livestock Production and Management										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment										
Household food security by kitchen gardening and nutrition gardening	1	20	53	73	0	0	0	20	53	73
Design and development of low/minimum cost diet	1	0	38	38	0	2	2	0	40	40
Processing and value addition	1	0	32	32	0	1	1	0	33	33
Women empowerment	1	0	32	32	0	3	3	0	35	35
Total	**4**	**20**	**155**	**175**	**0**	**6**	**6**	**20**	**161**	**181**
VI Agril. Engineering										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	4	159	0	159	4	0	4	163	0	163
Integrated Disease Management	2	93	0	93	10	0	10	103	0	103
Bio-control of pests and diseases	2	50	0	50	16	0	16	66	0	66
Others (pl specify) Judicious use of pesticides	1	30	0	30	2	0	2	32	0	32
Total	**9**	**332**	**0**	**332**	**32**	**0**	**32**	**364**	**0**	**364**
VIII Fisheries										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X Capacity Building and Group Dynamics										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**20**	**650**	**155**	**805**	**62**	**0**	**62**	**712**	**155**	**867**

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

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
I Crop Production										
Cropping Systems	2	160	0	160	8	0	8	168	0	168
Integrated Farming	2	129	0	129	19	0	19	148	0	148
Integrated Crop Management	1	80	0	80	5	0	5	85	0	85
Integrated nutrient management	2	134	0	134	7	0	7	141	0	141
Total	**7**	**503**	**0**	**503**	**39**	**0**	**39**	**542**	**0**	**542**
II Horticulture										
a) Vegetable Crops										
Nursery raising	2	130	0	130	2	0	2	132	0	132
Value addition in vegetables	1	25	8	33	7	0	7	32	8	40
Others: Seed production technology in vegetables	1	90	3	93	10	0	10	100	3	103
Total (a)	**245**	**11**	**256**	**19**	**0**	**19**	**264**	**11**	**275**	**245**
b) Fruits										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (b)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
c) Ornamental Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (c)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
d) Plantation crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (d)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
e) Tuber crops										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (e)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
f) Spices										
Production and Management technology	1	19	0	19	3	0	3	22	0	22
Total (f)	**1**	**19**	**0**	**19**	**3**	**0**	**3**	**22**	**0**	**22**
g) Medicinal and Aromatic Plants										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total (g)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Grand Total (a to g)	**5**	**264**	**11**	**275**	**22**	**0**	**22**	**286**	**11**	**297**
III Soil Health and Fertility Management										
Production and use of organic inputs	1	29	0	29	0	0	0	29	0	29
Soil and Water Testing	2	44	0	44	5	0	5	49	0	49
Total	**3**	**73**	**0**	**73**	**5**	**0**	**5**	**78**	**0**	**78**
IV Livestock Production and Management										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
V Home Science/Women empowerment										
Household food security by kitchen gardening	2	20	75	95	0	0	0	20	75	95
Design & development of low/minimum cost diet	1	0	38	38	0	2	2	0	40	40
Processing and cooking	1	0	68	68	0	0	0	0	68	68
Value addition	1	0	32	32	0	1	1	0	33	33
Women empowerment	1	0	32	32	0	3	3	0	35	35
Total	**6**	**20**	**245**	**265**	**0**	**6**	**6**	**20**	**251**	**271**
VI Agril. Engineering										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
VII Plant Protection										
Integrated Pest Management	7	226	12	238	7	0	7	233	12	245
Integrated Disease Management	3	131	0	131	10	0	10	141	0	141
Bio-control of pests and diseases	3	74	0	74	16	0	16	90	0	90
Others (pl specify) Judicious use of pesticides	2	95	0	95	5	0	5	100	0	100
Total	**15**	**526**	**12**	**538**	**38**	**0**	**38**	**564**	**12**	**576**
VIII Fisheries										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
IX Production of Inputs at site										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
X CapacityBuilding and Group Dynamics										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
XI Agro-forestry										
Others (pl specify)	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**36**	**1386**	**268**	**1654**	**110**	**0**	**110**	**1496**	**268**	**1764**

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

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

Training for Rural Youths including sponsored training programmes – CONSOLIDATED (On + Off campus): Nil

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated Pest Management	1	35	0	35	0	0	0	35	0	35
Any other (pl.specify) Natural farming	1	19	2	21	2	0	2	21	2	23
TOTAL	**2**	**54**	**2**	**56**	**2**	**0**	**2**	**56**	**2**	**58**

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Any other (pl.specify) Natural farming	1	46	0	46	5	0	5	51	0	51
TOTAL	**1**	**46**	**0**	**46**	**5**	**0**	**5**	**51**	**0**	**51**

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

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Integrated Pest Management	1	35	0	35	0	0	0	35	0	35
Any other (pl.specify) Natural farming	2	65	2	67	7	0	7	72	2	74
TOTAL	**3**	**100**	**2**	**102**	**7**	**0**	**7**	**107**	**2**	**109**

