

# **PROGRESS REPORT**

## **JANUARY -2022 to DECEMBER -2022**

### **KRISHI VIGYAN KENDRA**

### **JUNAGDH AGRICULTURAL UNIVERSITY**

### **AMRELI**

#### **1. General information about the Krishi Vigyan Kendra:**

The idea of establishment of Krishi Vigyan Kendra (KVK) - Farm Science Center was evolved by the recommendations of the education commission/review by the planning commission and inter-Ministerial Committee, and further recommendation by the committee headed by Dr. Mohan Singh Mehta appointed by ICAR in 1973.

The first KVK was established in 1974 at Pondicherry under the administrative control of the Tamilnadu Agriculture University, Coimbtore. The number of KVKs increased 290 during the V to IX Five Year Plan. The Hon'ble Prime Minister of India announced that by the end of 2007 there should be one KVK in each district of the country.

Total 50 KVKs established during Twelfth Plan. At present there are 731 KVKs in which 38 KVKs under the control of State Governments, 66 under ICAR Institutes, 103 under NGOs, 506 under Agricultural Universities, 3 under Central Universities, 3 under Public Sector Undertakings, 7 under Deemed to be Universities and 5 under Other Educational Institutions. Gujarat state is having 30 KVKs of which, 07 KVKs are under Junagadh Agricultural University and Amreli is one of them, established in March, 2005.

#### **The mandates of KVKs as under:**

- (1) Organize short and long term vocational training courses in agricultural and allied vocations for the farmers and rural youths with emphasis on "Learning by doing" or higher production on farms and generating self employment.
- (2) Organizing training to update the extension personnel with emerging advances in agricultural research on regular basis.
- (3) Organize front-line demonstrations on various crops to generate production data and feedback information.
- (4) Conducting "On farm testing" for identification of technologies in terms of location specific sustainable land use systems

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

Address	Telephone		E-mail	Web Address
	Office	Fax		
Senior Scientist and Head Krishi Vigyan Kendra, Junagadh Agricultural University, Keriya Road, Model farm, Amreli (Gujarat)-365601	02792 227122	02792 227122	kvkamreli@gmail.com	<a href="http://www.jau.in">www.jau.in</a>

**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, Agril. Campus, Motibaugh, Junagadh-362001 (Gujarat)	0285 2672080-90	0285 2672004 2672653	-----	<a href="http://www.jau.in">www.jau.in</a>

**1.3 Name of the Senior Scientist & Head with phone & mobile no**

Name	Telephone/Contact		
	Office	Mobile	E-mail
Dr.N.S.Joshi Ph.D, Horticulture	02792227122	9428191963	nileshjoshi2207@gmail.com

**1.4 Year of sanction:**

Deputy Secretary, ICAR, New Delhi, Letter No. 13-16/2003/1, Dt. 7.12.2004

**1.5 Total land with KVK: 20 Ha**

Sr. no.	Item	Area (ha)
1	Under Building	3.50
2	Under Demonstration units	1.50
3	Under crops	12.50
4	Orchard / Agro-forestry	0.50
5	Others	2.0
<b>Total</b>		<b>20.00</b>

**1.6 Infrastructure development:**

S. N.	Name of building	Source of funding	Stage		
			Complete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)
1	Administrative Building	ICAR	2008	500	3190000
2	Farmers Hostel	ICAR	2008	305	2088000

3	Staff Quarters(6)	ICAR	2008	400	3204000
4	Farm Wall	ICAR	2008	-	-
5	RWH system	ICAR	2008	-	960000
6	Threshing yard	ICAR	2009	-	-
7	Godown and processing shed	RKVY	2009	70.62	500000
8	Poly House	RKVY	2010	320	281600
9	Net House	RKVY	2010	150	64450
10	Training hall	RKVY	2010	190.99	1396300
11	Pilot scale Process plant	RKVY	2010	197.31	1536400
12	Implement shed	RKVY	2010	77.33	286300
13	Farm Wall	ICAR	2016	-	497475
14	Goat Shed	ICAR	2016	14.05	69760
15	Vermi-compost unit	ICAR	2016	45	73640
16	Administrative building(Renovation)	ICAR	2017	-	300000

### 1.7 Basic information of agro climatic zone of operational district - Amreli

The district of Amreli falls in North Saurashtra Agro climatic Zone VI. The average rain fall is 580 mm with shallow and medium black as well as saline soil. The district covers geographical area of 736.5 thousand ha. In which cultivable area is 583.8 thousand ha. The major crops are Groundnut, Cotton, Wheat, Sesame, and Bajra(Pearl millet). The Horticultural crops are Mango, Sapota, Citrus, Banana fruit etc. and other crops are Onion, Brinjal, Garlic and Cumin etc.

The main cultivation depends on rainfall however about 18 % area is under irrigation which generally done by wells, bores and canals but this is instability. The average productivity of the district of most of the crop is less than state average. Area under horticultural crop is very poor and high infertility rates and low productivity of milk animal.

1	Total geographical area	7,36,500 ha
2	Total cultivable area	5,83,800 ha
3	Total area under forest	44,200 ha
4	Total irrigated area	110,900 ha
5	Average annual rainfall	580 mm
6	Soil type	Medium black
7	Total no. of villages	615 (8 Urban areas)
9	Total population	15,14,190 (Rural: 11,27,555 Urban: 3,86,635)
10	(a) Male	7,71,049
	(b) Female	7,43,141
11	Literacy Average	74.25
	(a) Male	82.21

	(b) Female	66.09
12	No. of Talukas	11
13	Major crop grown	Cereals: Wheat, Sorghum and Pearl millet
		Pulses: Green gram, Black gram, chickpea
		Oilseeds: Groundnut, Sesame, Castor, Mustard,
		Commercial: Cotton
14	Live stocks	<b>Total : 809215</b>
	<b>Rank 12</b>	Cows crossbreed (In milk) : 2900 (9.483kg/day)
		Cows crossbreed (dry) : 1100
		Cows crossbreed (milch) : 4000(6.79 kg/day)
	<b>Rank 4</b>	Cows indigenous (In milk) : 92600(4.947 kg/day)
		Cows indigenous (dry) : 45400
		Cows indigenous (milch) : 137900 (3.320 kg/day)
	<b>Rank 14</b>	Buffaloes (In milk) : 97600 (5.270 kg/day)
		Buffaloes (dry) : 39900
		Buffaloes (Milch) : 137500 (3.739 kg/day)
	<b>Rank 16</b>	Goat : 153600 (0.462 kg/day)
		Sheep : 122000
		Poultry : 8200

### 1.7.1 Details of Milk Production in the district

Livestock	Milk Production in percent	State share (in %)
Crossbred cows	10.00	Rank 21(0.24 %)
Indigenous cow	167.59	Rank 08 (5.18%)
Buffalo	188.20	Rank 19 (2.51%)
Goats	11.38	Rank 10 (3.43 %)
<b>Total</b>	<b>377.7</b>	<b>1031 Tonnes/day</b> <b>Rank 18 (2.47 %)</b>

Source: 37<sup>th</sup> issue on estimates of major livestock products for the year 2019-20, Gujarat state.

### 1.7.2 Area, Production and Productivity of major crops cultivated in the district

Sr. No.	Crop	Area (ha)	Production (M.T.)	Production in kg
1	Green gram	71.25	65.89	924.74
2	Tur (Red Gram)	19.49	26.66	1368.00
3	Wheat	318.60	1182.13	3710.39
4	Gram	802.07	1607.81	2004.58
5	Groundnut	1866.32	3140.06	1682.49
6	Sesame	246.98	120.86	489.37
7	Castor	6.66	13.72	2060.26

8	Irrigated Cotton (Lint)	2157.53	5964.81	469.99
9	Unirrigated Cotton(Lint)	1155.82	2149.77	316.19
10	Cumin	53.19	23.95	450.20
11	Onion	116.46	4074.11	34982.95
12	Garlic	23.53	188.74	8021.23
13	Bajra	52.93	109.77	1894.85
14	Udad	16.73	12.34	737.40
15	Math	0.16	0.08	521.46
16	Soybean	6.59	8.95	1357.46
17	Sugarcane	0.42	29.82	71000.00

Source: District-wise Area, Production and Yield of Important Food & Non-food Crops in Gujarat State  
Year: 2020- 21

### 1.7.3 Area and Production Horticultural crops cultivated in the district

Sr. No.	Crop	Area (ha)	Production (M.T.)	Sr. No.	Crop	Area (ha)	Production (M.T.)
1	Mango	6804	55521	16	Tomato	2016	46368
2	Sapota	376	2940	17	Cauliflower	459	6197
3	Citrus	690	7638	18	Cluster bean	1307	10456
4	Ber	109	822	19	Cow Pea	845	13385
5	Banana	110	4319	20	Cucurbits	2409	21268
6	Guavava	275	2236	21	Cumin	3800	2736
7	Pomegranate	104	499	22	Chilli-Dry	376	846
8	Papaya	80	3040	23	Garlic	5900	42716
9	Custard Apple	47	400	24	Coriander	7400	10952
10	Aonla	20	207	25	Ginger	04	70
11	Coconut	107	868	26	Turmeric	29	493
12	Onion	15700	400350	27	Fenugreek	29	48
13	Brinjal	2334	42012	28	Ajwain	190	171
14	Cabbage	903	18241	29	Rose	23	163
15	Okra	1625	14625	30	Marigold	08	58

Source: District wise estimated area, production and productivity of horticultural crops for the year 2021-22

**1.8 Staff position in K.V.K., J.A.U., Amreli (as on 31<sup>st</sup> January, 2023)**

Sr. No.	Sanctioned post	Name of the incumbent	Designation	Discipline	Pay Scale (Rs.)	Present basic (Rs.)	Date of joining	Permanent /Temporary	Category (SC/ST/OBC/ Others)
1	Senior Scientist & Head	Dr. N. S. Joshi	Senior Scientist and Head	Horticulture	15600-39100 G.P. 8000	24170	24/03/2015	Permanent	General
2	Subject Matter Specialist	Dr. P. S. Jayswal	Subject Matter Specialist	Agriculture Engineering	15600-39100 G.P. 6000	24140	10/09/2012	Permanent	General
3	Subject Matter Specialist	Dr. N. Tiwari	Subject Matter Specialist	Home Science	15600-39100 G.P. 6000	19050	01/04/2013	Permanent	General
4	Subject Matter Specialist	Dr. P. J. Prajapati	Subject Matter Specialist	Crop Production	15600-39100 G.P. 6000	16920	31/03/2015	Permanent	OBC
5	Subject Matter Specialist	Mr. V. S. Parmar	Subject Matter Specialist	Extension Education	15600-39100 G.P. 6000	16920	12/05/2016	Permanent	ST
6	Subject Matter Specialist	Mr. N. M. Kachhadiya	Subject Matter Specialist	Plant Protection	15600-39100 G.P. 6000	-	-	Permanent	General
7	Subject Matter Specialist	Vacant	Subject Matter Specialist	Animal Science	-	-	-	-	-
8	Programme Assistant	Ms. K. K Gadhiya	Programme Assistant	Plant pathology	09300-34800	-	30/07/2018	Permanent	General
9	Computer Programmer	Shri S .N. Joshi	Computer Programmer	-	39900-126600	44900	01/07/2010	Permanent	General
10	Farm Manager	Mr. S. G Baria	Farm Manager	Agriculture	09300-34800	-	30/07/2018	Permanent	ST
11	Accountant	Shri H. J. Ravaliya	Accountant	-	39900-126600	44900	01/12/2011	Permanent	SC
12	Stenographer	Vacant	Stenographer	-	-	-	-	-	-
13	Driver	Out sourcing	Driver	-	-	-	-	-	-
14	Driver	Out sourcing	Driver	-	-	-	-	-	-
15	Supporting staff	Out sourcing	Supporting staff	-	-	-	-	-	-
16	Supporting staff	Vacant	Supporting staff	-	-	-	-	-	-

## 2.0 Details of 17<sup>th</sup>SAC meeting conducted on dt. 08/03/2022

TheSeventeenth Scientific Advisory Committeemeeting of Krishi Vigyan Kendra Junagadh Agricultural University, Amreli was held at Seminar Hall, K.V.K., J.A.U., Amreli on08<sup>th</sup> March, 2022. Committee made the following recommendations after active interaction.

Sr. No.	Date	Name and Designation of Participants	Salient Recommendations	Action taken
1.	08/03/2022	Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh	1. To use revolving fund for expenditure for GI tag of 'Babarkot no Bajaro'	Suggestion accepted and GI tag for 'Babarkot no Bajaro' is under process
			2. To provide soil and water test free of cost for progressive farmers and farm women	Suggestion accepted and total 287 soil and water sample tested in this year
			3. To study the impact of FLDs	Suggestion accepted and project wise impact evaluation of FLD presented by associated PI.
			4. To promote natural farming and maintain data base of organic farmers in the district	Suggestion accepted and total 22 no. of trainings programme were organized for total 2389 no. of participants under Natural Farming and prepared farmers data base of organic farmers in the district
			5. To increase number of trainings in horticulture discipline	Suggestion accepted and 06 trainings programme were organized for 180 no. of participants
			6. To extend plant protection OFT one more year	Suggestion accepted and plant protection OFT was extend for one more year
			7. To prepare Parthenium based compost during celebration of Parthenium week	One day training programme was organized for 35 farmers to prepare Parthenium based compost during celebration of Parthenium week
2.	08/03/2022	Dr. D. S. Hirpara, Associate Director of	1. Plantation of environment friendly	Suggestion accepted and 100 environment friendly tree and 150 medicinal

		Research & Research Scientist (Dry Farming Main Dry Farming Research Station, JAU, Targhadia	tree and medicinal plant at village level	plant like amla, tulsi, neem , moringa etc. were distributed at village level
3.	08/03/2022	Dr. K. P. Sojitra, I/C Deputy Director of Horticulture , Amreli	1. To add bio fertilizer in Agronomy OFT of Nano urea	Suggestion removed by committee during Annual Action Plan meeting at AAU and further committee suggested to take OFT on onion of Banana Pseudo Liquid & 19-19-19
4.	08/03/2022	Dr. A. S. Dudhat, College of Agriculture, JAU, MotaBhandariya	1. To take of FLDs for Soybean crop	Suggestion accepted and 10 FLDs on soybean were given to farmers on variety Guj. Junagadh Soybean-3

### 3.0 Adopted village: Details of Operational area /Villages

Sr. No.	Name of village	Name of Taluka	Name of District	Major crops & enterprises	Major problem identified	Identified Thrust Areas
1	Hathigadh	Liliya	Amreli	Groundnut, Cotton, Sesamum, Wheat, Cumin, Chickpea, Garlic, Onion, Mango, lemon Enterprises are dairy business, vermi composting,	Heavy infestation of sucking pest in cotton, Sesame leaf blight, Stem rot disease in Groundnut, Mango Malformation, Less area under Horticultural crops.	*IPM and INM in major crops of this area, *Motivate the farmers for arid Horticultural Crops. *To create the awareness for grading, processing and marketing (value addition)
2	Jasvantgadh	Amreli	Amreli			
3	Randhiya	Amreli	Amreli			
4	Ingorala	Khambha	Amreli			
5	Devgam	Kukavav	Amreli			
6	Rikadiya	Amreli	Amreli			
7	Kuvargadh	Babra	Amreli			
8	Ramgadh	Savakundla	Amreli			
9	Dhajadi	Savakundla	Amreli			
10	Jambarvada	Babra	Amreli			
11	Khadkhad	Kukavav	Amreli			
12	Rafala	Bagasra	Amreli			
13	Sukhpar	Babara	Amreli			
14	Fachariya	Dhari	Amreli			
15	Sekhipariya	Lathi	Amreli			



**3.1 Priority thrust areas:**

<b>Sr.No.</b>	<b>Crop/ Enterprise</b>	<b>Thrust area</b>
1.	Cotton, Groundnut, Castor, Cumin, Wheat, vegetables, fruits, etc.	Integrated Crop Management in major crops
2.	Farm waste	Recycling of farm waste through composting, vermin compost, green manuring, etc.
3.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
4.	Soil	Reclamation of saline & alkaline soils
5.	Farm Women	Farm women empowerment by training in value addition, handicrafts, and small scale enterprises
6.	Horticulture	Promotion of arid horticulture fruit crops
7.	Improved Implements	Popularization of the mechanized technological know how

## 4. Summary of Progress Report

Details of the target and achievements of mandatory activities by KVK (January 2022 to December 2022)

OFT				FLD			
1				2			
Number of OFTs		Number of Farmers		Number of FLDs (Crops/Component), (KVK, ATIC, NFSM, NMOOP, Natural farming, IRM)		Number of Farmers	
Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
06	06	27	27	22	22	491	491

Trainings (Including sponsored, vocational etc.)					Extension Activities			
3					4			
Number of courses			Number of participants		Number of activities		Number of participants	
Clientele	Targets	Achievement	Targets	Achievement	Targets	Achievement	Targets	Achievement
<b>Farmers</b>	64	92	2515	4588	1358	1544	8814	18730
<b>Rural youth</b>	03	09	356	498				
<b>Ext. Functionaries</b>	02	02	76	94				
<b>Sponsored &amp; Collaborative</b>	15	16	610	883				
<b>Vocational</b>	01	01	45	65				
<b>Other Scheme Trainings (ATIC, NICRA, NFSM, NMOOP, Natural Farming)</b>	ATIC-12 NMOOP-02 NFSM-06 Natural Farming -05 ARYA-06 DAMU-00 IRM-01	ATIC-15 NMOOP-02 NFSM-11 Natural Farming -05 ARYA-10 DAMU-04 IRM-01	ATIC-525 NMOOP-95 NFSM-241 Natural Farming -175 ARYA-315 DAMU-00 IRM-65	ATIC-675 NMOOP- 150 NFSM- 352 Natural Farming -266 ARYA-757 DAMU-146 IRM-85	ATIC -15 NMOOP-06 NFSM-15 Natural Farming - 04 ARYA-07 DAMU-00 IRM-02	ATIC -21 NMOOP-08 NFSM-25 Natural Farming -04 ARYA-12 DAMU-05 IRM-02	ATIC -205 NMOOP-135 NFSM-110 Natural Farming -20 ARYA-43 DAMU-00 IRM-20	ATIC -285 NMOOP-158 NFSM-259 Natural Farming -25 ARYA-92 DAMU-175 IRM-25

Seed Production (Qt.)			Planting material (Nos.)	
5			6	
Crop	Target	Achievement	Target	Achievement
Wheat	3500	5960	-----	-----
Chickpea	1200	1580		
Groundnut	2400	2530		
Groundnut	2800	1980		
Groundnut	2400	4170		
Sesame	200	705		
<b>Total</b>	<b>12500</b>	<b>16925</b>		

## 5. ON FARM TRIAL

### B. Details of each On Farm Trial to be furnished in the following format

#### OFT -1: Agronomy (Completed)

1) **Title of technology:** High Density Planting in Cotton

2) **Problem Diagnosed/Defined:** Farmers do not adopt closer planting, there for get low cotton yield due to less soil moisture and incidence of pest and disease.

