ANNUAL ACTION PLAN
(1st January 2023 to 31st December - 2023)
KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY, JAMNAGAR

1 GENERALINFORMATION ABOUT THE KVK

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

Address	Telephone		E mail	Web address
	Office	FAX		
Krishi Vigyan Kendra Millet Research Station, JAU Air-force Road, Opp. Digjam Mill Jamnagar- 361 006	**(0288) 2710165**	**(0288) 2710165**	**kvkjamnagar@gmail.com kvkjamnagar@jau.in**	**www.jau.in**

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

Address	Telephone		E-mail	Web address
	Office	FAX		
Junagadh Agricultural University, Junagadh – 362 001 (Gujarat)	**PBX 2672080-90**	**(0285) 2672653**	**dee@jau.in**	**www.jau.in**

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

Name	Telephone / Contact		
	Residence	Mobile	Email
Dr. K. P. Baraiya	Senior Scientist & Head Krishi Vigyan Kendra Junagadh Agricultural University, Air-force Road, Opp. Digjam Mill **Jamnagar- 361 006**	**9427980032**	**kvkjamnagar@gmail.com kvkjamnagar@jau.in**

1.4. Year of sanction:

ZARS (KVK) 2001, Letter No.F.No. 18(4)/99-NATP Dated October 31st, 2001

ICAR (KVK) 2004, Letter No.F.No. 8(1)/2002-AE-II(Pt.) Dated February 5th, 2004

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

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

Priority thrust areas

Sl. No	Crop/ Enterprise	Thrust area
1.	Cotton, groundnut, castor, cumin, coriander, wheat, vegetables, fruits, etc.	➢ Integrated Crop Management in major crops ➢ IPM & IDM in major field crops ➢ Whitegrub management in Groundnut ➢ Wireworm management in garlic & Onion ➢ Micronutrient management in wheat
2.	Organic farming	Enhancement of organic farming through improved technologies
3.	Farm waste/ organic matter	Recycling of farm waste through composting, vermicompost, green manuring, etc.
4.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
5.	Soil	Reclamation of saline & alkaline soils
6.	Farm Women	Farm women empowerment by training in value addition, handi crafts, and small scale enterprises
7.	Fisheries	Fish Farming
8.	Improved Implements	Popularization of the mechanized technological know how
9.	Plant protection	Pinkboll worm in cotton and white grub in groundnut,
10	Horticultural area	Enhancement of pomegranate, datepalm, draganfruit,
11.	Storage facility	Requirement of storage techniques and value addition in farm produce
12.	Water conservation & use of Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
13	Natural farming	Enhancement of natural farming through improved technologies

3. TECHNICAL PROGRAMME

3.1. Details of targeted mandatory activities by KVK

OFT		FLD	
(1)		(2)	
Number of OFTs	Number of Farmers	Area (ha)	Number of Farmers
5	17	127	355

Training		Extension Activities	
(3)		(4)	
Number of Courses	Number of Participants	Number of activities	Number of participants
38	1480	192	18166

Seed Production (Qtl.)	Planting material (Nos.)	Fish seed prod. (kg)	Soil Samples
(5)	(6)	(7)	(8)
130	1700	0	350

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

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT
1	Brinjal	Infestation of sucking pests in Brinjal	Management of Brinjal whitefly

2	Sesame	Low Yield, Introduction of new high yielding variety,	Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District
3	Chickpea	Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar
4	Storage PICS Bag	Heavy loss of food grains and seeds during storage, Heavy attack of storage pests	Assessment of PICS bag for Groundnut storage
5	Groundnut	Heavy incidence of leaf spot & rust in later stage	Management of foliar diseases in groundnut