Sponsored training programmes

Area of training	No. of Courses	No. of Participants								
		General/ Others			SC/ST			Grand Total		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Crop production and management										
Integrated crop management	5	2597	202	2799	76	0	76	**2673**	**202**	**2875**
Production and value addition										
Spices crops	0	0	0	0	0	0	0	**0**	**0**	**0**
Soil health and fertility management	0	0	0	0	0	0	0	**0**	**0**	**0**
Production of Inputs at site	0	0	0	0	0	0	0	**0**	**0**	**0**
Methods of protective cultivation	0	0	0	0	0	0	0	0	0	0
Other - Plant protection (IDM)	2	325	110	435	15	0	15	340	110	450
Other - Plant protection (IPM)	2	359	112	471	20	0	20	379	112	491
Total	**4**	**684**	**222**	**906**	**35**	**0**	**35**	**719**	**222**	**941**
Post harvest technology and value addition										
Processing and value addition	1	25	8	33	5	2	7	**30**	**10**	**40**
Total	**1**	**25**	**8**	**33**	**5**	**2**	**7**	**30**	**10**	**40**
Farm machinery										
Others (pl. specify)	0	0	0	0	0	0	0	**0**	**0**	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Livestock and fisheries										
Others (pl. specify)	0	0	0	0	0	0	0	**0**	**0**	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Home Science										
Others (pl. specify)	0	0	0	0	0	0	0	**0**	**0**	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Agricultural Extension										
Others (pl. specify)	0	0	0	0	0	0	0	**0**	**0**	**0**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
GRAND TOTAL	**10**	**3306**	**432**	**3738**	**116**	**2**	**118**	**3422**	**434**	**3856**

Details of vocational training programmes carried out by KVKs for rural youth (4 or more days): Nil

On/Off Campus Trainings

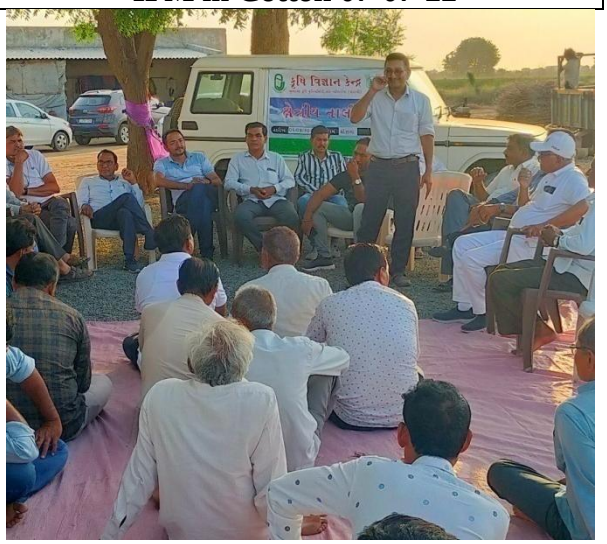
Different IPM Modules for relevant crops 29-09-22

Bio fertilizer Application 19-09-22

IPM and IDM in *Rabi* Crops 25-01-22

IPM in Cotton 07-07-22

Disease and pest management at Kankot 31-12-22



Important Criteria for Organic Farming at Thorala 06-04-22

Different Activities Under Natural Farming

Extension workers training on natural farming 10-11-22

Natural farming training at Halvad on 20-12-22

Natural farming workshop workshop at Halvad on 10-09-22

On Campus live lelecast of Natural Farming on 27-06-22

Demonstration of Preparation of Jivamrut

Natural Farming Shibir at Vadal on 10-03-22

3.5. Extension Programmes

Activities	No. of programmes	No. of farmers	No. of Extension Personnel	TOTAL
Advisory Services (Other than KMAS)	72	1136	0	1136
Diagnostic visits	6	20	2	22
Field Day	2	48	2	50
Group discussions	0	0	0	0
Kisan Ghosthi	9	561	3	564
Film Show	0	0	0	0
Self -help groups	0	0	0	0
Kisan Mela	3	524	4	528
Exhibition	0	0	0	0
Scientists' visit to farmers field	15	84	15	99
Plant/animal health camps	0	0	0	0
Farm Science Club	0	0	0	0
Ex-trainees Sammelan	0	0	0	0
Farmers' seminar/workshop	2	2647	6	2653
Method Demonstrations	0	0	0	0
Celebration of important days	8	566	5	571
Special day celebration	7	244	8	252
Exposure visits	2	138	0	138
Farmers visit to KVK	16	396	0	393
Soil and water sample tested	15+17	32	0	32
Live broadcast of PM Kisan Sanman Nidhi	3	541	6	547
Audio conference	3	255	0	255
Agro input dealers' training	8	322	0	322
Farmers guide through phone	12	1611	0	1611
Jalshakti abhiyan	5	348	0	348
Swachchhata abhiyan	10	473	0	473
Total	**198**	**9946**	**51**	**9997**

Note- Advisory services includes social media, website, telephonic calls etc.

