ANNUAL PROGRESS REPORT-2021
(Jan-2021 to Dec-2021)

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 Dec,2021)

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	147900	18.08.06
2.	Subject Matter Specialist	S. V. Undhad	Plant Protection	57700-182400	68800	27.03.15
3.	Subject Matter Specialist	Dr. V. S. Prajapati	LPM	57700-182400	68800	01.04.15
4.	Subject Matter Specialist	A.R Parmar	Horticulture	57700-182400	66800	17.01.17
5.	Subject Matter Specialist	Dr. Mamta Kumari	Home Science	57700-182400	70900	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	52000	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	52000	12.06.13
12.	Stenographer	K. R. Yadav	Steno.Grade III	25500-81100	31400	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	34000	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
	Total	**20.00**

1.7. Infrastructural Development:

A) Buildings

Sl. No.	Name of building	Source of funding	Stage					
			Complete			Incomplete		
			Comp-letion Date	Plinth area (Sq.m)	Expen-diture (Rs.)	Star-ting Date	Plinth area (Sq.m)	Status of const-ruction
1.	Administrative Building	-	-	-	-	-	-	-
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
Mrida parikshak soil testing mini lab	2016-17	90300	Working

1.8. Details of SAC meeting conducted in the year (9th SAC Meeting)

S. N	Date	No. of Parti	Salient Recommendations	Action taken
1	10-2-2021	33	1. More trainings should be organized on Integrated Farming System	4 trainings were organized related to IFS including agriculture, animal husbandry using organic farming practices.
			2. Accountability of varietal Front Line Demonstration (FLD) should be in terms of money.	The Varietal FLDs were done on the basis of cost of inputs & profits gained from the yields and same has been documented.
			3. To measure the impact of Training/Campaign among the KVK operational villages and also collect feedback from the farmers.	To measure the impact of trainings, feedback is collected (as per format given by DEE) & documented as well.
			4. Increase number of Agro Advisory Services/ Text Messages/ WhatsApp Messages or group and same must be presented in the meetings.	We already created three different groups on WhatsApp & used to aware them through WhatsApp messages
			5. Publish good numbers of research papers having NAAS rated journal of 6 and above.	Publication is in progress. One paper published in NAAS rating 5.95
			6. Continue the campaign for management of pink boll worm in cotton and white grub in groundnut for the next year.	From last 5 years KVK, Pipalia is continuously run the campaign on management of pink boll worm in cotton and white grub in groundnut. Large no. of farmers was benefitted & awareness increased on package of practices which results in lower rate of infestation.
			7. To create awareness and organized training regarding *Brucellosis* disease in animals.	To aware farmers & farm women, a total of 6 training & awareness programmes organized on *Brucellosis* disease in animals.
			8. Training should be organized on "Bee Keeping".	Online E-goshthi was organized on "Bee keeping as an economic enterprise" on the occasion of World Beekeeping Day.
			9. To create awareness and organize demonstration about management of fruit borer in horticultural crops.	4 trainings & awareness programme were organized to manage problem of fruit borer.

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. No	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 (Year-2020-2021)

S. No	Crop	Area (ha)	Production (MT.)	Productivity (Qt./ha)
	Kharif			
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
	Rabi			
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

	Summer			
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 (2021)

Month	**Rainfall (mm)**	**Temperature 0 C**		**Relative Humidity (%)**	
		Maximum	**Minimum**	**Maximum**	**Minimum**
January	00	-	-	-	-
February	00	-	-	-	-
March	00	-	-	-	-
April	00	-	-	-	-
May	19	-	-	-	-
June	54	-	-	-	-
July	280	-	-	-	-
August	12	-	-	-	-
September	753	-	-	-	-
October	46	-	-	-	-
November	14	-	-	-	-
December	00	-	-	-	-
Total	**1178**	-	-	-	-

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

Category	**Population**	**Production**	**Productivity**
Cattle			
Cow	515003	1150 lit /lactation	4.60 lit / day
Buffalo	430795	1390	5.26 lit/day
Sheep	192994	-	-
Goats	171515	-	-
Pigs	-	-	-
Crossbred	-	-	-
Indigenous	-	-	-
Rabbits	212	-	-
Poultry			
Hens		100 eggs /year	-
Desi	9988	140 eggs /year	-
Improved	13527		-
Category		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	Nani Parabadi	Groundnut, Cotton, Sesamum, Wheat, Cumin, Coriander, Chickpea, Garlic and onion. Enterprise are dairy business, vermi composting	- 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

3. TECHNICAL ACHIVEMENT

3. A. Achievement on technology assessed and refined during 2021

OFT				
	Number of OFTs		**Number of Farmers**	
Year-2021	Targets	Achievement	Targets	Achievement
OFT	7	7	20 (30 Animal)	20 (30 Animal)