B. Details of On Farm Trial / Technology Assessment during 2023

S. No.	Crop/ enterprise	Prioritized problem	Title of OFT	Technology options	Source of Technology	Name of critical input	Qty per trial	Cost per trial	No. of trials	Total cost for the OFT (Rs.)	Parameters to be studied	Team members
1	Brinjal	Heavy infestation of leaf sucking pest was found	**Management of brinjal whitefly**	**(Farmers practices).** Injudicious use of insecticides. (Spray insecticides at weekly interval)	FP				3		1.Record no. of whitefly per leaf 2. Yield data.	Dr. K.P.Baraiya
				2. **Recommendation)**Three sprays of chlorantraniliprole 18.5 SC, 0.002 %, 1.08 ml/10 litre water at 15 days interval starting from the pest infestation are recommended under South Saurashtra Agro-climatic Zone. The PHI for chlorantraniliprole 18.5 SC, 0.002 % is one day.	SAU	chlorantraniliprole	30 ml	500	3	1500		
				3. **(Refinement 1)** Spray of *Beauveria bassiana* 1.15 WP (Min. 2 x 106 cfu/g) 0.007 % (60 g/10 litre of water), first spray at pest initiation and subsequent four spray should be given at 10 days interval after first spray	-	*Beauveria bassiana*	2 kg	220	3	660		
				4. **(Refinement 2)** Spray of Difenthuron 50% WP @ 5 g/lit of water at 15 days interval at pest initiation.	-	Difenthuron	1 kg	900	3	1800		
2	Sesame	Low Yield, Introduction of new high yielding variety,	Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District	1 G. Til 2 2 G. Til 3 3 G. Til 5	JAU, Junagadh	Seed	1 kg seed of both variety	500	3	1500	Yield (Kg/ha), Plant Height (cm), Capsule per plant, 1000 seed weight (g), Maturity days, Economics	Shri. A.V. Savaliya, Scientist (DAMU)
3	Chickpea			1. GJG-3 2. GG-5		Seed	25 kg	5000	3	15000	yield (kg/ha),	Shri. A.V.

		Low yield in existing variety, Enhancing productivity	Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar	3. GJG-6	JAU, Junagadh		seed of both variety				Plant Height (cm) at harvest time, No. of branches per plant , No. of pods per plant , 100 seed weight (g), Economics	Savaliya Scientist (DAMU)
4	Groundnut	Heavy attack of storage pests	Assessment of PICS bag for Groundnut storage	1.Open heaps in storage godown 2.Local practices for storage in plastic bag /closely woven bag 3.Storage in Triple layer hermetic "Purdue Improved Crop Storage"(PICS) bags	JAU, Junagadh Formerly it was from ICRISAT, Hyderabad	Crop Storage"(PICS) bags	3	270	5	1350	1. Weight loss 2. Insect (Bruchid)damage	A.K.Baraiya and Dr. K.P.Baraiya
5	**Groundnut**	Heavy incidence of leaf spot & rust in later stage	Management of foliar diseases in groundnut	**1. Farmer's Practices**:- Injudicious use of fungicides. [use of hexaconazole, carbendazim, floxistrobin, Metalaxyl 8 + Mancozeb 64, Kitazin 48 EC, Kresoxim-Methyl 44.3 SC, Azoxystrobin 11 + Tebuconazole 18.3 SC, Chlorothalonil 75 WP, Cymoxanil 8 + Mancozeb 64 WP, Difenconazole 25 EC, Tebuconazole + Trifloxystrobin 75 WG, Tebuconazole 25 EC] after severe attack of diseases.	SAU	-	-	-	3	3600	Record early and late leaf spot and rust from five randomly selected plants from each plot at 30, 60 and 90 days after germination and at harvest stage and yield kg/ha	Dr. K.P.Baraiya
				2. Recommendation :-Foliar spray of hexaconazole 5% SC (10ml/10 lit water) at 40 DAS + Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 60 and 80 DAS.	SAU	Hexaconazole 5% sc, Pseudomonas	500 ml, 2 kg	1900	3			
				3. **Refinement:-** Foliar spray of Foliar Spray of Talcum powder based *Pseudomonas fluorescens* 0.5% ($2x10^6$ cfu/g) @ 100 gm/10 litre water at 40, 60 and 80 DAS.	SAU	*Pseudomonas fluorescens*	3 kg	1500	3			

OFT-1 Brinjal (Assessment)

Title: Management of Brinjal whitefly

Objective: To manage the leaf sucking pest infestation in sesame

Problem definition: attack of leaf sucking pest is increase

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

Problem diagram :-

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

Treatments:

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

No. of Replication: 3 (Farmers)

Observations:

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

OFT :-2

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

Objective : To find out suitable high yielding sesame variety for summer irrigated condition

Problem definition:

1. Low yield.
2. Threat to the sustainability of crop production
3. High cost of production
4. Shortage of irrigation water

Problem diagram :-

Improper cultivation practices	**Assessment of the performance of high yielding Sesame varieties in summer irrigated condition for Jamnagar District**	Multi season cropping system
Low yielding variety		Irregular irrigation/ irregular rainfall
Lack of knowledge about balance use of nutritional recommendation		Lack of knowledge about pest outbreaks and its management
High Wind velocity		In judicious use of chemical fertilizer