Details of other extension programmes:

Particulars	Number
Electronic Media (CD./DVD)	-
Extension Literature	4
Newspaper coverage	8
Popular articles	1
Radio Talks	-
TV Talks	2
Animal health camps (Number of animals treated)	-
Social Media (No. of platforms Used)	3
Others (pl. specify) (Distribution of extension literature)	450
Total	**468**

3.6 Online activities during year 2022

S. No.	Activity Type	Mode of implementation (Video conferencing / Audio Conferencing / Facebook Live / YouTube Live/ Zoom/ Google meet/ Webex etc.)	Title of Program	No. of Programmes	No. of Participants/ Views
A	Farmers training				
1	Farmers training	Audio Conferencing	IPM in groundnut and rabi crops Varieties of vegetables	3	255
	Total			**3**	**255**
B	Farmers scientist's interaction programme				
1	Video conferencing	Video conferencing	Plant protection	1	10
	Total			**1**	**10**
C	Farmers seminars				
1	Seminar	Video conferencing	IPM and IDM in rabi crops	1	2500
	Total			**1**	**2500**
	Grand Total (A+B+C+D+E)			**5**	**2765**

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)	Value (Rs)	Number of farmers
Oilseeds	Sesame (Breeder)	GT – 6	-	2.62	31309	-
	Sesame (Labeled)	GT – 6	-	0.43	4397	35
	Groundnut (Labeled)	GJG-32	-	5.73	35641	3
Pulses	Black Gram (Labeled)	GU – 2	-	8.55	50744	43
	Chickpea (Labeled)	GG-5	-	1.44	37530	5
Vegetables	Onion (Breeder)	GJWO-3	-	0.0525	17325	-
	Onion (General)	GJWO-3	-	0.46	69000	12
Spices	Cumin (Labeled)	GC – 4	-	1.87	120416	92
Total				**66.6925**	**366362**	**190**

Production of planting materials by the KVK

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Forest Species	Drumstick	-	-	25	-	25
Fruits	Jamun	-	-	25	-	25
Total				**50**	**-**	**50**

Production of Bio-Products: Nil

Special Days Celebration

Garib Kalyan Sammelan 31-05-22

Celebration of Independence Day 15-08-22

PM Kisan Sanman Sammelan 17-10-22

Celebratio of ICAR Foundation Day 16-07-22

Celebration of Mahila Kisan Divas 15-10-22

Celebration of Kisan Day 23-12-22

Other extension activities

Dignitary Visit of Hon'ble Vice Chancellor Dr. (Prof) N.K. Gontia 09-03-22

Certificate Distribution to Agro Input Dealers 19-07-22

Agro Input Dealers' Training 04-03-22

Tree Plantation 17-09-22

Krushi Mela under Jalshakti Abhiyan 17-10-22

Celebration of Agri. Tech. Week 21-09-22

Different activities under swachchhata abhiyan

Celebration of Swachchhata Pakhavadiya 20-12-22

Waste Decompost at KVK

Orientation programme on senitation in school at Barvala 11-10-22

Production of livestock materials: Nil

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

A. KVK News Letter ((Date of start, Periodicity, number of copies distributed etc.): 4 (JAU news letter)
B. Literature developed/published

Item	Title	Authors name	Number
Research papers	NA	-	-
Technical reports	SAC, Annual, ZEARC, AGRESSCO	-	5
News letters	JAU, news letters	-	4
Technical bulletins	-	-	-
Popular articles	Sangrahel Anajni Jivato ane Tenu Niyantran	D.A. Saradva, V.D. Vora, M.S. Ghadia and D.S. Hirpara	Krushi Prbhat, 30 April 2022
Extension literature	*Prakrutik Krushini Vyakhya ane Sidhanto*	Dr. L.L. Jivani, Mr. D.A. Saradva, Dr. K.N. Vadaria, Mr. G.S. Zala, Mr. V.V. Thakor	1000
	Prakrutik Krushima Khatar banavvani Rit		1000
	Prakrutik Krushima Pak sanrakshanna Upayo		1000
Others (Pl. specify) Calendar	Natural Farming Calendar of year 2023		500
TOTAL	7	-	3509

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	No of events (uploaded video/post/story etc.	Title of social media	Number of Followers/ Subscribers
1	YouTube Channel (no of video uploaded)	-	-	-
2	Facebook page/ Account (no of Post)	-	-	-
3	Mobile Apps	-	-	-
4	Whats App groups	20	-	1250
5	Twitter Account @Kvkmorbi	-	-	10
6	Any other (Pl. Specify)	-	-	-

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

- IPM in Cotton-Use of Trap crop, Pheromone trap, MDP etc.
- Minimizing the chemical Fertilizer and Maximizing organic manure.
- Value addition in different agriculture crops like groundnut, sesame etc.