Detail of technologies selected for assessment/refinement

(1) Crop : Cotton

(2) Season/Year : Kharif 2020-21 to Kharif 2022-23

<b>T1: ( Farmers' practices)</b>	120 X 45-60 cm (18519-13888 plants/ha)
<b>T2 : (Recommended Practice)</b>	90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (bt))
<b>T3: (Intervention)</b>	T2 + De-topping at 75 DAS (Var. GTHH-49 (bt))

(3) Number of replication : 03

(4) Source of technology : Cotton Research Station, JAU, Junagadh

(5) Production system thematic area : Rainfed Farming

(6) Thematic area : Closure Planting method

(7) Cost : Rs 4800

(8) Indicator/parameter : Yield and BC ratio

#### **Result: 2022-23**

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Production per unit q/ha	Results of assessment	Feedback from the farmer
Cotton	Rainfed	To increase the yield by high density planting	High Density Planting in cotton	3	<b>T1</b>	18.52	As compare to treatments T1 and T2 production of cotton higher in treatment T3	High density with de- topping gave better yield
					<b>T2</b>	24.80		
					<b>T3</b>	27.50		

Technology Assessed	Production per unit (q/ha)	Net Return (Profit) in Rs./ha	BC Ratio
<b>T1:</b> Farmers' practices): 120 X 45-60 cm (18519-13888 plants/ha)	18.52	56396	2.74
<b>T2:</b> Recommended Practice): 90 X 30 cm (37037 plants/ha) (Var. GTHH-49 (BT))	24.80	84240	3.42
<b>T3:</b> T2 + De-topping at 75 DAS (Var. GTHH-49 (bt))	27.50	98850	3.75

**OFT – 2: Plant Protection (completed)**

**Title:**Management of leaf Webber in Sesame

**Problem Diagnosed / Defined:**Injudicious use of pesticides

Details of technologies selected for assessment/refinement:

- (1) Crop : Sesame  
 (2) Season/ Year : Kharif -2019-20 to Kharif -2022-23  
 (3) Spacing : 60 x 15 cm

T <sub>1</sub>	Farmer practices	Farmers' practices: High dose and Use of conventional Chemical pesticides (Farmers Practices- Monocrotophos 50 ml, fenvalrate 20 to 25 ml and cypermethrin 20 to 25 ml/ 15 lit. of water)
T <sub>2</sub>	Assessment/ refined Practices	Spray of <i>Beuveria bassiana</i> 75gm /10 lit + emamectin benzoate 5 SG 0.0035% (4g/10 lit. water) and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spray)

- (4) Number of replication : 03  
 (5) Source of technology : ARS, Amreli  
 (6) Production system thematic area : Rainfed Farming  
 (7) Thematic area : IPM  
 (8) Total Cost : Rs 4500  
 (9) Indicator : 1. Record No. of Larva per Plant /1mt. row length 2. Yield data

**Result:**

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Sesame	Rainfed	Injudicious use of pesticides	Management of leaf Webber in Sesame	3	T1: Farmers' practices: High dose and Use of conventional Chemical pesticides (Farmers Practices- Monocrotophos 50 ml, fenvalrate 20 to 25 ml and cypermethrin 20 to 25 ml/ 15 lit. of water)	Yield (q/ha)	5.4	As compare to T1 treatment production of higher in treatment T2 (But 50- 60% reduction in production due to heavy Rainfall )	Increase in production in treatment T2 because of judicious use of recommended dose of pesticides compare to treatment T1 (But 50- 60% reduction in production due to heavy Rainfall )
						No. of Larva per Plant /1mt. row length before spray	2.30		
						No. of Larva per Plant /1mt. row length after spray	1.32		
					T2 Spray of <i>Beuveria bassiana</i> 75gm /10 lit + emamectin benzoate 5 SG 0.0035% (4g/10 lit. water) and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spray)	Yield (q/ha)	6.7		
					No. of Larva per Plant /1mt. row length before spray	2.40			
					No. of Larva per Plant /1mt. row length after spray	0.85			

Technology Assessed	Production per unit	Net Return (Profit) in Rs. / ha	BC Ratio
11	12	13	14
T1: Farmers' practices: High dose and Use of conventional Chemical pesticides (Farmers Practices- Monocrotophos 50 ml, fenvalrate 20 to 25 ml and cypermethrin 20 to 25 ml/ 15 lit. of water) pesticides	5.4 q/ha	55848.7	4.54
T2: Spray of <i>Beuveria bassiana</i> 75gm /10 lit + emamectin benzoate 5 SG 0.0035% (4g/10 lit. water) and 2 <sup>nd</sup> spray at 15 days after 1 <sup>st</sup> spray)	6.7 q/ha	72939.3	5.87

### OFT -3: Plant Protection (Completed)

**Title:** Management of white grub in Groundnut

**Problem Diagnosed / Defined:** No seed treatment & Soil application of bio pesticides

Details of technologies selected for assessment/refinement:

(1) Crop : Groundnut

(2) Season/ Year : Kharif -2019-20 to Kharif -2022-23

(3) Spacing : 45 x 10

T <sub>1</sub>	Farmer practices	Farmers' practices: No Seed treatment and application of chlorpyrifos 4 lit/ha with irrigation water )
T <sub>2</sub>	Assessment/refined Practices	Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of <i>Metarhizium anisopliae</i> 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination

(4) Number of replication : 03

(5) Source of technology : Dept. of Entomology, COA, JAU, Junagadh

(6) Production system thematic area : Rainfed Farming

(7) Thematic area : IPM

(8) Total Cost : Rs. 6000

(9) Indicator : 1. Record No. of Larva per Plant /1mt. row length 2. Yield data

**Result:**

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials*	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Groundnut	Rainfed	No seed treatment & Soil application of bio pesticides	Management of white grub in Groundnut	3	T1: Farmers' practices: No Seed treatment and application of chlorpyrifos 4 lit/ha with irrigation water)	Yield (q/ha)	28.8	As compare to T1 treatment production higher in treatment T2	-
						No. of Larva per Plant /1mt. row length before spray	2.60		
						No. of Larva per Plant /1mt. row length after spray	0.75		
					T2 : Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of Metarhizium anisopliae 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination	Yield (q/ha)	32.9		
						No. of Larva per Plant /1mt. row length before spray	---		
						No. of Larva per Plant /1mt. row length after spray	0.22		



Technology Assessed	Production per unit	Net Return (Profit) in Rs. / ha	BC Ratio
11	12	13	14
T1 ⊕ Farmers' practices): No Seed treatment and application of chlorpyrifos 4 lit/ha with irrigation water)	28.8 q/ha	130051.7	4.52
T2 ⊕ Recommended Practice): Seed treatment with Chlorpyrifos 20 EC @ 25 ml/kg seed and Soil application of Metarhizium anisopliae 1.15 WP @ 5 kg/ha along with Castor cake (300 kg/ha) before sowing and drenching in plant row after 30 days of germination	32.9 q/ha	155899.3	5.46

#### OFT -4: Agriculture Engineering (Completed)

a	<b>Title</b>	:	Effect of plastic mulch on yield of watermelon.
B	Problem Diagnose	:	Low yield potential of watermelon.
C	Treatments		
	T1- Farmers' practice	:	No mulch
	T2-Recommended Technology	:	Silver Black Plastic Mulch (20 micron) under drip irrigation system
	T3-Technology assessed or Refined	:	Wheat straw mulch
d	Number of replication	:	03
e	Source of Technology	:	Dept. of Renewable Energy and Rural Engg., CAET, JAU, Junagadh
f	Thematic area	:	Plastic in Agriculture
g	Critical Input	:	20µm silver black plastic mulch
h	Unit Cost	:	3000
i	Total Cost	:	Rs. 9000
j	Duration of project	:	3 year
l	Indicator/Parameter	:	Yield, Per fruit weight, C:B ratio

**Result:**

Crop/enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials *	Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7	8	9	10
Watermelon	Irrigated	Low yield potential of watermelon	Effect of plastic mulch on yield of watermelon	3	T1 (Farmers' practices): No mulch	Yield (q/ha)	232.2	Treatment T2 was found better than T1 and T3.	Mulch treatment was found beneficial for insect reduction and fruit disease reduction
						Per fruit weight	3.47		
					T2 (Recommended Practice): Silver Black Plastic Mulch (20 micron) under drip irrigation system	Yield (q/ha)	369.6		
						Per fruit weight	5.24		
					T3 (Technology assessed or Refined): Wheat straw mulch	Yield (q/ha)	288.8		
						Per fruit weight	4.32		

Technology Assessed	Production per unit q/ha	Net Return (Profit) in Rs. / ha	BC Ratio
11	12	13	14
T1 (Farmers' practices): No mulch	232.2	40742.3	1.47
T2 (Recommended Practice): Silver Black Plastic Mulch (20 micron) under drip irrigation system	369.6	12489.9	2.53
T3 (Technology assessed or Refined): Wheat straw mulch	288.8	53540	1.65

**OFT -5: Agriculture Engineering (Ongoing)**

<b>a</b>	<b>Title</b>	:	Effect of Packaging material on seed quality of groundnut seeds.
<b>B</b>	Problem Diagnose	:	Farmers do not store groundnut seed properly.
<b>C</b>	Treatments		
	T1- Farmers' practice	:	Loose heap storage (farmer practices)
	T2-Recommended Technology	:	Use of Purdue Improved Crop Storage (PICS) bags for storage
<b>d</b>	Number of replication	:	05
<b>e</b>	Source of Technology	:	JAU Recommendation and interaction with scientists
<b>g</b>	Thematic area	:	Storage techniques
<b>h</b>	Critical Input	:	1 PICS bag
<b>i</b>	Unit Cost	:	500
<b>j</b>	Total Cost	:	2500
<b>k</b>	Duration of project	:	3 year
	Indicator/Parameter	:	Insect Infestation, C:B ratio

**Result: Results awaited.****OFT 6: Home Science (ongoing)**

1. Title of Technology Assessed: Preservation techniques of different pulses with organic methods

2. Problem Definition: Lack of knowledge

Details of technologies selected for assessment/refinement:

3. Details of technologies: selected for assessment

Crop : Pigeon pea and green gram

Season/ Year : Kharif -2021 to Kharif -23

T1	Farmer practices	T4. Without any treatment
T2	Recommended Technology	T3. Use of plastic bag
T3	Assessment/ refined Practices	T2. Use of Castor oil
T4		T1. Use of Neem leaves

4. Source of technology: IRRI-2011

5. Production system and thematic area: Storage Techniques

6. Performance of the Technology with performance indicators: Infestation percent

7. Feedback, matrix scoring of various technology parameters done through farmer's participation / other scoring techniques:-

8. Final recommendation for micro level situation: -

9. Constraints identified and feedback for research:-

10. Process of farmer's participation and their reaction: T2 was found more suitable for storage of grains

**Result:**

Crop/ enterprise	Farming situation	Problem Diagnosed	Title of OFT	No. of trials	Technology Assessed	Parameters of assessment		Data on the parameter	Results of assessment	Feedback from the farmer
1	2	3	4	5	6	7		8	9	10
Farm woman	Irrigated	Lack of knowledge	Preservation techniques of different pulses with organic methods	10	T1	Pigeon pea	Infestation percent	10.5	T2 was found more suitable for storage of grains	Quality of stored grain in T2 was found finest as compare to other treatments
						Green gram		8.9		
					T2	Pigeon pea	Infestation percent	2.0		
						Green gram		1.85		
					T3	Pigeon pea	Infestation percent	9.1		
						Green gram		7.2		
					T4	Pigeon pea	Infestation percent	21.5		
						Green gram		26.5		

## 6. Training Achievements: (January 2022- December 2022)

### 6.1 On Campus Trainings

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Horticulture</b>										
Nursery raising	01	25	10	35	04	05	09	29	15	44
Production technology of fruit	01	31	00	31	04	00	04	35	00	35
Production technology of spices crops	01	39	10	49	09	03	12	48	13	61
<b>Total</b>	<b>03</b>	<b>95</b>	<b>20</b>	<b>115</b>	<b>17</b>	<b>8</b>	<b>25</b>	<b>112</b>	<b>28</b>	<b>140</b>
<b>II Home Science</b>										
Household food security by kitchen gardening and nutrition gardening	02	54	43	97	00	04	04	54	47	101
Design and development of low/minimum cost diet	01	00	20	00	00	08	08	00	28	28
Value addition	01	00	66	66	00	24	24	00	90	90
Location specific drudgery reduction technologies	01	00	53	53	00	00	00	00	53	53
Rural Crafts	01	00	26	26	00	04	04	00	30	30
Women and child care	01	00	30	30	00	06	06	00	36	36
Women empowerment through income generation activities	01	00	30	30	00	00	00	00	30	30
Minimization of nutrients loss during processing	01	00	21	21	00	00	00	00	21	21
<b>Total</b>	<b>09</b>	<b>54</b>	<b>289</b>	<b>323</b>	<b>0</b>	<b>46</b>	<b>46</b>	<b>54</b>	<b>335</b>	<b>389</b>
<b>III Agril. Engineering</b>										
Use of Plastics in farming practices	01	01	22	23	00	00	00	01	22	23
Post Harvest Technology	01	50	00	50	00	00	00	50	00	50
Soil & Water Conservation	01	60	00	60	00	00	00	60	00	60
Green house & net house	01	70	09	79	00	00	00	70	09	79
Solar energy & biogas use & importance	01	00	26	26	00	04	04	00	30	30
Natural Resource Management	01	35	00	35	00	00	00	35	00	35
<b>Total</b>	<b>06</b>	<b>181</b>	<b>57</b>	<b>238</b>	<b>00</b>	<b>04</b>	<b>04</b>	<b>181</b>	<b>61</b>	<b>242</b>