Treatments :

1. T_1 :- G. Til 2 (Farmer Practices)
2. T_2 :- G. Til 3
3. T_3 :- G. Til 5

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

1. Yield (Kg/ha),
2. Plant Height (cm),
3. Capsule per plant,
4. 1000 seed weight (g),
5. Maturity days,
6. Economics

OFT:3

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

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

Problem definition:

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

Problem diagram :-

<table>
<tr><td>Improper cultivation practices</td><td rowspan="5">Assessment of suitable high yielding Chickpea Variety in Rabi season for Jamnagar District</td><td>Multi season cropping system</td></tr>
<tr><td>Low yielding variety</td><td>Mono-cropping system</td></tr>
<tr><td rowspan="2">Heavy incidence of pest and disease attack</td><td>Lack of knowledge about nutrient management</td></tr>
<tr><td rowspan="2">In judicious use of chemical fertilizer</td></tr>
<tr><td>In judicious use of pesticide</td></tr>
</table>

Treatments:

T 1 :- GJG-03 (Farmer Practices)
T 2 :- GG-05
T 3 :- GJG-06

Characterization :-

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

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

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

6. Economics

OFT: 4

Title : Assessment of PICS bag for Groundnut storage

Objective :

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

Problem Definition :-

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

Problem Diagram :-

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

Treatment

T_1–Farmer Practices (Open heaps in storage gowdown)

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

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

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

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

Observation :Post (after six month) storage

3. Weight loss
4. Insect (Bruchid)damage

OFT-5

Title: Management of foliar diseases in groundnut

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

Problem definition:

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

10. Treatment of diseases after savior attack

Problem diagram :-

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

Treatments:

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

No. of Replication: 3 (Farmers)
Source of Technology: - Department of Plant Pathology, COA, JAU, Junagadh
Thematic area: IDM
Observations:

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

3.3 FRONTLINE DEMONSTRATIONS

A. Details of FLDs to be organized –

Sr. No.	Name of Crop/ Enterprise	Name of Variety Enterprises	Thematic area	Technology demon-strated	Critical Inputs	Season and year	Area (ha.)	No. of farmers /Demo.	Parameters identified
1	Cotton	Bt. Cotton	IPM/INM	Insecticide, Bio pesticide	Azadirechtin, Lambda cyhalothrin, MDP, SNPV, *Beauveria bassiana*	Kh-23	10	25	yield
2	Wheat	GW- 451/ 463	Varietal	Variety	Seed	Rabi-23	4	10	Yield
3	Ajwain	Gujarat Ajwain-2	IPM/IDM	Bio pesticide Bio fertilizer	Trichoderma, *Beauveria bassiana* Azotobacter, PSB, Mix micronutrient	Rabi-23	4	10	Yield
4	Pearl millet	GHB- 1129	Varietal	Variety	Seed	Sum-23	4	10	Yield
Other Scheme									

5	**NMOOP**-Groundnut	GJG-22/ GJG 32	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GJG-22/GJG-32), *Metarhizium anisopliae*, *Trichoderma*, PSB, Rhizobium, *Beauveria bassiana*	KH-23	20	50	Yield, % pod damage
6	**NMOOP**-Sesame	GTil -3/5/6	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GTil-3/5), Beauveria bassian, Trichoderma, PSB, Azotobacter	Sum-23	20	50	Yield, % pod damage
6	**NMOOP**-Mustard	GDM-4, 5	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed (GDM-4, 5), Beauveria bassian, Trichoderma, PSB, Azotobacter	Rabi-23	10	25	Yield, % pod damage
7	**NFSM**-Chickpea	GG-5/7	Improved Variety with ICM	Improved Variety, Bio pesticide, Bio fungicide, Bio fertilizer	Improved var. Seed(GG-5), Beauveria bassiana, Trichoderma, PSB, Rhizobium	Rabi-23	20	50	Yield, % pod damage
8	**ATIC** Castor	GCH-9	Varietal	Variety	seed	Kh-23	8	20	Yield
9	**ATIC** Cumin	GC-4	ICM	Bio pesticide Bio fertilizer	Beauveria bassiana, PSB, Azotobector Trichoderma, Yello sticky trap	Rabi-23	8	20	Yield
10	**ATIC** Coriander	GC-2	ICM	Bio pesticide Bio fertilizer	PSB, Azotobector, Beauveriabassiana, Trichoderma, Yello sticky trap	Rabi-23	8	20	Yield
11	**ATIC** Brinjal	GRB-5	Varietal	Variety	Seed	Rabi-23	2	5	Yield
					Total		**118**	**295**	

