

## ANNUAL PROGRESS REPORT-2022 (Jan-2022 to Dec-2022)

### KRISHI VIGYAN KENDRA JUNAGADH AGRICULTURAL UNIVERSITY, PIPALIA

#### 1. GENERAL INFORMATION ABOUT THE KVK

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

Address	Telephone	e-mail	Web Address
Krishi Vigyan Kendra, Junagadh Agricultural University, Pipalia (Dhoraji) Dist: Rajkot, Gujarat	02824-292584	kvkpipalia@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 (Gujarat)	0285- 2672080	0285- 2672653	-	www.jau.in

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

Name	Telephone /Contact		
	Residence	Mobile	e-mail
Dr. N. B. Jadav	“Spandan” Block No. 28, Noble City, Zanzarda Road, Junagadh	09924012649	dr_nbjadav@jau.in

##### 1.4 Year of sanction: 16, March-2012

##### 1.5 Staff Position (as on Jan, 2023)

S. N	Sanctioned post	Name of the incumbent	Discipline	If Permanent, Pls indicate		Date of joining
				Current Pay Band	Basic Pay	
1.	Senior Scientist and Head	Dr. N. B. Jadav	Extn. Education	131400-217100	152300	18.08.06
2.	Subject Matter Specialist	M.K.Chudasama	Plant Protection	57700-182400	68800	18.1.2017
3.	Subject Matter Specialist	Dr. V. S. Prajapati	LPM	57700-182400	70900	01.04.15
4.	Subject Matter Specialist	A.R Parmar	Horticulture	57700-182400	68800	17.01.17
5.	Subject Matter Specialist	Dr. Mamta Kumari	Home Science	57700-182400	73000	01.04.13
6.	Subject Matter Specialist	Vacant	Agronomy	-	-	-
7.	Subject Matter Specialist	Vacant	Extension	-	-	-
8.	Programme Assistant	P D Chaudhary	M.Sc.(Agri)	9300-34800 (38090/- fix)		04.08.18
9.	Computer Programmer	R. G.Panseriya	Com. Operater	44900-142400	53600	31.12.13
10.	Farm Manager	K D Chaudhari	B.Sc.(Agri)	9300-34800 (38090/-fix)		27.07.18
11.	Accountant/ Superintendent	K. G.Dhaduk	Accounting & Admins.	44900-142400	53600	12.06.13
12.	Stenographer	K. R. Yadav	Steno.Grade III	25500-81100	36500	06.02.14
13.	Driver 1	Vacant	-	-		-
14.	Driver 2	Vacant	-	-		-
15.	Supporting staff 1	Vacant	-	-		-
16.	Supporting staff 2	L.B. Chavda	-	25500-81100	35000	13.12.89

**1.6. Total land with KVK (in ha): 20.00 ha**

Sl. No.	Item	Area in hectare(s)*
1	Under Building and Road	-
2	Under Demonstration units	-
3	Under crops	18.00
4	Orchard	-
5	Agro-forestry	-
6	Others	2.00
	<b>Total</b>	<b>20.00</b>

**1.7. Infrastructural Development:****A) Buildings**

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Completion Date	Plinth area (Sq.m)	Expenditure (Rs.)	Starting Date	Plinth area (Sq.m)	Status of construction
1.	Administrative Building	-	-	-	-	Jun 2022	-	Under construction
2.	Farmers Hostel	-	-	-	-	-	-	
3.	Staff Quarters (6)	-	-	-	-	-	-	
4.	Demonstration Units	-	-	-	--	-	-	-
5	Fencing	-	-	-	-	-	-	-
6	Rain water harvesting system	-	-	-	-	-	-	-

**B) Vehicles**

Type of vehicle	Year of purchase	Cost (Rs.)	Working Hrs/kms	Present status
Jeep (Bolero)	2013	661107	90348 Kms	Working
Mahindra Tractor	2013	565000	4524 hrs	Working
Mini Tractor (Mahindra)	2016	248000	-	Working
John Deere Tractor	2021	676415	224 hrs	Working

**C) Equipment & AV aids**

Name of the equipment / Implements	Year of purchase	Cost (Rs.)	Present status
Cultivator (9 tine)	2013	19000	Working
Blade Harrow	2013	11500	Working
Automatic seed drill	2016-17	37619	Working
Mini tractor drawn spray pump	2016-17	69500	Working
Rotavator	2016-17	91245	Working
Reversible MB Plough	2016-17	37500	Working
Pusa STFR meter kit (WST-312P)	2016-17	80600	Working
Mridaparikshak soil testing mini lab	2016-17	90300	Working

**1.8. Details of SAC meeting conducted in the year (10<sup>th</sup> SAC Meeting)**

S.N	Date	No. of Parti	Salient Recommendations	Action taken
1	10-3-2022	28	1. Conduct pesticide trainings to educate farmers about the dangers of using banned pesticides.	2 training were arranged with collaboration with AFFPRO organization
			2. Increase number of collaborative and other trainings for more impact.	13 trainings were in collaboration with other local agencies.
			3. Establish a demonstration plot of natural farming at the KVK.	A demo plot for natural farming is established & monitored at KVK instructional farm.
			4. For FLD in cotton (IPM), 2 traps per hectare to be replaced with 6 traps.	Suggestion accepted & implemented
			5. Effort to form farmer producer organization (FPO).	Suggestion accepted & work is in progress
			6. Sign a MOU with local organizations for wider impact of KVK initiatives	Suggestion accepted & work is in progress

**2.DETAILS OF DISTRICT****2.1 Major farming systems/enterprises (based on the analysis made by the KVK)**

S. N	Farming system/enterprise
1	Groundnut-Wheat/Coriander, Cumin, Garlic, Cotton-Summer Groundnut/Pulse crop/Sesame
2	Live stock
3	Farm waste management specially cotton stalk
4	Fruit and vegetable preservation
5	Value addition in Groundnut and wheat

**2.2 Description of Agro-climatic Zone & major agro ecological**

S. N	Agro-climatic Zone	Characteristics
Zone-VI	North Saurashtra	The influence area of North Saurashtra Agro climatic Zone is spread among five districts (35.2 lakh Ha). Out of total area 73.40 per cent area falls under arid and semi-arid region. The soils of this zone are shallow to moderately deep. The soils of Rajkot district are medium black and low in their availability of nitrogen while medium phosphorus and high in available potash. Monsoon commences usually by the end of June and withdraws by middle of September. Average annual rainfall of districts is 1141.2 mm.
Zone-VII	South Saurashtra	The influence area of South Saurashtra Agro-climatic Zone is spread among four districts. (Part of Rajkot, Bhavnagar, Amreli and whole district of Junagadh). Type of soil is shallow medium black calcareous soils. Soil are medium to high in nitrogen content, phosphorus low and potash high. Average annual rainfall of the zone is 625-750 mm.

**Agro – Ecological situation in the District**

Sr. No.	Agro Ecological Situation	Characteristics	Taluka covered	Remarks
1	Situation No. 2	Medium Black Soil with 500-600 mm Rainfall	Gondal, Jamkandorna	North Saurashtra Zone, Zone-VI
2	Situation No.4	Shallow Black Soil with 500-600 mm Rainfall	Lodhika, Kotadasangani	
3	-	Shallow medium black soil with 620-750 mm Rainfall	Jetpur, Dhoraji, Upleta	South Saurashtra Zone, Zone-VII

**2.3 Soil type**

S.No.	Soil type	Characteristics
1	Clay to clay loam	Medium black calcareous soil
2	Sandy clay loam to clayey	Well drained soil with rapid permeability
3	Sandy to sandy 10 cm calcareous	Well drained soils

**2.4 Area, Production and Productivity of major crops cultivated in the district**

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
<b>Kharif</b>				
1	Groundnut	142313	248148	17.16
2	Cotton	114141	217036	20.40
3	Sesame	765	726	9.524
4	Castor	5468	12190	22.136
5	Green Gram	785	709	9.04
6	Red Gram	2830	5484	19.91
7	Soyabean	2380	2835	9.52
<b>Rabi</b>				
8	Wheat	74535	315037	42.64
9	Chickpea	29536	69498	23.288
10	Cumin	5582	5690	8.454
11	Coriander	20340	28825	14.12
12	Garlic	2713	20360	74.046
13	Onion	5849	157071	261.966
<b>Summer</b>				
14	Groundnut	1523	3751	24.64
15	Millet	345	1087	34.95
16	Green gram	801	1130	13.84
17	Sesame	2601	4291	16.32
18	Onion	385	11503	295.875

Source: District agriculture department.

**2.5. Weather data (2022)**

Month	Rainfall (mm)	Temperature 0 C		Relative Humidity (%)	
		Maximum	Minimum	Maximum	Minimum
January	00	-	-	-	-
February	00	-	-	-	-
March	00	-	-	-	-
April	00	-	-	-	-
May	00	-	-	-	-
June	40	-	-	-	-
July	339	-	-	-	-
August	291.5	-	-	-	-
September	150	-	-	-	-
October	00	-	-	-	-
November	00	-	-	-	-
December	00	-	-	-	-
<b>Total</b>	<b>820.5</b>	-	-	-	-

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

Category	Population	Production	Productivity
<b>Cattle</b>			
Cow	515003	1150 lit /lactation	4.60 lit / day

<b>Buffalo</b>	430795	1390	5.26 lit/day
<b>Sheep</b>	192994	-	-
<b>Goats</b>	171515	-	-
<b>Pigs</b>	-	-	-
<i>Crossbred</i>	-	-	-
<i>Indigenous</i>	-	-	-
<b>Rabbits</b>	212	-	-
<b>Poultry</b>			
Hens		100 eggs /year	-
<i>Desi</i>	9988	140 eggs /year	-
<i>Improved</i>	13527		-
<b>Category</b>		Production (Q.)	Productivity
Fish (Reservoir)			

### 2.7 Details of operational area (Villages)

Taluka	Name of the block	Name of the village	Major crops & enterprises	Major problem identified	Identified Thrust Areas
Dhoraji	Dhoraji	NaniParabadi	Groundnut, Cotton, Sesamum, Wheat, Cumin, Coriander, Chickpea, Garlic and onion. Enterprise are dairy business, vermicomposting	- Infestation of pink bollworm in cotton -Sucking pest in all crops - Stem rot disease in groundnut -Coriander& Chickpea wilt - Less area under horticultural crops -Infertility in livestock	- IPM, IDM and INM in major crops - Motivate the farmers for horticulture crop - To create awareness for value addition - Popularization of MIS - Create awareness of artificial insemination
		Patanvav			
Jetpur	Jetpur	Amrapur			
		Mandlikpur			
Jamkadorana	Jamkadorana	Jasapar			
		Nani Dhudhivadar			
		Sanala			
Upleta	Upleta	Nagvadar			
		Talangana			
Gondal	Gondal	Daliya			
		Shemla			
		Bhojpara			

### 2.8 Priority thrust areas

S.N	Crop/ Enterprise	Thrust area
1.	Groundnut, Sesame etc.	Increase productivity of crops by adopting recommended practices in integrated pest management & IDM (Management of white grub and stem rot)
2.	Cotton	-Integrated pest management (management of pink bollworm in Bt. cotton) & INM in cotton -Recycling of cotton stalk (Popularizing of cotton shredder)
3.	Coriander, Sesame, etc.	Increasing the productivity of major crops by adopting recommended technologies, newly release variety and to create awareness of value addition
4.	Cumin	Integrated disease and pest management
5.	Farm waste	Recycling of farm waste through composting, Vermicomposting, green manuring, etc.
6.	Micro irrigation	Efficient use of water by micro irrigation system, water harvesting structure, and water conservation techniques
7.	Farm Women	Farm women empowerment by training in value addition, handicrafts, and small scale enterprises
8.	Horticulture(Papaya, Pomegranate, Chilly etc)	Postharvest technology and value addition in fruit and vegetable, INM, canopy management in orchard

9.	Animal Husbandry	Increasing the productivity of livestock animals by adopting scientific practices and to create awareness about clean milk production
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### 3. TECHNICAL ACHIVEMENT

#### 3. A. Achievement on technology assessed and refined during 2022

OFT				
Year-2022	Number of OFTs		Number of Farmers	
	Targets	Achievement	Targets	Achievement
OFT	6	6	20 (30 Animal)	20 (30 Animal)

FLD	Area of FLD (ha)		No. of Farmers	
	Targets	Achievement	Targets	Achievement
<b>Summer -2022</b>				
Sesame	4	4	10	10
<b>Total (A)</b>	<b>4</b>	<b>4</b>	<b>10</b>	<b>10</b>
<b>Rabi-2021</b>				
Wheat	4	4	10	10
Chick pea	4	4	10	10
Cumin	4	4	10	10
Tomato (Seedling plug tray)	5.6	5.6	14	14
Brinjal (seedling Plug tray)	4	4	10	10
Tomato (INM)	4	4	10	10
Brinjal (GRB-7)	4	4	10	10
Brinjal (IPM)	4	4	10	10
<b>Total (B)</b>	<b>33.6</b>	<b>33.6</b>	<b>84</b>	<b>84</b>
Animal Husbandry (By pass fat)	-	-	20	20
Animal Husbandry (Bypass protein)	-	-	20	20
Animal Husbandry(Calpar Gold)	-	-	10	10
<b>Total (C)</b>	<b>-</b>	<b>-</b>	<b>50</b>	<b>50</b>
<b>Total (A+B+C)</b>	<b>37.6</b>	<b>37.6</b>	<b>94 (50ah)</b>	<b>94 (50 ah)</b>