FLD	Area of FLD (ha)		No. of Farmers	
	Targets	**Achievement**	**Targets**	**Achievement**
Summer -2021-22				
Sesame	4	4	10	10
	4	**4**	**10**	**10**
Kharif -2021				
Ground nut (GG-22)	4	4	10	10
Groundnut (*Trichoderma*)	4	4	10	10
Groundnut (IPM)	4	4	10	10
Groundnut (CFLD, GG-22)	10	10	25	25
Cotton (IPM)	5	5	5	5
Cotton (INM)	4	4	10	10
Tomato(INM)	4	4	10	10
Brinjal (IPM)	4	4	10	10
Total (A)	**43**	**43**	**100**	**100**
Rabi-2021				
Wheat	4	4	10	10
Chick pea	4	4	10	10
Cumin	4	4	10	10
Brinjal (INM)	4	4	10	10
Tomato (INM)	4	4	10	10
Onion (INM)	4	4	10	10
Tomato Varietal GT-6	5.6	5.6	14	14
Brinjal Varietal GJB-3	4	4	10	10
Total (B)	**33.6**	**33.6**	**84**	**84**
Animal Husbandry (By pass fat)	-	-	10	20
Animal Husbandry (Bypass protein)	-	-	10	20
Animal Husbandry(Calpar Gold)	-	-	10	10
Kitchen gardening	0.5	0.5	50	50
Revolving stool & stand for milking animals	-	-	5	5
Total (C)	**0.5**	**0.5**	**105**	**55+50=105**
Total (A+B+C)	**77.6**	**77.6**	**289**	**289 (50 AH)**

Training (including sponsored, vocational and other trainings carried under Rainwater Harvesting Unit)					**Extension Activities**			
3					**4**			
Number of Courses			**Number of Participants**		**Number of activities**		**Number of participants**	
Clientele	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**	**Targets**	**Achievement**
Farmers/FW/ RY	46	45	1280	1226				
Voc. Training	2	2	60	77				
Extn.Func.	2	2	54	50	-		-	
Spons. Trg	16	18	480	666				
Total	**66**	**67**	**1874**	**2019**	**300**	**424**	**6180**	**8210**

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	FLDs-10 (GJG-22) CFLD FLDs : 25 (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 : 10 (MDP Tube) 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 Biofert.	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	FLDs : 10 (GG-5) Training, Advisory Service
9.	Integrated Nutrient Management	Garlic	Low Yield	OFT -1 Training, Diagnostic visit
10.	Improved variety (Horticulture)	Brinjal	Low Yield	FLD-10 Brinjal (GRB-5) Training, Advisory service
11	INM (Horticulture)	Tomato	Low Yield	FLD-10 Training, Advisory Service
12.	IPM (Horticulture)	Brinjal	Low yield	FLD Training and advisory service
13	Nutritional security	Farm Women	Unaware about the concept of kitchen gardening to combat balanced Nutrition with easy availability	FLDs : 50 Training
14	Nutritional Security	Farm Women	Less knowledge regarding the importance of solar cooker	OFT :1 Training
15	Drudgery Reduction	Farm Women	Ease in milking animals	FLD-5 Training
16	Value Addition	Groundnut	Lack of awareness about groundnut milk & its value addition	OFT-1 Training
15	Nutrition Management in cattle	Cattle	Lack of knowledge about nutrition management in cattle	OFT:1 Training, Diagnostic visit Advisory Service
16	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	Comm-ercial Crops	Veget-ables	Fruits	Flower	Plant-ation crops	Tuber crops	TOTAL
Varietal Evaluation	-	-	-	-	-	-	-	-	-	-
Seed / Plant production	-	-	-	-	-	-	-	-	-	-
Weed/Thinning Management	-	-	-	-	-	-	-	-	-	-
Integrated Crop Management	-	-	-	-	-	-	-	-	-	-
Integrated Nutrient Management	1	-	-	-	1	-	-	-	-	2
Integrated Farming System	-	-	-	-	-	-	-	-	-	-
Mushroom cultivation	-	-	-	-	-	-	-	-	-	-
Drudgery reduction	-	-	-	-	-	-	-	-	-	-
Farm machineries	-	-	-	-	-	-	-	-	-	-
Value addition	-	1	-	-	-		-	-	-	1
Integrated Pest Management	-	1	-	-	1	-	-	-	-	2
Integrated Disease Management	-	-	-	-	-	-	-	-	-	
Resource conservation technology	-	-	-	-	-	-	-	-	-	-
Small Scale income generating enterprises	-	-	-	-	-	-	-	-	-	-
TOTAL	1	2	-	-	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	Fruits	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	-	-	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-	-	-

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	-	-	-	-	-	-	-	-
TOTAL	**1**	-	-	-	-	-	-	**1**

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	-	-	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-	-	-

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

3.B2 List of Technology Assessed during- 2021

S. No	Thematic area	Name of the technology assessed	Area (ha.)	No. of trials	Remarks
1	Integrated Pest Management	Integrated Pest Management	1.5	3	-
2	Integrated Nutrient Management	Use of Bio-Fertilizer	1.2	3	-
3	Feed management	Nutritional management of milch animals	-	30	-
4	Health improvement	Comparison of solar Cooker with Traditional Cooking system.	-	3	-
5	Integrated Nutrient Management	Integrated Nutrient Management	1.2	3	-
6	Drudgery reduction	Revolving stool & stand for milking animals	-	5	-
7	Value Addition	Groundnut milk & its value addition	-	5	

3.B3 List of Technology Refined during - 2021

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 (2020-21)

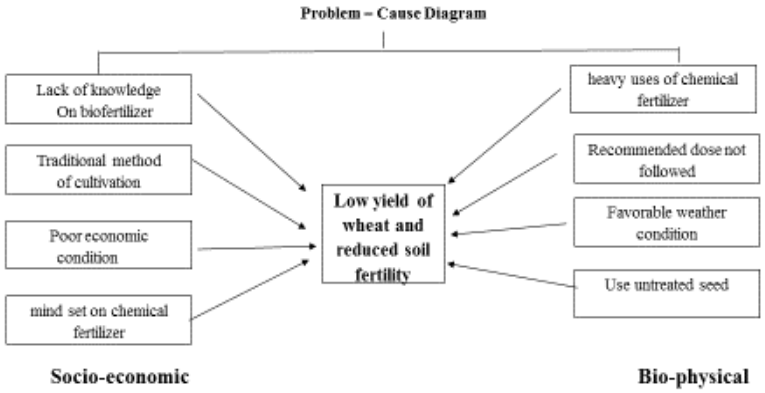
OFT-1: ASSESSMENT OF RESPONSE OF BIO FERTILIZERS TO WHEAT YIELD

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.