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

S. No.	Crop / Enterprise	ITK Practiced	Purpose of ITK
-	-	-	-

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

A. Practicing Farmers: Nil
B. Rural Youth: Nil
C. In-service personnel: Nil

5.2. Indicate the methodology for identifying OFTs/FLDs

For OFT:

i) Field level observations
ii) Farmer group discussions

For FLD:

i) New variety/technology
ii) Existing cropping system
iii) Problem at field level

5.3. Field activities

Name of villages identified/adopted with block name (from which year) -

Block	Villages
Morbi	Chakampar, Jivapar, Dharampur Thorala, Andarana
Tankara	Otala, Saraya, Neknam, Lakhdhirgadh, Bhutkotda
Wankaner	Palas, Panchdwarka, Shekhradi, Amarsar, Pipaliya raj

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dy. Director of Agriculture.	Most of the Organizations are members of Scientific Advisory Committee (SAC) of KVK and have linkage with different activities of KVK *viz*., Training Programme, Khedut Sibir, Farmers day, Animal health Camp, Farmers fair, Film Show, Ex-training meeting and Soil health card etc.
Dy. Director of Agril. Extension (FTC)	
Dy. Director of Horticulture	
Dy. Director of Animal Husbandry	
District Agriculture officer	
JillaUdhyong Kendra	
NHRDF	
Doordarshan Kendra	
All India Radio	
District Rural Development Agency(DRDA)	
ATMA	
District Watershed Development Agency (DWDA)	
GGRC	
Reliance foundation	
GSFC, **GNFC**	
IFFCCO	
KRIBHCO	
ANANDI NGO	

NB The nature of linkage should be indicated in terms of joint diagnostic survey, joint implementation, participation in meeting, contribution received for infrastructural development, conducting training programmes and demonstration or any other

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

Name of the scheme	Date/ Month of initiation	Funding agency(State Govt./Other Agencies)	Amount (Rs.)
-	-	-	-

C. Details of linkage with ATMA

a) Is ATMA implemented in your district Yes

If yes, role of KVK in preparation of SREP of the district?
Yes, we have prepared the SREP of Morbi district.

D. Success Stories / Case studies, if any (two or three pages write-up on each case with suitable action photographs. The Success Stories / Case Studies need not be restricted to the reporting period).

(A) Modern approach to horticulture farming

- Name Dineshbhai Bhikhabhai Bhorania
- Village Juna Devalia , Ta –Halvad, Dist. Morbi
- Age 42 Years
- Mobile No. 9974660261
- Education 12th pass
- Total land 6.00

Dineshbhai is a progressive farmer of village Juna Devalia of Halvad taluka. He was cultivating Cotton, Pomegranate, Black gram on his farm traditionally. He faced problems like, low productivity of Cotton due to pest and disease, also limitation of yield in field crops.

He attended training programs on cultivation of horticultural crops at KVK, Morbi. Dineshbhai shifted and spare some area of land for horticultural crop like pomegranate. This crop is suitable for this semi arid region. He got good yield and quality and succeeds for their income near double within five year.

Sr. No.	Particular of farming	Area (ha)	Production (Quintal)	Gross Income	Net Income
1	Cotton (before)	4.00	76	334500	178500
2	Blackgram (GU-1) (before)	2.00	20	122000	77000
	Total			**456500**	**255500**
1	Cotton (after)	4.00	77	346500	192500
2	Pomegranate (After)	2.00	162	433200	298500
	Total			**779700**	**491000**

Pomegranate crop at farmers field

(B) Crop diversification: Cultivation of horticultural crops

- Name Bhagiya Atul Laxmanbhai
- Village Haripar, Ta –Tankara, Dist. Morbi
- Age 32 Years
- Mobile No. 9998884488
- Education 11^{th} pass
- Total land 5.60

Atulbhai is an innovative farmer of village Haripar of district Morbi. Atulbhai growing field crops like groundnut, cotton, wheat so he has limited income from this crop and due continuous mono cropping pest disease problem like pink boll worm and stem rot in this crop as well as productivity of these crops & his net income decreased year by year.

As per the suggestion by K.V.K. scientists, he grow cumin and also some he grow water melon with drip irrigation and mulching so he got good revenue from this crop also increase yield in field crop due to adoption of high remunerative crop. He is getting annual income of **Rs.459000/-.**

Particular of farming	Area (ha)	Production (Quintal)	Gross Income (Rs.)	Net Income (Rs.)
Before				
Groundnut (GG-20)	3.60	73	312000	171000
Cotton (Bt.)	2.00	41	180000	91000
Total			**492000**	**262000**
After				
Water Melon (kiran-2) with drip+mulch	2.00	362	524000	312000
Cumin (GC-4)	3.60	36.5	449000	147000
Total			**973000**	**459000**

Water melon at farmers field

Water melon production at farmers field

Selling water melon at his farm and road side

(C) Crop diversification: Cultivation of horticultural crops

- Name : Jaydip Dilipbhai Patel
- Village : Malaniyad, Ta – Halvad, Dist. – Morbi
- Age : 30 years
- Mobile No. : 9925493450
- Education : MBA
- Total land (ha) : 20

Jaydipbhai is a progressive farmer of village Malaniyad of Halvad taluka. He growing field crops like Cotton, Groundnut etc. He faced problems like pink boll worm in cotton and white grub in groundnut so he has limited income from these crops as a result productivity of these crops & his net income decreased year by year.