C. Details of FLD on Enterprises

a. Farm Implements

Name of the implement	Crop	Season and year	No. of farmers	Area (ha)	Critical inputs	Performance parameters / indicators
Cotton Picking Apron	Cotton	Kharif-23	5	2	Apron	Picking efficiency

b. Livestock Enterprises

Enterprise	Breed	No. of farmers	No. of animals, poultry birds/ha. etc.	Critical inputs	Performance parameters / indicators

c. FLD on Other enterprises

Enterprise	Name of the technology demonstrated	No. of farmers	No. of units	Critical inputs	Performance parameters / indicators
Solar Cooker	Solar Cooker	5	5	Solar Cooker	Time & fuel

Kitchen gardening	Nutritional gardening	50	2 ha	Vegetable seeds	Yield

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

ON Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	2	55	0	55	5	0	5	60
II Horticulture	1	0	30	30	0	0	0	30
III Soil Health and Fertility Management	1	25	0	25	5	0	5	30
IV Livestock Production and Management	1	0	30	30	0	0	0	30
V Home Science/Women empowerment	2	0	50	50	0	10	10	60
VI Agril. Engineering	0	0	0	0	0	0	0	0
VII Plant Protection	5	140	0	140	10	0	10	150
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	1	30	0	30	0	0	0	30
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**13**	**250**	**110**	**360**	**20**	**10**	**30**	**390**
(B) RURAL YOUTH	1	0	25	25	0	5	5	30
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**16**	**290**	**135**	**425**	**30**	**15**	**45**	**470**

Off Campus

(A) Farmers & Farm Women	No. of couses	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	3	135	10	145	5	0	5	150
II Horticulture	1	40	0	40	10	0	10	50
III Soil Health and Fertility Management	3	110	35	145	5	0	5	150
IV Livestock Production and Management	1	0	45	45	0	5	5	50
V Home Science/Women empowerment	5	0	230	230	0	20	20	250
VI Agril. Engineering	1	30	0	30	0	0	0	30
VII Plant Protection	5	220	15	235	15	0	15	250
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	1	30	0	30	0	0	0	30
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0

XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**20**	**565**	**335**	**900**	**35**	**25**	**60**	**960**
(B) RURAL YOUTH	0	0	0	0	0	0	0	0
(C) Extension Personnel	2	40	0	40	10	0	10	50
Grand Total (A+B+C)	**22**	**605**	**335**	**940**	**45**	**25**	**70**	**1010**

Consolidated (On + Off Campus)

(A) Farmers & Farm Women	**No. of couses**	No. of participant						
		others			SC/ST			Grand Total
		Male	Female	Total	Male	Female	Total	
I Crop Production	5	190	10	200	10	0	10	210
II Horticulture	2	40	30	70	10	0	10	80
III Soil Health and Fertility Management	4	135	35	170	10	0	10	180
IV Livestock Production and Management	2	0	75	75	0	5	5	80
V Home Science/Women empowerment	7	0	280	280	0	30	30	310
VI Agril. Engineering	1	30	0	30	0	0	0	30
VII Plant Protection	10	360	15	375	25	0	25	400
VIII Fisheries	0	0	0	0	0	0	0	0
IX Production of Inputs at site	2	60	0	60	0	0	0	60
X Capacity Building and Group Dynamics	0	0	0	0	0	0	0	0
XI Agro-forestry	0	0	0	0	0	0	0	0
XII Others (Pl. Specify)	0	0	0	0	0	0	0	0
Total (A)	**33**	**815**	**445**	**1260**	**55**	**35**	**90**	**1350**
(B) RURAL YOUTH	1	0	25	25	0	5	5	30
(C) Extension Personnel	4	80	0	80	20	0	20	100
Grand Total (A+B+C)	**38**	**895**	**470**	**1365**	**75**	**40**	**115**	**1480**