<b>IV Plant Protection</b>										
Integrated Pest Management	01	26	00	26	03	00	03	29	00	29
Integrated Disease Management	01	22	00	22	00	00	00	22	00	22
Bio-control of pests and diseases	01	50	11	61	00	00	00	50	11	61
Production of bio control agents and bio pesticides	01	55	00	55	00	00	00	55	00	55
<b>Total</b>	<b>04</b>	<b>153</b>	<b>11</b>	<b>164</b>	<b>03</b>	<b>00</b>	<b>03</b>	<b>156</b>	<b>11</b>	<b>167</b>
<b>V Crop Production</b>										
Organic farming/Natural Farming	03	72	62	134	00	00	00	72	62	134
Balance use of fertilizers	01	30	00	30	00	00	00	30	00	30
Integrated nutrient management	01	31	00	31	00	00	00	31	00	31
Use and importance of Bio fertilizer	01	35	12	47	00	00	00	35	12	47
Soil and Water Testing	01	40	00	40	00	00	00	40	00	40
<b>Total</b>	<b>07</b>	<b>208</b>	<b>74</b>	<b>282</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>208</b>	<b>74</b>	<b>282</b>
<b>VI Extension</b>										
Entrepreneurial development of farmers/youths (value addition of pulse)	02	50	00	50	00	00	00	50	00	50
Natural farming training (online)	02	60	00	60	00	00	00	60	00	60
<b>Total</b>	<b>04</b>	<b>110</b>	<b>00</b>	<b>110</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>110</b>	<b>00</b>	<b>110</b>
<b>B) Rural Youth</b>										
Rainwater harvesting	01	42	00	42	10	00	10	52	00	52
Value addition	01	00	66	66	00	24	24	00	90	90
Natural farming	01	15	15	30	00	00	00	15	15	30
Scope of value addition in spices crop	01	46	00	46	00	00	00	46	00	46
Agricultural entrepreneurship opportunity (B.Sc. Agri. students)	01	30	29	59	06	02	08	36	31	67
<b>TOTAL</b>	<b>05</b>	<b>133</b>	<b>110</b>	<b>243</b>	<b>16</b>	<b>26</b>	<b>42</b>	<b>149</b>	<b>136</b>	<b>285</b>
<b>C) In Service Training:</b>										
Trustworthy source of agricultural information	01	44	12	56	00	00	00	44	12	56
<b>TOTAL</b>	<b>01</b>	<b>44</b>	<b>12</b>	<b>56</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>44</b>	<b>12</b>	<b>56</b>
<b>GRAND TOTAL</b>	<b>39</b>	<b>978</b>	<b>573</b>	<b>1531</b>	<b>36</b>	<b>84</b>	<b>120</b>	<b>1014</b>	<b>657</b>	<b>1671</b>

## 6.2 Off Campus Trainings

Thematic area	No. of courses	Participants								
		Others			SC/ST			Grand Total		
		M	F	Total	M	F	Total	M	F	Total
<b>(A) Farmers &amp; Farm Women</b>										
<b>I Horticulture</b>										
Natural farming in horticulture crop	01	75	00	75	15	00	15	90	00	90
Production technology of vegetable plant	01	40	20	60	00	00	00	40	20	60
Information about medicinal plant	01	40	12	52	05	00	05	45	12	57
<b>Total</b>	<b>03</b>	<b>155</b>	<b>32</b>	<b>187</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>175</b>	<b>32</b>	<b>207</b>
<b>II Home Science</b>										
Household food security by kitchen gardening and nutrition gardening	02	00	71	44	00	10	10	00	81	81
Design and development of low/minimum cost diet	02	00	71	62	00	06	06	00	77	77
Minimization of nutrient loss in processing	01	00	48	00	00	00	00	00	48	48
Gender mainstreaming through SHGs	02	06	58	64	00	05	05	06	63	69
Value addition	02	00	50	50	00	00	00	00	50	50
Women empowerment	04	00	103	103	00	07	07	00	110	110
Location specific drudgery reduction technologies	01	00	45	45	00	06	06	00	51	51
Women and child care	01	00	18	18	00	03	03	00	21	21
Others (pl specify)	00	00	00	00	00	00	00	00	00	00
<b>Total</b>	<b>15</b>	<b>6</b>	<b>464</b>	<b>386</b>	<b>0</b>	<b>37</b>	<b>37</b>	<b>6</b>	<b>501</b>	<b>507</b>
<b>III Agril. Engineering</b>										
Installation and maintenance of micro irrigation system	01	20	00	20	00	00	00	20	00	20
Repair and maintenance of farm mach. & impl.	01	03	02	23	01	00	01	04	20	24
Small scale processing and value addition	01	02	32	34	00	01	01	02	33	35
Rainwater harvesting, drainage system	02	00	54	54	00	00	00	00	54	54
Post harvest tech. processing & value addition	03	53	48	101	00	30	30	53	78	131
Use of plastics in farming practices & mandap practice for vegetable crops	01	00	19	19	00	01	01	00	20	20
Renewable energy source utilization on farm	01	00	00	00	00	27	27	00	27	27

<b>Total</b>	<b>10</b>	<b>78</b>	<b>155</b>	<b>233</b>	<b>1</b>	<b>59</b>	<b>60</b>	<b>79</b>	<b>214</b>	<b>293</b>
<b>Animal Husbandry</b>										
Awareness about lumpy virus in animals	01	09	51	60	00	00	00	09	51	60
Clean milk production	01	00	51	51	00	00	00	00	51	51
<b>Total</b>	<b>02</b>	<b>09</b>	<b>102</b>	<b>111</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>09</b>	<b>102</b>	<b>111</b>
<b>IV Plant Protection</b>										
Integrated Pest Management	01	29	00	29	00	00	00	29	00	29
Integrated Disease Management	01	45	00	45	00	00	00	45	00	45
Bio-control of pests and diseases	01	51	34	85	00	00	00	51	34	85
Cow based prakrutschibir on pest management	06	398	110	508	00	00	00	398	110	508
Pest and disease management in Rabi crops	01	42	00	42	00	00	00	42	00	42
<b>Total</b>	<b>10</b>	<b>565</b>	<b>144</b>	<b>709</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>565</b>	<b>144</b>	<b>709</b>
<b>V Crop Production</b>										
Soil and water analysis	01	30	00	30	00	00	00	30	00	30
Nutrient management in Summer crops	01	100	00	100	00	00	00	100	00	100
Preparation procedure of liquid organic fertilizer	01	35	00	35	00	00	00	35	00	35
Organic farming/Natural Farming	07	372	241	613	00	00	00	372	241	613
Fertigation and foliar application of fertilizers	01	47	00	47	00	00	00	47	00	47
INM in Rabi crops	01	21	00	21	00	00	00	21	00	21
<b>Total</b>	<b>12</b>	<b>605</b>	<b>241</b>	<b>846</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>605</b>	<b>241</b>	<b>846</b>
<b>VI Extension</b>										
Awareness regarding entrepreneurship scope and opportunity	03	373	107	480	00	00	00	373	107	480
Scientific cultivation of <i>rabi crop</i>	01	25	00	25	00	00	00	25	00	25
Natural farming	03	80	00	80	00	00	00	80	00	80
<b>Total</b>	<b>07</b>	<b>478</b>	<b>107</b>	<b>585</b>	<b>00</b>	<b>00</b>	<b>00</b>	<b>478</b>	<b>107</b>	<b>585</b>
<b>A)In Service Training:</b>										
Income generation activities (Rakhi Mandal Group)	01	00	35	35	00	03	03	00	38	38
<b>TOTAL</b>	<b>01</b>	<b>00</b>	<b>35</b>	<b>35</b>	<b>00</b>	<b>03</b>	<b>03</b>	<b>00</b>	<b>38</b>	<b>38</b>
<b>B) Rural Youth</b>										
Value addition	02	00	55	55	00	09	09	00	64	64
Women Empowerment	01	00	59	59	00	10	10	00	69	69



Market intelligence	01	80	00	80	00	00	00	80	00	80
<b>TOTAL</b>	<b>4</b>	<b>80</b>	<b>114</b>	<b>194</b>	<b>0</b>	<b>19</b>	<b>19</b>	<b>80</b>	<b>133</b>	<b>213</b>
<b>GRAND TOTAL</b>	<b>64</b>	<b>1976</b>	<b>1394</b>	<b>3286</b>	<b>21</b>	<b>118</b>	<b>139</b>	<b>1997</b>	<b>1512</b>	<b>3509</b>

### 6.3 SUMMARY OF TRAINING:

#### 6.3.1 Training Achievement (On campus):

Sr. No.	Subject	No. of training	No. of Participants		
			Male	Female	Total
1	Horticulture	03	112	28	140
2	Home Science	09	54	335	389
3	Agriculture Engineering	06	181	61	242
4	Plant Protection	04	156	11	167
5	Crop Production	07	208	74	282
6	Extension Education/Capacity building	04	110	00	110
7	Rural Youth	05	149	136	285
8	Extension functionary	01	44	12	56
<b>Total</b>		<b>39</b>	<b>1014</b>	<b>657</b>	<b>1671</b>

#### 6.3.2 Training Achievement (Off campus):

Sr. No.	Subject	No of training	No. of Participants		
			Male	Female	Total
1	Horticulture	03	175	32	207
2	Home Science	15	06	501	507
3	Agriculture Engineering	10	79	214	293
4	Animal husbandry	02	09	102	111
5	Plant Protection	10	565	144	709
6	Crop Production	12	605	241	846
7	Extension Education/capacity building	07	478	107	585
8	Rural Youth	04	80	133	213
9	In-service training	01	00	38	38
<b>Total</b>		<b>64</b>	<b>1997</b>	<b>1512</b>	<b>3509</b>

## 6.4 Sponsored and Collaborative Training Programmes

Sr. No.	Date	Title	Discipline	Thematic area	Duration (days)	Client (PF/RY/EF)	No. of courses	No. of Participants			Sponsoring Agency
								M	F	T	
1.	14/02/2022	Importance of fruits & veg. & their preservation	Agril. Engg.	Small scale processing	01	RY	01	0	20	20	Dist. Horticulture Department, Amreli
2.	15/02/2022	Value addition fruits and vegetables	Home Science	Value addition	01	RY	01	0	47	47	Dist. Horticulture Department, Amreli
3.	25/02/2022	Scientific cultivation of cotton	Agronomy	Cotton cultivation	01	RY	01	20	0	20	BCI
4.	23/03/2022	PrakrutikKheti	Agronomy	Organic Farming	01	PF	01	78	0	78	GNFC
5.	25/05/2022	Insect pest management in cotton	Plant Protection	IPM	01	EF	01	53	12	65	BCI (Cotton connect)
6.	31/05/2022 to 02/06/2022	Value addition	Agril. Engg.	Value addition	03	PF	01	10	55	65	NGO
7.	07/06/2022	Value addition	Home Science	Value addition	01	PF	01	00	45	45	Dist. Horticulture Department, Amreli
8.	27/06/2022	Scientific Cultivation of Kharif crops	Agronomy	Crop production	01	PF	01	55	0	55	KRIBHCO
9.	06/07/2022	Insect pest management in cotton	Plant Protection	IPM	01	EF	01	49	9	58	BCI (Cotton connect)
10.	25/07/2022	Value addition fruits and vegetables	Home Science	Value addition	01	PF	01	00	70	70	Dist. Horticulture Department, Amreli
11.	26/07/2022	Small scale processing	Agril. Engg.	Small scale processing	01	PF	01	0	65	65	Dist. Horticulture Department, Amreli

12.	05/09/2022	Insect pest management in cow based natural farming	Plant Protection	Natural farming	01	PF	01	30	20	50	ATMA
13.	15/09/2022	Preservation of fruits & vegetables	Agril. Engg.	Small scale processing	01	PF	01	0	30	30	Dist. Horticulture Department, Amreli
14.	15/09/2022 to 16/09/2022	Value addition fruits and vegetables	Home Science	Value addition	02	RY	01	00	40	40	Dist. Horticulture Department, Amreli
15.	19/09/2022	Preparation methods of different botanical pesticides	Agricultural Extension	Natural farming	01	PF	01	75	00	75	ATMA
16.	19/09/2022	Preparation methods of different botanical pesticides	Agricultural Extension	Natural farming	01	PF	01	80	20	100	ATMA
<b>Total</b>							<b>16</b>	<b>450</b>	<b>433</b>	<b>883</b>	

### 6.5 Vocational training programmes for rural youth

Crop / Enterprise	Training title*	Identified Thrust Area	Duration (days)	No. of Participants			Self-employed after training			Number of persons employed elsewhere
				M	F	Total	Type of units	Number of units	Number of persons employed	
Home Science	Bakery Products Development	Women empowerment	04	10	55	65	-	-	-	-
<b>Total</b>			04	10	55	65	-	-	-	-

## 7. Achievements of Frontline Demonstrations:

### 7.1 Details of farming situation of FLDs conducted (January 2022- December 2022)

Crop	Season	Farming situation	Type of Soil	Status of Soil			Sowing date	Harvesting Date
				N	P	K		
Sesame	Summer 2022	Irrigated	Medium Black	L	H	H	2 <sup>nd</sup> to 4 <sup>th</sup> week of February-2022	3 <sup>rd</sup> to 4 <sup>th</sup> week of April 2022
Black Gram		Irrigated		L	L	H	2 <sup>nd</sup> to 3 <sup>rd</sup> week of February-2022	2 <sup>nd</sup> to 3 <sup>rd</sup> week of April 2022
Green Gram		Irrigated		L	M	H	2 <sup>nd</sup> to 3 <sup>rd</sup> week of February-2022	2 <sup>nd</sup> to 3 <sup>rd</sup> week of April 2022
Watermelon		Irrigated		-	-	-	2 <sup>nd</sup> to 3 <sup>rd</sup> week of February-2022	2 <sup>nd</sup> to 3 <sup>rd</sup> week of May 2022
Castor	Kharif-22	Rainfed		L	M	H	4 <sup>th</sup> week of July to 2 <sup>nd</sup> week of August-2022	Yield awaited
Cotton		Rainfed		M	M	H	3 <sup>rd</sup> week of June to 1 <sup>st</sup> week of July-2022	1 <sup>th</sup> week to 3 <sup>rd</sup> week of January -2023
Soybean		Rainfed		L	M	H	2 <sup>nd</sup> week of June to 1 <sup>st</sup> week of July-2022	1 <sup>th</sup> week to 2 <sup>nd</sup> week of Nov. - 2023
Coriander	Rabi 22-23	Irrigated		M	L	H	2 <sup>nd</sup> to 3 <sup>rd</sup> Week of November 2022	Yield awaited

### 7.2. Performance of Front line demonstrations of crops

Sr. No.	Crop	Season	Component /variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demon.	Local check (Variety)	
1	Sesame	Summer 2022	GT-3	10	4	10.21	8.22	24.4
2	Black Gram	Summer 2022	Guj. Urd-2	10	4	9.74	8.71	16.9
3	Green Gram	Summer 2022	GAM-5	10	4	11.26	8.77	28.6
4	Watermelon	Summer 2022	Plastic mulch	10	4	326.5	235.7	38.52
5	Castor	Kharif-22	GCH-9	10	4	Yield awaited		
6	Cotton	Kharif-22	G. Cot. 24 (BT)	10	4	19.31	16.43	20.57
7	Soybean	Kharif-22	GJS-3	10	4	18.98	15.98	18.94
8	Coriander	Rabi 2022-23	GC-3	10	4	Yield awaited		
<b>Total</b>				<b>80</b>	<b>32</b>			

### 7.3 Economic Impact of FLDs

Sr. No.	Crop	Variety/ Component	Season	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Cost Ratio (Gross Return / Gross Cost)	
				Demo	Local Check	Demo	Local Check	Demo	Local Check	Demo.	Local
1	Sesame	GT-3	Summer 2022	21,878.4	20,675.0	86,785.0	60,006.0	64,906.6	39,331.00	3.98	2.93
2	Black Gram	Guj. Urd-2	Summer 2022	19,023.0	18,733.0	32,128.8	26,304.2	13,105.8	7,571.2	1.70	1.40
3	Green Gram	GAM-5	Summer 2022	20,698.4	21,115.0	73,190.0	52,620.0	52,491.6	31,505.0	3.55	2.54
4	Watermelon	Plastic mulch	Summer 2022	76350.3	54450.8	145555.7	72145.3	24694.2	69205.6	1.90	1.32
5	Castor	GCH-9	Kharif-22	Yield awaited							
6	Cotton	G. Cot. 24 (BT)	Kharif-22	31682	33400	164093	123225	132411	89825	5.18	3.69
7	Soybean	GJS-3	Kharif-22	24682	26400	100610	83112	75928	56712	4.09	3.15
8	Coriander	GC-3	Rabi 2022-23	Yield awaited							

### 7.4 Details of FLD on Enterprises

#### (I) Farm Implements

Name of the implement	Name of technology	Crop	No. of farmers	Area (ha)	Performance parameters
Cotton Shredder	Agril. Machinery	Cotton	05	15	0.20 ha/hr (Field capacity)
Revolving milking stool	Drudgery reduction	-	05	-	Ongoing

#### (II) Front Line Demonstration on Moving Stool- Home Science (ongoing)

- a Title : Drudgery reduction technology for farm women
- b Problem Diagnose : Physiological and muscular stresses in farmwoman during milking.
- c Treatments
- T1- : No use of stool while milking
- T2- : Use of Revolving milking stool
- d Number of replication : 05
- e Source of Technology : MPUAT, Udaipur
- f Thematic area : Drudgery reduction
- g Critical Input : Revolving milking stool
- h Unit Cost : Rs. 1200

i	Total Cost	:	Rs. 6000
j	Duration of project	:	3 year
	Qty per trial	:	1 No.
k	Indicator/Parameter	:	Level of drudgery, Physical stress, Work output and Field acceptability, farm women's reflection