Problem definition : Reduce yield and soil fertility

Problem cause diagram :



5. **Intervening point** : Response of Bio fertilizers to wheat yield
6. **Crop** : Wheat
7. **Season/Year** : Rabi 2020-21
8. **Plot size** :- 0.4 ha
9. **No. of Replication:** 3 (Farmer)
10. **Cost** : Rs. 600 /-
11. **Source of technology:** Junagadh Agricultural University, Junagadh
12. **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

13. **Observations and results:**

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	4250	12251	1:1.22
Recommended practices	4625	19694	1:1.36
Intervention	4833	24030	1:1.44

Crop	Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			BCR (H)
	Farmer prac	Rec. Prac	Interv.	Farmer prac	Rec. Prac	Interv.	Farmer prac	Rec. Prac	Interv.	
Wheat	56812	54512	55462	75438	82094	85792	18628	27582	30330	1:1.42

OFT-2: ASSESSMENT OF MICRO NUTRIENT IN 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 farmer's perception

Results: B:C ratio and farmer's perception

Details	Yield (Q/ha)	Net profit	BCR
Farmer's practices	65	120000	1:2.6
Recommended practices	67.5	132500	1:2.89
Intervention	74.6	153143	1:3.16

Economic Impact (Continuation of previous table)

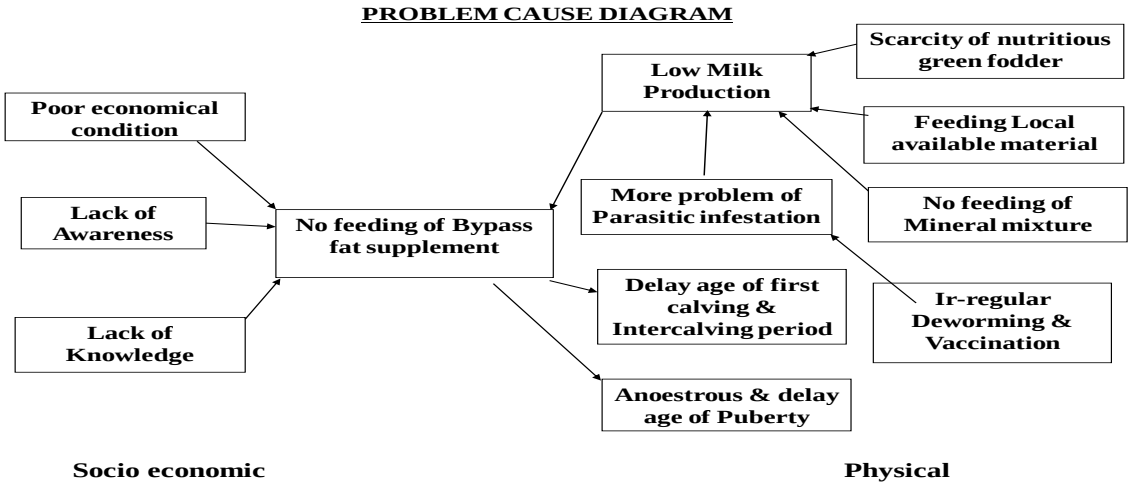
Crop	Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			Benefit-Cost Ratio (H)
	Farmer practices	Reco. Practices	Inter vention	Farmer practices	Reco. Practices	Inter vention	Farmer practices	Reco. Practices	Inter vention	
Garlic	75000	70000	70607	195000	202500	223750	120000	132500	153143	1:3.16

OFT-3: 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

Problem cause diagram



Performance of the technology with performance indicators:

Treatments:

- ❖ T1- Farmers practice (Green fodder, dry fodder, 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.)

Parameters to be evaluated/ recorded:

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

Result

Technology Assessed	**Parameters of assessment**	**Data on the parameter**	**Results of assessment**	**Feedback from the farmer**	**B:C ratio**
T1: Routine Farmer Practice	Milk production at 0, 2, 4, 6, 8, 10 and 12 week (lit. / day) (6 animals/treatment)	Milk prod. at week (Lit./Day) 0 = 6.3 2 = 6.4 4 = 6.4 Ave: 6.44 lit/day 6 = 6.5 8 = 6.3 10 = 6.8 12 = 6.4	Increase milk production in Concentrate along with bypass fat (T_3) fed group	Increase milk production of animal Improve animal health via curing reproductive or metabolic diseases	1:1.9
T2: T1+ Feeding of concentrate mixture (5kg/animal /day)		Milk prod. at week (Lt./Day) 0 = 7.2 2 = 7.3 4 = 7.5 Ave: 7.84 lit/day 6 = 7.9 8 = 7.9 10 = 8.3 12 = 8.8			1:2.56
T3: T1+T2+ Bypass fat (50 gm/cow /day)		Milk prod. at week(Lt./Day) 0 = 7.7 2 = 8.3 4 = 8.7 6 = 8.0 Ave: 8.68 lit/day 8 = 8.9 10 = 9.4 12 = 9.8			1:2.90