FLD	Area of FLD (ha)		No. of Farmers	
	Targets	Achievement	Targets	Achievement
<b>Summer -2023</b>				
Sesame	4	-	10	-
<b>Total (A)</b>	<b>4</b>	<b>4</b>	<b>10</b>	<b>10</b>
<b>Kharif -2022</b>				
Ground nut (IPM) (GG-22)	4	4	10	10
Ground nut (IDM)	4	4	10	10
Groundnut (CFLD, GG-22)	20	20	50	50
Cotton (IPM)	5	5	5	5
Cotton (INM)	4	4	10	10
Tomato(INM)	4	4	10	10
Brinjal (varietal)	4	4	10	10
Vegetable seeds for Kitchen gardening	0.5	0.5	50	50
<b>Total (B)</b>	<b>45.5</b>	<b>45.5</b>	<b>155</b>	<b>155</b>
<b>Rabi-2022</b>				

Wheat	4	4	10	10
Chick pea	4	4	10	10
Cumin	4	4	10	10
Onion (Azoto+PSM)	4	4	10	10
Tomato (INM)	4	4	10	10
<b>Total (C)</b>	<b>20.00</b>	<b>20.00</b>	<b>50</b>	<b>50</b>
Animal Husbandry (By pass fat)	-	-	20	20
Animal Husbandry (Bypass protein)	-	-	20	20
Animal Husbandry(Calpar Gold)	-	-	10	10
Twin Wheel Hoe for weeding	-	-	10	10
<b>Total (D)</b>	<b>-</b>	<b>-</b>	<b>10 (50 AH)</b>	<b>10 (50 AH)</b>
<b>Total (A+B+C+D)</b>	<b>69.5</b>	<b>69.5</b>	<b>225 (50 AH)</b>	<b>225 (50AH)</b>

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					Extension Activities			
3					4			
Number of Courses			No. of Participants		No. of activities		No. of Participants	
Clientele	Targets	Ach.	Targets	Ach.	Targets	Ach.	Targets	Ach.
PF/FW/R Y	47	56	1305	1846	200	238	6000	13365
Voc. Training	2	4	60	146				
Extn. Func.	2	2	50	76				
Spons Trg	12	13	360	823				
<b>Total</b>	<b>63</b>	<b>75</b>	<b>1775</b>	<b>2891</b>	<b>200</b>	<b>238</b>	<b>6000</b>	<b>13365</b>

### 3.B. Abstract of interventions undertaken

S.N	Thrust area	Crop/Enterprise	Identified Problem	Interventions
1.	Integrated Pest Management	Groundnut	White grub infestation	OFT conducted -1 FLDs – 10 No. Training and Diagnostic visit
2.	Improved variety of Groundnut	Groundnut	Low yield and infestation of stem rot	CFLD FLDs : 50 (GJG-22) Training, Advisory service
3.	Integrated Disease Management	Groundnut	Stem rot infestation	FLDs : 10 Training, Diagnostic visit,
4.	Integrated Pest Management	Cotton	Pink Bollworm Infestation	FLDs: 5 (Pheromone trap) Training, Diagnostic visit, Campaign
5.	Integrated Nutrient Management	Cotton	Nutrient deficiency	FLDs : 10 Training, Advisory service
6.	Integrated Nutrient Management	Wheat	Lack of knowledge about INM and Bio-fertilizer.	OFT-1, FLDs:10 Training, Advisory service
7.	IDM in cumin	cumin	Wilt incidence in cumin	FLDs : 10 Training, Advisory services
8.	IDM in chick pea	Chick pea	Low yield of chick pea	OFT-1, FLDs: 10 (GG-5) Training, Advisory Service
9.	Integrated Nutrient Management	Garlic	Low Yield	OFT -1 Training, Diagnostic visit
10.	Improved variety Of Tomato	Tomato	Low Yield & disease occurrence	OFT-1 Training, Diagnostic visit

11	Improved variety (Horticulture)	Brinjal	Low Yield	FLD-10, Brinjal (GRB-5) Training, Advisory service
12.	INM (Horticulture)	Tomato	Low Yield	FLD-10 Training, Advisory Service
13	IPM (Horticulture)	Brinjal	Low yield	FLD Training and advisory service
14	Nutritional security	Farm Women	Concept of kitchen gardening to combat nutritional issues	FLDs : 50 Training
15	Drudgery Reduction	Farm Women	Ease in weeding practices at field	FLD-10 Training
16	Value Addition	Groundnut	Lack of awareness about groundnut milk & its value addition	OFT-1 Training
17	Nutrition Management in Buffalo	Buffalo	Lack of knowledge about nutrition management in Buffalo	OFT:1 Training, Diagnostic visit Advisory Service
18	Nutrition Management in cattle	Cattle	Lack of knowledge about nutrition management in cattle	FLDs: 30 (calcium supplement, Bypass protein & fat)&Training

### 3.1 Achievements on technologies assessed and refined

#### A.1 Abstract of the number of technologies assessed\* in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Com m-ercial Crops	Veget -ables	Fruit s	Flower	Plant -ation crops	Tuber crops	TOTAL
Varietal Evaluation	-	-	-	-	1	-	-	-	-	1
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed/Thinning Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	1	-	-	-	-	1
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	1	-	-	-	-	-	-	-	1
Integrated Pest Management	-	1	-	-	-	-	-	-	-	1
Integrated Disease Management	-	-	1	-	-	-	-	-	-	1
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	2	1	-	2	-	-	-	-	5

#### A.2. Abstract of the number of technologies refined\* in respect of crops/enterprises

Thematic areas	Cereals	Oilseeds	Pulses	Comm-ercial Crops	Veget -ables	Fruit s	Flower	Plant -ation crops	Tuber Crops	TOTAL
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	-	-	-	-	-	-	-	-	-	-
Integrated Farming System	-	-	-	-	-	-	-	-	-	-

Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Post-Harvest Technology	-	-	-	-	-	-	-	-	-	-
Integrated Pest Management	-	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-	-	-

**A.3. Abstract of the number of technologies assessed in respect of livestock / enterprises**

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggery	Rabbitary	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	1	-	-	-	-	-	-	1
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>1</b>	-	-	-	-	-	-	<b>1</b>

**A.4. Abstract on the number of technologies refined in respect of livestock / enterprises**

Thematic areas	Cattle	Poultry	Sheep	Goat	Piggey	Rabbit	Fisheries	TOTAL
Evaluation of Breeds	-	-	-	-	-	-	-	-
Nutrition Management	-	-	-	-	-	-	-	-
Disease of Management	-	-	-	-	-	-	-	-
Value Addition	-	-	-	-	-	-	-	-
Production and Management	-	-	-	-	-	-	-	-
Feed and Fodder	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-
<b>TOTAL</b>	-	-	-	-	-	-	-	-

\* Technology that is refined in collaboration with ICAR/SAU Scientists for improving its effectiveness.

**3.B2 List of Technology Assessed during- 2022**

S. No	Thematic area	Name of the technology assessed	Area (ha.)	No. of trials	Re- marks
1	Integrated Pest Mgt	Integrated Pest Management	1.5	3	-
2	Integrated Nutrient Management	Use of Bio-agents and fungicides	1.5	3	-
3	Feed management	Nutritional management of milch animals	-	30	-
4	Improved Variety	Use of new release variety	1.2	3	-
5	Integrated Nutrient Management	Integrated Nutrient Management	1.2	3	-
6	Drudgery reduction	Twin wheel hoe for weeding practices	-	10	-
7	Value Addition	Groundnut milk & its value addition	-	5	-

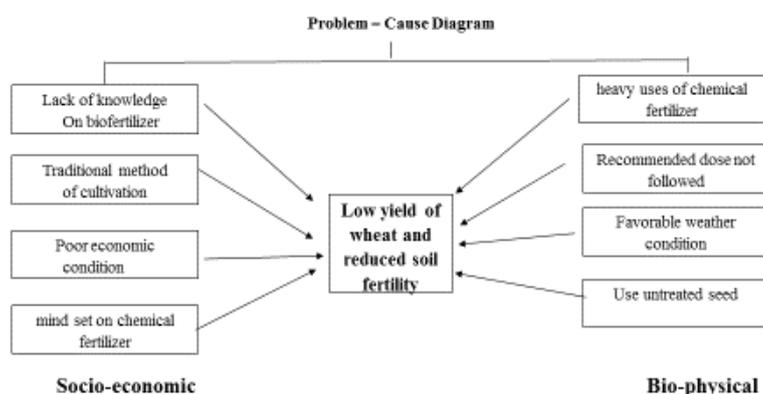
**3.B3 List of Technology Refined during - 2022**

S. No	Thematic area	Name of the technology refined	Area (ha.)	Number of trials	Remarks if any
-	-	-	-	-	-

**B. DETAILS OF ON FARM TRIALS CARRIED OUT ON FARMER'S FIELD (2021)****OFT-1: ASSESSMENT OF RESPONSE OF BIO FERTILIZERS TO WHEAT YIELD****1. Introduction: -**

In Rabi season the area of wheat cultivation in Rajkot district is higher after coriander crops as compare to other crops. due to cannel facilities in this area the production and productivity is higher.

But the continues use of chemical fertilizer in this crops the productivity is decreasing day by day and cost of cultivation increased. High uses of chemical fertilizer in crops the soil fertility also reduced. In this situation the KVK decide to increase uses of bio fertilizer to reduce cost of cultivation and increase soil fertility as well as quality and quantity of wheat yield.

**2. Problem definition : Reduce yield and soil fertility****3. Problem cause diagram :****4. Intervening point : Response of Bio fertilizers to wheat yield****5. Crop : Wheat****6. Season/Year : Rabi 2020-21****7. Plot size :- 0.4 ha****8. No. of Replication: 3 (Farmer)****9. Cost: Rs. 600 /-****10. Source of technology: Junagadh Agricultural University, Junagadh****11. Treatments:**

**Farmer's practice:** -Application of only DAP & Urea in different doses

**Recommended practice:** -120-60-0 NPK kg/ha

**Intervention:** -Application of Azatobacter & PSB culture (250g/10kg) + 75% of RDF

**12. Observations and results:**

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	5083	42635	1:1.72
Recommended practices	5250	48268	1:1.85
Intervention	5625	54818	1:1.95

Crop	Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio (H)
	F.P.	Rec. Pra.	Int.	F.P.	Rec. Pra.	Int.	F.P.	Rec. Pra.	Int.	
Wheat	59032	56732	57682	101667	105000	112500	42635	48268	54818	1:1.95

**OFT-2: ASSESSMENT OF MICRO NUTRIENT IN GARLIC**

1. **Problem definition:** Low yield due micro nutrient deficiency
2. **Treatments:**
  1. **Farmer's practices:** Application of only DAP and Urea in different Doses
  2. **Recommended practices:** Recommended dose of Fertilizer. RDF 50-50-50 (N-P-K) Kg/ha.
  3. **Intervention:** Apply foliar spray of multi-micronutrient formulation Grade IV (Fe-Mn-Zn-Cu-B, 4.0-1.0-6.0-0.5-0.5 %) @ 1% at 60, 75 and 90 DAS in addition to recommended dose of fertilizers (50-50-50 N-P<sub>2</sub>O<sub>5</sub>-K<sub>2</sub>O kg/ha)

**3. Results:**

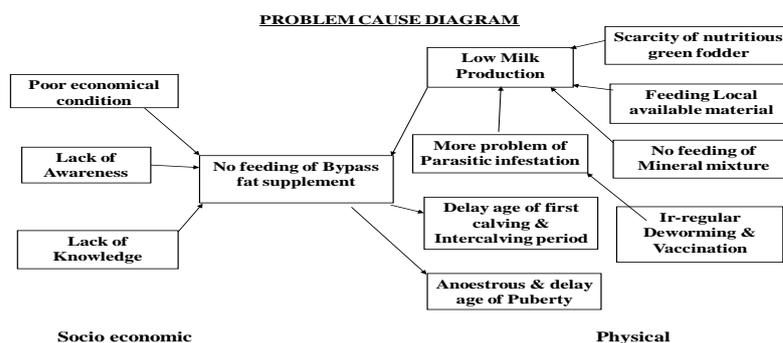
Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	7167	32500	1:1.43
Recommended practices	7333	40000	1:1.57
Intervention	7750	45643	1:1.65

**Economic Impact (Continuation of previous table)**

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio
F.P.	Rec. Pra.	Int.	F.P.	Rec. Pra.	Int.	F.P.	Rec. Pra.	Int.	
75000	70000	70607	107500	110000	116250	32500	40000	45643	1:1.65

**OFT-3: EFFECT OF CONCENTRATE AND BYPASS FAT FEEDING ON MILK PRODUCTION IN GIR CATTLE.**

1. **Problem definition:**
  - ✓ Lack of knowledge about bypass fat feeding technology
  - ✓ Low milk production due to improper feeding
  - ✓ Lack of energy for milk production

**2. Problem cause diagram****3. Performance of the technology with performance indicators:****Treatments:**

- ❖ T1- Farmers practice (Green fodder, dry fodder, cottonseed cake)
- ❖ T2- T1+Concentrate (1.5 kg/cow/day for maintenance + 500 gm for each lit. milk production)
- ❖ T3- T1 +T2+Bypass Fat (@50-100 gm/cow/day)

**Detail of OFT programme:**

- ❖ No. of villages- 5
- ❖ No. of animals- 30 (10 animals/Treatment)
- ❖ Each animal will be in similar physiological condition (age, lactation yield etc.)