**Result-**

<b>Incidence of Muscular/skeletal problem during milking animals with Existing (squat position) and Improved Technology (Revolving Stool in sitting Position)</b>										
<b>1. Physical Stress</b>										
<b>Body Parts</b>	<b>Existing Technology (Milking of animal in squat Position) (Total No. of Respondent = 5)</b>					<b>Improved Technology (Milking of animal by sitting over Revolving stool) (Total No. of Respondent = 5)</b>				
	<b>Very Severe Pain</b>	<b>Severe Pain</b>	<b>Moderate Pain</b>	<b>Mild Pain</b>	<b>Low Pain / No Pain</b>	<b>Very Severe Pain</b>	<b>Severe Pain</b>	<b>Moderate Pain</b>	<b>Mild Pain</b>	<b>Low Pain / NoPain</b>
NeckPain	01	01	03	00	00	00	00	00	00	05
Shoulder Pain	02	01	02	00	00	00	00	00	00	05
BackPain	04	01	00	00	00	00	00	00	01	04
Thigh Pain	00	00	00	05	00	00	00	00	00	05

**Bio Mechanical**

<b>Opinion</b>	<b>Existing(Total No. of Respondent = 5)</b>		<b>Improved(Total No. of Respondent = 5)</b>	
	<b>Yes</b>	<b>No.</b>	<b>Yes</b>	<b>No.</b>
Maintain comfortable body posture	00	05	05	00
Twisting of trunk easily while doing activities	01	04	05	00
Able to synchronize the movement of animal	00	05	05	00

**Work output**

Opinion	Existing (Total No. of Respondent = 5)		Improved (Total No. of Respondent = 5)	
	Yes	No	Yes	No
Tool is effective as per timecost	00	05	05	00
Tool is effective in improving the production efficiency	00	05	05	00

**Farm women's reflection**

Opinion	Existing (Total No. of Respondent = 05)		Improved (Total No. of Respondent = 05)	
	Yes	No	Yes	No
The milking activity is light enough while using the revolving stool	NA	NA	05	00
Height of the stool needs to be adjusted to the working height	NA	NA	03	02
Easy to maintain or repair	NA	NA	01	04
Revolving stool is stable while sitting and performing the activity of milking	NA	NA	05	00

**Field acceptability**

Opinion	Existing (Total No. of Respondent = 05)		Improved (Total No. of Respondent = 05)	
	Yes	No	Yes	No
Improved tool is a good replacement to the existing work practice	NA	NA	05	00

**(III) Kitchen gardening-****I- Trainings/Ext. activities**

Sr. No.	Types of trainings/Ext. activities	No. of trainings/Ext. activities	No. of participants
1	Oncampus	02	101
2	Off campus	02	86
3	Field visit	10	50
<b>Total</b>		<b>14</b>	<b>237</b>

## II- Front Line Demonstration on Kitchen gardening

Sr. No.	Crop	Season	Variety	No. of FLD	Area (ha)	Quantity in gm& kg	Quantity per FLD in gm	Average Production rate in kg	Rate (Rs./kg)	Total income/saving
1	Okra	Kharif 2022	Go-6	100	200 sq	2.5 kg	25.0	22.0	60	1860
2	Cluster bean		Pusa nav bahar			1.5 kg	15.0	10.0	80	800
3	Cow Pea		AVC-1			3.0 kg	30.0	30.0	55	1650
4	Brinjal		GJB-3			700 gm	7.00	70.0	20	1400
5	Tomato		GT-6			700 gm	7.00	40.0	35	1400
6	Bottle guard		PUSA NAVIN			1.0 kg	10.0	12.0	20	240
7	Sponge Guard		GJSG-2			1.0 kg	10.0	21.0	40	840
8	Cucumber		Gujarat Kakdi-1			700 gm	7.0	42.0	40	1680
9	Ridge Guard		GRG-2			1.0 kg	10.0	20.0	40	800
<b>Total</b>									<b>10670</b>	



**7.5 Farmers Reaction:**

<b>Crop</b>	<b>Variety/Input</b>	<b>Farmers' reaction</b>
Gram	GJG-3	<ul style="list-style-type: none"> <li>▶ High Yield Variety</li> <li>▶ Bold seeded Variety</li> <li>▶ Stunt virus resistant Variety</li> </ul>
Cumin	IDM	<ul style="list-style-type: none"> <li>▶ Less problem of wilt due to application of Trichoderma</li> <li>▶ Less problem of blight and powdery mildew due to spraying of carbendazim and Hexaconazole</li> </ul>
Wheat	GW-173	<ul style="list-style-type: none"> <li>▶ Resistant to Shoot borer</li> <li>▶ High yielding</li> <li>▶ Best for late sowing</li> </ul>
Wheat	GJW-463	<ul style="list-style-type: none"> <li>▶ High Yield Variety</li> <li>▶ Grain quality is good</li> </ul>
Green Gram	GAM-5	<ul style="list-style-type: none"> <li>▶ Highly resistant to Yellow Mosaic Virus (YMV)</li> <li>▶ Bold seed size with attractive shiny grain appearance</li> </ul>
Groundnut	GJG-22	<ul style="list-style-type: none"> <li>▶ Higher production</li> <li>▶ Less stem rot problems</li> <li>▶ Quality of seed is good</li> </ul>
Sesame	GT-4	<ul style="list-style-type: none"> <li>▶ Bold seeded, whiteness more and higher production then other varieties</li> </ul>
Cotton	INM	<ul style="list-style-type: none"> <li>▶ Less reddening of leaves</li> <li>▶ Higher Yield</li> </ul>
Cotton	GTHH-49	<ul style="list-style-type: none"> <li>▶ Higher Yield</li> <li>▶ Suitable for High density planting</li> </ul>
Cotton	IPM	<ul style="list-style-type: none"> <li>▶ Better control of pests</li> <li>▶ Economic to other chemical pesticides</li> </ul>
Castor	GCH-9	<ul style="list-style-type: none"> <li>▶ Resistance to wilt, root rot and tolerant to sucking pests</li> <li>▶ Higher Yield</li> </ul>
Sorghum	GFS-5	<ul style="list-style-type: none"> <li>▶ High yielder</li> <li>▶ Resistance to major pests and diseases and suitable under drought condition</li> </ul>
Pigeon Pea	GJP-1	<ul style="list-style-type: none"> <li>▶ High yielding</li> <li>▶ Bright white colored seed gives good price in market</li> </ul>

## 8. Other Schemes Activities

### 8.1 Agriculture Technology Information Centre Activities (ATIC):

#### I. Trainings/Ext. activities:

Sr. No.	Types of training/Ext. activities	No. of Training/Ext. activities	No. of participants
1	On Campus	5	228
2	Off Campus	10	447
3	Field day/ Field visit	21	285
<b>Total</b>		<b>36</b>	<b>1052</b>

#### II. FRONT LINE DEMONSTRATIONS:

Sr. No.	Crop	Season	Component /Variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo	Local check	
1	Groundnut	Kharif 22	IPM (Metarhizium, Beauveria, Azadirachtin, chloro pyriphos)	20	5	28.2	26.0	8.16
2	Cotton		IPM (Cotton Inputs Beauveria, Azadirachtin, Pheromone trap)	20	5	26.4	23.9	10.23
3	Groundnut		GJG-32	20	5	31.4	27.7	13.36
4	Sesame		GT-6	10	4	7.9	6.5	21.15
5	Cotton		MDT tube	10	2.5	26.13	22.19	17.75
<b>Total</b>				<b>80</b>	<b>21.50</b>			

#### III. Economic Impact of FLDs:

Crop	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Cost Ratio (Gross Return / Gross Cost)	
	Demo	Local Check	Demo	Local Check	Demo	Local Check	Demo	Local Check
Groundnut	35330.2	37387.1	166345.7	153721.4	131015.5	116334.3	4.71	4.11
Cotton	42336.9	44556.6	230356.0	203858.9	188019.2	159302.3	5.44	4.57
Groundnut	35118.9	36587.4	182721.9	161239.6	147603.1	124652.2	5.20	4.42
Sesame	14324.1	14777.3	112437.5	92703.1	98113.4	77925.8	7.83	6.28
Cotton	40454	43536	226850	188156	186396	144620	5.61	4.32

### 8.2. Activities-Cluster base Front Line Demos. of Rabi and Summer Pulses under NFSM:

#### I. Trainings/Ext. activities:

Sr. No.	Types of training	No. of training	No. of participants
1	On campus	03	80
2	Off campus	05	177
3	Field day	07	132
4	Field visit	18	127
5	Sponsored training	03	95
<b>Total</b>		<b>36</b>	<b>611</b>

**II. Cluster Front Line Demonstrations of Rabi Pulses under NFSM:**

Sr. No.	Crop	Season	Component /Variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Demo	Local check	
1	Pigeon pea	Kharif 2021-22	GJP-1, Trichoderma, Rhizobium, Beuvaria, PSB	50	20	19.60	16.74	17.08
2	Gram	Rabi-2021-22	GJG-6, Trichoderma, HNPV, Beuvaria, pheromen trap	50	20	33.99	28.7	18.62
3	Pigeon pea	Kharif 2022-23	GJP-1, Trichoderma, Rhizobium, Beuvaria, PSB	25	10	Result awaited		
4	Gram	Rabi-2022-23	GJG-6, Trichoderma, HNPV, Beuvaria, pheromen trap	25	10			
<b>Total</b>				<b>150</b>	<b>60</b>			

**8.3. NATIONAL MISSION ON OILSEEDS AND OIL PALM (NMOOP)****I. Training/Ext. activities**

Sr. No.	Types of training/Ext. activities	No. of training/Ext. activities	No. of participants
1	Oncampus	02	75
2	Off campus	02	74
3	Field visit	08	158
<b>Total</b>		<b>12</b>	<b>307</b>

**II. CLUSTER FRONT LINE DEMONSTRATIONS OF OILSEED UNDER NMOOP:**

Sr. No.	Crop	Season	Component /Variety	No. of FLD	Area (ha)	Average yield (q/ha)		% increase in productivity over local check
						Dem o	Local heck	
1	Groundnut	Kharif 22	GJG-32, Metarhizium, Rhizobium and PSB	50	20	30.9	28.5	8.15
<b>Total</b>				<b>50</b>	<b>20</b>			

### III. Economic Impact of CFLDs (NMOOP)

Crop	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Cost Ratio (Gross Return / Gross Cost)	
	Demo	Local Check	Demo	Local Check	Demo	Local Check	Demo	Local Check
Groundnut	35791.2	37462.4	179784.4	166508.8	143993.1	129046.4	5.02	4.45

### 8.4 Insecticide Resistance Management (IRM): Dissemination of Pink bollworm management strategies

#### I. Trainings/Ext. activities

Sr. No.	Types of training	No. of Training	No. of participants
1	Off Campus	1	85
2	Field days	2	25
<b>Total</b>		<b>3</b>	<b>110</b>

### II. Critical input distributed

Sr. No.	Critical input distributed	Quantity
1	Pheromone traps	50 nos.
2	Neem based insecticides (Neem seed extract, Neem oil)	15 lit
3	Flonicamid 50 WG	150gm*10
4	Trichocards (Parasitoid Trichogrammaabactrae)	300 card
5	Profenophos 50%EC	10 lit

### A) Report on sucking pests (jassid, thrips, whitefly and aphid) infestation incotton in the season based on observation in 10 fields of IRM and Non-IRM

No. of Farmer (IRM)-10 (village- chital) No. of Farmer (Non IRM) -2

SMW	Suckingpests/3leaves/plant							
	IRM				Non-IRM			
	Jassid	Whitefly	Thrips	Aphid	Jassid	Whitefly	Thrips	Aphid
27	0.00	0.00	0.00	0.00	1.20	0.00	6.40	0.00
28	0.00	0.00	0.00	0.00	1.80	0.00	8.60	0.00
29	1.00	1.00	3.00	0.00	2.20	3.40	9.00	0.00
30	2.00	0.00	5.00	0.00	3.00	4.80	10.20	0.00
31	1.60	1.20	3.80	0.00	4.50	8.10	9.50	0.00
32	1.70	2.10	4.50	0.00	4.80	7.10	10.70	0.00
33	1.90	1.80	3.20	0.00	4.20	6.80	9.90	0.00
34	2.10	1.30	3.30	0.00	5.10	9.80	9.60	0.80
35	3.50	1.20	2.10	0.60	8.90	4.50	9.50	1.60

36	4.70	1.50	3.10	1.40	8.50	4.70	9.90	2.80
37	4.80	1.70	3.15	1.60	7.80	5.40	6.80	2.00
38	4.20	1.80	3.40	2.00	7.60	5.20	5.60	3.20
39	3.90	2.20	2.50	2.40	8.00	4.90	7.90	3.80
40	5.00	1.90	3.50	3.00	8.50	4.80	7.00	3.00
41	5.50	1.60	3.25	3.60	9.00	4.90	6.90	4.80
42	4.50	2.00	3.90	2.80	8.00	5.00	6.20	5.20
43	2.50	3.20	1.10	4.20	5.90	5.50	5.40	5.80
44	3.50	4.20	2.20	4.60	4.50	6.70	5.80	6.40
45	2.80	3.70	2.50	5.00	6.70	6.40	4.90	6.80
46	2.20	1.80	2.60	5.80	7.80	7.20	6.80	7.00
47	1.10	4.60	0.20	6.20	2.00	7.00	1.00	9.60
48	0.50	4.90	0.50	7.80	1.50	7.80	1.20	10.80
49	0.90	5.60	0.30	8.20	1.20	8.00	1.30	12.40
50	1.00	6.00	0.80	10.80	1.30	8.50	1.50	13.80
51	2.20	4.20	1.20	8.80	4.20	6.80	2.60	10.60
52	2.60	3.80	1.60	9.10	4.38	6.45	2.95	12.20
<b>Avg.</b>	<b>2.53</b>	<b>2.43</b>	<b>2.33</b>	<b>3.38</b>	<b>5.10</b>	<b>5.76</b>	<b>6.43</b>	<b>4.72</b>

SMW=Standard Meteorological Week

**B) Report on Pink boll worm infestation in cotton in the season based on observation in selected 10 fields of IRM and Non-IRM**

**No. of Farmer (IRM)-10 (village- chital) No. of Farmer (Non IRM)-2**

SMW	Pink boll worm infestation (Sampling of 20 flowers/green bolls/open bolls per acre)									
	IRM					Non-IRM				
	% Flower infestation	% Green boll infestation	% Loculed amage	% Open boll infestation	Av. Pheromone trap catches (No.) per Trap/week	% Flower infestation	% Green boll infestation	% Loculed amage	% open boll infestation	Av. Pheromone trap catches (No.) per Trap/week
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	2.45	0.00	0.00	0.00	0.00	4.20	0.00	0.00	0.00	0.00
32	1.90	0.00	0.00	0.00	0.00	4.50	0.00	0.00	0.00	0.00
33	1.50	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00
34	1.60	0.00	0.00	0.00	0.00	3.20	0.00	0.00	0.00	0.00
35	1.45	1.20	1.10	0.00	5.00	3.40	2.25	1.50	0.00	7.00
36	2.10	1.30	1.05	0.00	6.00	3.50	2.35	1.60	0.00	7.00
37	2.30	1.50	1.05	0.00	8.00	3.40	2.60	1.80	0.00	8.00

38	1.35	1.45	1.15	0.00	6.00	3.40	2.35	1.90	0.00	6.00
39	2.45	2.50	2.10	2.15	6.00	4.40	4.50	2.15	3.00	8.00
40	2.15	2.30	2.05	2.18	7.00	4.54	5.35	2.60	3.90	7.00
41	3.30	3.50	2.00	2.90	8.00	4.90	6.60	2.80	3.70	9.00
42	3.35	3.45	1.90	3.00	6.00	5.00	6.35	3.00	5.00	10.00
43	9.40	6.50	10.10	5.40	7.80	20.2	18.2	20.2	15.2	17.5
44	8.80	7.80	8.50	5.80	6.00	19.8	15.5	18.4	16.5	15.6
45	7.20	6.10	8.80	7.50	8.00	18.8	14.2	16.5	17.5	14.5
46	6.80	6.20	7.50	6.50	6.00	12.7	10.2	18.8	14.2	14.6
47	1.40	1.50	4.00	4.15	1.00	2.10	2.50	7.15	8.00	3.10
48	1.15	1.80	4.50	5.18	1.50	2.50	3.35	7.60	7.90	4.40
49	1.30	1.90	4.90	5.10	1.90	2.90	3.60	7.80	8.30	4.70
50	1.50	1.95	4.90	5.50	2.00	3.00	3.35	8.50	8.50	5.00
51	0.00	2.50	2.50	2.50	4.20	0.00	3.60	3.70	3.20	6.20
52	0.00	3.20	2.90	1.80	4.70	0.00	3.90	3.90	3.80	5.80
<b>Avg.</b>	2.44	2.18	2.73	2.29	3.66	4.99	4.26	5.00	4.57	5.90

SMW=Standard Meteorological Week

➤ **Impact of IRM on the Benefit Cost ratio**

Field No. of farmer wise	Cost of spray (Rs/ha)*		Cost of cultivation (Rs/ha)		Net profit (Rs/ha)		Additional profit due to IRM (Rs/ha)	Benefit Cost Ratio
	IRM	Non-IRM	IRM	Non-IRM	IRM	Non-IRM		
1	6520	7704	60129	70596	136621	106654	29967	2.27
2	6190	7542	60431	71125	132319	102437	29882	2.18
3	6190		60378		127622			
4	6028		60198		133706			
5	6190		61398		123202			
6	6028		62159		133441			
7	6190		63678		143338			
8	6352		62347		139653			
9	6028		60169		128831			
10	6352		61278		124597			