B. DETAILS OF ON FARM TRIALS CARRIED OUT ON FARMER'S FIELD (2021)

OFT 1: - ASSESSMENT OF MANAGEMENT OF WHITE GRUB IN GROUNDNUT

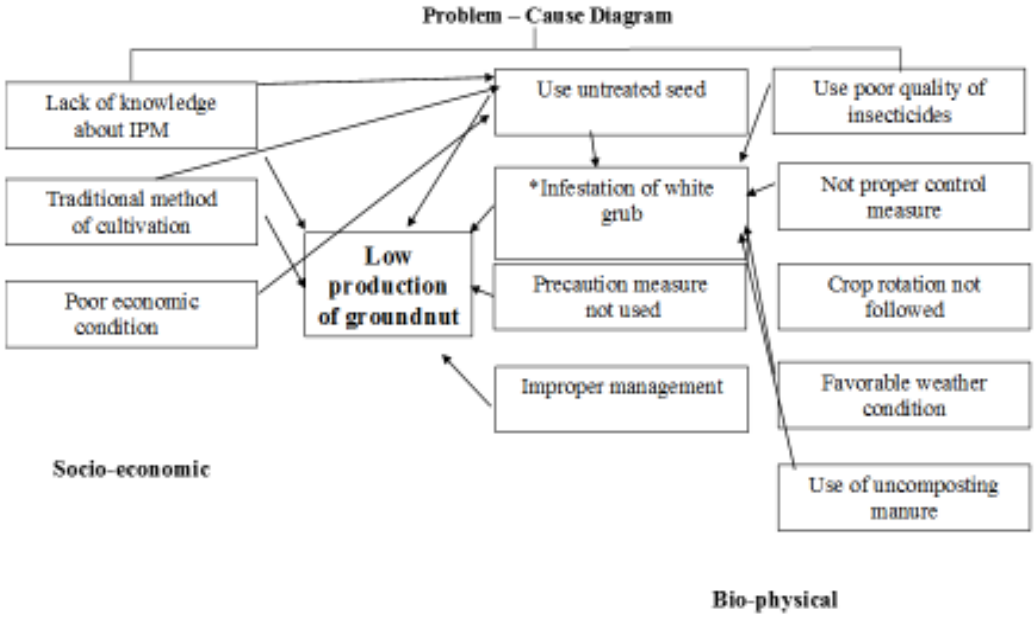
2. Introduction: -

The area under groundnut cultivation in Rajkot district is higher after cotton crops as compare to other crops. in this area groundnut crops are well suitable crops and gave higher production and productivity.

But last few years this crops suffering from heavy infestation of white grub insect. This insect cause severe damage to groundnut crops and resulting in yield loss. It is difficult to manage this pest. Farmer spent lots of money for uses of insecticides for control of this insect but not proper control. Therefore, it is very necessary to management through different possible solution of white grub in groundnut.

3. Problem definition : Low yield from groundnut cultivation

4. Problem cause diagram:



5. Intervening point : Management of white grub in groundnut

6. Crop : Groundnut

7. Season/Year : Kharif-20

8. Plot size :- 0.4 ha

9. No. of Replication: 3 (Farmer)

10. Cost : Rs. 2062 /-

11. Source of technology: Junagadh Agricultural University, Junagadh

12. Treatments:

Farmer's practice : Chloropyriphos @ 4 lit./ha at the time of attack

Recommended practice: 1.Seed treatment with Chloropyriphos @ 25 ml/kg
2. Application of Chloropyriphos @ 4 lit./ha
3. Spraying the trees on bund with lambda cyalothrin 1.5 ml/1 lit water

Intervention: **1.** Application of carbofuran 3G@ 40kg/ha at time of sowing
2.Spraying the trees on bund with lambda cyalothrin 1.5 ml/1 lit water
3.Application of UREA @ 50 kg/ha with irrigation water at time of infestation.

13. Results:

Details	Yield (Kg/ha)	Net profit	BCR
Farmer's practices	2292	60648	1:1.91
Recommended practices	2792	89448	1:2.37
Intervention	2625	80148	1:2.22

Economic Impact (Continuation of previous table)

Average Cost of cultivation (Rs./ha)			Average Gross Return (Rs./ha)			Average Net Return (Profit) (Rs./ha)			BC Ratio (H)
FP	RP	Interv	FP	RP	Interv	FP	RP	Interv	
66540	65490	65540	127188	154938	145688	60648	89448	80148	1:2.37

White grub infestation (Observation)							
Treatments	Percent plant damage and No of white grub per 1 meter row length						
	35 DAS		60 DAS		90 DAS		Percent pod damage / plant
	No. of White grub	No of Damage plant	No. of White grub	No of Damage plant	No. of White grub	No of Damage plant	
Rec. practices	0	0	1	1	1	1	2.15
Farmer practices	3	2	5	3	6	5	14.18
Intervention	1	0	3	3	2	2	6.45

OFT-2: RESPONSE OF NEW RELEASE VARIETY OF TOMATO GT-6 ON LEAF CURL OCCURRENCE AND YIELD

1. **Problem Definition**: Low yield due to micronutrient deficiency.
2. **Technology Assessed**: To increase yield of Tomato by decreasing sucking pest infestation by sowing tolerant variety.