**4. Parameters to be evaluated/ recorded:**

- ✓ Milk production (lit./cow/day)

- ✓ Fat percentage
- ✓ B:C ratio
- ✓ Net return

## 5. Results:

Technology Assessed	Parameters of assessment	Data on the parameter	Results of assessment	Feedback from the farmer	B:C ratio
T1: Routine Farmer Practice (10 kg dry fodder+15 kg green fodder+ Groundnut cake)	Milk production at 0, 2, 4, 6, 8, 10 and 12 weeks (lit. / day) (10 animals/treatment)	Milk prod. at week (Lit./Day) 0 = 6.0 2 = 6.2 4 = 6.3 Ave: 6.5 lit/day 6 = 6.6 8 = 6.7 10 = 6.8 12 = 6.9	Increase milk production in Concentrate alone (T <sub>2</sub> ) and (T <sub>3</sub> ) fed group	<ul style="list-style-type: none"> <li>• Increase milk production</li> <li>• Reduce reproductive disorder</li> <li>• Reduce intercalving period</li> </ul>	1:1.8
T2: T1+Concentrate (5 Kg/animal/day) (Recommended practice)		Milk prod. at week (Lt./Day) 0 = 7.4 2 = 7.6 4 = 7.7 Ave: 8.17 lit/day 6 = 8.2 8 = 8.5 10 = 8.8 12 = 9.0			1:2.45
T3:T1+T2+Bypass Fat (50 gm/cow/day)		Milk prod. at week(Lt./Day) 0 = 7.4 2 = 8.4 4 = 8.7 6 = 8.2 Ave: 8.7 lit/day 8 = 8.7 10 = 9.6 12 = 9.9			1:2.96

## DETAILS OF ON FARM TRIALS CARRIED OUT ON FARMER'S FIELD (2022)

### OFT-1

#### 1. TITLE: BIOLOGICAL CONTROL OF WHITE GRUB IN GROUNDNUT

2. **Problem definition:** Low yield due to white grub infestation in groundnut

#### 3. Details of technologies selected:

Rajkot district covered large area in Groundnut cultivation. But this crop suffers mainly from white grub pest from last five years, the farmers use number of costly chemical for control of white grub in groundnut and increase cost of cultivation. Nowadays recommended biological input also available for management of white grub in groundnut. Hence, this will make with on farm testing.

#### 4. Treatments:

##### Farmer's practice:

1. Soil application of chloropyriphos @ 4 liter/ha. with irrigation water at the time of attack

##### Recommended practice:

1. Soil application of Metarhizium anasopli 1.5% WP @ 5.0 kg/ha along with castor cake 300 kg/ha before sowing
2. Drenching of Metarhizium anasopli 1.5% WP @ 75 g/15 liter of water, in plant rows after 30 days of germination

##### Intervention:

1. Seed treated with Chloropyriphos @ 15 ml/kg at the time of sowing

2. Drenching of Metarhizium anasopli 1.5% WP @ 75 g/15 liter of water, in plant rows after 30 days of germination

**5. Observations:** Yield, Economics (B:C ratio) & Infestation (%)

**6. Results:**

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	2375	75960	1:2.14
Recommended practices	2750	99210	1:2.51
Intervention	2500	84460	1:2.29

#### White grub infestation (Observation)

	Percent plant damage and No of white grub per 1 meter row length						Percent pod damage per plant
	35 DAS		60 DAS		90 DAS		
	No. of White grub	No of Damage plant	No. of White grub	No of Damage plant	No. of White grub	No of Damage plant	
<b>Rec. prac.</b>	1	1	3	2	5	4	3.25
<b>Far. Prac.</b>	7	5	10	7	15	9	18.35
<b>Intervention</b>	2	2	4	4	6	5	7.31

#### Economic Impact (Continuation of previous table)

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio
Far prac.	Rec. prac	Inter vention	Far prac	Reco. prac	Inter vention	Far prac	Reco. prac	Inter vention	
66540	65790	65540	142500	165000	150000	75960	99210	84460	1:2.51

#### OFT-2.TITLE: MANAGEMENT OF WILT DISEASE IN CHICKPEA

**1. Problem definition:** Low yield due to wilt incidence in chickpea

**2. Details of technologies selected:**

Cultivation of chickpea in Rajkot district was increase day by day from last three years. But this crop suffers mainly from wilt disease. The farmers use number of unnecessary and costly chemical but not effectively manage wilt in chickpea. The new recommendation of chemical seed treatment with biological input was made for manage wilt in chickpea. Hence, this will make with on farm testing.

**3. Treatments:**

##### Farmer's practice:

Seed treated with carbendazim @ 3.0 gram/kg. Seed at the time of sowing

##### Recommended practice:

1. Seed treated with carbendazim 1.0 gram + Thirum 2.0 gram/kg. Seed at the time of sowing
2. Soil application of Trichoderma viride @ 2.5 kg/ha. Along with 250 kg castor cake at the time of sowing

##### Intervention:

Soil application of copper oxychloride @ 1.5 kg/ha. Along with fertilizer at the time of sowing

**4. Observations:** Yield, Economics (B: C ratio)&Disease incidence (%)

**5. Results:** Awaited

**OFT-3 (Horticulture)****Title of OFT: ASSESSMENT OF EFFECT OF VARIETY GT-6 ON YIELD OF TOMATO****Problem Identified:**

1. Lack of knowledge about new variety release.
2. Non availability of recent varieties in market
3. Occurrence of pest and diseases.

**Objective:** To increase yield of Tomato by sowing new release variety

**District:** Rajkot

**Intervention points:** Varietal

**Treatment: Farmer practices:** Sowing of Local Variety

**Recommended practices:** Sowing of Recommended Variety GT -6

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	29375	65687	1:2.01
Recommended practices	32500	85250	1:2.40
Intervention	-	-	-

**Economics**

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio (H)
Farmer practices	Reco. practices		Farmer practices	Reco. practices		Farmer practices	Reco. practices		
65000	61000		130688	146250		65687	85250		1:2.40

**OFT-4****TITLE: ASSESSMENT OF EFFECT OF MICRO NUTRIENT ON YIELD OF GARLIC**

**Problem definition:** Low yield due micro nutrient deficiency

**Treatments: 1. Farmer's practices:** Application of only DAP and Urea in different Doses

**2. Recommended practices:** Recommended dose of Fertilizer. RDF 50-50-50 (N-P-K) Kg/ha.

**3. Intervention: Apply** foliar spray of multi-micronutrient formulation Grade IV (Fe-Mn-Zn-Cu-B, 4.0-1.0-6.0-0.5-0.5 %) @ 1% at 60, 75 and 90 DAS in addition to recommended dose of fertilizers (50-50-50 N-P2O5-K2O kg/ha)

**Observations:** B:C ratio and farmers' perception

**Results:**

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	7500	32500	1:1.43
Recommended practices	7750	40000	1:1.57
Intervention	8125	45643	1:1.65

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio (H)
Farmer prac.	Reco. Prac.	Inter-vention	Farmer prac.	Reco. Prac.	Inter-vention	Farmer prac.	Reco. Prac.	Inter-vention	
75000	70000	70607	107500	110000	116250	32500	40000	45643	1:1.57

**OFT-5: ASSESSMENT OF EFFECT OF CONCENTRATE AND BYPASS FAT FEEDING ON MILK PRODUCTION IN GIR CATTLE****Problem Identified:**

1. Lack of knowledge about bypass fat feeding technology.
2. Low milk production due to improper feeding
3. Lack of energy for milk production

**Technologies assessed:** To improve Milk production and animal health

**Year of assessment :**2019-20

**Source of technology:**NAU, Navsari (2011)

**No. of trials :**30 (10 animal/treatment)

**Critical inputs supplied:** Concentrate and bypass fat powder

**Observations to be recorded:** Milk Yield (Lit/Animal/Day), B:C ratio and Farmers perception

**Results:**

Technology Assessed	Parameters of assessment	Increases in milk prod. (Average) (lit./day)	B:C ratio
T1: Framer's practice (Green and dry fodder -green fodder 20 kg + dry fodder 8 kg/animal/day)	Milk production at 0, 2, 4, 6, 8, 10 and 12 week (lit. / day)	Results awaited	Results awaited
T2: T1 +Concentrate (1.5kg/cow/day for maintenance+500 gm for each lit. milk production)			
T3: T1+T2 + Bypass fat 50 gm/cow/day			

#### **OFT- 6: ASSESSMENT OF ACCEPTANCE OF PEANUT MILK IN COMPARISON TO COW'S MILK AMONG CONSUMERS.**

**Objectives: -**

1. To evaluate the sensory characteristics of Peanut milk parallel to cow's milk
2. To analyze the nutritional properties of both milk.
3. To check the shelf life of the peanut milk.

**Treatments: -**

- I. T1- Cow's milk
- II. T2- Peanut milk
- III. T3- Mixture of both milk in equal ratio

**Observations: -**

1. Sensory characteristics- colour, flavor, taste, overall acceptability
2. Nutritional Properties- Protein, carbohydrate, fat, vitamin & minerals
3. Shelf life- microbiological test and household level test.

**Results:** Awaited

### 3.2 ACHIEVEMENTS OF FRONTLINE DEMONSTRATIONS

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

List of technologies demonstrated during previous year and popularized during 2021-22 and recommended for large scale adoption in the district

S. No	Crop/ Enterprise	Thematic Area*	Technology demonstrated	Details of popularization methods suggested to the Extension system	Horizontal spread of technology		
					No. of villages	No. of farmers	Area in ha
1	Groundnut*	IPM	IPM	FLDs, Field days, Group discussion, Extension lit	8	95	104
2	Groundnut	IDM	Tricho derma	FLDs, Field days, Group discussion, Extension lit	21	234	184
3	Sesame	Varietal	GT-5	FLDs, Field days, Group discussion	5	17	20
4	Chick pea	Varietal	GG-5	FLDs, Personal visit, Training,	35	700	450
5	Wheat	INM	Azoto + PSB	FLDs, Extension literature, Training	11	34	17
6	Cumin	IDM	Tricho-derma	FLDs, Training	9	46	19
7	Cotton	INM	INM	FLDs, Field days, Group discussion	22	145	125
8	Cotton	IPM	IPM	FLDs, Personal visit, Training, Extension literature	10	34	31
10	Tomato	INM	INM	FLDs, Field days, Group discussion	2	10	4
11	Brinjal	INM	INM	FLDs, Field days, Group discussion	5	10	4
12	Onion	INM	INM	FLDs, Field days, Group discussion	3	10	4
13	Tomato (seedling)	Varietal	GT-6	FLDs, Personal visit, Training, Extension literature	4	14	5.6
14	Brinjal (seedling)	Varietal	GRB-7	FLDs, Field days, Group discussion	5	5	2
15	Tomato	INM Kharif	Micro-nutrient	FLDs, Field days, Group discussion	5	10	4
16	Brinjal	Kharif Varietal	GRB-7	FLDs, Field days, Group discussion	5	10	4
17	Brinjal	IPM	Pheromone trap	FLDs, Field days, Group discussion	5	10	4
18	Animal Husbandry	Feed Management	Calcium supplement	FLDs, Personal visit, Training,	16	425	-
19	Farm Women	Drudgery Reduction	Revolving stool- stand	FLDs	5	50	-
20	Farm Women	Household food security	Kitchen Gardening	FLDs, Personal visit, Training,	6	150	4

\* Thematic areas as given in Table 3.1 (A1 and A2)

**b. Details of FLDs implemented during 2022(Information is to be furnished in the following three tables for each category i.e. Oilseed, Pulse and Other)**

Sl. No.	Crop	Thematic area	Technology Demonstrated	Season and year	Area (ha)		No. of farmers/ demonstration			Short fall
					Pro.	Actual	SC/ST	Others	T	
<b>Oilseeds</b>										
1	Groundnut	IDM	Trichoderma	<i>Kharif-22</i>	4	4	2	8	10	-
2	Groundnut	IPM	IPM	<i>Kharif-22</i>	4	4	2	8	10	
3	Sesame	Variety	GT-6	<i>Summer-23</i>	4	-	-	-	-	-
<b>Pulse</b>										
4	Chickpea	Varietal	GG-5	<i>Rabi 22</i>	4	4	2	8	10	-
<b>Others: Cereals</b>										
5	Wheat	INM	Lok - 1	<i>Rabi -22</i>	5	5	3	7	10	-
<b>Others: Vegetables</b>										
6	Tomato	INM	Local	<i>Rabi-22</i>	4	4	2	8	10	-
7	Onion	INM	Local	<i>Rabi-22</i>	4	4	0	10	10	-
8	Tomato	INM	Local	<i>Kharif-22</i>	4	4	2	8	10	-
9	Brinjal	Varietal	GRB-7	<i>Kharif-22</i>	4	4	0	10	10	-
<b>Others: Spices</b>										
10	Cumin	IDM	GC-4	<i>Rabi 22</i>	4	4	2	8	10	-
<b>Others: Commercial crops</b>										
11	Cotton	INM	INM	<i>Kharif 22</i>	4	4	2	8	10	-
12	Cotton	IPM	IPM	<i>Kharif 22</i>	10	10	2	8	10	
<b>Animal Husbandry</b>										
13	Cattle	Feed Mgt	Calcium	<i>2022</i>	-	-	4	6	10	-
14	Cattle	Nutrient mgt.	Bypass Protein	<i>2022</i>	-	-	4	16	20	-
15	Cattle	Nutrient mgt.	Bypass fat	<i>2022</i>	-	-	5	15	20	-
<b>Home Science</b>										
16	Farm Women	Household food security	Kitchen Gardening	<i>Kharif-22</i>	0.5	0.5	10	40	50	-
17	Farm Women	Drudgery Reduction	Twin wheel hoe	<i>2022</i>	-	-	8	2	10	-