He attends many trainings organized by KVK, Morbi and learn from our whatsap group "Parishram group for farmer''. He grow new crop Banana and succeed in this aria of Halvad taluka near desert of small desert of Kutch, He also use *Trichoderma* Pseudomonas and Jivamrut in Cumin for Blight and wilt disease. Jaydipbhai adopt IPM technology in Cotton and groundnut crop. He is getting annual income of **Rs. 1974000/-.**

Names	Area (ha)	Production (Quintal)	Gross Income (Rs.)	Net Income (Rs.)
Before				
Cotton (Bt.)	11.2	212	936500	489000
Groundnut (TAG-37)	8.8	188	854000	457000
Total			**1790500**	**946000**
After				
Banana	3.2	632	1264000	795000
Cumin (GC-4)	16.8	147	1852000	1179000
Total			**3116000**	**1974000**

Pomegranate at Farmers field

(Jaydipbhai and his father)

KVK scientist visited his field

6. LINKAGES

A. Functional linkage with different organizations

Name of organization	Nature of linkage
Dy. Director of Agriculture.	Most of the Organizations are members of Scientific Advisory Committee (SAC) of KVK and have linkage with different activities of KVK *viz*., Training Programme, Khedut Sibir, Farmers day, Animal health Camp, Farmers fair, Film Show, Ex-training meeting and Soil health card etc.
Dy. Director of Agril. Extension (FTC)	
Dy. Director of Horticulture	
Dy. Director of Animal Husbandry	
District Agriculture officer	
JillaUdhyong Kendra	
NHRDF	
Doordarshan Kendra	
All India Radio	
District Rural Development Agency(DRDA)	
ATMA	
District Watershed Development Agency (DWDA)	
GGRC	
Reliance foundation	
GSFC, **GNFC**	
IFFCCO	
KRIBHCO	
ANANDI NGO	

Coordination activities between KVK and ATMA

S. No.	Programme	Particulars	No. of programmes attended by KVK staff	No. of programmes Organized by KVK	No of Farmers attending
01	**Meetings**	2	2	1	52
02	**Research projects**	-	-	-	-
03	**Training programmes**	2	2	1	2647
04	**Demonstrations**	-	-	-	-
05	**Extension Programmes**				
	KisanMela	-	-	-	-
	Technology Week	1	1	1	126
	Exposure visit	1	1	1	48
	Exhibition	-	-	-	-
	Soil health camps	-	-	-	-
	Animal Health Campaigns	-	-	-	-
	Others (Pl. specify)	-	-	-	-
06	**Publications**	-	-	-	-
	Video Films				
	Books	-	-	-	-
	Book chapter	-	-	-	-
		-	-	-	-
	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
Nil					

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
Nil					

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
Nil					

G. Details of linkage with PKVY (Paramparagat Krishi Vikas Yojana)

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

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
Nil					

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
Nil					

7. Convergence with other agencies and departments:

8. Innovative Farmers Meet

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

9. Farmers Field School (FFS)

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

10.1. Technical Feedback of the farmers about the technologies demonstrated and assessed:

No.	Feed Back
1.	Variety GJG–32 is resistant against tikka and rust disease in heavy rainfall condition as compared to TG-45 ,GJG–22 ,TAG–24.
2.	Application of Metarhiziumanisoplii @ 5 kg/ha with 300 kg/ha castor cake at time of sowing is effective to reduce the infestation of white grub .
3.	Line sowing in cumin crop is very effective to control blight disease
4.	Pheromone trap is very useful for mass trapping of pink boll worm moth in cotton crop.
5.	Chickpea variety GG-5 is high yielding as well as disease resistant compared to GG-2, GJG-3.
6.	Sesamum GT–5 is bold and white seeded and higher yielder (summer).

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

No.	Feed Back
1.	Research needs for control of insect-pest and disease in organic farming.
2.	Salinity problem in Maliya, Halvad and part of Morbi taluka.
3.	Seed rot problem in pomegranate fruit.
4.	Nematode problem in pomegranate crop.
5.	Variety GJG–32 is resistant against tikka and rust disease in heavy rainfall condition as compared to TG-45 ,GJG–22 ,TAG–24.
6.	Wilt in cumin Crop.(GC-4)
7.	Chickpea variety GG-5 is resistant to wilt &blight and change of adverse condition (Chilling effect) as compared to GG-2 and GJG-3.
8.	For better germination socking of cumin GC-4 seed in water for 2 to 4 hrs. Then dry in shade.
9.	Pod borer problem in groundnut.
10.	Ketosis, Mastitis, FMD, Brucellosis problems in cow and buffalo
11.	Soft rot disease on onion.

11. Technology Week celebration during2022:Yes/No, If Yes

Period of observing Technology Week: From **19th to 23rd September 2022**
Online / Offline: Offline
Total number of farmers visited : 126
Total number of agencies involved : 3
Number of demonstrations visited by the farmers within KVK campus: 2

Other Details

Types of Activities	No. of Activities	Number of Farmers	Related crop/livestock technology
Gosthies	2	21	IPM, MDP
Lectures organized	10	126	Groundnut/ Cotton/ Black gram
Exhibition	1	126	Demonstration of drone
Film show	-	-	-
Fair	-	-	-
Farm Visit	5	103	Groundnut/ Black gram
Diagnostic Practicals	3	12	Chilly and cotton
Supply of Literature (No.)	7	126	IPM, IDM, animal science
Supply of Seed (q)	-	-	-
Supply of Planting materials (No.)	-	-	-
Bio Product supply (Kg)	-	-	-
Bio Fertilizers (q)	-	-	-
Supply of fingerlings	-	-	-
Supply of Livestock specimen (No.)	-	-	-
Total number of farmers visited the technology week	-	126	-