3. 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

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

5. 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		
70000	63825		520833	619167		450833	555342		1:2.79

OFT 3: COMPARISON OF SOLAR COOKER WITH TRADITIONAL COOKING SYSTEM

1. **Objectives: -**
   - To improve quality and nutrition of Prepared items
   - To reduce drudgery of farm women
   - To reduce time and fuel consumption
2. **Treatment: -**
   - Preparation by traditional method (Firewood/cow dung cakes)
   - Preparation by LPG Gas
   - Preparation by solar cooker
3. **Items: -**
   1. Cake 2. Milk 3. Boiled Pulses
4. **No. of Replications: -** 5
5. **No. of beneficiaries:** 3 Farm women from three different locations
6. **Observations: -**

1. Time consumption
2. Fuel consumption
3. Cost saving
4. Organoleptic test: i) Colour ii) Texture iii) Taste iv) Overall Acceptability

7. Results:

Sr. No	Item	Cake			Milk			Pulses		
	Observation	**Traditional Method (Firewood)**	**Preparation by Roasting (Gas)**	**Solar Cooker**	**Traditional Method (Firewood)**	**Preparation by Roasting (Gas)**	**Solar Cooker**	**Traditional Method (Firewood)**	**Preparation by Roasting (Gas)**	**Solar Cooker**
1	Time Consumptn (min)	66	27	160	22	18	105	20	15	200
2	Fuel Consump (g)	450	9	0	300	6	0	250	5	0
3	Fuel Consumpt (Rs)	2.7	0.58	0	1.8	0.38	0	1.5	0.32	0
4	Cost Saving using Solar Cooker (%)	-	-	100%	-	-	100%	-	-	100%
5	Cost Saving using LPG over Firewood (%)	-	78.52%	-	-	78.89%	-	-	78.67%	-
6	Organoleptic test									
a	Colour	8	8	7	8	8	8	8	8	7
b	Texture	8	8	8	8	8	8	7	7	8
c	Taste	7	8	7	6	7	9	7	7	8
d	Overall Acceptance	7.6	8	**7.33**	7.33	7.6	**8.33**	7.33	7.33	**7.6**

Note: 1. LPG cost/gm (0.064) is considered at current rate (Rs. 912 per cylinder of 14.2 Kgs) 2. Firewood price at Rs 6 per Kg

OFT-4: ASSESSMENT OF ACCEPTANCE OF PEANUT MILK IN COMPARISON TO COW'S MILK AMONG CONSUMERS.

1. Objectives: -

i. To evaluate the sensory characteristics of Peanut milk parallel to cow's milk
ii. To analyze the nutritional properties of both milk.
iii. To check the shelf life of the peanut milk.

2. Treatments: -

i. T1- Cow's milk
ii. T2- Peanut milk
iii. T3- Mixture of both milk in equal ratio

3. Observations: -

i. Sensory characteristics- colour, flavor, texture, taste, overall acceptability
ii. Nutritional Properties- Protein, carbohydrate, fat, vitamin & minerals
iii. Shelf life- microbiological test and household level test.

4. Results:

Sensory Parameters	**Cow's Milk**	**Peanut Milk**	**Mix Milk**
Colour	8.75	7.7	7.25
Flavour	8.5	6.76	7.0
Texture	8.95	6.95	7.33
Taste	8.25	6.8	7.25
Overall Acceptability	**8.61**	**7.08**	**7.20**

9-point hedonic scale

9- Liked Extremely	6- Liked Slightly	3- Dislike Moderately
8- Liked Very Much	5- Neither like nor dislike	2- Dislike Very Much
7- Liked Moderately	4- Dislike Slightly	1- Dislike Extremely

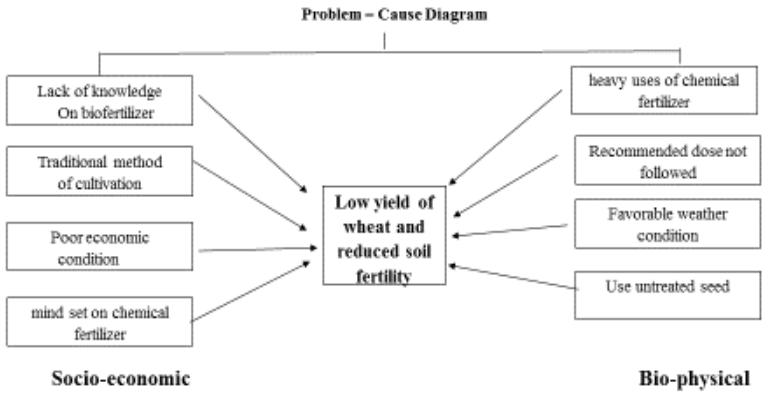
From the above table it can be observed that the overall acceptability for Peanut milk scores 7.08 on 9-point hedonic scale which describes that it was liked moderately by the consumers as compared to cow's milk. This may be due to the fact that consumers' lack knowledge on the concept of peanut milk and also the peanut milk is quite bitter in taste and have nutty flavour. The taste and flavour could be improved by adding chocolate, sugar, cardamom, etc. Thus, more acceptability of peanut milk can be achieved by awareness, trainings and demonstration on peanut milk and its value addition.