**Performance of Frontline Demonstrations (2021) (old)**

Sr. No.	Crop/ Enterprise	Technology Demo.	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Oilseeds</b>												
3	Sesamum	Variety	GT-6	10	4	16.3	7.5	11.0	9.2	19.73	Yield	Yield
<b>Pulses (Rabi -2021)</b>												
4	Chick pea	Varietal	GG-5	10	5	40.0	26.3	32.1	26.9	19.53	Yield	Yield
<b>Cereals (Rabi -2021)</b>												
5	Wheat	INM	Biofertilizer	10	4	58.8	46.3	51.5	47.8	7.85	Yield	Yield
<b>Spices (Rabi -2021)</b>												
8	Cumin	IDM	GC-4	10	4	11.3	7.5	9.5	8.3	14.29	Yield	Yield
<b>Horticulture-</b>												
9	Tomato Seedling	Rabi-21	GT-6	14	5.6	343	331	337	324	4.08	Yield	Yield
10	Brinjal Seedling	Rabi-21	GRB-7	10	4	346	326	336	322	4.30	Yield	Yield
11	Tomato Micro	Rabi-21	INM	10	4	331	312	322	305	5.70	Yield	Yield
12	Brinjal variety	Rabi-21	GRB-7	10	4	376	350	365	343	6.48	Yield	Yield
13	Brinjal	Rabi-21	IPM	10	4	397	375	387	376	2.72	Yield	Yield
<b>Animal Husbandry (2021)</b>												
19	Livestock	Bypass Protein	Feed Mgt	20	-	7.12			6.25	4.85	Milk Yield	Milk Yield
20	Livestock	Bypass Fat	Feed Mgt	20	-	6.45			6.21	5.34	Milk Yield	Milk Yield
21	Livestock	Calcium supple.	Feed Mgt	10	-	6.79			6.50	3.78	Milk Yield	Milk Yield

Crops	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio
	Demo	LC	Demo	LC	Demo	LC	
	14	15	16	17	18	19	
<b>Oil seed</b>							
Sesamum	52066	51416	88000	73500	35934	22084	1:1.69
<b>Pulses</b>							
Chick pea (IDM)	42482	40232	168557	141094	126175	100862	1:3.97
<b>Cereals</b>							
Wheat (INM)	57032	58532	103000	95500	45968	36968	1:1.81
<b>Spices</b>							
Cumin (IDM)	56250	56312	175750	153781	119501	97469	1:3.12
<b>Horticulture (2021)</b>							
Tomato Seedling	62500	65000	152044	146081	89543	81081	1:2.43
Brinjal Seedling	51500	55000	134500	128950	83000	73950	1:2.61
Tomato Micronutri.	61600	65000	150075	145181	88475	80181	1:2.44
Onion INM Azoto+PSB	40600	43000	57063	55031	16463	12031	1:1.41
Brinjal INM Azoto+PSB	50600	53000	110888	106913	60288	53913	1:3.72
<b>Animal Husbandry (2021)</b>							
Livestock (bypass protein)	58132	54245	79231	71456	21099	17211	1:1.36
Livestock(bypass fat)	53987	51267	77529	70320	23542	19053	1:1.43
Livestock (Calcium Suppl)	54733	50987	74890	66354	20157	15367	1:1.36

**Performance of Frontline Demonstrations (2022)**

Sr. No.	Crop/Enterprise	Technology Demo.	Variety	No. of Farmers	Area (ha.)	Demo. Yield Qtl/ha			Yield of local Check Qtl/ha	Increase in yield (%)	Data on parameter in relation to technology demonstrated	
						H	L	A			Demo	Local
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Kharif-2022</b>												
<b>Oilseeds</b>												
1	Groundnut (Tricho)	IDM	GG - 20	10	4	33.8	22.5	27.9	23.5	18.62	Yield	Yield
2	Groundnut	IPM	GG - 20	10	4	36.3	27.5	31.9	25.9	23.19	Yield	Yield
3	Sesamum	Variety	GT-6	10	4	Awaited						
<b>Pulses (Rabi -2022)</b>												
4	Chick pea	Varietal	GG-5	10	5	Awaited						
<b>Cereals (Rabi -2022)</b>												
5	Wheat	INM	Biofertilizer	10	4	Awaited						
<b>Other</b>												
6	Cotton	INM	Bt.	10	4	33.8	25.0	30.9	28.1	9.78	Yield	Yield
7	Cotton	IPM	Bt.	5	5	37.5	25.0	30.5	27.4	11.42	Yield	Yield
<b>Spices (Rabi -2022)</b>												
8	Cumin	IDM	GC-4	10	4	Awaited						
<b>Horticulture</b>												
9	Tomato Micronutrient	<i>Kharif-22</i>	INM	10	4	341	326	333	322	3.37	Yield	Yield
10	Onion	<i>Kharif-22</i>	INM	10	4	237	212	228	220	3.69	Yield	Yield
11	Brinjal (GRB7)	<i>Rabi-2022</i>	INM	10	4	Awaited						
12	Tomato (INM)	<i>Rabi-2022</i>	INM	10	4	Awaited						
<b>Home Science</b>												
13	Farm Women	Nutritional security	Vegetable seeds	50	0.5	791.22			675.02	18.22	Yield	Yield
14	Farm Women	Drudgery Reduction	Twin wheel hoe	10	-	Awaited						
<b>Animal Husbandry (2022)</b>												
15	Livestock	Bypass Protein	Feed Mgt	20	-	Results Awaited						
16	Livestock	Bypass Fat	Feed Mgt	20	-	Results Awaited						
17	Livestock	Calcium suppl.	Feed Mgt	10	-	Results Awaited						

**Conti...Table**

Crops	Average Cost of cultivation (Rs./ha)		Average Gross Return (Rs./ha)		Average Net Return (Profit) (Rs./ha)		Benefit-Cost Ratio
	Demo	LC	Demo	LC	Demo	LC	
	14	15	16	17	18	19	
<b>Oil seed</b>							
Groundnut (IDM)	65652	65840	167250	141000	101597	75160	1:2.55
Groundnut (IPM)	66740	66240	191250	155250	124510	89010	1:2.87
Sesamum							
<b>Pulses</b>							
Chick pea (IDM)	Awaited						
<b>Cereals</b>							
Wheat (INM)	Awaited						
<b>Other</b>							
Cotton (INM)	73100	74600	270156	246093	197056	171493	1:3.70
Cotton (IPM)	72600	73200	266875	239531	194275	166331	1:3.68
<b>Spices</b>							
Cumin (IDM)	Awaited						

<b>Kharif-22</b>							
Tomato Micro.	61600	65000	145069	137250	83468	72250	1:2.36
Onion (Azoto+PSM)	54000	58000	182938	171813	128938	113813	1:3.39
Brinjal variety GRB-7	Awaited						
Tomato (INM)	Awaited						
<b>Home Science</b>							
Kitchen gardening	6056.42	7908.72	23517	20016	17460.58	12107.28	1:3.83
<b>Animal Husbandry (2022)</b>							
Livestock (bypass protein)							Results Awaited
Livestock(bypass fat)							Results Awaited
Livestock (Calcium Suppl)							Results Awaited

### Technical Feedback on the demonstrated technologies

Sl. No.	Crop/ Enterprise	Variety/ Technology	Farmers' Feed Back
1	Groundnut	IPM	Application of chlorpyriphos 20-25 ml /kg as a seed treatment of groundnut seed reduce infestation of white grub (Very less white grub infestation)
2	Groundnut	IDM	Application of Trichoderma in Groundnut crop reduce infestation of stem rot and increase yield
3	Cotton	IPM	Integrated approach for management of pink boll worm i.e. MDP tube and two or three spray of Beauveria reduce incidence of pink boll worm
4	Cotton	INM	Application of Azotobactor and PSB culture reduce cost of chemical fertilizer and increase yield
5	Wheat	INM	Application of Azotobactor and PSB culture reduced the cost of chemical fertilizers and increase yield
6	Cumin	IDM	Application of trichoderma with castor cake reduce wilt in cumin and increase yield
7	Chick pea	Varietal	Less incidence of wilt in GG-5 var of chick pea and higher yield as compare to other variety
8	Sesame	Varietal	G.T-5 var. Bold and white seeded and higher yield
9	Tomato	INM	Application of micro nutrient Grade -4 reduce nutrient deficiency and increase yield
10	Brinjal	INM	Application of Azoto+PSB reduce nutrient deficiency and increase yield
11	Onion	INM	Application of Azoto+PSB reduce nutrient deficiency and increase yield
12	Brinjal	Varietal	GRB-7 Variety tolerant against little leaf disease and higher yield
13	Garlic	INM	Application of micro nutrient Grade -4 reduce nutrient deficiency and increase yield
14	Cattle	Bypass fat	Increase milk production of animal and overall improve animal health
15	Cattle	Bypass protein	Increase milk production of animal and reduction of inter calving period
16	Cattle	Calpar gold	Increase milk production of animal and reduce the metabolic disorder in animal
17	Farm Women	Twin wheel hoe	It improves the work posture from squatting to standing; provision of wheels makes the movement easy and reduces the Musculo-skeletal problems while performing the weeding activity.

**Extension and Training activities under FLD**

Sr. No.	Activity	No. of Activity organized	Date	No. of Participants			Remarks
				Male	Female	Total	
1.	Field days	5	-	85	5	90	
2.	Training for farmers	18	-	306	101	407	
3.	Training for extension functionaries	2	-	69	13	82	

**3.3 ACHIEVEMENTS ON TRAINING****A. On Campus**

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	8	238	0	238
Home Science	4	0	124	124
Animal Husbandry	4	139	0	139
Horticulture	6	222	13	235
<b>Grand Total</b>	<b>22</b>	<b>599</b>	<b>137</b>	<b>736</b>

**B. Off Campus**

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	8	226	12	238
Home Science	7	5	225	230
Animal Husbandry	10	247	110	357
Horticulture	9	230	55	285
<b>Grand Total</b>	<b>34</b>	<b>708</b>	<b>402</b>	<b>1110</b>

**C. Consolidated table (On and Off Campus)**

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	16	464	12	476
Home Science	11	05	349	354
Animal Husbandry	14	386	110	496
Horticulture	15	452	68	520
<b>Grand Total</b>	<b>56</b>	<b>1307</b>	<b>539</b>	<b>1846</b>

**D. Vocational training programmes for Farm Women/Rural Youth**

Crop / Enterprise	Date	Training title	Identified Thrust Area	Duration (days)	No. of Participants		
					M	F	Total
Farm Women	29/4/22 to 30/4/22	Food Processing & Preservation Techniques	Value addition	2 days	0	40	40
	12/7/22 to 13/7/22	Bakery Products	Value addition	2 days	0	31	31
	01/08/22 to 03/08/22	Preparation of Bakery products at home level	Value addition	3 days	0	25	25
	03/10/22 to 07/10/22	Eco-Friendly Bags making for Economic Empowerment of Rural Women	Handicrafts & Small Scale Enterprise	5 days	10	50	50
<b>Total</b>					<b>10</b>	<b>146</b>	<b>156</b>

**(E) Sponsored Training Programmes**

Sr. No	Date	Title	Duration	Total No. of participants									Sponsoring Agency
				Other			SC/ ST			Total			
				M	F	T	M	F	T	M	F	T	
1	11/1/2022	Animal Husbandry	1	48	195	243	2	5	7	50	200	250	State A.H. Deptt
2	4/2/2022	Extension	1	13	12	25	0	0	0	13	12	25	State Deptt
3	10/2/2022	Horticulture	1	40	0	40	5	0	5	45	0	45	ATMA
4	21/2/2022	Extension	1	27	13	40	2	2	4	29	15	44	State Agri Deptt
5	21/2/2022	Pl. Protectn	1	32	10	42	2	0	2	34	10	44	FTC Jetpur
6	22/2/2022	Horticulture	1	25	15	40	0	0	0	25	15	40	FTC Rajkot
7	22/2/2022	Home Sc.	1	25	15	40	0	0	0	25	15	40	FTC Rajkot
8	7/6/2022	Animal Husbandry	1	0	58	58	0	2	2	0	60	60	State Agri Deptt
9	24/7/22	Horticulture	1	0	25	25	0	5	5	0	30	30	FTC Rajkot
10	25/7/22	Ani.Hus.	1	0	25	25	0	5	5	0	30	30	FTC Rajkot
11	28/7/22	Home Sc.	1	0	25	25	0	5	5	0	30	30	FTC Rajkot
12	24/8/22	Horticulture	1	92	53	145	3	2	5	95	55	150	KRIBHCO
13	16/12/22	Horticulture	1	27	8	35	0	0	0	27	8	35	AFPRO
		<b>Total</b>	<b>13</b>	<b>329</b>	<b>454</b>	<b>783</b>	<b>14</b>	<b>26</b>	<b>40</b>	<b>343</b>	<b>480</b>	<b>823</b>	