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	KVK not included in this programme		

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
Nil			

D. Animal health camps organized

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

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

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

F. Large scale adoption of resource conservation technologies

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

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
Gujarat	-	-	9	561	2	48	3	652	1	324	-	-

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)
Only three year completed of KVK so, OFT, FLD and training conducted with limited staff				

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

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

OFT – 1

OFT on white grub management was conducted for last three years in which Chlorpyriphos 25 E.C. 20 ml/kg seed treatment (GAU recommendation) second treatment of Metarhizium 5 kg + 300 kg castor cake at the time of sowing (JAU recommendation)

(1) Most of the farmers are adopting seedtreatment for white grub management. in Morbi district white grub problem is observed in Tankara taluka, farmers following university recommendation and other new technical(insecticides) developed recently.
(2) Metarhizium is best for white grub as well as soil pests damaging groundnut but it is not available in market. most of farmers trust in university bio-product(now not available).

Taluka wise adoption :

Sr No.	Name of Taluka	Sowing without seed treatment T_1	T_2	T_3
1.	Tankara	40%	59.8%	0.2%
2.	Wankaner	62%	38%	NIL
3.	Halvad	32%	67.9%	0.1%
4.	Morbi	78%	22%	NIL
5.	Maliya	100%	NIL	NIL

(3) Infestation of white grub in Morbi and Maliya taluka is not beyond ETL or severe so farmers of these taluka are not using seed treatment for control of white grub.

OFT – 2

Wilt management in cumin

> For the management of wilt disease OFT conducted on farm and farmer's field for three years in which Trichoderma was major component with organic manure. Most of farmers sowing cumin without application of Trichoderma where as in T_2 Trichoderma application with organic manure at the time of sowing and in T_3 two applications of Trichoderma at the time of sowing and after one month of germination. The adoption rate of this technology was as under.

Study of hundred farmers during field visit and training

Sr No.	Taluka	T_1	T_2	T_3
1.	Tankara	84%	2%	14% *
2.	Wankaner	92.5%	1.5%	6% *
3.	Halvad	85%	3%	12% *
4.	Morbi	86.5%	2.5%	11% *
5.	Maliya	94%	1%	5% *

* only one application after germination.

We have conducted on campus and off campus training and also field day creating awareness among farmers community. Even after obtaining good result of Trichoderma application most of farmers not adopting this technology due to shortage of labour, shortage of organic manure and unavailability of university Trichoderma. Farmers do not trust in other company Trichoderma even after showing good result.

FLD

Varietal FLD
GG-22 : Covered 30 % area of semi spreading groundnut area within 3 years.

GJG-32 : Within 3 years sowing in 1800 to 2000 ha in Tankara taluka where adequate irrigation facility is available.

FLD on wilt management through Trichoderma
Most of farmers are aware that treatment of Trichoderma at the time suppress the wilt disease in cumin but only 5 to 12% farmers are using Trichoderma due to unavailability of Trichoderma(University).

Chick pea GJG-3 and GG-5
More than 90 % farmers of unirrigated area are adopting GJG-3 chick pea variety whereas in irrigated area 70 % farmers select GJG-3 whereas 30 % farmers select GG-5 variety.

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

14. Kisan Mobile Advisory Services

Month	No. of SMS sent	No. of farmers to which SMS was sent	No. of feedback / query on SMS sent
Jan 2022	4	500	-
Feb 2022	4	700	-
March 2022	3	1000	-
April 2022	6	1100	-
May 2022	7	1000	-
Jun 2022	8	1136	-
Jul 2022	8	1136	-
Aug 2022	7	1136	-
Sept 2022	6	1136	-
Oct 2022	6	1136	-
Nov.2022	7	1136	-
Dec.2022	6	1136	-

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awareness	Other enterprise	Total
Morbi	Text only	24	-	48	-	-	-	72
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**24**	**-**	**48**	**-**	**-**	**-**	**72**
	Total farmers Benefitted	**1136**	**-**	**1136**	**-**	**-**	**-**	**2272**

15. PERFORMANCE OF INFRASTRUCTURE IN KVK

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

Si. No.	Demo Unit	Year of establishment	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs (Rs.)	Gross income (Rs.)	
1	Roof Rain water harvesting system	2019-20	1.40 lac L.	-	Drinking water	1.40 lac L.	Nil	60,000/-	-
2	Nadep compost	2021-22		-	Compost	3000 kg	3,000	30,000/-	From farm waste
3	Water harvesting unit	2017-18	2400 m^3	-	Irrigation water	2400 m^3	2,500	72,000/-	-