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

3.5. Extension Activities (including activities of FLD programmes)

Nature of Extension Activity	**No. of activities**	**Farmers**			**Extension Officials**			**Total**		
		Male	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**
Field Day	8	180	25	205	25	5	30	205	30	235
Kisan Mela	1	300	50	350	40	10	50	340	60	400
Kisan Ghosthi	5	170	20	190	20	14	34	190	34	224
Exhibition	2	150	230	380	40	10	50	190	240	430
Film Show	20	900	400	1300	120	40	160	1020	440	1460
Method demonstration	2	20	15	35	5	5	10	25	20	45
Farmers Seminar	2	100	20	120	40	5	45	140	25	165
Workshop	1	200	100	300	25	10	35	225	110	335
Group meetings	6	60	15	75	25	15	40	85	30	115
Lectures delivered as resource persons	25	3500	700	4200	1200	450	1650	4700	1150	5850

Newspaper coverage	5	0	0	0	0	0	0	0	0	0
Radio talks	1	0	0	0	0	0	0	0	0	0
TV talks	1	0	0	0	0	0	0	0	0	0
Popular articles	3	0	0	0	0	0	0	0	0	0
Extension Literature	14	1200	100	1300	600	50	650	1800	150	1950
Advisory Services	10	100	10	110	50	10	60	150	20	170
Scientific visit to farmers field	20	120	10	130	30	2	32	150	12	162
Farmers visit to KVK	25	550	250	800	200	120	320	750	370	1120
Diagnostic visits	5	30	5	35	5	2	7	35	7	42
Exposure visits	1	30	0	30	10	0	10	40	0	40
Ex-trainees Sammelan	1	20	5	25	4	1	5	24	6	30
Soil health Camp	1	100	20	120	30	20	50	130	40	170
Animal Health Camp	1	50	10	60	20	5	25	70	15	85
Agri mobile clinic	1	3000	100	3100	350	50	400	3350	150	3500
Soil test campaigns	1	60	0	60	12	0	12	72	0	72
Farm Science Club Conveners meet	1	50	0	50	4	0	4	54	0	54
Self Help Group Conveners meetings	1	12	5	17	3	2	5	15	7	22
MahilaMandals Conveners meetings	4	8	30	38	4	25	29	12	55	67
Celebration of important days (specify)	3	400	150	550	60	80	140	460	230	690
Krishi Mahotsav	5	0	20	20	0	20	20	0	40	40
KrishiRath	3	40	0	40	20	0	20	60	0	60
Pre Kharif workshop	3	80	0	80	30	0	30	110	0	110
Pre Rabi workshop	4	100	20	120	15	3	18	115	23	138
PPVFRA workshop	1	20	10	30	10	5	15	30	15	45
Any Other (Specify)	5	220	20	240	90	10	100	310	30	340
Total	**192**	**11770**	**2340**	**14110**	**3087**	**969**	**4056**	**14857**	**3309**	**18166**

3.6 TARGET FOR PRODUCTION AND SUPPLY OF TECHNOLOGICAL PRODUCTS

SEED MATERIALS

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

PLANTING MATERIALS

Sl. No.	Crop	Variety	Quantity (Nos.)
FRUITS	Jamun, Guava, custard apple		100
SPICES			
VEGETABLES	Brinjal, Tomato, Chili	GJLB-3,4	1500
FOREST SPECIES			100
		Total	**1700**

Bio-products

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

LIVESTOCK

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

4. Targets of samples for analysis:

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

5. ACTION PLAN OF INFRASTRUCTURE IN KVK

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

Sl. No.	Demo Unit	Year of establishment	Area (ha)	Details of production (expected)			Expected Amount (Rs.)		Remarks
				Variety	Produce	Qty.	Cost of inputs	Gross income	
1	Crop Cafeteria	Every year	0.5	-	-	-	20000	-	
2	Vermicompost	2008	0.1	-	-	-	10000	20000	
3	Animal unit	2007	-	Gir	-	-	100000	120000	

4	Nursery	2012	0.05	Sapling	1700	No	20000	30000	

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

Name of the crop	Area (ha)	Details of production (expected)			Expected Amount (Rs.)		Remarks
		Variety	Type of Produce	Qty. (Qtl)	Cost of inputs	Gross income	
Cereals							
Wheat	2	GW-463	Truthful	75	50000	225000	
Pulses							
Green gram	2	GM-4	Truthful	7.5	38000	67500	
Oilseeds							
Groundnut	4	GJG-9	Breeder	55	320000	700000	
Groundnut	3.5	GJG-31	Breeder	40	280000	800000	
Sesame	2	G.Til.-5	TF	6	40000	115000	
Fibers							
Spices & Plantation crops							
Floriculture							
Fruits							
Vegetables							
Others (specify)							