**3.4 Extension programmes (including activities of FLD Programmes)**

Sl No	Nature of Extension Activity	No. of activities	Participants											
			Farmers (Oth.)			SC/ST (Far.)			Extn Officials			Grand Total		
			(I)			(II)			(III)			(I+II+III)		
			M	F	T	M	F	T	M	F	T	M	F	T
1	Field Day	5	82	5	87	0	0	0	3	0	3	85	5	90
2	Kisan Mela	1	93	145	238	7	5	12	0	0	0	100	150	250
3	Kisan Gosthi	4	700	165	865	25	10	35	2	0	2	727	175	902
4	Demonstration	8	35	95	125	0	0	0	1	2	3	36	97	128
5	Film Show	3	460	112	572	8	4	12	0	0	0	468	116	584
6	Group meetings	10	130	0	130	6	0	6	5	0	5	141	0	141
7	Radio Talks	8	0	0	0	0	0	0	0	0	0	0	0	1000
8	Newspaper coverage	4	0	0	0	0	0	0	0	0	0	0	0	1500
9	Parthenium Aware. Week	1	0	40	40	0	0	0	1	0	1	1	40	41
10	TV talks	3	0	0	0	0	0	0	0	0	0	0	0	1500
11	Popular articles	4	0	0	0	0	0	0	0	0	0	0	0	2000
12	Ext. Literature	10	700	500	1200	55	45	100	0	0	0	755	545	1300
13	Advisory Services	50	220	0	220	3	0	3	0	0	0	223	0	223
14	Scientist visit to farmers field	23	80	6	86	0	0	0	0	0	0	80	6	86
15	Farmers visit to KVK	30	800	260	1060	15	7	22	3	4	7	818	271	1089
16	Diagnostic visits	33	162	0	162	5	0	5	0	0	0	167	0	167
17	ICAR Foundation Day	1	52	6	58	0	0	0	1	0	1	53	6	59
18	Kisan Diwas	1	80	100	180	3	5	8	1	0	1	84	105	189
19	World Soil Day	1	0	20	20	0	30	30	0	0	0	0	50	50

20	Exposure Visit	1	1	32	33	0	0	0	0	0	0	1	32	33
21	Skill Dev Trg	1	10	0	10	15	50	65	0	0	0	25	50	75
22	Poshan Maah Celebration	2	5	10	15	5	50	55	1	0	1	11	60	71
23	Technology Week	1	75	192	267	0	8	8	4	1	5	79	201	280
24	Swachhata Hi Sewa	7	40	200	240	1	5	6	0	3	3	41	208	249
25	World Bee-keeping Day	1	30	0	30	0	0	0	0	0	0	30	0	30
26	Press Note	1	0	0	0	0	0	0	0	0	0	0	0	500
27	Int. Women's Day	1	0	32	32	0	0	0	1	0	1	1	32	33
28	Mahila Kisan Divas	1	0	35	35	0	0	0	0	1	1	0	36	36
29	UG Student Trg	3	62	37	99	3	3	6	0	0	0	65	40	105
30	Tree Plantation Drive	1	27	13	40	0	0	0	1	1	2	28	14	42
31	Animal Health Camp	5	45	0	45	0	0	0	0	0	0	45	0	45
32	PM Kisan Sanman Nidhi	2	250	60	310	10	2	12	4	2	6	264	64	328
33	Jal Shakti Abhiyaan	10	30	198	228	0	8	8	0	3	3	30	209	239
<b>Total</b>		<b>238</b>	<b>4169</b>	<b>2263</b>	<b>6432</b>	<b>161</b>	<b>232</b>	<b>393</b>	<b>28</b>	<b>17</b>	<b>45</b>	<b>4358</b>	<b>2512</b>	<b>13365</b>

### 3.5 Production and supply of Technological products (2021-22 & 2022-23)

#### SEED MATERIALS

S.N	Crop	Variety	Stage	Area (ha)	Quantity(Q.)	Value (Rs.)
<b>Kharif – 2021-22</b>						
1.	Groundnut	GJG-32	Foundation	5.0	67.2	494375
2.	Groundnut	GJG-32	Breeder	2.0	40.8	617100
3.	Groundnut	GJG-17	Breeder	5.8	35.4	601800
4.	Groundnut	GAUG-10	Breeder	5.7	25.3	367200
5.	Castor	GJCH-9	Hybrid	1.0	3.44 (F)	19780
					1.04 (M)	5980
				<b>19.5</b>	<b>173.18</b>	<b>2106235</b>
<b>Rabi-2021-22</b>						
6.	Wheat	GW-451	Mega	4.5	69.60	182500
7.	Wheat	GW-496	Mega	12	216.40	612162
			Total	<b>16.5</b>	<b>286</b>	<b>794662</b>
<b>Kharif-2022-23</b>						
1	Groundnut	GJG-32	Mega	10.5	67.50	-
2	Groundnut	GJG-32	Breeder	7.00	84.00	-
3	Castor	GJCH-9	Hybrid	1.0	Fail	fail
			<b>Total</b>	<b>18.50</b>	<b>151.5</b>	
<b>Rabi-2022-23</b>						
1	Wheat	GW-496	Mega	2.00	-	-
			<b>Total</b>	<b>2.00</b>		

#### Technological products

S.N	Particular	Quantity	Provide to No. of farmers	Amount
1	Pheromone Trap	427	35	8540
2	Pink bollworm Lure	1339	40	13390
3	Vegetables Packets	23	5	230

	<b>Total</b>	<b>22160</b>
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**3.6 Literature Developed/Published (with full title, author and reference)****(A) Research paper published**

Sr. No.	Particulars of Research paper	Naas Rating
1	Patel, H. A., Odedra, M. D., Ahlawat, A. R., Gamit, V. V. and Prajapati, V. S. 2022. A review on milking management practices of dairy animal in India. <i>The Pharma Innovation Journal</i> , 11(10):109-112.	5.23
2	Asnani, B. and Kumari, M. 2022. Role, functioning and achievements of women panchayat members in Panchayati raj institution. <i>Gujarat Journal of Extension Education</i> , Sp. Issue Seeg Conf. 114-120.	4.95
3	Singh, J. and Kumari, M. 2022. Diffusion and awareness of women friendly farm tools and equipment among the farmers. <i>Journal of Experimental Agriculture International</i> , 44(11):75-90.	4.89
4	Padaliya, D. N., Jadav, N.B. and Padaliya, D.A. 2022. Extent of adoption of rejuvenation technology by mango growers. <i>Guj. J. Ext. Edu.</i> 34(1): 165-169.	4.96
5	Khunt, K.R. and Jadav, N.B. 2022. Relationship analysis between farmers' profile and their climate change perception. <i>Guj. J. Ext. Edu. (Special Issue)</i> : 80-83.	4.96
6	Meghval, P. K. and Jadav, N.B. 2022. Factors affecting farmers' perception about role of mobile in decision making. <i>Journal of community mobilization and sustainable development</i> . Volume 3 (Seminar Special Issue): pp 907-912.	5.67
7	Das, S. and Jadav, N.B. 2022. Perception of groundnut growers towards ICT in Saurashtra region of Gujarat. <i>Guj. J. Ext. Edu. (Special Issue)</i> : 19-21.	4.96
8	Das, S. and Jadav, N.B. 2022. Relationship between characteristics of groundnut growers and their perception towards ICT. <i>Guj. J. Ext. Edu. (Sp. Issue)</i> :127-132.	4.96
9	Levati, M. D., Bariya, M.K. and Jadav, N.B. 2022. Characteristics influencing the aspirations of agricultural graduates in Gujarat. <i>J. Krishi Vigyan</i> , 10(2): 36-39	4.55
10	Bariya, M. K., Chandravadiya, K.U., Jadav, N. B. and Patel, H. 2022. Impact of self-help groups on empowerment of women. <i>Indian Res. J. Ext. Edu.</i> 22(4): 42-47.	5.22
11	Kumari, M., and Singh, J. 2022. Environmental, social and economic impacts of Briquetting plant and briquettes. <i>Journal of Wastes and Biomass Management</i> , 4(1):32-40	-
12	Singh, J. and Kumari, M. 2022. Impact of Globalization on women in India: A critical review. <i>International Journal of Advanced Research in Science, Communication and Technology</i> , 2(1):127-137.	-
13	Singh, J. and Kumari, M. 2022. Cardiovascular health of people of African & Asian Descent in the United Kingdom: A literature review. <i>International Journal of Pharmaceutical Research and Applications</i> , 7(5): 205-216	-

**(B) Popular/ Technical articles (vernacular language)**

Sr. No	Contributors	Year	Title	Magazine Name	Vol /Issue /Page No
1.	Jagdeep Singh &	2022	Graminmahilao par vaishvikarankaprabhav	Krishi Jivan	Apr-Jun, Pp-26-29
2.	Mamta		Graminmahilaoikivartmanstithi	Mai Hu Kisan	May, Pp-8-11
3.	Kumari		Integrated Farming Sysytem: Model and Discussion	Agriculture Magazine	Sept, Pp-17-22
4.			Upshishktoavsar me badalna	Leisa, India	Sept, Pp-11-13

**(C) Books/ book chapters / Manuals etc.:**

S.N	Contributors	Year	Title of Book/Chapter	ISBN	Publisher
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Nil				
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**(D) Folder published in vernacular language:**

S.N.	Title	Authors	Copies
1.	Prakrutik Kheti ma Sendriy Carbon nu Mahtav	Dr. N.B.Jadav, A.R.Parmar, Dr.V.S.Prajapati, Dr. S.V.Undhad, and Mamta Kumari, P.D.Chaudhary, K.D. Chaudhary	1000
2.	Calander-2023 (Prakrutik Kheti)	Dr. N.B.Jadav, A.R.Parmar, Dr.V.S.Prajapati, Dr. S.V.Undhad, and Mamta Kumari, P.D.Chaudhary, K.D. Chaudhary	500

**(E) Workshop/Seminar/Conference/Meeting/Training Attended**

S.N	Date	Name of Scientist	Title	Venue	Type
1	3/2/22 to 5/2/22	Dr. V.S Prajapati, Dr. S.V Undhad & Prof. A.R Parmar	FDP for Extension	Online	Short Training
2	23/5/22 to 24/5/22	Prof. A.R Parmar	Entry of DFI Stories	ATARI, Pune	Workshop
3	1/6/22 to 2/6/22	Dr. N. B. Jadav	National conference KVK-2022	Solan, HP	Conference
4	24/6/22 to 25/6/22	Dr. N. B. Jadav, Dr. M. Kumari, Dr. V.S Prajapati, Dr. S.V Undhad & Prof. A.R Parmar	Synergetic Extension Approaches for Livelihood Improvement & Agricultural Development	JAU, Junagadh	National Seminar
5	7/7/22 to 9/7/22	Dr. N. B. Jadav	Annual Zonal Workshop	AAU, Anand	Workshop
6	3/10/22 to 7/10/22	Dr. N. B. Jadav, Dr. M. Kumari, Dr. V.S Prajapati, Dr. S.V Undhad & Prof. A.R Parmar	Eco-Friendly Bags Making for Economic Empowerment of Rural Women	Patel Samaj, Dhoraji, Rajkot	Training Prog
7	8/12/22 to 9/12/22	Prof. A.R Parmar	Natural Farming	Kurukshetra Haryana	Orien cum Trg Prog.

**3.7. Success stories/Case studies, if any (two or three pages' write-up on each case with suitable action photographs)**

---NIL---

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

S. No.	Crop/ Enterprise	ITK Practiced	Purpose of ITK
1.	Chilly	Use castor as a trap crop	For controlling thrips and jassids
2	Crop husbandry	Crop rotation and mixed cropping	Control weed
3	Fertility Management	Application of <i>tach / morum</i>	To improve soil physical condition
4	Fertility Management	Sheep and goat penning	To improve soil fertility
5	Harvesting	Harvest pulse crop in the morning hours	To reduce shattering
6	Groundnut	Farmers maintain a set furrow system and apply manure and fertilizer every year in the same furrow.	To get residual effect of manure and fertilizer in succeeding crop

7	Groundnut	Some farmers near the river bed, apply sand in the set furrow for increasing infiltration rate of the soil	To reduce the water Logging condition in the field
8	Kharif crops	Farmer apply supplementary irrigation to the crops during moisture stress condition	For life saving irrigation to minimize the risk of crop failure
9	Cotton	Farmers grow Maize after 3-4 rows of cotton	To increase the natural enemies and fodder purpose
10	Cotton	After heavy rain, farmer apply irrigation to balance the salt concentration at top of soil	To balance the salt concentration
11	Groundnut	Farmers grow maize as mix crop in groundnut	To increase natural enemies & fodder purpose

### 3.9 Indicate the specific training need analysis tools/methodology followed: ----

#### A. Practicing Farmers & Farm Women:

- On Campus: Group discussion with farmers as well as other linked agencies & field visits.
- Off Campus: Group discussion with farmers as well as other linked agencies & field visits.

#### B. Rural Youth:

- Vocational Training: Group discussion with rural youth as well as line deptts.
- Skill Development: Group discussion with rural youth as well as line deptts.

#### C. In-service Personnel:

- Extension Workers: Group discussion with rural youth as well as line deptts.
- Anganwadi Workers: Group discussion with workers as well as line deptts.