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

Name of the crop	Date of sowing	Date of harvest	Area (ha)	Details of production			Amount (Rs.)		Remarks
				Variety	Type of Produce	Qty.	Cost of inputs	Gross income	
Cereals	-	-	-	-	-	-	-	-	-
Pulses									
Black Gram	22/07/22	13/10/22	2.00	GU – 2	Labeled	8.55	-	50744	-
Chickpea	02/12/21	16/03/22	0.20	GG – 5	Labeled	1.44	-	37530	-
Pigeon pea	02/08/22	25/03/22	1.20	GJP-1	Labeled	12.00	-	120000	-
Oilseeds									
Sesame	29/07/22	01/11/22	1.00	GT-6	Breeder	2.62	-	31309	-
Sesame	29/07/22	31/10/22	0.20	GT-6	Labeled	0.43	-	4397	-
Groundnut	31/05/22	05/11/22	0.90	GJG-32	Labeled	5.73	-	35641	-
Groundnut	31/05/22	05/11/22	0.90	GJG-32	General	1.52	-	9454	-
Fibers	-	-	-	-	-	-	-	-	-
Spices & Plantation crops									
Cumin	13/11/21	23/02/22	0.45	GC-4	Labeled	1.87	-	120416	-
Floriculture	-	-	-	-	-	-	-	-	-
Vegetables									
Onion	06/12/21	19/04/22	0.24	GJWO-3	Breeder	0.05	-	17325	-
Onion	06/12/21	19/04/22	0.24	GJWO-3	General	0.46	-	69000	-

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

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

E. Utilization of hostel facilities

Accommodation available (No. of beds):15

Months	No. of trainees stayed	Trainee days (days stayed)	Reason for short fall (if any)
January **2022**	-	-	-
February **2022**	-	-	-
March **2022**	-	-	-
April **2022**	-	-	-
May **2022**	-	-	-
June **2022**	-	-	-
July **2022**	-	-	-
August **2022**	24	1	-
September **2022**	-	-	-
October **2022**	-	-	-
November **2022**	-	-	-
December **2022**	-	-	-

F. Database management

S. No	Database target	Database created
1	36 farmers per village of 6 villages from Morbi district	36 farmers from 6 villages

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

Amount sanction (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.)		
2,00,000	2,00,000	Farm pond	1	-	50	324	15	2400	Two life saving irrigation given in 3 ha. land
4,60,000	4,60,000	Roof Rain Water harvesting structure	-	-	-	154	15	140	Water useful for drinking purpose through out the year for this office staff and trainers

H. Performance of Nutritional Garden at KVK farm
If Nutritional Garden developed at KVK farm/Village Level? Yes/No: No
If yes,

Nutritional Garden developed at KVK farm

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

Nutritional Garden developed at Village Level (Area under nutritional garden): Nil

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

I. Details of Skill Development Trainings organized: Nil

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**
Nil									

17. FINANCIAL PERFORMANCE

A. Details of KVK Bank accounts

Bank account	Name of the bank	Location	Branch code	Account Name	Account Number	MICR Number	IFSC Number
With Host Institute	SBI	Morbi	60071	Revolving Fund A/C,KVK,JAU, Morbi	36713882996	363002022	SBIN0060071
With KVK	SBI	Morbi	60071	Senior Scientist & Head , KVK,JAU, Morbi	36713882907	363002022	SBIN0060071

B. Utilization of KVK funds during the year 2022-23 (Rs. in lakh)(Till Dec, 2022)

S. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	89.00	84.89	60.85
2	**Traveling allowances**	0.55	0.40	0.35
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	3.80	3.00	3.72
B	POL, repair of vehicles, tractor and Equipments			
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	4.40	3.12	4.38
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)			
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)			
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)			
G	Training of extension functionaries			
H	Maintenance of buildings			
I	Establishment of Soil, Plant & Water Testing Laboratory			
J	Library			
TOTAL (A)		**97.75**	**91.41**	**69.30**
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Equipments including SWTL & Furniture**	-	-	-
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	-	-	-
4	**Library** (Purchase of assets like books & journals)	-	-	-
TOTAL (B)		-	-	-
C. REVOLVING FUND		-	12.54	2.00
GRAND TOTAL (A+B+C)		**97.75**	**103.95**	**71.30**

C. Status of revolving fund (Rs.) for the Four years

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance in hand as on 1st April of each year
April 2018 to March 2019	4,78,769/-	8,79,198	9,07,466/-	4,50,501/-
April 2019 to March 2020	4,50,501/-	11,95,154/-	9,10,619/-	7,35,036/-
April 2020 to March2021	7,35,036/-	5,32,993/-	6,58,431/-	6,09,598/-
April 2021 to March, 2022	6,09,598/-	1,58,832/-	41,028/-	7,25,326/-
April 2022 to March 2023	7,25,326/-	5,29,121/-	2,00,250/-	10,54,197

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

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/Offline)	Dates
Dr L L Jivani	Senior Scientist and Head	Faculty Development Programme of Extension Education	EEI, Anand	Offline	03-05/02/22
Dr L L Jivani	Senior Scientist and Head	National Conference of KVKs	Solan (H.P.)	Offline	01-02/06/22
Dr L L Jivani	Senior Scientist and Head	Annual Zonal Workshop of KVKs	EEI, Anand	Offline	07-09/07/22
Dr L L Jivani	Senior Scientist and Head	National Workshop on Natural Farming	Gwalior (M.P.)	Offline	03/12/22
Prof. D.A. Saradva	Scientist (Plant Protection)	Participatory extension management skill in Agriculture and Allied fields	EEI, Anand	Offline	16-23/12/22
Dr. K.N. Vadaria	Scientist (Agronomy)	Orientation cum Training Programme on Natural Farming	State Natural Farming Training Centre, Gurukul, Kurukshetra, Haryana	Offline	08-09/12/22