➤ **Pest infestation Report**

C) Report on Pink bollworm infestation in cotton in the season based on observation in selected 5 fields of Mating Disruption Technology treated and Non treated field  
 No. of Farmer (MDT Treated)-5 (Village- Haripura) No. of Farmer (Un Treated) -2

Date	Pink bollworm infestation (Sampling of 20 flowers/green bolls/open bolls per acre)									
	Treated					Non-Treated				
	% Flower infestation	% Greenboll infestation	% Openboll infestation	% Loculedamage	Av.Pheromone trapcatches(No.) perTrap/week	% Flowerinfestation	% Greenbollinfestation	% Openboll infestation	% Loculedamage	Av.Pheromone trapcatches (No.) per Trap/week
5 Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20 Aug	0.00	0.00	0.00	0.00	0.00	1.11	0.00	0.00	0.00	2.00
5 Sep	0.00	0.00	0.00	0.00	0.00	1.09	0.00	0.00	0.00	1.50
20 Sep	1.00	0.70	1.30	1.50	5.00	3.10	2.90	2.50	3.00	9.00
5 Oct	0.50	0.60	0.80	1.00	6.00	3.10	5.00	4.00	5.90	12.00
20 Oct	1.10	1.50	1.90	1.30	7.00	3.50	3.00	5.90	5.30	13.00
5 Nov	1.50	2.60	6.00	5.00	10.00	5.30	8.50	10.00	12.00	15.00
20 Nov	2.00	3.20	6.90	5.60	12.00	5.90	5.30	9.90	8.00	16.00
5 Dec	1.40	1.80	5.20	4.50	1.50	2.90	3.00	8.50	7.50	5.50
20 Dec	1.60	2.20	5.50	4.70	1.80	3.00	3.20	8.90	7.90	4.50
5 Jan	1.30	1.20	3.30	2.20	1.00	2.00	1.20	4.00	3.10	3.00
20 Jan	1.20	1.50	2.10	2.70	1.50	2.10	2.20	3.00	2.10	2.70

## 8.5 Activities under ARYA:

### I. Enterprise established:

Sr. No.	Indicators	Name of Enterprise 1: Dal mill (02)	Name of Enterprise 2: Masala making (02)	Name of Enterprise 3: Mava making (02)
1.	Year of establishment	Feb., 2022	Feb., 2022	Feb., 2022
2.	No. of Training Programs Conducted (Number)	04	03	03
3.	No. of Rural youth trained (Number)	161	481	115

### II. Training programme:-

Sr. No.	Title	No. participate
1.	Awareness training on ARYA	150
2.	Value addition of milk	25
3.	Marketing opportunity for value added product of spices	37
4.	Value addition of milk	39
5.	Value addition of pulse crop	36
6.	Value addition of spices crop and their marketing strategy	294
7.	Packaging and marketing of value added agricultural product	46

8.	Women development through value addition of millets	55
9.	Preparation of bakery product	24
10.	Value addition of pulse crop and clean milk production	51
<b>Total</b>		<b>757</b>

### III. Extension activity:-

Sr. No.	Activity	
1.	Visit to enterprise	No. participate
	11	92
2.	Folder preparation	Total copy
1.	મોસમી ફળો દ્વારા તૈયાર થતી આરોગ્યપ્રદ અને પોષ્ટિક વાનગીઓ	1000

### 8.6 Activities under MGMG:

#### I. Detailed Progress:

No. of Team formed	No. of Scientists	No. of Villages selected	No. of Blocks	No. of Districts	Bench Mark Survey conducted (No. of villages)
02	08	10	03	01	10

#### II. Activities undertaken

##### Activities undertaken by ICAR Institutes under MGMG

Sr. No.	Name of activity	No. of activities conducted	No. of farmers benefitted
1	Awareness created	09	577
2	Demonstrations conducted	04	10
3	Interface meeting/ <i>Goshthies</i>	02	35
4	Literature support provided	06	950
5	Training organized	01	37
6	Visit to village by teams	01	50
7	Mobile based advisories	08	835
8	Problem diagnostic	02 (General and Agriculture)	-
<b>Total</b>		<b>33</b>	<b>2494</b>

#### III. Other activities organized by ICAR Institutes/ SAUs under MGMG

Table -2: Other activities organized by ICAR Institutes under MGMG

Sr. No.	Activity	Particulars	
1	Linkages developed with other agencies	No. of Agency (No.)	02
		Farmers Benefitted (No.)	85



### 8.7 District Agro-Meteorological Unit (DAMU), Gramin Krishi Mausham Seva (GKMS), KVK, JAU, Amreli (Activities from January-December 2022)

The District Agrometeorological Unit, KVK, JAU, Amreli is making Agro weather bulletin for all the 11 blocks viz. Amreli, Babra, Bagasara, Dhari, Jafrabad, Khambha, Lathi, Liliya, Kunkavav-vadiya, Rajula and Savarkundla of the Amreli district and also for the District itself.

#### ➤ Activity of DAMU at KVK Amreli

- 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

➤ **Weather Bulletin-** Preparation of weather bulletin on the basis of medium range forecast provided by IMD supported by GFS model for the blockwiseweather bulletin. Preparation of advisory in both languages (English and Gujarati) twice in a week on every Tuesday and Friday. There are several weather parameterforecast 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 Amreli district i.e. Cotton, Groundnut, Sesame, Wheat, Pigeon pea, Cumin, Chickpea, Castor, Sesame, Pearl millet etc. Number of Weather Bulletin prepare from **January-December2022**

District Name	No. of Bulletins
Amreli	104

Block name	No. of Bulletins
Amreli	104
Babra	104
Bagasara	104
Dhari	104
Jafrabad	104
Khambha	104
KunkavavVadiya	104
Lathi	104
Liliya	104
Rajula	104
Savarkundla	104
Total No. of Block wise Weather Bulletin	1144

#### ➤ Dissemination of weather bulletin

Individually these bulletins are sending to farmers group by social media by making farmers Whats App groups, Telegram Facebook.

➤ **Number of farmers Connected**

Particular	No. of farmers
WhatsApp Group- 17	3411
Telegram Group - 1	194 Subscribers
Facebook page	2800 followers

➤ **Detail of farmers connected through WhatsApp**

Name of the Block	Total Village in Block	No. of WhatsApp Group Created by DAMU	No. of Farmers Covered	No. of Villages Covered	No. of Extension Workers at panchayat/village level
Amreli	71	4	951	62	10
Babra	57	2	459	51	7
Bagasara	34	2	392	31	4
Dhari	75	1	222	45	8
Jafrabad	42	1	70	21	5
Khambha	57	1	174	48	3
Kunkavav-Vadia	45	2	358	44	5
Lathi	49	1	137	30	8
Lilia	37	1	107	40	6
Rajula	72	1	165	27	4
Savarkundla	80	2	379	54	15
Total	619	18	3414	453	75

➤ **Farmer Awareness Programmes:**

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

Farmer Awareness Program (FAP) organized by KVK, JAU, Amreli under DAMU Project during 2022-23

Sr. No.	FAP/ Farmers meet /Meghdoot Popularization activities	Date	Location		Approx. No. of Farmers attended the Program
			Village	Block	
No FAP organized due to unavailability of grant to fulfill the expenditure of FAP					

➤ **Attending E-Webinar during 2022: NIL**➤ **Automatic Weather Station**

Installation of A.W.S.(Automatic Weather Station) has been completed in January 2021 and Working in March-2020.

**8.8 Information about FPOs in the district:-**

Sr. No.	Name of FPO	Working Area	No. of members
1	Dharati Raksha Agro Producer Co.	Bagasra	200
2	Jafrabad Farmer Producer Co.	Timbi	750
3	Avirat Farmer Producer Co.	Khambha	2100
4	Dhatarwadi Farmer Producer Co.	Rajula	700

## 9. Celebration of Special Events -

- ❖ **International Women Day-** During January to March 2022, an International Woman Day on 08/03/2022 was organized by KVK, JAU, Amreli with 52 no. of participants. The entire programme was organized as per the theme of ICAR. Awareness was created among farmwomen about various importance of the day, value addition, storage techniques and natural farming.
- ❖ **World Water Day-**World Water Day was celebrated by Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli on 22nd March, 2022. In this programme, an on campus training programme for farmers was organized in which 50 farmers had participated. Awareness was created about efficient water use in agriculture; rainwater harvesting and groundwater recharge structure was demonstrated.
- ❖ **The Garib Kalyan Sammelan programme** was celebrated by Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli on 31/05/2022. In this programme, an on campus programme for farmers and farmwomen was organized in which more than 235 persons had participated. Awareness was created among farmers and farmwomen about various importance of the various government scheme, value addition, storage techniques and natural farming. Farmers doing natural farming shared their valuable experience with other participants.
- ❖ **National Environment Day** was celebrated on 5th June 2022 by organizing tree plantation programme at village Keriya Ta. Lathi Dist. Amreli. In this day lecture on importance of tree plantation in our life was also delivered by KVK, scientist for 35 participants.
- ❖ **International Yoga Day** was celebrated on 21st June 2022 by all the staff members of KVK, looking forward the guideline issued by the Government of India, all the members do yoga and lecture on importance of yoga in our life was also organized for 79 participants.
- ❖ **ICAR Foundation Day** was celebrated on 16 July 2022, 94th ICAR foundation day was celebrated by KVK, Amreli as per the information given by ATARI Pune Zone VIII. In this programme Hon'ble Union Agriculture Minister released compilation of 75,000 success stories on doubling the farmer income and award was also given to farmers and scientist. In KVK, Amreli 74 farmers and 24 farm women take a active part to make the programme successful. Entire event was online and watched by all the participants and staff of KVK, Amreli.

❖ **Parthenium Awareness Week at Krishi Vigyan Kendra, JAU, Amreli, Gujarat-** From 16 August to 22 August-2022. As it is known to everyone that directorate is observing 'Parthenium Awareness week' every year since 2004 to make farmers and general public aware about the menace of parthenium, so like every year this year KVK, Amreli, Junagadh Agricultural University also celebrated 17th Parthenium Awareness Week by uprooting parthenium to make campus free from it as well as lecture were also planned and delivered by scientist of KVK to make general awareness regarding Parthenium. Uprooting of Parthenium was done within the campus and outside of campus so that general public might aware from the activities.

❖ **Details of Parthenium Awareness Week:-**

Date	Name of Activity	Location	No. of Participants
16/08/2022	Parthenium uprooting in public place	Amreli	44
20/08/2022	Training programme organized on spraying herbicides and composting of uprooted biomass	KVK, Amreli	48
21/08/2022	Parthenium uprooting in campus	KVK, Amreli	20
22/08/2022	Training programme on releasing Mexican beetles and Parthenium uprooting	KVK, Amreli	50

❖ **Technology Week-** Technology week had been celebrated from 29/08/2022 to 3/09/2022 at Krishi Vigyan Kendra, Junagadh Agricultural University, Amreli with a view to create mass awareness among the farmers about the location specific advanced technologies for the sustainable agricultural production. Seminars and demonstrations on advanced technologies in agriculture and allied discipline such as Horticulture, Plant Protection, Crop Production, Agricultural Engineering, Animal Science and Home Science have been conducted during the week. Total 153 participants including 41 farm-women and 112 farmers from about 10 villages of Amreli district were benefitted.

❖ **Details of Participants:**

Date	Taluka wise Village		No. of participants		
			M	F	T
29/08/2022	Rajula	Bherai	24	00	24
30/09/2022	Rajula	Kumbhariya	01	21	22
01/09/2022	Rajula	Mandardi	00	20	20
02/09/2022	Amreli	Amreli	32	00	32
03/09/2022	Amreli	Amreli	55	00	55
<b>Total</b>			<b>112</b>	<b>41</b>	<b>153</b>

- ❖ **National Campaign on Poshan Abhiyan-** On 17/09/2022 "National Campaign on Poshan Abhiyan and Tree Plantation was organized at KVK, Amreli for 77 farmers and farm women. During the event lecture on awareness on Nutri-garden and bio-fortified varieties and interaction on Nutri-cereals and their role on human health were delivered by KVK scientist and also saplings of fruit/agro-forestry trees and seed packets of vegetables were distributed among beneficiaries. During the same programme Hon'ble Union Minister for Agriculture & Farmers' Welfare, Government of India addressed the farmers from KVK, Morena, Madhya Pradesh.
- ❖ **Swachta Hi Sewa Programme-** During October 02 to 15, 2022 and 16 December to 31 December Swachta Hi Sewa Programme was organized by KVK, Amreli by organize different activities of swachta.

S.No.	Date	Activities (02 October to 15 October, 2022)	No. of Participants
1.	4.10.2023	Awareness programme on swachta hi sewa	36
2.	06.10.2023	Cleaning of surrounding areas of KVK	14
3.	10.10.2022	Cleaning at village level	52
4.	11.10.2022	Tree plantation	15

S.No.	Date	Activities (16 December to 31 December, 2022)	No. of Participants
1	16.12.2022	Display of banner at prominent places, taking Swachhata pledge, Stock taking & briefing of the activities to be organized during the Pakhwada, plantation of trees.	16
2	17.12.2022	Basic maintenance: Stock taking on digitization of office records/ e-office implementation. Cleanliness drive including cleaning of offices, corridors and premises. Review of progress on weeding out old records, disposing of old and obsolete furniture's, junk materials and white washing/painting.	38
3	18.12.2022	Sanitation and SWM Encourage cost effective and appropriate technologies for ecologically safe and sustainable sanitation. Cleanliness and sanitation drive in the villages adopted under the MeraGaonMera Gaurav Programme and/or other schemes by ICAR Institutes/KVKs involving village community. Reviewing the progress made under ongoing Swachhtaactivities including implementation of Swachhta Action Plan (SAP) & providing at the spot solutions.	20

4	20.12.2022	Stock taking of waste management & other activities including utilization of organic wastes/ generation of wealth from waste, polythene free status, composting of kitchen and home waste materials. Promoting clean & green technologies and organic farming practices in kitchen gardens of residential colonies and at least one nearby village and proving on the spot technology solutions.	53
5	22.12.2022	Organising Workshops, exhibitions, technology demonstrations on agricultural technologies for conversion of waste to wealth, safe disposal of all kinds of wastes. Debate on Swachhata at the DARE/ICAR establishments, Seminars, awareness camps, rallies, street plays and expert talks	28
6	23.12.2022	Celebration of Special Day- KisanDiwas (Farmer's Day)- 23 December inviting farmers. Experience sharing on Swachhata initiatives by farmers and civil society officials. Felicitating farmers/ civil society officials for exemplary initiatives on Swachhata.	55
7	26.12.2022	Fostering healthy competition: Organising Webinar, VC meetings, competition and rewarding best offices/ residential areas/ campuses on cleanliness. Quiz, assay & drawing competitions for school children, village youth.	25
8	27.12.2022	Massive community mobilization for Plastic Waste Shramdaan: Awareness on waste management & other activities including utilization of organic wastes/ generation of wealth from waste, polythene free status. Curb the use of Single Use plastic (SUP) and discourage the use of plastic in the office. Composting of kitchen and home waste materials, promoting clean & green technologies and organic farming practices in new area.	300
9	29.12.2022	Visits of community waste disposal sites/ compost pits, cleaning and creating awareness on treatment & safe disposal of bio-degradable/ non-bio-degradable wastes by involving civil/ farming community.	85

- ❖ **PM KisanSanmanSamelan-** During Month of October on 17/10/2022 PM KisanSanmanSamelan was also organized by the KVK, Amreli. For this programme 05 progressive farmers had visited PUSA Institute Delhi to have interaction with PM Shri Narendra Modi Sir and during same day on campus programme was also organized at KVK Amreli to had online interaction with PM Sir with no. of participants' 245.
- ❖ **MahilaKisan Divas-** On 15/10/2022 MahilaKisan Divas was organized for 130 participants during the programme different lecture was also organized on same programme.

- ❖ **World Soil Health Day** - On 05/12/2022 World Soil Health Day was also organized for 72 farmers and farm women. During the event various information were given by the scientist on topics like soil health card, importance of different kind of soil etc.
- ❖ **Jal Shakti Abhiyan:** Jal Shakti Abhiyan was celebrated by KVK, JAU, Amreli from April to November 2022. Various online, on campus and off training programmes and various awareness programmes were organized about efficient water utilization in agriculture, micro irrigation system, rainwater harvesting, soil and water conservation, groundwater recharge etc.