### 3.10 Field Activities

i. Number of villages adopted: 12

Sr. No	Name of village	Sr. No.	Name of Village	Sr. No.	Name of Village
1.	Talanganana	5.	Mandlikpar	9.	Dalia
2.	Nagavadar	6.	Amrapar	10.	Sanala
3.	Patanvav	7.	Bhojpara	11.	NaniDudhivadar
4.	NaniParabdi	8.	Shemla	12.	Jashapar

### 3.11 Activities of Soil and Water Testing Laboratory

Details	No. of Samples	No. of Farmers	No. of Villages	Amount realized
Soil Samples	-	-	-	-
Water Samples	-	-	-	-
<b>Total</b>	-	-	-	-

### 4. Impact: NIL

### 5: Linkage

#### 5.1 Functional linkage with different organization

S.N	Name of organization	Nature of linkage
<b>A</b>	<b>Junagadh Agricultural University</b>	
1	College of Agriculture, Junagadh.	Impart training on Agril. aspects.
2	College of Agril. Engg, Junagadh	Impart training on Engg. aspects
3	Pulse Research Station, Junagadh	Supply of seeds for FLDs
4	Oilseeds Research Station, Junagadh	Supply of seeds for crop museum
5	Oilseeds Research Station, Amreli	Supply of seeds for crop museum

6	Director, DGR, Ivnagar, Junagadh	Training & exposure visit
7	Bio-control Lab, Dept of Ento. JAU. Junagadh	Supply of Beauveria, P. Trap, Lure etc.
8	Dept. of Plant Pathology, JAU, Junagadh	Supply of Bio fertilizer and Trichoderma
9	Vegetable Research Station, JAU, Junagadh	Supply of Vegetable Seeds
10	Cattle Breeding Farm, JAU, Junagadh	Training & exposure visit
<b>B</b>	<b>State corporation and state deptt.</b>	
1	District Agricultural Officer, Deptt. of Agriculture, District Panchayat, Rajkot	<ul style="list-style-type: none"> <li>➤ Joint diagnostic team visit at farmers' field</li> <li>➤ Organizing collaborative training to farmers</li> <li>➤ For collaborative off campus training</li> <li>➤ For collaborative training and demonstration Programme</li> <li>➤ Collaborative on campus training programme</li> <li>➤ For providing hostel facilities to participants and organizing collaborative Mahila Krishi Mela</li> </ul>
2	District Rural Development Agency, Rajkot	
3	Deputy Director of Veterinary, Department of veterinary & Animal Husbandry, Rajkot	
4	Deputy Director of Horticulture, Rajkot	
5	Deputy Director of Agriculture (Training), Farmer Training Centre, Rajkot	
6	Deputy Director of Agriculture (Extension), Rajkot	
10	Estate Engineer, Department of Irrigation, Dhoraji	
11	All Taluka Development Officers, and their team at Taluka level	
13	ATMA, Rajkot	

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

## 5.2 List Special programmes undertaken by the KVK, which have been financed by state Govt/ other agencies

Name of the scheme	Date/ Month of initiation	Funding agency	Amount (Rs.)
CLFDs (Oil seeds)	June - 2022	NFSM - Oilseed	48000/-
Capacity Building of Farmers on Profitable Dairy Farming and Livestock Management	Jan-Feb 2022	ICAR	200000/-
Schedule Caste Sub Plan (SCSP)	03-07 Oct 2022	ICAR-NAARM	325750/-
Farmers' Outreach Programme on Natural Farming	Nov- 2022	ICAR	266000/-

## 5.3 Details of linkage with ATMA

a) Is ATMA implemented in your district (Yes/No): - Yes

S.N	Programme	Nature of linkage	Remarks
1	District Level Training	Impart Training and diagnostic visit on Agricultural Aspects	-
2.	Block level training	Impart Training and diagnostic visit on Agricultural Aspects	

## 6. PERFORMANCE OF INFRASTRUCTURE IN KVK

### 6.1 Performance of demonstration units (other than instructional farm)

Sl. No.	Demo. Units	Year of Establishment	Area	Details of production			Amount (Rs.)		Remarks
				Variety	produce	Quantity (Qtl)	Cost of inputs	Gross income	
-Nil-									

**6.2 Performance of instructional farm (livestock and fisheries production)**

Sl. No	Name of the animal / bird / aquatics	Details of production			Amount (Rs.)		Remarks
		Breed	Type of Produce	Qty.	Cost of inputs	Gross income	
-Nil-							

**7. FINANCIAL PERFORMANCE****7.1 Details of KVK Bank accounts**

Bank account	Name of the Bank	Location	Account Number
With Host Institute	---	--	---
With KVK	State Bank of India	Galaxy chowk, Dhoraji	32586636847

**7.2. Utilization of KVK funds during the year April 2022 Up to Jan-2023)**

Sr. No.	Particulars	Sanctioned	Released	Expenditure
<b>A. Recurring Contingencies</b>				
1	Pay & Allowances	112.93	112.93	94.09
2	Traveling allowances	0.55	6.05	0.42
3	Contingencies	7.70		5.62
<b>TOTAL (A)</b>		<b>121.18</b>	<b>118.98</b>	<b>100.14</b>
<b>B. Non-Recurring Contingencies</b>				
1	Works	-	-	-
2	Equipment's including SWTL & Furniture	-	-	-
3	Vehicle (Four wheeler)	-	-	-
4	Library (Purchase of assets like books & journals)	-	-	-
<b>TOTAL (B)</b>		<b>-</b>	<b>-</b>	<b>-</b>
<b>C. REVOLVING FUND</b>				
<b>GRAND TOTAL (A+B+C)</b>		<b>121.18</b>	<b>118.98</b>	<b>100.14</b>

**7.3. Status of revolving fund**

Year	Opening balance as on 1st April	Income during the year	Expenditure during the year	Net balance
April 2012 to March 2013	100000	10970	0	110970
April 2013 to March 2014	110970	48464	28	159406
April 2014 to March 2015	159406	424853	299225	285034
April 2015 to March 2016	285034	217280	266000	236314
April 2016 to March 2017	236314	1833862	1047720	1022456
April 2017 to March 2018	1022456	2181697	2415203	788950
April 2018 to March 2019	788950	3661217	2552946	1897221
April 2019 to March 2020	1897221	1332199	2344761	884659
April 2020 to March 2021	884659	4030759	2441025	2474393
April 2021 to March 2021	2474393	2207533	3425976	1255950
April 2022 to Jan 2023	1255950	3105308	2679595	1681663

## 8.0 PLEASE INCLUDE INFORMATION, WHICH HAS NOT BEEN REFLECTED ABOVE (WRITTEN IN DETAILS)

### 8.1 “Mera Gaon Mera Gaurav” Scheme:

The Mera Gaon Mera Guarav scheme was implemented during the year 2019. Under this scheme, first following two groups of scientists were formed for village selection and base line survey.

Table 1: Details of MGMG Team and status of benchmark survey of selected villages

Team	Name of scientists with discipline	Name of village	Name of block	Name of district	Benchmark survey Status
1	2	3	4	5	6
Team 27	Dr. N. B. Jadav (Extn Edu) Dr. Mamta Kumari (H Sc.) Shri S V Undhad (Pl. Prot.)	Patanvav	Dhoraji	Rajkot	Completed
		Toraniya	Dhoraji		
		Zanzmer	Dhoraji		
		Arni	Upleta		
		Pedhala	Jetpur		
Team 28	Dr. V. S. Prajapati (LPM) Shri A R Parmar (Horti.) Shri P D Chaoudhry (Plant Breeding)	KhajuriGundala	Jetpur	Rajkot	Completed
		CharanSamdhiala	Jetpur		
		Jasapar	Jamkandorna		
		Satodad	Jamkandorna		
		Chitavad	Jamkandorna		

Table 2: Activities carried in the selected villages

Team	Visit to village		Goshthis/ Interface meetings conducted		Demonstrations conducted		
	No. of visits	No. of farmers	No. of goshthis/ interface meets	No. of farmers	Title of demonstration	No. of demons	No. of farmers
1	2	3	4	5	6	7	8
Team 27	7	32	3	65	Feed Management	9	9
Team 28	8	52	4	82	Kitchen gardening	15	15

Team	Trainings conducted		Mobile-based advisory		Literature support provided		Input support	
	No. of training	No. of farmers	No. of farmers	No. of advisories	No. of literature	No. of farmers	Area (ha)	No. of farmers
9	10	11	12	13	14	15	16	17
Team 27	4	96	238	20	751	321	-	-
Team 28	5	138	221	20	800	358	-	-

Table 3: Any other activity carried out

Team	Name of activity	No. of farmers
1	2	3
Team 27	Off campus training	38
	Diagnostic visit +Field day	27
Team 28	Off campus training	23
	Diagnostic visit +Field day	36

### 8.2 Commencement of Input Dealer course

A certificate course on “Plant Protection & Pesticide Management” was inaugurated at KVK, Pipalia on 25 Jan 2022 for the duration of 12 weeks (Training & Practical sessions once in a week). For this programme a batch of 42 input dealers have been selected from the jurisdiction of KVK, Pipalia, Rajkot.

### 8.3 Celebration of World Pulses Day

The World Pulses Day is observed on 10 February to spread awareness about the nutritional & environmental benefits of pulses as part of sustainable food production. This year the theme was “Pulses to empower youth in achieving sustainable agri food systems”. In line with this KVK, JAU, Pipalia had also celebrated the day with 35 farmers of Kalana village of Dhoraji.

### 8.4 Celebration of International Women’s Day

The International Women’s Day was celebrated by KVK Pipalia among 52 number of Farmwomen in collaboration with AFPRO (Action for Food Production) at Bhadajaliya village, Dhoraji. This year the theme was “**Gender equality today for a sustainable tomorrow**”. The women were sensitized about their role in society and how they can be empowered by motivational speeches by the resource person of KVK, Pipalia and AFPRO with a special focus on farm women and gender equality in agriculture.

### 8.5 Celebration of World Bee-Keeping Day

World Bee Keeping day is celebrated across the globe on May 20 to raise the awareness about the significance of bees and bee keeping. KVK, Pipalia had also celebrated the day by organising a goshti for the farmers on “Beekeeping as an Economic Enterprise”. The programme connects with 30 participants who were benefitted.

### 8.6 Celebration of Krishi Mela

Krishi Mela was held at KVK, Pipalia on April 26, 2022, with the theme "Kisan Bhagidari Prathmikta Hamari" as part of the Azadi Ka Amrut Mahotsava in partnership with ATMA, Rajkot. A total of 250 farmers and farm women took part in the event with tremendous enthusiasm. The chief dignitaries were Dr. Aminbhai Dayalal, Assistant Director Animal Husbandry, Gandhinagar, and Shri Neetaben R. Chavda, President, Taluka Panchayat, Dhoraji. Stalls showcasing new and established technologies were also on display to educate the public.

### 8.7 Exposure Visit

An exposure visit of Junagadh Agri. Univ. was organized for the farm women of Patanvav village, Dhoraji by KVK, Pipalia on 19<sup>th</sup> July to exhibit the extension activities carried out by the university in the areas of agriculture, animal husbandry, horticulture & related researches. A total of 32 farm women visited the JAU and benefitted.

### 8.8 Celebration of “Mahila Kisan Diwas”

15<sup>th</sup> October is celebrated as National Women Farmers’ Day or Rashtriya Mahila Kisan Divas in India. Every year on this day programmes are organized, mainly to empower women in the field of agriculture. This time KVK, Pipalia organized the event with 35 farm women, where they shared their problems and experiences.

### 8.9 Celebration of Poshan Maah (1.9.2022 to 30.9.2022)

The main objective was to increase nutrition awareness among mothers of young children, adolescent girls, pregnant and lactating women, family members (husbands, father, mothers-in-law) and community members, health care providers (ANM, ASHA, Anganwadi worker) about key nutrition behaviours. The event was organized on the occasion of National Nutrition Month-2021 to promote nutrition and importance of nutrition in diet along with importance of Household food security through kitchen Gardening. The event was graced with giving emphasis on Eating balanced diet containing variety of foods that is rich in iron and vitamins and also to take milk and milk products, and iodized salt. Awareness about personal hygiene and cleanliness, importance of lactation, exclusive breastfeeding for at six months and also distribution of vegetable seeds was also done. A total 60 number of beneficiaries were benefitted by the programme.

### 8.10 Celebrations of Kisan Diwas

Kisan Diwas (Farmer's Day) is observed every year on 23 December to celebrate the birth anniversary of the fifth prime minister and kisan leader, late Chaudhary Charan Singh. The idea behind the celebrating the day is to express our gratitude to farmers who form the backbone of the country's economy. On this occasion KVK Pipalia in collaboration with office of Deputy Director, Horticulture, Rajkot has organized a farmers' seminar at Dhoraji in which 180 farmers & farm women participated and shared their practices and experiences.

### 8.11 Celebration of "Swachhata Hi Seva"

Swachhata Pakhwada was celebrated by KVK Pipalia during year around as a part of Swachh Bharat Mission. A campaign was organized by KVK in which many activities were performed by the Staff i.e. cleanliness drive at office, nearby villages and schools. The other activities include Swachhata Shapath, Rally, slogan writing competition, community cleaning, awareness about organic farming in kitchen garden and composting techniques, shramdaan, etc. A total of 320 participants comprising farmers, farm women, school going children, etc. had participated.

### 8.12 Celebration of World Soil Health Day (05/12/2022)

World Soil Day (WSD) is held annually on 5 December as a means to focus attention on the importance of healthy soil, food security and advocating for the sustainable management of soil resources. This year the theme was "Soils: Where food begins". KVK, Pipalia also celebrated this event at Pipalia village with a total of 50 farm women participation.

### 8.13 Technology Week Celebration

KVK, Pipalia had celebrated Technology Week in collaboration with ATMA, Rajkot from Sept 26 to 30, 2022. During this five days' event, 275 farmers & farm women had actively participated from Gondal, Upleta, Jetpur, Jamkandorna & Dhoraji blocks under KVK, Pipalia jurisdiction. This week was celebrated to create awareness about new technologies, crop varieties, type of fertilizers & other related information in the field of horticulture, plant protection, animal husbandry, home science, women empowerment, etc.