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

S.No.	Name of the agency / scheme	Name of activity	Technical programme with quantification	Financial outlay (Rs.)	Names of the team members involved
1	DAMU	Farmers meeting for awareness	10	200000	Dr. K. P. Baraiya A. V. Savaliya
		weather based agro advisory	105		

Annexure - I

TRAINING PROGRAMMES

i) Farmers & Farm women (On Campus)

Date	Clientele	Title of the training programme	Duration in days	Number of participants			Number of SC/ST			G. Total
				M	F	T	M	F	T	
Crop Production										
Quarter-1st	PF	Natural farming in Rabi crop	1	30	0	30	0	0	0	30
Quarter-4th	PF	Integrated farming system	1	25	0	25	5	0	5	30
Horticulture										
Quarter– 3rd	PF	Production and management Technology of Spices	1	0	30	30	0	0	0	30
Soil Health										
Quarter-2nd	PF	Importance of Soil and water testing	1	25	0	25	5	0	5	30
Livestock prod.										
Quarter-2nd	PF	Dairy Management and Value addition of milk	1	0	30	30	0	0	0	30
Home Sc.										
Quarter-1st	PF	Value addition in fruits, vegetables and agriculture produce for doubling farmers income	1	0	20	20	0	10	10	30
Quarter-4th	PF	Health benefits of millets and value addition in millets	1	0	30	30	0	0	0	30
Plan prot.										
Quarter-1st	PF	IPM in vegetable crops: onion & garlic	1	30	0	30	0	0	0	30
Quarter-2nd	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	25	0	25	5	0	5	30
Quarter-3rd	PF	Naturally management of pest and diseases in *kharif* crops	1	30	0	30	0	0	0	30
Quarter-4th	PF	Integrated Disease and pest management through natural farming in Rabi crop	1	25	0	25	5	0	5	30
Quarter-4th	PF	Store grain pests and its management for reduction the storage loss	1	30	0	30	0	0	0	30
Fisheries										
Production of Inputs at site										

Quarter-4th	PF	Production of Vermi-compost and inputs for natural farming	1	30	0	30	0	0	0	30
		Total	**13**	**201**	**97**	**298**	**19**	**13**	**32**	**330**

ii) Farmers & Farm women (Off Campus)

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

Quarter-3rd	PF	House hold food security by kitchen gardening and nutrition gardening	1	0	40	40	0	10	10	50
Quarter-4th	PF	Nutritional Value of Millets and design of Low/ Minimum cost diet	1	0	45	45	0	5	5	50
Agril. Engineering										
Quarter-3rd	PF	Installation and Maintenance of micro irrigation system	1	30	0	30	0	0	0	30
Plan prot.										
Quarter-1st	PF	IPM in vegetable crops: onion & garlic	1	50	0	50	0	0	0	50
Quarter-1st	PF	Storage techniques for pest management and reduction the storage loss	1	45	0	45	5	0	5	50
Quarter-2nd	PF	Management of pink bollworm in cotton & management of white grub in groundnut and other kharif crops	1	45	0	45	5	0	5	50
Quarter-3rd	PF	Pest and disease management in *kharif* crops through natural farming	1	40	10	50	0	0	0	50
Quarter-4th	PF	Integrated Disease and pest management in Rabi crop	1	40	5	45	5	0	5	50
Fisheries										
Production of Inputs at site										
Quarter –3rd	PF	Bio pesticides production	1	30	0	30	0	0	0	30
Soil Health										
Quarter-2nd	PF	Use of Bio fertilizer & recycling of farm	1	45	0	45	5	0	5	50

		waste through composting								
Quarter-3rd	PF	Integrated nutrient management in Kharif crop	1	25	25	50	0	0	0	50
Quarter-4th	PF	Improvement of soil fertility through balance use of fertilizer	1	40	10	50	0	0	0	50
			20	**565**	**335**	**900**	**35**	**25**	**60**	**960**

ii) Vocational training programmes for Rural Youth

Crop / Enterprise	Identified Thrust Area	Training title*	Month	Duration (days)	No. of Participants			SC/ST participants			G.Total
					M	F	T	M	F	T	
Value addition	women Empowerment	Value addition in fruits and vegetables	Feb	4	0	25	25	0	5	5	30

iii) Training programme for extension functionaries

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

Quarter and discipline wise summary of training programme :