Training Programs		Awareness Programs		Kisan Mela	
Number	Participants	Number	Participants	Number	Participants
6	171	13	584	1	227

### 10. Extension Activities

Activities	No. of programmes	No. of farmers	No. of Ext. Personnel	Total
Agromet advisory Services weather bulletin	1144	1144	35	1179
Whatsapp group	19	3411	00	3411
i. DAMU	10	534	00	534
ii. Home Science and Agriculture Engineering	04	1068	00	1068
iii. Agriculture Extension				
iv. Plant protection and Agronomy	05	1159	00	1159
Diagnostic visits	13	293	05	298
Field day and field visit	46	493	03	496
Group discussions	09	189	00	189
Radio Talk	45	-	-	-
Film Show	05	236	00	236
Scientists' visit to farmers field	46	653	08	661
Farmers visit to KVK	20	680	00	680
Ex-trainees Sammelan	02	275	-	275
Farmers' seminar/workshop	01	285	00	285
Celebration of important and special days	13	1842	25	2622
Exposure visits	07	735	00	735
Others (pl. specify) Lecture Delivered	155	4887	15	4902
<b>Total</b>	<b>1544</b>	<b>17884</b>	<b>91</b>	<b>18730</b>

#### 10.1 Online activities during year 2022

Sr. No.	Activity Type	Mode of implement.	Title of Program	No. of Programmes	No. of Participants/ Views
1	Online Education Tour of Poly. In	ZOOM App	Micro irrigation, mulching &	1	43

	Agril. Engg., NAU, Dediapada		Rainwater harvesting		
2	Online Education Tour of Poly. In Agril. Engg., AAU, Dahod	ZOOM App	Rainwater harvesting, Erosion & Groundwater recharge techniques	1	45
3	One Day webinar by NSS Unit, Polytechnic in Agricultural Engineering, AAU, Dahod & Nehru Yuva Kendra, Dahod	ZOOM App	Catch the Rain Webinar	1	60

### 10.2 Special Achievement/Award/Reward etc.

Sr. No.	Name of Award	Name of receiver	Name of Event	Date	Name of inst./ orgaz. committee
1.	Best Lead paper presentation	Mr. N. M. Kachhadiya	Synergetic extension approaches for livelihood improvement and agriculture development at JAU, Junagadh	24-25/06/2022	Society of Extension Education (SEEG) & JAU, Junagadh
2.	First prize for best oral presentation	Mr. V. S. Parmar			
3.	Second prize for best poster presentation	Dr. Neha Tiwari			
4.	Registration of Babarkot No Bajro under PPV&FRA	KVK, Amreli	-	18/10/2022	Protection of Plant Varieties & Farmers Right Authority, New Delhi
5.	Best Thesis Award (Ph.D.) in Agronomy	Dr. P.J. Prajapati	National conference on Natural Farming for sustainable agriculture and national prosperity agriculture, SDAU,	11-13 / 11/ 2022	Royal Association For Science – Led Socio-Cultural Advancement, New Delhi& SDAU, Dantiwada



			Dantiwada		
6.	Best Farmer Award for Scientific cultivation of wheat with prize money of 1 Lakh rupees	Ramesh bhai Gondaliya Village- Babapur, Dist- Amreli	---	---	ASPEE Foundation, New Delhi

## 11. Performance of demonstration units

### 11.1. Nursery raising at KVK:

We also developed one small scale nursery in net house, raising the different seedlings like Brinjal, tomato and chili for selling to farmers at nominal price.

Crop	Name of the crop	Name of the variety	Name of the hybrid	Number	Value (Rs.)	Number of farmers
Seedlings	-----					

### 11.2 Horticultural Demonstration Units

Sr. No.	Demo Unit/No. of various plants	Area ha	Details of production
			Kg
1	Herbal garden(Medicinal plant)	0.1	-
2	Orchards unit	0.5	-
a.	Guava	0.2	42
b.	Sapota	5 plants	66
c.	Custard apple	0.1	38

### 11.4 Soil/Water testing sample analysis

Sr. No.	Type of Sample	Numbers of sample	Income (Rs.)
1	Soil/ Water	197	21040
<b>Total</b>		<b>197</b>	<b>21040</b>

## 12. Performance of instructional farm including seed Production

S N	Name of crop	Date of Sowing	Date of Harvesting	Area (ha)	Details of production		
					Variety	Type of produce	Qty. (Kg)
1	Wheat	22/11/2021	17-20/03/2022	1.0	GJW-463	Truthful	5960
2	Chickpea	29/11/2021	14-16/03/2022	1.0	GJG-5	Truthful	1580
3	Groundnut	01/07/2022	28-29/10/2022	3.0	GJG-22	Foundation-I	2530
4	Groundnut	02/07/2022	30-31/10/2022	3.5	GJG-22	Truthful	1980
5	Groundnut	03/07/2022	1-2/11/2022	3.0	GJG-32	Truthful	4170
6	Sesame	18/07/2022	6-8/10/2022	1.5	GJT-5	Breeder	705

### 13. LINKAGES

#### Functional linkage with different organizations

Sr. No.	Name of linkages
1.	Dy. Director of Agriculture.
2.	Dy. Director of Agril. Extension (FTC)
3.	Dy. Director of Horticulture
4.	Dy. Director of Animal Husbandry
5.	Dy. Director of Soil Conservation
6.	Dy. Director of Social Forestry
7.	Amreli Jilla Madhya Sahakari Bank
8.	Milk Co-Operative Society
9.	State Bank of India
10.	National Bank for Agriculture & Rural Development (NABARD)
11.	NHRDF
12.	Doordarshan Kendra
13.	All India Radio
14.	District Rural Development Agency
15.	ATMA
16.	Mahindra & Mahindra Co. Ltd.

#### List of Projects on going under the KVK, which have been financed by State Govt. /Other Agencies

Sr. No.	Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
1.	Agricultural Technology Information Centre (ATIC)	2005-06	State Government	850000
2.	Cluster base FLD of Rabi Pulses under NFSM	2015-16	ICAR, New Delhi	780896
3.	National Mission on Oilseeds and Oil Palm (NMOOP)	2015-16		137204
4.	Attracting and Retaining Youth in Agriculture (ARYA)	2019-20		1506628
5.	DAMU	2019-20		621057
6.	Out scaling of Natural farming	2022-23		260000
7.	IRM: Dissemination of Pink bollworm management strategies	2022-23	CICR, Nagpur and ICAR, New Delhi	4,10,000

## 14. FINANCIAL PERFORMANCE

### 14.1 Details of KVK Bank accounts

Bank account	Name of the bank	Location	Account Number
A. With Host Institute	State Bank of India	Agril campus, Junagadh	-----
B. With KVK	State Bank of India	Amreli (Current A/C)	10837874780
		Amreli (Saving A/C)	10837877690

### 14.2 Utilization of KVK funds during the year (April 2022 to December 2022)

Sr. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	10600000	9611000	7806734
2	Traveling allowance	55000	606000	50879
3	Contingencies	775000		605988
<b>Total (A)</b>		<b>11430000</b>	<b>10217000</b>	<b>8463601</b>
<b>B. Non-Recurring Contingencies</b>				
1	Equipments including SWTL & Furniture/Vehicle/Library	0	0	0
<b>Total (B)</b>		<b>0</b>	<b>0</b>	<b>0</b>
<b>C.</b>	<b>Revolving fund</b>	0	0	0
<b>GRAND TOTAL (A+B+C)</b>		<b>11430000</b>	<b>10217000</b>	<b>8463601</b>

## 15. Status of revolving fund (Rs.) for the last three years

Year	Opening balance as on	Income during the year	Expenditure during the year	Net balance in hand as on
April 2020 to March 2021	55,92,507	11,59,196	1,01,4207	57,37,496
April 2021 to March 2022	57,37,496	1155326	1341859	5550963
April 2022 to December, 2022	5550963	1725594	994637	6281920

**16. Workshop/Seminar/Conference/Meeting etc attended.**

Name of the staff	Designation	Title of the training programme	Institute where attended	Mode (Online/Offline)	Dates
Dr. N.S Joshi	Senior Scientist and Head	National conference of KVK	Dr. Y.S Parmar University of horticulture and forestry	Offline	01/06/2022 to 02/06/2022 (2 days)
		National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	JAU, Junagadh	Offline	24/06/2022 to 25/06/2022 (2 Days)
		Annual Zonal workshop of KVK of Maharashtra, Gujarat and Goa	AAU, Anand	Offline	07/07/2022 to 09/07/2022 (2 Days)
Dr. Neha Tiwari	SMS (Home Science)	Faculty development programme for Extension Functionary	DEE, JAU, Junagadh	Online	03-05/02/2022 (3 days)
		Success Story writing for print media and electronic media ( Three Days Training Programme)	EEl, AAU, Anand	Offline at JAU, Junagadh	8/06/2022 to 10/06/2022 (3 days)

		National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	SEEG, JAU, Junagadh	Offline at JAU, Junagadh	24/06/2022 to 25/06/2022 (2 days)
		Use of social media for extension (Five Days Training Programme)	EEl, AAU, Anand	Offline at JAU, Junagadh	10/10/2022 to 14/10/2022 (5 days)
		National workshop on Natural Farming	RKSKVV, Gwalior	Offline at Gwalior	03/12/2022 (1day)
Dr. P. S. Jayswal	SMS (Agril.Engg.)	Faculty development programme for Extension Functionary	DEE, JAU, Junagadh	Online	03-05/02/2022 (3 days)
		The state level webinar on "પ્રાકૃતિક કૃષિમાં પાક સંરક્ષણ"	Plant protection association of Gujarat, Anand zone, Gujarat Organic Agricultural University, Anand and Centre for Agricultural Market intelligence, NAHEP-CAAST, AAU, Anand	Online	05/04/2022 (1 day)
		Success story writing skills for print & electronic media	EEl, AAU, Anand & DEE, JAU, Junagadh	Offline	08-10/06/2022 (3 days)

		National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	SEEG & JAU, Junagadh	Offline	24-25/06/2022 (2 days)
		National level seminar: Innovative Resource Management Approaches for Coastal and Inland Ecosystems to Sustain Productivity and Climate Resilience	SCSI, India & NAU, Navsari	Offline	13-15/10/2022 (3 days)
Mr. N.M.Kachhadiya	Scientist (Plat Protection)	Writing skill for print and electronic media	JAU, Junagadh	Offline	08/06/2022 to 10/06/2022 (3 days)
		National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	JAU, Junagadh	Offline	24/06/2022 to 25/06/2022 (2 days)
Dr. P. J. Prajapati	Scientist (Agronomy Scientist)	Workshop for entry of DFI stories	ATARI, Pune	Offline	21-22/05/2022 (2 Days)

		National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	JAU, Junagadh	Offline	24-25/06/2022 (2 Days)
		Yaugik Krishi	Brahmakumaris, Shantivan, Abu Road, Rajasthan	Offline	17-21/09/2022 (5 Days)
		Natural Farming for Sustainable Agriculture and National Prosperity	SDAU, Dantiwada	Offline	11-13/11/2022 (3 Days)
		Natural Farming Training	Gurukul, Kurukshetra, Haryana, India	Offline	08-09/12/2022 (2 Days)
Mr. V. S. Parmar	Scientist (Agricultural extension)	National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	JAU, Junagadh	Offline	24-25/06/2022 (2 Days)

## 17. Literature Developed/Published

Item	Title	Name of book/ Journal	Publisher	Page no.	NAAS rating	Authors name	Vol./ Issue	ISSN No./ISBN No. / No. of copy
<b>Research papers</b>	Assessment of influencing determinants on maternal health and wellness: A descriptive research study	Asian journal of home science	National	43-46	4.98	Dr. Neha Tiwari	<i>Vol.: 17 Issue-1</i>	0973-1547
	To assess the practices and attitude regarding iron deficiency anemia in adolescence girls of Amreli	Asian journal of home science	National	70-75	4.98	Dr. Neha Tiwari and Dr. N.S Joshi	<i>Vol.: 17 Issue-1</i>	0973-1547
	Technological needs of farmwomen in processing and preservation of fruits	Guj. J. Ext. Edu. Special Issue	National	153-158	4.96	Dr. Neha Tiwari	<i>Special Issue</i>	2322-0678
	Effect of plastic mulch on cotton yield and its economics	Guj. J. Ext. Edu. Special Issue	National	170-172	4.96	P. S. Jayswal, N. S. Joshi, K. N. Sondarva	<i>Special Issue</i>	2322-0678
	Knowledge level of dairy farmers regarding scientific dairy husbandry practices	Guj. J. Ext. Edu. Special Issue	National	89-94	4.96	P. S. Kapadiya , P. N. Chaudhari and V. S. Parmar	<i>Vol.: 33 Issue-1</i>	2322-0678
	Patency and facilities for animal husbandry practices of livestock owners in amrelidistrict of gujarat.octomber,2022	Haryana veterinarian	National	78-81	5.58	P.S Kapadiya, P. N. Chaudhari and V. S. Parmar M. R. gadariyaU.A.	<i>Vol.: 1 Issue-2</i>	0033-4359




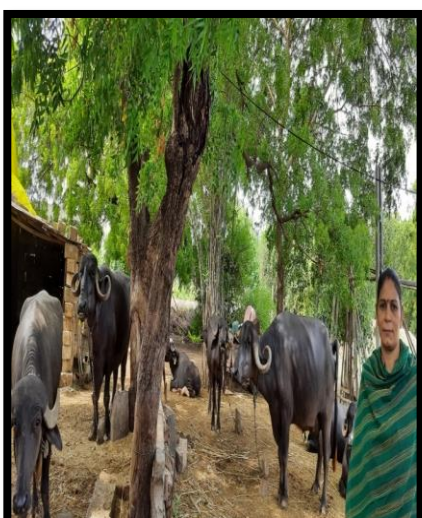

						Chauha N.B. Jadav and P.R. Kanani		
	Yield gap analysis through front line demonstration of integrated nutrient management in cotton	Guj. J. Ext. Edu. Special Issue	National	117-120	4.96	P. J. Prajapati, N. M. Kachhadiya and V. S. Parmar	Vol. : 34 Issue 1	2322-0678
<b>Lead paper</b>	Role of KVK in implementation of climate resilient agriculture practices	National level seminar: Synergetic Extension Approaches for Livelihood Improvement and Agricultural Development	National	--	--	N. M. Kachhadiya , V. S. Parmar and N. S. Joshi	---	--
<b>Book</b>	Technological Empowerment of Farm women in drudgery reduction technologies in agriculture and animal husbandry	Phonenix academic & research consultancy, National Publisher	National	--	---	Dr. Neha Tiwari and Dr. J. N. Vyas	--	
	A comparative study of extent of participation in household Activities and attitude about performing activities by young and old couple of Mehsana District	Phonenix academic & research consultancy, National	National	--	--	Dr. J. N. Vyas and Dr. Neha Tiwari	--	

		Publisher						
<b>Chapter in Book</b>	Food and Nutritional security- An Indian perspective <b>Title of Chapter-</b> Trailing Nutritional Deficiencies: A Way to Combat Anemia among Adolescent Girls	ANiNik publication , Delhi National Publisher	National	67-73	--	Dr. Neha Tiwari		ISBN:978-93-5570-171-8
	Morphometric Analysis	Research Trends in Multidisciplinary Research	National	43-55	--	P. S. Jayswal & K. N. Sondarva	Vol. 41	ISBN: 978-93-5570-524-2
<b>Technical reports</b>	Monthly (Gujarati, English)							24
	Quarterly (Gujarati, English)							8
	Six monthly (Gujarati, English)							4
	Nine monthly (Gujarati, English)							2
	Annual report (Gujarati, English)							2
	ZREAC Rabi 2022-23 Summer 2022							1
	ZREAC Kharif 2022-23							1
<b>News letters</b>	JAU, News Letter							4
<b>Popular articles</b>	આજ ના સમય માં મૂલ્યવર્ધનનું કૃષિ માટે મહત્વ	કૃષિજ્ઞવાન	-	20-25	-	ડો. નેહા તિવારી અને ડો. એન. એસ. જોષી	-	ISSN: 0971-6440
	વિવિધ પાકો માટે મલ્યના ફાયદા	કૃષિજ્ઞવાન	-	17-20	-	પી. એસ. જયસ્વાલ અને કે. એન. સોંદરવા	-	ISSN: 0971-6440
	બાજરાના મુલ્યવર્ધનથી બનતી વિશિષ્ટ વાનગીઓ	કૃષિજ્ઞવાન	-	32-34	-	નેહા તિવારી, પી. એસ. જયસ્વાલ અને	-	ISSN: 0971-6440


<b>Extension literature (FOLDER)</b>	મોસમી ફળો દ્વારા તૈયાર થતી આરોગ્યપ્રદ અને પોષ્ટિક વાનગીઓ	કૃષિ વિસ્તરણ, જી. કૃ. યુ.	-	1-8	-	જે. એન. વ્યાસ ડો. નેહાતિવારી, ડો. એન. એસ. જોષી, ડો. જે. એન. વ્યાસ, ડો. પી. એસ. જયસ્વાલ, શ્રી. વી. એસ. પરમાર, શ્રી. પી. જે. પ્રજાપતી, શ્રી. એન. એમ. કાછડીયા, શ્રી. એન. જે. હડિયા, શ્રી. એન. બી. ઘોણિયા	-	૩-૧-૪૩
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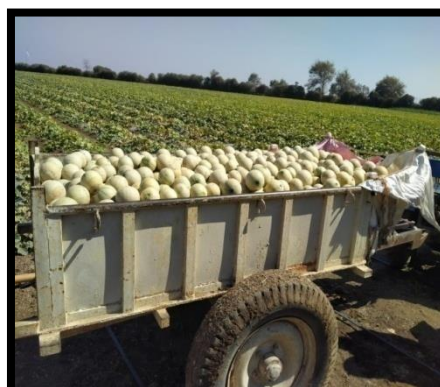
## 18. Success Stories:

### Success Story-1:

<b>Farm women Name</b>	NeetabenVirpara	
<b>Age</b>	39	
<b>Farmers' address including Village, District, State</b>	Village:Amreli Ta: Amreli District:AmreliState:Gujarat	
<b>Education</b>	10 <sup>th</sup> Std.	
<b>Farming experience</b>	15 years	
<b>Crop (Kitchen gardening)</b>	Vegetable grower according to different seasons and livestock management	
<b>Land</b>	2 acre	
<b>Interventions</b>	Neetaben Virpara is a successful farmer of amreli district. She faced problems like lack of training programme regarding vegetables farming, dairy enterprise and also faced financial problem to start vegetable farming and dairy enterprise. Neetaben came in contact of KVK, Amreli and discuss her problem and also express her desire to start a vegetable farming and dairy enterprise,KVK help her in resolving these problem by organizing various training session on vegetable gardening/kitchen gardening and dairy enterprise. Neetaben also take a information regarding financial support for agriculture and allied areas by Team KVK, Amreli	
<b>Economics Gain</b>	She started growing vegetables as per seasons and animal husbandry work. She is gettingRs. <b>405625</b> /- gross outcome and Rs. <b>312625</b> /- net-incomes, due to good quality production.	