### 8.14 Special Programmes

**i) Skill Development Training Programme under Schedule Caste Sub plan (SCSP)-** Krishi Vigyan Kendra, Junagadh Agricultural University, Pipalia, Rajkot in collaboration with ICAR-NAARM, Hyderabad has organized five days' skill development training programme on "Eco-Friendly Bags making for Economic Empowerment of Rural Women" at Dhoraji from 3<sup>rd</sup> to 7<sup>th</sup> October 2022. In this training a total of 50 SC rural women from 10 self-help group has actively participated and benefitted. Different varieties of bags, including shopping bags, travel bags, mobile bags, sling bags, pouches, side bags, potli-bags, jute bags and paper bags were made as part of this program using materials like cotton, jute, canvas, brocade and paper sheets. A total of 140 bags were stitched and exhibited on closing ceremony. The input materials for bag making such as sewing machines, sewing accessories, different clothes, etc. were also distributed to the participants. The whole programme was funded by ICAR-NAARM, Hyderabad under Schedule Caste Sub-Plan (SCSP) and coordinated by Dr. M. Balakrishnan, Principle Scientist & Chairman SCSP, ICAR-NAARM, Hyderabad and Dr. Mamta Kumari, Scientist (Home Science), KVK, Junagadh Agricultural University, Pipalia, Rajkot, Gujarat.

**ii) Capacity Building of Farmers on Profitable Dairy Farming and Livestock Management-** During this year KVK, Pipalia has organized five three-day trainings under profitable dairying farming sponsored by ICAR. The trainings were organized in 5 villages comprising 3 talukas benefitting 600 participants. The subjects covered were Scientific dairy management, Nutrition management of livestock production, System of calf feeding and calf management, Disease management and Feed and fodder management of livestock. The whole programme was coordinated by Dr. V. S. Prajapati, Scientist (LPM), KVK, Junagadh Agricultural University, Pipalia, Rajkot, Gujarat.

**iii) Farmers' Outreach Programme on Natural Farming-**

Activities under natural farming

**1. Training (2020-21)**

S.N	Activity	Date	No. of participant
1	Natural Farming Training at Kalana	10-02-22	40
2	Natural Farming Training at KVK Pipalia	25-03-22	70

**2. Activities during 2022-23**

SN	Activity	Date	No. of participant	
			Male	Female
1	Krishi mela cum exhibition and seminar on natural farming	26-4-22	225	75
2	Natural Farming Demo unit visit	14-5-22		35
3	Natural farming training at Jamnavad	8-08-22	35	
4	Natural farming training at Thanagalol	24-8-22	65	
5	Natural farming training at kvk pipalia	4-10-22	35	
6	Natural farming training at Bholgamda	6-10-22		50
7	Natural farming training at Patanvav	2-11-22	20	
8	Natural farming training at Bordi Samadhiyala	13-1-23	150	
9	Natural farming training at Vadodar	16-1-23	70	
10	Natural farming training at Bhayavadar	24-1-26	80	
11	Natural farming Demo plot	Groundnut and wheat crop		
12	Jivamrut and Nimastra Production	Jivamrut-400 liter Nimastra-400 liter		
13	Plastic drum for jivamrut making	No. of demo.16		

**Proceeding of the 10<sup>th</sup> Scientific Advisory Committee (SAC) Meeting  
of KVK Pipalia (Rajkot-II) held on 10<sup>th</sup> March, 2022**

The Tenth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, Junagadh Agricultural University, Pipalia held at Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia on 10<sup>th</sup> March, 2022. The meeting was chaired by Hon'ble Vice Chancellor, Prof. (Dr.) N. K. Gontia, Junagadh Agricultural University, Junagadh.

The following members were remained present in the meeting.

Sr. No.	Name & Designation	Position	Sr. No.	Name & Designation	Position
1.	Prof. (Dr.) N. K. Gontia Hon. Vice Chancellor, JAU, Junagadh.	Chairman	15.	Pinki S. Sharma AEE, DEE, JAU, Junagadh	Member
2.	Dr. H. M. Gajipara Director of Extension Education, JAU, Junagadh	Member	16.	Dr. V. S. Prajapati, SMS (Animal Husbandry), KVK, JAU, Pipalia	Member
3.	Dr. D.S. Hirpara Research Scientist, DFRS, Targhadia	Member	17.	Dr. S. V. Undhad, SMS (Plant Pathology), KVK, JAU, Pipalia	Member
4.	Sh. S. K. Joshi Joint Director of Agriculture, Rajkot	Member	18.	Shri A.R.Parmar, SMS (Horticulture), KVK, JAU, Pipalia	Member
5.	Shri R. K Boghara Deputy Director of Horticulture, Rajkot	Member	19.	Smt. H.A. Manvar SMS (Home Science), KVK, JAU, Targhadia	Invitee Member
6.	Dr Amit H. Patel, Deputy Manager, Rajkot dairy, Rajkot	Member	20.	Dr M. K. Jadeja, SMS, KVK Targhadia	Invitee Member
7.	Dr. R. M. Satasiya Principal, Polytechnic in Agri. Engg., JAU, Targhadia	Invitee Member	21.	Shri D.P. Sanepara SMS, KVK - Targhadia	Invitee Member
8.	Sh. Atul Sharma, AIR, Rajkot	Member	22.	Dr. M.M. Tajpara SMS, KVK- Targhadia	Invitee Member
9.	Kiran Kumar Patel Team Leader, Reliance Foundation	Member	23.	Dr. J.H. Choudhary SMS, KVK, JAU, Targhadia	Invitee Member
10.	Dr. H. C. Chhodvadia, Associate Extension Educationist, JAU, Junagadh	Member	24.	Bharatbhai Virjibhai Progressive Farmer, Jashapar	Member
11.	Dr. G. V. Marviya Senior Scientist & Head, KVK, JAU, Targhadia	Member	25.	Rameshbhai Bachubhai Amipara, Progressive Farmer, Jashapar	Invitee Member
12.	Dr. N. P. Shukla Senior scientist & Head, KVK, Bhavnagar	Invitee Member	26.	Babaria Dilipbhai, Progressive Farmer, Dudhivadar	Member
13.	Sh. D. U. Vaghela Ex. WALMI Rajkot	Member	27.	Dhirubhai Gobarbhai, Progressive Farmer, Rayidi	Member
14.	Sh. D. M. Gaglani WALMI, Rajkot	Member	28.	Dr. N.B. Jadav, Senior scientist & Head, KVK, JAU, Pipalia	Member Secretary

In the beginning, Dr. G. V. Marviya, Senior Scientist & Head, KVK, Junagadh Agricultural University, Targhadia welcomed Chairman of the Committee and Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, Prof. (Dr.) N. K. Gontia, Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh and all the members and progressive farmers of the cluster villages of KVK, Pipalia and Targhadia.

Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh, Dr. N. B. Jadav, Senior Scientist & Head, KVK, JAU, Pipalia, Dr. G. V. Marviya, Senior Scientist & Head, KVK, Junagadh Agricultural University, Targhadia and Sh. R. K. Boghara, DDH, Rajkot inaugurated the meeting by lighting the lamp. Chairman of the meeting and all the members of SAC meeting were also welcomed with flowers.

Dr. N. B. Jadav, Senior Scientist & Head, KVK, Pipalia presented the progress report of the year 2021 (Jan 2021 to Dec 2021) including training achievements, extension activities, etc. conducted by the KVK and action plan for the Year 2022 (Jan-22 to Dec-22). All scientists of KVK viz, Dr. N.B. Jadav, Dr. V. S. Prajapati, Dr. S. V. Undhad, and Shri. A.R. Parmar, presented the progress report 2021 and annual action plan 2022 (Jan 22 to Dec 22) of Home Science, Animal Husbandry, Plant Protection, Horticulture discipline, respectively.

**The following suggestions were made by the SAC members during the meeting.**

1. Conduct pesticide trainings to educate farmers about the dangers of using banned pesticides.
2. Effort to form farmer producer organization (FPO).
3. Establish a demonstration plot of natural farming at the KVK.
4. Sign a MOU with local organizations for wider impact of KVK initiatives.
5. Increase number of collaborative and other trainings for more impact.
6. For FLD in cotton (IPM), 2 traps per hectare to be replaced with 6 traps.

In chairman remarks, Hon'ble Vice Chancellor, Prof. (Dr.) N. K. Gontia, Junagadh Agricultural University, Junagadh appreciated the work done by the center. He emphasized the necessity of soil and water testing, as well as informing farmers about insect attacks ahead of time and increasing diagnostic visits to solve farmers' field problems. He also emphasized Natural Farming to help farmers become more aware of the importance of chemical-free farming, which leads to more holistic and sustainable farming systems.

Finally, the meeting was concluded by performing the vote of thanks by Dr. S.V. Undhad, Scientist (Plant Protection), KVK, Pipalia (Rajkot-II).

Member Secretary, SAC &  
Senior Scientist & Head  
Krishi Vigyan Kendra  
Junagadh Agricultural University  
Pipalia (Rajkot-II)

Director of Extension Education  
Junagadh Agricultural University  
Junagadh

Chairman SAC,  
KVK, Pipalia &  
Vice Chancellor  
Junagadh Agricultural University  
Junagadh

**Note:** Proceeding for approval please

## ANNUAL ACTION PLAN: 2023

### 1. Training Programmes:

#### Quarter wise summary of training

Discipline	On Campus				T	Off campus				T	GT
	I	II	III	IV		I	II	III	IV		
Plant Protection	1	1	1	2	5	1	1	2	2	6	11
Extension	0	1	0	1	2	0	1	0	1	2	04
Horticulture	1	1	1	1	4	1	1	2	2	6	10
Home Science	1	1	1	1	4	2	1	1	1	5	09
Animal Hus.	1	1	1	1	4	1	1	2	2	6	10
Vocational				1					1		02
Extension functionaries			1	1							02
Sponsored training											12
Natural farming /Millet Awareness	1	1	1	1	4	1	2	2	1	6	10
<b>Total</b>					<b>23</b>					<b>31</b>	<b>70</b>

#### A. On Campus training (For practicing farmers, farm women and rural youth):

I. Quarter (1 <sup>st</sup> Jan to 31 <sup>st</sup> March, 2023)				
Plant Protection	Integrated pest management in summer groundnut	1	25	PF
Horticulture	Irrigation and nutrient management in fruit crops	1	25	PF
Home Science	Preparation of different types of bakery products like Pizza base, different types of biscuits, Cake etc.	1	25	PF
Animal Hus	Importance of artificial insemination in cow and buffalo	1	25	PF
NF /Millet	Introduction of natural farming and awareness against millets	1	25	PF/F W
II. (1 <sup>st</sup> April to 30 <sup>th</sup> June, 2023)				
Plant Protection	Integrated Pest management in cotton & groundnut	1	25	PF
Horticulture	Production technology of fruit and vegetable	1	25	PF
Extension	Formation of new SHGs, CIGs,	1	25	PF
Home Science	Preparation of Jam, Squash, Ketchup from fruits	1	25	FW
Animal Hus	Importance of balance ration in milch animal	1	25	PF
NF /Millet	Introduction of natural farming and awareness against millets and its importance	1	25	PF/F W
III. Quarter (1 <sup>st</sup> July to 30 <sup>th</sup> Sept, 2023)				
Plant Protection	Integrated pest and diseases management in coriander	1	25	PF
Horticulture	Nursery raising	1	25	PF
Home Science	Organic Kitchen gardening & its importance on health	1	25	FW
Ani. Husbandry	Importance of colostrum feeding in new born calves	1	25	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	25	PF/F W
IV. Quarter (1 <sup>st</sup> Oct to 31 <sup>st</sup> Dec, 2023)				
Plant Protection	Diseases management in spices	1	25	PF
	Storage pest management	1	25	PF
Animal Hus	Fodder crop production technology	1	25	PF
Home Science	Preparation of different products from Peanut	1	25	FW

Extension	Leadership Development	1	25	PF
Horticulture	Production technology of spices crops	1	25	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	25	PF/F W