Discipline	Subject Code	On-Campus					Off-Campus					GT
		Quarter					Quarter					
		I	II	III	IV	Total	I	II	III	IV	Total	
(A) Farmers & Farm Women, Rural Youth												
I Crop Production	CP	1			1	**2**	1	1		1	**3**	**5**
II Horticulture	HO			1		**1**				1	**1**	**2**
III Soil Health and Fertility Management	SFM		1			**1**		1	1	1	**3**	**4**
IV Livestock Production and Management	LPM		1			**1**	1				**1**	**2**
V Home Science/Women empowerment	WOE	1			1	**2**	2	1	1	1	**5**	**7**
VI Agril. Engineering	AEG					**0**			1		**1**	**1**
VII Plant Protection	PLP	1	1	1	2	**5**	2	1	1	1	**5**	**10**
VIII Fisheries	FIS					**0**					**0**	**0**
IX Production of Inputs at site	PI				1	**1**			1		**1**	**2**
X Capacity Building and Group Dynamics	CBD					**0**					**0**	**0**
Total		3	3	2	5	**13**	6	4	5	5	**20**	**33**
(B) Extension Functionaries	EF		1		1	**2**		1		1	**2**	**4**
(C) Rural youth	RY	1				**1**					**0**	**1**
Total		**4**	**4**	**2**	**6**	**16**	**6**	**5**	**5**	**6**	**22**	**38**

iv) Sponsored programme

Discipline	Sponsoring agency	Clientele	Title of the training programme	No. of course	No. of participants			Number of SC/ST			G. Total
					M	F	T	M	F	T	
a) Sponsored training progdramme											
AEG	ATMA	PF	Importance of MIS	2	80	0	80	20	0	20	100
PLP	ATMA	PF	Kharif crop protection and production technology	3	100	40	140	10	10	20	160
SFM, AEG	AGAKHAN	PF	INM and MIS in rabi crops	2	50	50	100	5	5	10	110
PLP	DAO	PF	Integrated pest and diseases management in cumin	1	60	0	60	0	0	0	60
PLP	ATMA	PF	IPM & IDM in groundnut, cotton crops	1	55	0	55	5	0	5	60
PLP	DAO	PF	IPM, IDM, INM in groudnnut and cotton	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP	Dy.D.Hort.	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	IPM, IDM, INM in Horticultural Crops	1	55	0	55	5	0	5	60
PLP	DWDU	PF	IPM & IDM in kharif crop	1	55	0	55	5	0	5	60
PLP, CP	ATMA	PF	Seed Production technology and IPM in these crops	1	55	0	55	5	0	5	60
PLP	ATMA	PF	Storage Techniques and IPM in summer crops	1	0	55	55	0	5	5	60
			Total	16	675	145	820	70	20	90	910
b) Sponsored research programme											
			Total								
c) Any special programmes											
SFM	ATMA	PF	World Soil health day	1	50	50	100	10	10	20	120
WOE	ATMA	PF	Mahila Krushi Divas	1	0	100	100	0	20	20	120
			Total	2	50	150	200	10	30	40	240

Annexure - II

Details of Budget Estimate (2023-24) based on proposed action plan

S. No.	Particulars	BE 2023-24 proposed (Rs.)
25.1	**Recurring Contingencies**	
25.1.1	**Pay & Allowances**	**130**
25.1.2	**Traveling allowances**	**2**
25.1.3	**Contingencies**	**35**
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	
B	POL, repair of vehicles, tractor and equipment	
C	Meals/refreshment for trainees (ceiling up to Rs.40/day/trainee be maintained)	
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstrations in a year)	
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	
G	Training of extension functionaries	
H	Maintenance of buildings	
I	Establishment of Soil, Plant & Water Testing Laboratory	
J	Library	
25.1	**TOTAL Recurring Contingencies**	**167**
25.2	**Non-Recurring Contingencies**	
25.2.1	**Works**	50
25.2.2	**Equipment including SWTL & Furniture**	
25.2.3	**Vehicle** (Four-wheeler/Two-wheeler, please specify)	15
25.2.4	**Library** (Purchase of assets like books & journals)	1
25.2	**TOTAL Non-Recurring Contingencies**	**66**
25.3	**REVOLVING FUND**	
25.4	**GRAND TOTAL**	**226**

Annexure-III

On going Technical Project Proposal 1 (Home Science)

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