OFT-5: 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: Results awaited**

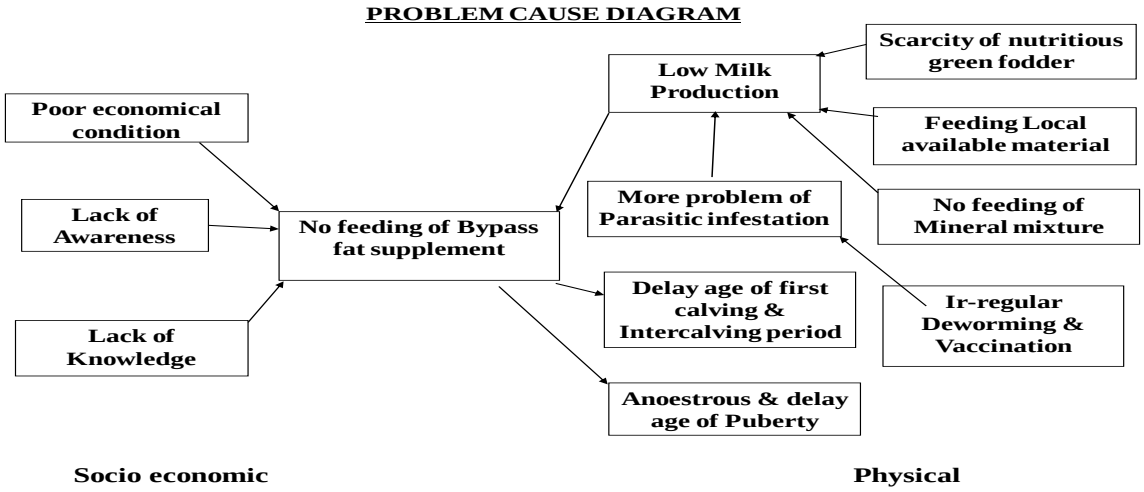
OFT-6: ASSESSMENT OF MICRO NUTRIENT IN GARLIC

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-P2O5-K2O kg/ha)

3. Results awaited

OFT-7: 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. **Result 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 2020-21 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	11	110	46
2	Groundnut	IDM	Tricho derma	FLDs, Field days, Group discussion, Extension lit	35	547	111
3	Groundnut	Varietal	GG-22	FLDs, CFLDs	40	750	200
4	Sesame	Varietal	GT-5	FLDs, Field days, Group discussion	12	65	70
5	Chick pea	Varietal	GG-5	FLDs, Personal visit, Training,	48	800	180
6.	Wheat	INM	Azoto + PSB	FLDs, Extension literature, Training	11	34	17
7	Cumin	IDM	Trichoderma	FLDs, Training	9	46	19
8	Cotton	INM	INM	FLDs, Field days, Group discussion	22	187	112
9	Cotton	IPM	IPM	FLDs, Personal visit, Training, Extension literature	5	45	10
10	Tomato	Varietal	GT-6	FLDs, Personal visit, Training, Extension literature	4	15	7
11	Brinjal	Varietal	GRB-5	FLDs, Field days, Group discussion	5	5	2
12	Brinjal	Varietal	GRB-7	FLDs, Field days, Group discussion	5	5	2
13	Animal Husbandry	Feed Management	Calcium supplement	FLDs, Personal visit, Training,	16	128	5
14	Kitchen Gardening	Household food security	Kitchen Gardening	FLDs, Personal visit, Training,	6	50	4

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

b. Details of FLDs implemented during 2021 (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	
Oilseeds										
1	Groundnut	Variety	GG-22	*Kharif-21*	1.5	1.5	2	8	10	-
2	Groundnut	IDM	Trichoderma	*Kharif -21*	4	4	2	8	10	-
3	Groundnut	IPM	IPM	*Kharif -21*	4	4	2	8	10	
4	Sesame	Variety	GT-5	*Summer-21*	4	4	2	8	10	-
Pulse										
5	Chickpea	Varietal	GG-5	*Rabi 21*	4	4	2	8	10	-
Others: Cereals										
6	Wheat	INM	Lok - 1	*Rabi* -21	5	5	3	7	10	-
Others: Vegetables										
7	Tomato	INM	Local	*Kharif-21*	4	4	2	8	10	-
8	Brinjal	IPM	Local	*Kharif-21*	4	4	2	8	10	-
9	Garlic	INM	Local	*Rabi-21*	4	4	2	8	10	-
10	Brinjal	Varietal	GRB-5	*Rabi-21*	4	4	2	8	10	
Others: Spices										
11	Cumin	IDM	GC-4	*Rabi* 21	4	4	2	8	10	-
Others: Commercial crops										
12	Cotton	INM	INM	*Kharif 21*	4	4	2	8	10	-
13	Cotton	IPM	IPM	*Kharif 21*	10	10	2	8	10	
Animal Husbandry										
14	Cattle	Feed Mgt	Calcium	*2021*	10	10	4	6	10	-
15	Cattle	Nutrient mgt.	Bypass Protein	*2021*	-	-	4	16	20	
16	Cattle	Nutrient mgt.	Bypass fat	*2021*	-	-	5	15	20	
Home Science										
17	Farm Women	Household food security	Kitchen Gardening	*Kharif-21*	0.5	0.5	10	40	50	-
18	Farm Women	Drudgery Reduction	Revolving stand & stool	*Kharif-21*	-	-	1	4	5	

Performance of Frontline Demonstrations (2020)