## Success Story- 2: Muskmelon with Mulching, crop cover and cue lure trap

<b>Name</b>	RameshbhaiValjibhaiKhunt																																									
<b>Address</b>	At- Hirana Ta- Lathi Di-Amreli																																									
<b>Age</b>	52																																									
<b>Contact No.</b>	9909189441																																									
<b>Land</b>	1.60 ha																																									
<b>Live Stock</b>	1 buffalow																																									
<b>Interventions</b>	<p>Rameshbhai Growing Cotton crops during last 10 year. Due to the Pink bollworm attack they adopt crop rotation and Growing Groundnut (GJG-32) Crops During last year and this year they growing short duration cotton variety and in winter Season he has Grown Muskmelon (Madhuraja )variety with plastic mulch and Crop cover and installed cue lure trap for the control of melon fly.</p> <p><b>Before Intervention:</b></p> <table border="1"> <thead> <tr> <th>Crop</th> <th>Yield Quintal</th> <th>cost of cultivation</th> <th>gross return</th> <th>net profit</th> <th>Cost ratio</th> </tr> </thead> <tbody> <tr> <td>Cotton</td> <td>40</td> <td>120000</td> <td>320000</td> <td>200000</td> <td>1:2.66</td> </tr> </tbody> </table> <p><b>After Intervention:</b></p> <table border="1"> <thead> <tr> <th>Crop</th> <th>Yield Quintal</th> <th>cost of cultivation</th> <th>gross return</th> <th>net profit</th> <th>Cost ratio</th> </tr> </thead> <tbody> <tr> <td>Cotton</td> <td>48</td> <td>110000</td> <td>384000</td> <td>274000</td> <td>1:3.49</td> </tr> <tr> <td>Muskmelon</td> <td>400</td> <td>240000</td> <td>1000000</td> <td>760000</td> <td>1: 4.16</td> </tr> <tr> <td><b>Total</b></td> <td>448</td> <td>350000</td> <td>1384000</td> <td>1034000</td> <td></td> </tr> </tbody> </table>					Crop	Yield Quintal	cost of cultivation	gross return	net profit	Cost ratio	Cotton	40	120000	320000	200000	1:2.66	Crop	Yield Quintal	cost of cultivation	gross return	net profit	Cost ratio	Cotton	48	110000	384000	274000	1:3.49	Muskmelon	400	240000	1000000	760000	1: 4.16	<b>Total</b>	448	350000	1384000	1034000		
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### Success Story-3: Mini Dal Mill – A Successful case

#### ❖ Entrepreneurial units established by the KVK under ARYA Project

- One mini Dal mill unit established at Krushnagadh, Savrkundla
- Formation of group at village level
- Cultivation of high yielding variety of pigeon pea in village
- Popularize GJP-1 (Pigeon Pea) and GM-5 (Green gram)
- Training and demonstration of Mini Dal Mill

#### ❖ Status of individual average production/units/month:

- **Total Production: 1000 kg (400 kg Organic)**
- Total Gross income: Rs 20,000/ youth/month
- Production cost: Rs. 9000/youth/month
- Net income: Rs. 11,000 /youth /month

#### ❖ Marketing Strategies:

- ARYA youths were participating in organic fare and stall allocated at Jila panchayat in weekly base. Also use social media to sell their product.



### Success Story- 4: Masala Making- A Successful case

#### ❖ Entrepreneurial units established by the KVK under ARYA Project

- One pulverizer unit established at Rafala, Bagasara
- Formation of group at village level
- Cultivation of high yielding variety of turmeric in village
- Popularize organic cultivation of turmeric
- Training and demonstration of Pulverize unit


❖ **Status of individual average production/units/Month:**

- Total Production :1500 Kg (Organic)
- Total Gross income: Rs 93750/ youth/year
- Production cost: Rs. 40,000/youth/year
- Net income: Rs. 53750 /youth /year

❖ **Marketing Strategies:**

- ARYA youths were participating in organic fare and stall allocated at Jila panchayat in weekly base. Also use social media to sell their product.

**Success story 5: Income generated through Natural Farming**

Name of Farmer	:	JayantibhaiDabhi																																																							
Age	:	38																																																							
Education	:	7 <sup>th</sup> Std.																																																							
Addressee	:	Village: Kariyana, Ta. Babra, Dist.: Amreli																																																							
Area covered	:	2.88 ha																																																							
Animals	:	2 cows																																																							
<b>Details</b>	:	<p>Jayantibhai has been associated with agriculture for 15 years. They grow cotton and groundnut earlier under chemical farming, but the cost was high, and the yield was low and the prices were not good. Then they received training on organic farming in association with Agriculture University, KVK and ATMA, Project and then practiced Natural farming for the last four years in all crops.</p> <p>He grows groundnut, cotton, soybean, chilli and sunflower in kharif season and of ajwain, wheat and chickpea in winter season in mix crops. He value addition in all crops and make packets and sell directly to consumers.</p> <table border="1"> <thead> <tr> <th>Crops</th> <th>Area (ha.)</th> <th>Yield (kg/ha)</th> <th>value addition</th> <th>Price (Rs.)</th> <th>Income (Rs./ha)</th> </tr> </thead> <tbody> <tr> <td colspan="6"><b>Kharif Season</b></td> </tr> <tr> <td>Groundnut</td> <td>1.0</td> <td>615 (oil)</td> <td>Oil</td> <td>15 kg/4000</td> <td>164000</td> </tr> <tr> <td>Cotton + Chilli</td> <td>1.0</td> <td>1750+850 (dry)</td> <td>Powder</td> <td>1 kg/330</td> <td>70000+280500</td> </tr> <tr> <td>Sunflower</td> <td>0.2</td> <td>1200</td> <td>Packaging</td> <td>1 kg/100</td> <td>120000</td> </tr> <tr> <td colspan="6"><b>Rabi Season</b></td> </tr> <tr> <td>Wheat</td> <td>0.5</td> <td>4200</td> <td>Packaging</td> <td>20 kg/1000</td> <td>210000</td> </tr> <tr> <td>Chickpea</td> <td>0.5</td> <td>850</td> <td>Besan</td> <td>1 kg/150</td> <td>127500</td> </tr> <tr> <td>Ajwain</td> <td>0.2</td> <td>600</td> <td>Packaging</td> <td>1 kg/300</td> <td>180000</td> </tr> </tbody> </table>		Crops	Area (ha.)	Yield (kg/ha)	value addition	Price (Rs.)	Income (Rs./ha)	<b>Kharif Season</b>						Groundnut	1.0	615 (oil)	Oil	15 kg/4000	164000	Cotton + Chilli	1.0	1750+850 (dry)	Powder	1 kg/330	70000+280500	Sunflower	0.2	1200	Packaging	1 kg/100	120000	<b>Rabi Season</b>						Wheat	0.5	4200	Packaging	20 kg/1000	210000	Chickpea	0.5	850	Besan	1 kg/150	127500	Ajwain	0.2	600	Packaging	1 kg/300	180000
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### Success Story 6: Progressive Woman Farmer


<b>Farm women Name</b>	Varshaben Zaverbhai Khunt
<b>Age</b>	42
<b>Address</b>	Village: Randal Na Dadva Ta: Kukavav Dist: Amreli
<b>Education</b>	12 <sup>th</sup> Std.
<b>Farming experience</b>	20 years
<b>Working area</b>	
<b>Dairy enterprise</b>	Running Doodh Utpadan Sahakari Mandali ltd. at Randal na dadva
<b>Clothing store</b>	Readymade garment shop at home <b>Name- Varshaben mini mall</b>
<b>Beauty Parlor</b>	Personal grooming
<b>Land</b>	15 Vigha







<b>Interventions</b>	Varshaben Khunt is a progressive farmer of Amreli district. She had a strong desire to start her small scale business, in that KVK team and other government institution helped her to fulfill her desire. Now she had small scale business like Doodh Utpadan Sahakari Mandali ltd. at Randal na dadva, and also running clothing store which is named <b>Varshaben mini mall</b> and Beauty Parlor at her home. Varshaben also take part in various training programme organized by KVK, Amreli and now she is farming organic groundnut at her farm.	
<b>Economics Gain</b>	She is getting Rs. <b>502500/-</b> gross outcome and Rs. <b>4,12000/-</b> net-incomes, through her small scale business	
		

### Success story 7: Income generated through Value addition

Name of Farmer	:	Maganbhai Jadavbhai Sorathiya	
Age	:	61	
Education	:	7 <sup>th</sup> Std.	
Addressee	:	Village: Mota Devaliya, Ta. Babra, Dist.: Amreli	
Area covered	:	1.6 ha	
<b>Details</b>	:	Maganbhai Sorathiya is a progressive farmer of Amreli district and also he is following organic farming for various agricultural crops like chickepea, wheat, groundnut etc. Along with agriculture he also runs an enterprise for which he prepares value added products i.e. medicated soap and hair oil (Coconut oil+ organic herbs) with all natural ingredients. His products are sold in nearby market as well as various big cities like Surat, Rajkot, Amreli etc. Being effective and organic products, his customers are getting attracted to the products. He has spent near about Rs.7 lakh for production and in year 2022, earned Rs. 80,000/- as net profit from only value added products.	

			
<b>Farmer at his wheat field</b>		<b>Value added products</b>	

# ACTION PLAN

## (January – 2023 to December-2023)

### K.V.K., JAU, AMRELI

The KVK is an Innovative technological information centre for the development of farming community. The KVK carry out various activities as per objectives and mandates i.e. organizing on campus and off campus short and long term vocational training programmes in agriculture and allied vocational for the farmers, rural youth and farm women with emphasis on “Learning by doing”. Organize training to update the extension personal with emerging advances in agricultural research. Gaps to generate production data and feedback will be conducting OFT for identification of specific location technologies. The below activities of KVKs will be organized in details for January 2023 to December 2023.

#### 2. Training programmes:

The training programmes on various aspects related to Agricultural technology based on thrust areas will be organized during the quarter wise January 2022 to December 2022. Details of training programmes are as under.

##### A. On campus Training Courses:

Subject	Title of training	Duration (days)	No. of participants	Type of participants
<b>I Quarter January 2023to March 2023</b>				
Home Science	Household food security by kitchen gardening and nutrition gardening	1	35	FW
	Design and development of low/minimum cost diet	1	35	FW
Horticulture	Nursery raising	1	35	PF
Crop Production	Fertilizers recommendation based on soil analysis	1	35	PF
	Scientific cultivation of summer crops	1	35	PF

Plant Protection	Integrated approach for management to control of fall army worm in maize	1	35	PF
Extension Education	Awareness regarding organic farming	1	35	PF
Agriculture Engineering	Installation and maintenance of micro irrigation systems	1	35	FW-PF
<b>II. Quarter April 2023 to June 2023</b>				
Home Science	Minimization of nutrient loss in processing	1	35	FW
Horticulture	Cultivation of Fruit	1	35	PF
Crop Production	Cow based organic fertilizers preparation	1	35	PF
Plant Protection	Importance of organic pesticides	1	35	PF
Extension Education	Upgrade the knowledge of farmers about ICT	1	35	PF
Agriculture Engineering	Soil & Water Conservation technologies	1	35	FW-PF
<b>III. Quarter July 2023 to September 2023</b>				
Home Science	Women and Child Care	1	35	FW
	Value addition of millet	1	35	FW
Crop Production	Preparation of Jivamrut and Bijamrut	1	35	PF
	Use and Importance of Bio fertilizers	1	35	PF
Horticulture	Nursery Management	1	35	PF
Plant Protection	Integrated Disease Management of <i>rabi</i> crops	1	35	PF
Extension Education	Upgrade the knowledge about new varieties of <i>rabi</i> crops and its cultivation practices	1	35	PF
Agriculture Engineering	Rainwater harvesting & groundwater recharge methods	1	35	FW-PF
	Farm machineries for farm women	1	35	FW-PF
<b>IV. Quarter October 2023 to December 2023</b>				
Home Science	Value addition	1	35	FW
	Location specific drudgery reduction technologies	1	35	FW
Horticulture	Post harvest technology and value addition	1	35	PF
	Production and Management technology	1	35	PF
Crop	Scientific cultivation of Rabi	1	35	PF

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Production	crops			
Plant Protection	Botanical Pesticides	1	35	PF
Extension Education	Entrepreneurship development	1	35	PF
Agriculture Engineering	Post harvest technology and small scale value addition	1	35	FW-PF

**PF: Practicing farmer, FW: Farm women**

**B. ON/OFF Campus Training Programme for Rural youth**

Subject	Title of training	No. of training	No. of participants	Type of participants
Crop Production	Natural Farming	02	85	RY
Plant Protection	Plant Protection	02	55	RY
	Appliances/ Equipments and Natural Farming			
Agricultural Engineering	Value addition	02	45	RY
Extension Education	Vermi -composting	02	65	RY
Home science	Value addition of millet	02	45	RY
<b>Total</b>		<b>10</b>	<b>295</b>	

RY: Rural Youth

**C. OFF Campus Training Programme Courses**

Subject	Title of training	No. of training	No. of participants	Type of participants
<b>I. Quarter January 2023 to March 2023</b>				
Home Science	Household food security by kitchen gardening and nutrition gardening	1	45	FW
	Value addition of fruits and vegetables	1	45	FW
Horticulture	Nursery raising	1	45	PF
	Natural farming in horticulture crop	1	45	FW-PF
Crop Production	Soil and water analysis	1	45	PF
	Integrated Nutrient Management in summer crops	1	45	PF
Plant Protection	Advance techniques of pest management	1	45	PF
	Natural farming	1	45	FW-PF
Extension Education	Upgrade knowledge on seed treatment	1	45	PF
	Natural farming	1	45	FW-PF
Agriculture Engineering	Installation and maintenance of micro irrigation systems	1	45	FW-PF
	Rain water harvesting	1	45	FW-PF

<b>II. Quarter April-2023 to June- 2023</b>				
Home Science	Design and development of low/minimum cost diet	1	45	FW
	Location specific drudgery reduction technologies	1	45	FW
Horticulture	Layout and Management of Orchards	1	45	PF
Crop Production	Preparation procedure of liquid organic fertilizer	1	45	PF
	Organic farming certification procedure	1	45	PF
Plant Protection	Method demonstration of organic product	1	45	PF
Extension Education	Market intelligence	1	45	FW
Agriculture Engineering	Efficient utilization of irrigation water	1	45	FW-PF
<b>III. Quarter July- 2023to September - 2023</b>				
Home Science	Value addition	1	45	FW
	Women and child care	1	45	FW
Crop Production	Package of practices of rabi crops	1	45	PF
	Natural farming	1	45	PF
Plant Protection	Bio -Pesticides	1	45	PF
Extension Education	Awareness about FPO & it's formation	1	45	PF
Agriculture Engineering	Small scale processing and value addition	1	45	FW-PF
	Use of Plastics in farming practices	1	45	FW-PF
<b>IV. Quarter October- 2023 to December -2023</b>				
Home Science	Design and development of low/minimum cost diet	1	45	FW
	Women empowerment	1	45	FW
Crop Production	INM in rabi crops	1	45	PF
Plant Protection	Sucking pest management in Rabi crops	1	45	PF
Extension Education	Entrepreneurship Development	1	45	PF
Agriculture Engineering	Post Harvest Technology	1	45	FW-PF
	Renewable energy source utilization on farm	1	45	FW-PF

**PF: Practicing farmer, FW: Farm women**

**D. Training Programme (Quarter wise summary):**

S.N.	Subject	On campus					Off campus					G.T
		I	II	III	IV	T	I	II	III	IV	T	
1	Home Science	2	1	2	2	07	2	2	2	2	8	15
2	Horticulture	1	1	1	2	05	2	1	0	0	3	8
3	Crop production	2	1	2	1	06	2	2	2	1	7	13
4	Plant Protection	1	1	1	1	04	2	1	1	1	5	09
5	Extension Education	1	1	1	1	04	2	1	1	1	5	09
6	Agriculture Engineering	1	1	2	1	05	2	1	2	2	7	12
<b>Total</b>		<b>8</b>	<b>6</b>	<b>9</b>	<b>8</b>	<b>31</b>	<b>12</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>35</b>	<b>66</b>

**E. Vocational Training:**

S. N.	Title of training	No. of training	No of Participants	Type of Participant
1	Value addition of millets (International Year of millet)	04	35	FW & RY
2.	Value addition of fruit products	04	35	FW & RY
<b>Total</b>		<b>08</b>	<b>70</b>	

**F. In Service Training:**

S. N.	Title of training	No. of training	No of Participant	Type of Participant
1	Communication skill and use of ICT equipment	02	40	Extension personnel
2	Income generation activities	02	35	Aganwadi workers/ Sakhi Mandal
<b>Total</b>				

**G. Sponsored/ Collaborative Training:**

S.N.	Title of training	No. of Training	No. of Participant	Type of participant
1	Integrated management of fall army worm in maize	1	45	PF
2	Role of Trichoderma, Beauveria, bossiana and metarhiumanisoplie and its uses	1	55	PF
3	Scientific production of kharif crops	1	60	PF
4	Use of mass media	1	35	PF
5	Scientific cultivation of cotton	1	35	PF
6	Entrepreneurship development	1	35	FW
7	Use of soil health card	1	35	PF
8	Value addition millets	05	285	FW/PF
9	Micro Irrigation System Maintenance	1	45	PF
10	Value addition of fruits and vegetables	5	165	FW
11	Natural Farming	4	125	PF/FW

12	Value addition of fruits	02	45	FW
13	Value addition of vegetable	02	45	FW
<b>Total</b>		<b>26</b>	<b>1010</b>	

The 26 training courses will be organizing with the 1010 participant's by the collaboration with the different agency like NGO and Agro dealer in different subjects.