**B. Off Campus training (For practicing farmers, farm women and rural youth):**

<b>I. Quarter (1<sup>st</sup> Jan to 31<sup>st</sup> March, 2023)</b>				
Plant Protection	Integrated pest management in summer crops	1	30	PF
Home Science	Processing and value addition in millets	1	30	FW
	Importance of millets in diet	1	30	FW
Animal Hus	Clean milk production by proper milking watering and animal washing	1	30	PF
Horticulture	Importance of drip irrigation in horticultural crops	1	30	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	30	PF/ FW
<b>II. (1<sup>st</sup> April to 30<sup>th</sup> June, 2023)</b>				
Plant Protection	Integrated Pest management in cotton & groundnut	1	30	PF
Extension	Procedure for formation of new SHGs, CIGs	1	30	PF
Horticulture	Production technology in protected cultivation	1	30	PF
Home Science	Art & Crafts for rural youth	1	30	FW
Animal Hus	Infertility of cow and Buffalo by diseases & its prevention	1	30	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	30	PF/ FW
NF /Millet	Importance of natural farming and awareness against millets and its importance	1	30	PF/ FW
<b>III. Quarter (1<sup>st</sup> July to 30<sup>th</sup> Sept, 2023)</b>				
Plant Protection	Integrated pest and disease management in Cotton & Groundnut	1	30	PF
	Bio control of Pests and Diseases	1	30	PF
Home Science	Drudgery reduction technologies in agriculture	1	30	FW
Animal Hus	Importance of colostrum feeding in new born calves	1	30	PF
	Creating awareness about balance nutrition management	1	30	PF
Horticulture	Pruning and training in fruit crops	1	30	PF
	Management of young Plants/ Orchards	1	30	PF
NF /Millet	Significance of natural farming and awareness against major millets and its importance	1	30	PF/ FW
NF /Millet	Importance of natural farming and awareness against minor millets and its importance	1	30	PF/ FW
<b>IV. Quarter (1<sup>st</sup> Oct to 31<sup>st</sup> Dec, 2023)</b>				
Plant Protection	Diseases management in cumin & coriander	1	30	PF
	Storage pest management	1	30	PF
Extension	Development of entrepreneurship among rural youth	1	30	PF
Animal Hus	Fodder crop production technology	1	30	PF
	Increase nutritive value of low quality roughages for milking animals	1	30	PF
Home Science	Women Empowerment through Income generating activities	1	30	FW
Horticulture	Cultivation practices of onion and garlic	1	30	PF
	Post-Harvest Management Technology	1	30	PF
NF /Millet	Importance of natural farming and awareness against major millets and its importance	1	30	PF/ FW

**2. Vocational Training**

S.N	Title of Training	Dura. Days	No. of participants	Type of Participants
1.	Preparation of different bakery products	4	30	Rural women
2.	Value addition in fruits, vegetables & millets	4	30	Rural women

**3. Extension Functionaries**

SN	Title of Training	Days	No. of participants
1	Management of pink bollworm in cotton and white grub in groundnut	1	25
2.	Cattle health management through vaccination and feed management	1	25

**4. Sponsored Training**

S.No	Department	No. of Trainings	No. of Participants
1	ATMA	5	150
2	DAO, Rajkot	5	150
3	DRDA/FTC	1	30
4	GSFC/GNFC	1	30

**5. Front Line Demonstration****A. Agriculture and Horticulture**

Sl. No.	Crop/ Enterprise	Variety	Thematic area	Tech. Demo.	Critical inputs with cost (Rs.)	Season and year	Area (ha)	No. of farmer/ demon.	Parameters identified
1	Groundnut	GG-20	IPM	Seed treatment with Chlorpyrifos	Chlorpyrifos 1.5 L =Rs. 1200	Kharif-2023	4	10	Pest infestation & Yield B:C ratio
2	Groundnut	GG-20	IDM	Application of Trichoderma	Trichoderma: 2 Kg =Rs.140 Castor cake: 1Bag (50 Kg =Rs.700	Kharif-2023	4	10	Disease incidence & Yield , B:C ratio
3	Cotton	Bt	INM	Application of Azotobacter, PSB	Azotobacter: 1 lt=Rs.120 PSB Cultur :1 lt =Rs.120	Kharif-2023	4	10	Yield, B:C ratio
4	Cotton	Bt.	IPM	Pheromone trap	Trap = 4 NOS. Lure = 8 NOS.	Kharif-2023	10	10	Yield, B:C ratio, PB infestation
5	Brinjal	Local	IPM	Univ. Variety	200 gm Rs. 300	Kharif-2023	4	10	Yield, B:C ratio,
6	Tomato	Local	INM	Grade-4 micro nutrient	250 gm 3pkt 120 per pkt	Kharif-2023	4	10	Yield, B:C ratio,
7	Wheat	INM	INM	Azotobacter, PSB	Azotobacter: 1 ltr=Rs. 120 PSB : 1 ltr = Rs.120	Rabi-2023	5	10	Yield, B:C ratio

8	Cumin	GC-4	IDM	Tricho+Castor cake	Trichoderma: 2 kg =Rs.140 Castor Cake: 50 Kg. =Rs.700	Rabi-2023	4	10	Disease incidence & Yield, B:C ratio
9	Chickpea	GJG-6	Varietal	Improved variety	Seeds GJG-6 25 kg Rs=2400	Rabi-2023	4	10	Yield, B:C ratio
10	Brinjal	GRB-5	Varietal	Improved variety	200 gm Rs 300	Rabi-2023	4	10	Yield, B:C ratio
11	Garlic	Local	INM	Grade-4 micro nutrient	250 gm 2pkt =Rs.162	Rabi-2023	4	10	Yield, B:C ratio
12	Onion	Azoto+ PSB	INM	Bacterial culture	1 lt each 240/-	Rabi-2023	4	10	Yield, B:C ratio
13	Sesamum	GT-6	Varietal	Improved variety	Seeds GT-6=2 kg =Rs. 350	Summer-2023	4	10	Yield, B:C ratio
14	Farm Women	-	Nutritional Security	Kitchen Gardening	Vegetable seeds Rs 10 per pkt	Kharif-2023	0.5	50	Yield, B:C ratio
15	Farm Women	-	Drudgery Reduction	Drudgery Reduction tools	Twin Wheel Hoe; Rs 2000 per pc	Kharif-2023	-	10	Average time taken for weeding, Body posture
<b>Total</b>							<b>59.5</b>	<b>190</b>	

## B. Animal Husbandry

Enterprise	Breed	No. of farmers	No. of animals, poultry birds etc.	Critical inputs	Performance parameters /indicators
Buffalo	Jafarabadi	10	10	Calpar gold (60 ml/day/animal)	Milk yield and B:C ratio
Cattle	Gir	20	10	Bypass fat (50 gm/day/animal)	Milk yield and B:C ratio
Cattle	Gir	20	10	Bypass protein (50 gm/day/animal)	Milk yield and B:C ratio

## C. NABARD (Model village- Kolithad)

Demonstration farm : 6 Wheat : 2, Coriander : 4

1. Rameshbhai Kalabhai Savaliya
2. Batukbhai Bhikhabhai Savaliya
3. Pravinbhai Gobarbhai Dhava
4. Bhaveshbhai Jentibhai Mandaviya
5. Sureshbhai Chaganbhai Kalariya
6. Rudabhai Rajabhai Sigal

## 6. ON FARM TESTING:

### 1. TITLE: BIOLOGICAL CONTROL OF WHITE GRUB IN GROUNDNUT

**2. Problem definition:** Low yield due to white grub infestation in groundnut

**3. Details of technologies selected:**

Rajkot district covered large area in Groundnut cultivation. But this crop suffers mainly from white grub pest from last five years, the farmers use number of costly chemical for control of white grub in groundnut and increase cost of cultivation. Nowadays recommended biological input also available for management of white grub in groundnut. Hence, this will make with on farm testing.

**4. Treatments:****Farmer's practice:**

1. Soil application of chloropyriphos @ 4 liter/ha. with irrigation water at the time of attack

**Recommended practice:**

1. Soil application of *Metarhizium anasopli* 1.5% WP @ 5.0 kg/ha along with castor cake 300 kg/ha before sowing
2. Drenching of *Metarhizium anasopli* 1.5% WP @ 75 g/15 liter of water, in plant rows after 30 days of germination

**Intervention:**

1. Seed treated with Chloropyriphos @ 15 ml/kg at the time of sowing
2. Drenching of *Metarhizium anasopli* 1.5% WP @ 75 g/15 liter of water, in plant rows after 30 days of germination

**5. Observations:** Yield, Economics (B:C ratio)& Infestation (%)**2.TITLE: MANAGEMENT OF WILT DISEASE IN CHICKPEA**

**1. Problem definition:** Low yield due to wilt incidence in chickpea

**2. Details of technologies selected:**

Cultivation of chickpea in Rajkot district was increase day by day from last three years. But this crop suffers mainly from wilt disease. The farmers use number of unnecessary and costly chemical but not effectively manage wilt in chickpea. The new recommendation of chemical seed treatment with biological input was made for manage wilt in chickpea. Hence, this will make with on farm testing.

**3. Treatments:****Farmer's practice:**

Seed treated with carbendazim @ 3.0 gram/kg. Seed at the time of sowing

**Recommended practice:**

1. Seed treated with carbendazim 1.0 gram + Thirum 2.0 gram/kg. Seed at the time of sowing
2. Soil application of *Trichoderma viride* @ 2.5 kg/ha. Along with 250 kg castor cake at the time of sowing

**Intervention:**

Soil application of copper oxychloride @ 1.5 kg/ha. Along with fertilizer at the time of sowing

**4. Observations:** Yield, Economics (B: C ratio)&Disease incidence (%)**3.TITLE: EFFECT OF CONCENTRATE AND BYPASS FAT FEEDING ON MILK PRODUCTION IN GIR CATTLE.****Problem Definition:**

- ✓ Lack of knowledge about bypass fat feeding technology.
- ✓ Low milk production due to improper feeding.
- ✓ Lack of energy for milk production.

**Details of technologies selected for assessment:**

Dairy production is mainly based on proper scientific feeding of animals. The lactating animals are to be fed with good quality roughages along with green fodder belonging to legumes or cereals as per the availability. Looking to the productivity of gir cattle such food resources are not sufficient to meet the nutrient requirement of a lactating animal. Hence we have to add more nutritious food in to the diet of animals to reach the maximum production potential and to maintain the normal body condition. Now a day, bypass fat feeding technology is recommended for high

yielding cattle. Bypass fat feeding technology along with concentrate feeding in cattle to fulfil energy and nutrient requirement. Hence, we have proposed this on farm testing to increase the milk production of gir cattle.

**Source of technology:** NAU, Navsari (2011)

**Production system and thematic area:** Nutrition Management

Farmers in the district are not following a wearing system & they also keep them under traditional management system so due to malnutrition & no deworming, the growth rate was found to be hindered.

**Performance of the Technology with performance indicators**

Treatments:

T 1 -Framer's practice

T 2 -Concentrate (1.5kg/cow/day for maintenance+500 gm for each lit. milk production)

T 3 - Concentrate (1.5kg/cow/day for maintenance+500 gm for each lit. milk Production) + Bypass fat 50-100gm/cow/day.

**Detail of OFT Programme:**

- ✓ No. of Villages: 5
- ✓ No. of animals: 30 (10 animal/Treatment)
- ✓ Each animal will be in similar physiological condition (age, lactation, days of lactation etc.).

**Parameters to be evaluated/ recorded:**

- ✓ Milk production (lit / cow / day)
- ✓ Fat percentage
- ✓ B:C ratio
- ✓ Net return

#### **4. TITLE: RESPONSE OF NEW RELEASE TOMATO VARIETY GT-6 ON YIELD**

**Problem Definition:** Low yield due to micronutrient deficiency.

**Technology Assessed:** To increase yield of Tomato by decreasing sucking pest infestation by sowing tolerant variety.

**Treatment: 1)Farmer practices:** Sowing of Local Variety + any Pesticides

**2) Recommended practices:** Sowing of GT 6 Variety + foliar sprayings of Acephate 75 WP @ 1.5 g / liter 10 days after transplanting, Fipronil 5 SC @ 1.5 ml / liter 20 DAT, and Imidacloprid 70 WG @ 2g / 15 liter 40 DAT.

**3) Intervention:** Sowing of Local Variety and foliar sprayings of Acephate 75 WP @ 1.5 g / liter 10 days after transplanting, Fipronil 5 SC @ 1.5 ml / liter 20 DAT, and Imidacloprid 70 WG @ 2g / 15 liter 40 DAT

**Observation to be recorded:** Yield (qtl/ha), B:C ratio, Farmers' perception.

#### **5. TITLE: ASSESSMENT OF EFFECT OF MICRO NUTRIENT ON YIELD OF GARLIC**

**Problem definition:** Low yield due micro nutrient deficiency

**Treatments: 1. Farmer's practices:** Application of only DAP and Urea in different Doses

**2.Recommended practices:** Recommended dose of Fertilizer. RDF 50-50-50 (N-P-K) Kg/ha.

**3. Intervention: Apply** foliar spray of multi-micronutrient formulation Grade IV (Fe-Mn-Zn-Cu-B, 4.0-1.0-6.0-0.5-0.5 %) @ 1% at 60, 75 and 90 DAS in addition to recommended dose of fertilizers (50-50-50 N-P2O5-K2O

**Observations:** B:C ratio and farmers' perception

#### **6. TITLE: ASSESSMENT OF ACCEPTANCE OF PEANUT MILK IN COMPARISON TO COW'S MILK AMONG CONSUMERS.**

**Objectives: -**

4. To evaluate the sensory characteristics of Peanut milk parallel to cow's milk
5. To analyze the nutritional properties of both milk.
6. To check the shelf life of the peanut milk.

**Treatments: -**

- IV. T1- Cow's milk
- V. T2- Peanut milk
- VI. T3- Mixture of both milk in equal ratio

**Observations: -**

- 4. Sensory characteristics- colour, flavor, taste, overall acceptability
- 5. Nutritional Properties- Protein, carbohydrate, fat, vitamin & minerals
- 6. Shelf life- microbiological test and household level test.

**7. EXTENSION ACTIVITIES:**

<b>Sr. No.</b>	<b>Activities</b>	<b>Proposed No.</b>
1	Kisan Mela	1
2	Field Day	5
3	Kisan Ghosthi	5
4	Radio Talk	As and when required
5	TV Show	As and when required
6	Film Show	5
8	Khedut shibir	15
9	Kisan mahila meeting	5
10	New paper Coverage	As and when required
11	Popular Articles	5
12	Extension Literature	8
13	Advisory Service	As and when required
14	Day celebrations	10
15	Others- Seminar	4
16	Exhibition	2

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