Sr. No.	Crop	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
Kharif-2020												
Oilseeds												
	Sesamum	Variety	GT-5	10	4	16.3	7.5	11.0	9.2	19.73	Yield	Yield
Pulses (Rabi -2020)												
	Chick pea	Varietal	GG-3	10	4	33.8	22.5	28.3	23.3	21.18	Yield	Yield
Cereals (Rabi -2020)												
	Wheat	INM	Lok-1.	10	5	62.5	37.5	49.4	46.4	6.60	Yield	Yield
Spices (Rabi -2020)												
	Cumin	IDM	GC-4	10	4	13.1	5.6	9.2	7.5	22.50	Yield	Yield
Horticulture												
	Onion	INM-Rabi	Local	10	4	268.8	237.5	254.1	232	9.54	Yield	Yield
	Brinjal	INM-Rabi	Local	10	4	412.5	376.3	392.5	362.9	8.16	Yield	Yield
	Tomato	INM-Rabi	Local	10	4	418.8	381.3	398.9	377.3	5.73	Yield	Yield
Home Science												
	Kitchen gardening	Nutritional security	-	50	0.5	214.1	178.5	214	207.2	3.87	Yield	Yield
Animal Husbandry												
	Livestock	Bypass Protein	Feed Mgt	20	10 no.	7.12			6.25	4.85	Milk Yield	Milk Yield
	Livestock	Bypass Fat	Feed Mgt	20	10 no.	6.45			6.21	5.34	Milk Yield	Milk Yield
	Livestock	Calcium supple.	Feed Mgt	10	10 no.	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
Demonstrations	Demo	LC	Demo	LC	Demo	LC	
	14	15	16	17	18	19	20
Oil seed							
Sesamum	52066	51416	88000	73500	35934	22084	1:1.9
Pulses							
Chick pea (IDM)	59462	58212	109468	90335	50006	32123	1:1.84
Cereals							
Wheat (INM)	56732	58532	87751	82315	31019	23783	1:1.55
Spices							
Cumin (IDM)	54562	54312	133219	108750	78657	52437	1:2.44
Horticulture							
Onion (INM-Rabi)	50600	55000	177888	162400	127288	107400	1:3.52
Brinjal (INM-Rabi)	51750	55000	132188	121125	80437	66125	1:2.55
Tomato (Rabi)	61712	65000	398875	377250	337162	312250	1:2.57
Home Science							
Kitchen gardening	115070	118450	202340	210380	95870	86930	1:1.79
Animal Husbandry							
Livestock (bypass fat)	53987	51267	77529	70320	23542	19053	1:1.43
Livestock(bypass protein)	58132	54245	79231	71456	21099	17211	1:1.36
Livestock (Calcium Suppl)	54733	50987	74890	66354	20157	15367	1:1.36

Performance of Frontline Demonstrations (2021)

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
Kharif-2021												
Oilseeds												
	Groundnut	Variety	GG - 22	10	4	22.0	15.0	18.2	19.9	14.47	Yield	Yield
	Groundnut (Tricho)	IDM	GG - 20	10	4	37.5	25.0	31.6	25.8	22.82	Yield	Yield
	Groundnut	IPM	GG - 20	10	4	37.5	27.5	32.3	25.3	27.72	Yield	Yield
	Sesamum	Variety	GT-5	10	4	16.3	7.5	11.00	9.2	1.73	Yield	Yield
Pulses (Rabi -2021)												
	Chick pea	Varietal	GG-3	10	5	40.0	26.3	32.1	26.9	19.53	Yield	Yield
Cereals (Rabi -2021)												
	Wheat	INM	Lok-1.	10	5	58.8	46.3	51.5	47.8	7.85	Yield	Yield
Other												
	Cotton	INM	Bt.	10	4	26.3	18.8	22.0	19.8	11.39	Yield	Yield
	Cotton	IPM	Bt.	5	5	30.0	17.5	21.3	18.3	16.44	Yield	Yield
Spices (Rabi -2021)												
	Cumin	IDM	GC-4	10	4	11.3	7.5	9.5	8.3	14.29	Yield	Yield
Horticulture												
	Tomato	INM-Rabi 20-21	GT-3	10	4	-	-	284	272	4.41	Yield	Yield
	Brinjal	INM-Rabi 20-21	VNR Harsh F1	10	4	-	-	392.5	362.9	8.16	Yield	Yield
	Onion	INM-Rabi 20-21	Pili Patti	10	4	-	-	254	232	9.48	Yield	Yield
	Brinjal	IPM-Kharif 21	ARBH 905	10	4	-	-	440.6	403.8	9.11	Yield	Yield
	Tomato	INM-Kharif 21	GT-3	10	4	-	-	398.9	377.3	5.72	Yield	Yield
	Tomato	Variety-Rabi 21	GT-6	14	5.6							
	Brinjal	Variety-Rabi 21	GJB-3	10	4							
Home Science												
	Farm Women	Nutritional security	Vegetable seeds	50	0.5	1327.08			1109.40	19.62	Yield	Yield
	Farm Women	Drudgery Reduction	Rev. Stool & stand	5	-	1.82			2.57	29.22	Time saving (%) in milking per liter milk	
Animal Husbandry												
	Livestock	Bypass Protein	Feed Mgt	20	-	Results Awaited						
	Livestock	Bypass Fat	Feed Mgt	20	-	Results Awaited						
	Livestock	Calcium supple.	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
Demonstrations	Demo	LC	Demo	LC	Demo	LC	
	14	15	16	17	18	19	20
Oil seed							
Groundnut (Var.)	72240	65940	126263	110306	54023	44366	1:1.75
Groundnut (IDM)	65653	65840	175518	142912	109866	77072	1:2.67
Groundnut (IPM)	65146	66240	178987	140137	113841	73897	1:2.75