#### H. Summary of Training Programmes:

S. N.	Subject	On campus	Off Campus	Total
1	Home Science	07	8	15
2	Horticulture	05	3	8
3	Crop Production	06	7	13
4	Plant Protection	04	5	9
5	Extension Education	04	5	9
6	Agriculture Engineering	05	7	12
7	Rural Youth training	03	07	10
8	Vocational training	00	02	2
9	In service Training	01	01	2
10	Sponsored Training	12	13	25
<b>Total</b>		<b>47</b>	<b>58</b>	<b>105</b>

During the year January-2023 December-2023, 47 on campus and 58 off campus training programmes will be organized in different subjects for the Farming community and extension personal by the KVK, Amreli.

#### 2. Extension activity:

S. N.	Activity	Proposed No.
1	Field Day and field visit	30
2	KisanGosthi	05
3	Radio talk	70
4	TV show	As maximum and required
5	Khedutshibir	10
6	News paper coverage	As maximum and required
7	Diagnostic service	As maximum and required
8	Advisory service	As maximum and required
9	Popular articles	09
10	Extension Literature	06
11	Celebration of Important day	08
12	Group discussions	09
13	Film Show	10
14	Scientists' visit to farmers field	50
15	Farmers visit to KVK	25



16	Ex-trainees Sammelan	02
17	Farmers' seminar/workshop	02
18	Celebration of important and special days	15
19	Exposure visits	05
20	Others (pl.specify) Lecture Delivered	180
<b>Total</b>		<b>321</b>

### 3. Front Line Demonstration (Proposed)

Sr. No	Crop/Input	Variety/Technology	Title	No of Demons.	Area (ha)
<b>Kharif-2023</b>					
1	Castor	GCH-7/9	Varietal Evaluation	10	4
2	Cotton	Gujarat Cotton Hybride-24 (BG-II)	Varietal Evaluation	10	4
3	Bajra	GHB-1129/1225/1231/538	Varietal Evaluation	10	4
<b>Total</b>				<b>30</b>	<b>12</b>
<b>Rabi - 2023-24</b>					
1	Coriander	GC-2/3	Varietal Evaluation	10	4
2	Cucumber / sweet melon/ chilli/tomato	Plastic mulch	Resource conservation	10	4
<b>Total</b>				<b>20</b>	<b>08</b>
<b>Summer-2023</b>					
1	Sesame	GT-3/ GJT-5	Varietal Evaluation	10	4
2	Black gram	Guj. Urd-2	Varietal Evaluation	10	4
3	Green gram	GM-4/ GAM-5	Varietal Evaluation	10	4
<b>Total</b>				<b>30</b>	<b>12</b>
<b>Farm implements/Enterprises</b>					
1	Agricultural Engineering (Farm Machinery)	Seed dressing drum	Farm Mechanization	5	-
2		Okra harvester	Small tool	5	-
<b>Total</b>				<b>10</b>	<b>-</b>
<b>GT</b>				<b>90</b>	<b>32</b>

During the year 2023-24, 90 FLD are planned to organized covering 32 hectare area for the Farming community by the KVK, Amreli.

**4. Celebration of International Year of Millets (IYOM) 2023-**

<b>Sr. No.</b>	<b>Title</b>	<b>Probable month of activity</b>	<b>Target Audience</b>	<b>Name of Scientist (for organizing event)</b>
1	Krishi mela/millets around jogging or morning walk places to create awareness among people	January-2023	Farmers and health conscious people	Dr. N. S. Joshi (Senior Scientist and head) Dr. Neha Tiwari (SMS, Home Science)
2.	Road show/rally to enhance the production and consumption of millets	February-2023	General public to create awareness about millets	
3.	Millets stake holder meeting involving hotels owners, medical doctors, experts from home science and policy maker	February-2023	Different stake holder	
4	Distribution of pamphlets, publication in news paper regarding health benefits of millets	March-2023	General public	
5	Seminar symposia regarding millet capacity building	April-2023	Person working for millet	
6	Farmers meeting related to create awareness among them about millets benefits	April-2023	Advance group of farmers	
7	Distribution of seed, enabling farmers for cropping system of millet	May-2023	Millet growers	
8	Documentation of slogan, folk stories and folk songs about millet health benefits	June-2023	General public to create awareness about millets	
9	Special programme for school children and inclusion of millet in mid- day meal programme	August-2023	School children	
10	Invitation to APMC- Mega store owners - farmers for link-up millet marketing	October/November-2023	Farmers, seller and buyers of millets	
11	Publication of millet based food recipe	November-2023	Women group	
12	Training to the farmers for millet processing	December-2023	Expert oriented millet growing farmers	
13	One general program covering overall celebration of millet	December-2023	All the stake holder	

**5. ON FARM TESTING:****OFT - 1: Agronomy (New)**

**1) Title of technology:** Effect of water-soluble fertilizer (19-19-19 N-P-K) and Novel organic liquid nutrient on yield of onion

**2) Problem Diagnosed/Defined:** Farmers do not use water-soluble fertilizer and Novel organic liquid

Detail of technologies selected for assessment/refinement:

(1) Crop : Onion

(2) Season/Year : Rabi 2022-23 to Rabi 2025-26

<b>T1: (Farmers' practices)</b>	1. Use only DAP and Urea in various dose (Farmers Practices)
<b>T2 : (Recommended Practice)</b>	2.75-60-50-15 NPKS kg/ha (Recommended Practices)
<b>T3 : (Intervention )</b>	3.75% RDF (56-45-37.5- 15 kg N-P2O5-K2O-S/ha) + 1% foliar spray of (19-19-19% N-P-K) and 1% Novel organic liquid nutrient at 45 and 60 day after transplanting

(3) Number of replication : 05

(4) Source of technology :Vegetable Research Station, Junagadh Agricultural University, Junagadh

(5) Production system thematic area : Irrigated

(6) Thematic area : Micro nutrient deficiency

(7) Cost :5500

(8) Indicator/parameter :Yield and BC ratio

**OFT -2: Agronomy (New)**

**1) Title of technology:**Effect of Panchagavya on yield of groundnut under natural farming

**2) Problem Diagnosed/Defined: Natural farming** Farmers used only Jivamrut and do not use Panchagavya

Detail of technologies selected for assessment/refinement

(1) Crop : Groundnut

(2) Season/Year : Kharif 2023-24 to Kharif 2025-26

<b>T1: ( Farmers' practices)</b>	Soil application of Jivamrut @ 500 lit./ha at 15 days interval DAS with irrigation water
<b>T2 : (Recommended Practice)</b>	Foliar spray of Panchagavya @ 3% at 30, 45 and 60 DAS
<b>T3: (Intervention)</b>	Soil application with irrigation water of Jivamrut @ 500 lit./ha at 30, 45 and 60 DAS + Foliar spray of Panchagavya @ 3% at 30, 45 and 60 DAS

(3) Number of replication : 05

(4) Source of technology : Department of Agronomy, JAU, Junagadh

(5) Production system thematic area : Rainfed Farming

(6) Thematic area : Natural Farming

(7) Cost : Rs 9500

(8) Indicator/parameter : Yield (kg/ha)

**OFT – 3: Plant Protection (New)****Title:**Management of Pod borer in chickpea**Problem Diagnosed / Defined:** Higher dose of chemicals increase the input cost and Higher Residue

Details of technologies selected for assessment/refinement:

- (1) Crop : chickpea  
 (2) Season/ Year : Kharif -2023-24 to Kharif –2025-26  
 (3) Spacing : 30 x 10 cm

T <sub>1</sub>	Farmer practices	Spraying of Emamectin Benzoate 5 SG @ 10-15 gm / 10 lit or Chlorantraniliprole 18.5 % SC 8-10 ml/ 10 lit
T <sub>2</sub>	Recommendation	Spraying of Chlorantraniliprole 18.5 % SC 3.25 ml/10 lit + Neem oil 0.5% 50 ml/10 lit at ETL (0.75 larve/plant before flowering and 0.50 larve/plant after flowering) and second spray of the same after 20 days
T <sub>3</sub>	Assessment/ refined Practices	Spraying of HaNPV 250@ LE/ha + Neem oil 0.5 % 50 ml/ lit at ETL and second spray of the same after 20 days

- (4) Number of replication : 03  
 (5) Source of technology : JAU, Junagadh  
 (6) Production system thematic area : Irrigated  
 (7) Thematic area : Organic farming  
 (8) Total Cost : 4500  
 (9) Indicator :1. No of larvae/plant 1mt. row length  
 2. Yield(Q/ha)3. BCR

**OFT – 4: Plant Protection (New)****Title:**Management of sucking pests by Neemasutra a tool of natural farming in Bt. cotton (1st Year)**Problem Diagnosed / Defined:**Development of resistance power of sucking pest against chemical pesticides and high residue

Details of technologies selected for assessment/refinement:

- (1) Crop : cotton  
 (2) Season/ Year : Kharif -2023-24 to Kharif –2025-26  
 (3) Spacing : 120 x 45 cm

T <sub>1</sub>	Farmer practices	Spraying of chemical Pesticides (Flonicamid 50WG@ 7 gm/lit, imidacloprid17.5 SL @ 40 ml/10 lit at 30, 45, 60 DAS
T <sub>2</sub>	Assessment/ refined Practices	Spraying of Neemasutra@ 30 ml/lit. water (3 lit/100 lit water) at 30,45,60 & 80 DAS

- (4) Number of replication : 03  
 (5) Source of technology : SDAU, SKNagar  
 (6) Production system thematic area : Rainfed Farming  
 (7) Thematic area : Natural Farming  
 (8) Total Cost : 3750  
 (9) Indicator : 1. No of sucking pest /leaf 2. Yield (Q/ha)3. BCR

**OFT -5: Agriculture Engineering (Ongoing)**

a	<b>Title</b>	:	Effect of Packaging material on seed quality of groundnut seeds.
b	Problem Diagnose	:	Farmers do not store groundnut seed properly.
c	Treatments		
	T1- Farmers' practice	:	Loose heap storage (farmer practices)
	T2-Recommended Technology	:	Use of Purdue Improved Crop Storage (PICS) bags for storage (Recommended Practices)
d	Number of replication	:	05
e	Source of Technology	:	JAU Recommendation and interaction with scientists
g	Thematic area	:	Storage techniques
h	Critical Input	:	1 PICS bag
i	Unit Cost	:	500
j	Total Cost	:	2500
k	Duration of project	:	3 year
	Indicator/Parameter	:	Insect Infestation, C:B ratio

**OFT -7: Agriculture Engineering (New)**

a	<b>Title</b>	:	Effect of drumstick harvester.
b	Problem Diagnose	:	Risky drumstick harvesting methods.
c	Treatments		
	T1- Farmers' practice	:	Traditional method
	T2-Recommended Technology	:	Manually operated drumstick harvester
d	Number of replication	:	05
e	Source of Technology	:	MPKV, Rahuri
f	Thematic area	:	Farm mechanization
g	Critical Input	:	Drumstick harvester
h	Unit Cost	:	5000
i	Total Cost	:	Rs. 25000
j	Duration of project	:	3 year
l	Indicator/Parameter	:	Field capacity, Comfort level

**OFT -8: Home Science (ongoing)**

a	<b>Title</b>	:	Preservation techniques of different pulses with organic methods
b	Problem Diagnose	:	Lack of knowledge
c	Treatments		
	T1-	:	Use of Neem leaveswith pulses
	T2-	:	Use of Castor oilwith pulses
	T3-	:	Use of airtight bagwith pulses
d	Number of replication	:	10
e	Source of Technology	:	IRRI-2011
f	Thematic area	:	Preservation techniques
g	Critical Input	:	Neem leaves Castor oil

- Airtight bag
- h. Qty per trial  
Neem leaves 50 gm. dry leaves 1 gm food grain  
Castor oil 1kg. castor oil/1 Kg food grain  
Airtight bag 2 kg. bag/1 Kg food grain
- i Unit Cost : Rs. 1000
- j Total Cost : Rs. 10,000
- k Duration of project : 6 month
- l Indicator/Parameter : Quality of stored grain, damage percentages

**OFT 9: Home Science (New)**

- a Title : Drudgery reduction of farm women by using sitting type ground nut decorticator technology
- b Problem Diagnose : Hand shelling of ground nut involve health hazard, time consumption and money consumption
- c Treatments  
T1- : Farmers practice (Hand shelling of ground nut)  
T2- : Use of sitting type ground nut decorticator technology
- d Number of replication : 05
- e Source of Technology : CIAE, Bhopal
- f Thematic area : Drudgery reduction
- g Critical Input : Sitting type ground nut decorticator
- i Unit Cost : Rs. 3500
- h Total Cost : Rs. 17500
- j Duration of project : 3 year  
Qty per trial : 1 No.
- k Indicator/Parameter : Health hazard, Heart rate, energy expenditure, cardiac cost of work (CCW) and shelling time kg/hr

**6. Seeds to be produced:**

S. No.	Name of crop	Season	Area (ha)	Variety	Type of Produce
1	Groundnut	Kharif (2023)	10	GJG-22	Foundation/TF
2	Sesame	Kharif (2023)	01	GJT-5	Breeder
3	Wheat	Rabi (2023-24)	01	GW-463/451	TF
4	Gram	Rabi (2023-24)	01	GG-5	TF

## 7. Additional Activities Planned including sponsored projects schemes

Sr. No.	Name of the agency / scheme	Name of activity	Technical programme with quantification				Financial outlay (Rs.)	Names of the team members involved
			Name of crop	Variety	Area (ha)	No. of FLD		
1	Agricultural Technology Information Centre (ATIC)	FLD, Trainings, Field day, Field visit	Gram	GJG-5	6.25	25	850000	Senior Scientist and all discipline Scientists
			Wheat	GW-463	6.25	25		
			Groundnut	IPM (Metarhizium, Beauveria, Azadirachtin, Chloropyrifos)	5.0	20		
			Cotton	IPM (Cotton Inputs Beauveria, Azadirachtin, Pheromone trap)	5	20		
			Groundnut	GJG-32	5	20		
			Sesame	GT-6	2.5	10		
<b>Total</b>					<b>30</b>	<b>120</b>		
2	Cluster base FLD of Rabi Pulses under NFSM	FLD, Trainings, Field day, Field visit	Pigeon pea	GJP-1	10	25	283610	Senior Scientist and all discipline Scientists
			Gram	GJG-7	20	50		
<b>Total</b>					<b>30</b>	<b>75</b>		
3	National Mission on Oilseeds and Oil Palm (NMOOP)	FLD, Trainings, Field day, Field visit	Groundnut	GJG-32	20	50	370000	Senior Scientist and all discipline Scientists
<b>Total</b>					<b>20</b>	<b>50</b>		
4	Kitchen Gardening (Home Science)	FLD Training Field visit	Vegetable kit	Vegetable kit	00	200	40000	Senior Scientist and all discipline Scientists
<b>Total</b>					<b>00</b>	<b>200</b>		