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

Name of the village	Total No. of families surveyed	Key interventions implemented	No. of farmers covered in each intervention	Change in income (Rs/unit)	
				Before (base year)	After (current year)
Jepur, Haripar, Halvad, Tikar, Ranmalpur, Bagthala etc.	110	-	-	-	-

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	OFT, Training	5	-	25	152

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	
Nil								

21. Details of SAP

S. No.	*Types of major Activity conducted- SwachhtaPakhwada, Cleaning, Awareness Workshop, Microbial based Agricultural Waste Management by Vermicomposting etc.*	No. of Programmes conducted	No. of Participants
1	SwachhtaPakhwada, Cleaning, Awareness Workshop, Microbial based Agricultural Waste Management by Vermicomposting etc.	7	1057

Sr. No	Name of KVK	Date	***Activity***	No of VIPs	No of Farmers	Others	Total
1	Morbi	09/06/22	Awareness campaign, cleaning of office and surrounding area, household waste management into compost, farm waste management, etc.	0	45	6	51
2		11/07/22	Awareness campaign, cleaning of office and surrounding area, household waste management into compost, farm waste management, etc.	0	25	5	30
3		05/08/22	Awareness programme on waste decomposing and cleanliness	0	20	6	26
4		17/09/22	Awareness campaign, cleaning of office and surrounding area and waste decomposing.	0	64	6	70
5		02/10 to 31/10/22	Awareness campaign, Crop Residue Management, Demonstration of technologies on waste and wealth. Cleaning of villages programme with farmers. Orientation of school children on various topics like hygiene, sanitation, cleanliness and Cleaning of offices and campus and disposal of scraps, space freed, etc.	0	511	20	531
6		09/11/22	Cleaning of office and surrounding area, farm waste management, etc.	0	6	6	12
7		16/12 to 31/12/22	SwachhtaPakhwada	0	300	37	337

21. Books published 2022-23

Title of the Book	Authors	ISBN No (Optional) / Pages No	Description/review of the book (one paragraph/sentence)
Nil			

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

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	36	1496	268	1764
Rural youths	-	-	-	-
Extension functionaries	3	107	2	109
Sponsored Training	10	3422	434	3856
Vocational Training	-	-	-	-
Total	**49**	**5025**	**704**	**5729**

2. Frontline demonstrations

Crops/Enterprise	No. of Farmers	Area(ha)	Units/Animals
Oilseeds	20	8.0	-
Pulses	10	4.0	-
Cereals	20	8.0	-
Vegetables	-	-	-
Other crops	15	6.0	-
Hybrid crops	-	-	-
Total			
Livestock & Fisheries	-	-	-
Other enterprises	-	-	-
Total	-	-	-
Grand Total	**65**	**26**	**-**

3. Technology Assessment & Refinement

Category	No. of Technology Assessed & Refined	No. of Trials	No. of Farmers
Technology Assessed			
Crops	2	6	6
Livestock	-	-	-
Various enterprises	-	-	-
Total	**2**	**6**	**6**
Technology Refined			
Crops	1	3	3
Livestock	-	-	-
Various enterprises	-	-	-
Total	**1**	**3**	**3**
Grand Total	**3**	**9**	**9**

4. Extension Programmes

Category	No. of Programmes	Total Participants
Extension activities	198	9997
Other extension activities	6	468
Total	**204**	**10465**

5. Mobile Advisory Services

Name of KVK	Message Type	Type of Messages						
		Crop	Livestock	Weather	Marke-ting	Awar e-ness	Other enterprise	Total
	Text only	24	-	48	-	-	-	72
	Voice only	-	-	-	-	-	-	-
	Voice & Text both	-	-	-	-	-	-	-
	Total Messages	**24**	**-**	**48**	**-**	**-**	**-**	**72**
	Total farmers Benefitted	**1136**	**-**	**1136**	**-**	**-**	**-**	**2272**

6. Seed & Planting Material Production

	Quintal/Number	Value (Rs.)
Seed (q)	80.21	4,95,816
Planting material (No.)	100	-
Bio-Products (kg)	-	-
Livestock Production (No.)	-	-
Fishery production (No.)	-	-

7. Soil, water & plant Analysis

Samples	No. of Beneficiaries	Value (Rs.)
Soil	15	750
Water	17	850
Plant	-	-
Total	**32**	**1600**

8. HRD and Publications

Sr. No.	Category	Number
1	Abstract	-
2	Workshops	2
3	Conferences	1
4	Meetings	4
5	Trainings for KVK officials	3
6	Visits of KVK officials	4
7	Book published	-
8	Training Manual	-
9	Book chapters	-
10	Booklet	-
11	Leaflets/ Folder/ Pamphlet	4
12	Research papers	-
13	Technical Bulletin	-
14	Popular article	1
15	Lead papers	-
16	Seminar papers	-
17	Extension folder	-
18	Proceedings	1
19	Award & recognition	-
20	On-going research projects	-
21	Other	-