Sesamum	52066	51416	110000	91875	57934	40459	1:2.11
Pulses							
Chick pea (IDM)	42482	40232	168557	141094	126175	100862	1:3.97
Cereals							
Wheat (INM)	57032	58532	103000	95500	45968	36968	1:1.81
Other							
Cotton (INM)	73100	74600	209000	187625	135900	113025	1:2.86
Cotton (IPM)	77000	74800	201875	173375	124875	98575	1:2.62
Spices							
Cumin (IDM)	56250	56312	175750	153781	119501	97469	1:3.12
Horticulture							
Tomato (INM-Rabi-21-22)	61607	65000	113600	108950	51993	43950	1:1.84
Brinjal (INM-Rabi 21-22)	50600	55000	117750	108862	67150	53862	1:2.32
Onion (INM-Rabi 21-22)	50600	55000	177888	162400	127288	107400	1:3.51
Brinjal (IPM- Kharif 21)	51750	55000	132188	121125	80438	66125	1:2.55
Tomato (INM- Kharif 21)	70243	75000	625750	557000	555507	482000	1:8.91
Tomato (Variety- Rabi 21)		Results Awaited					
Brinjal (Variety- Rabi 21)		Results Awaited					
Home Science							
Kitchen gardening	12486	16116	39812	33282	27326	17165	1:3.19
Animal Husbandry							
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	Varietal	GJG-22 variety gives higher yield as compare to GG-20 and less infestation of stem rot as compare to other variety in kharif season
3	Groundnut	IDM	Application of Trichoderma in Groundnut crop reduce infestation of stem rot and increase yield
4	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
5	Cotton	INM	Application of Azotobactor and PSB culture reduce cost of chemical fertilizer and increase yield
6	Wheat	INM	Application of biofertilizer reduce the cost of chemical fertilizer and increase yield
7	Wheat	INM	Application of Azotobactor and PSB culture reduced the cost of chemical fertilizers and increase yield
8	Cumin	IDM	Application of trichoderma with castor cake reduce wilt in cumin and increase yield
9	Chick pea	Varietal	Less incidence of wilt in GG-5 var of chick pea and higher yield as compare to other variety
10	Sesame	Varietal	G.T-5 var. Bold and white seeded and higher yield
11	Tomato	INM	Application of micro nutrient Grade -4 reduce nutrient deficiency and increase yield
12	Brinjal	IPM	MDP tube in Brinjal field control the shoot and fruit borer
13	Brinjal	Varietal	GRB-5 Variety tolerant against little leaf disease and higher yield
14	Garlic	INM	Application of micro nutrient Grade -4 reduce nutrient deficiency and increase yield

15	Cattle	Bypass fat	Increase milk production of animal and overall improve animal health
16	Cattle	Bypass protein	Increase milk production of animal and reduction of inter calving period
17	Cattle	Calpar gold	Increase milk production of animal and reduce the metabolic disorder in animal
18	Farm Women	Solar cooker	Nutritional enrichment with high nutritious and tasty low cost diet with reducing drudgery of women
19	Farm Women	Revolving stool & stand	It improves the work posture from squatting to sitting; provision of wheels makes the movement easy and reduces the Musculo-skeletal problems while performing the milking 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	7	-	62	0	62	
2.	Training for farmers	21	-	551	93	644	
3.	Training for extension functionaries	2	-	21	25	46	

3.3 ACHIEVEMENTS ON TRAINING

A. On Campus

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	5	106	13	119
Home Science	5	0	123	123
Animal Husbandry	1	28	0	28
Horticulture	5	120	42	162
Extension	0	0	0	0
Grand Total	**16**	**254**	**178**	**432**

B. Off Campus

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	6	157	20	177
Home Science	5	8	96	104
Animal Husbandry	11	275	38	313
Horticulture	6	145	35	180
Extension	1	3	17	20
Grand Total	**29**	**588**	**206**	**794**

C. Consolidated table (On and Off Campus)

Thematic Area	No. of Courses	Participants		
		Male	Female	Total
Plant Protection	11	263	33	296
Home Science	10	8	219	227
Animal Husbandry	12	303	38	341
Horticulture	11	265	77	342
Extension	1	3	17	20
Grand Total	**45**	**842**	**384**	**1226**

D. Vocational training programmes for Farm Women/Rural Youth

Crop / Enterprise	Date	Training title	Identified Thrust Area	Duration (days)	No. of Participants		
					Male	Female	Total
Farm Women	3/3/21 to 4/3/21	Bakery Products	Value addition	2 days	0	37	37
	17/12/21 to 18/12/21	Women Empowerment through Skill Development	Value addition & Handicrafts	2 days	10	30	40
				Total	**10**	**67**	**77**

(E) Sponsored Training Programmes

Sr. No	Date	Title	Dura-tion	Total No. of participants									Sponsoring Agency
				Other			SC/ ST			Total			
				M	F	T	M	F	T	M	F	T	
1	6/1/2021	Horticulture	1	35	0	35	0	0	0	35	0	35	State Deptt
2	11/1/2021	Horticulture	1	25	14	39	3	1	4	28	15	43	State Deptt
3	15/1/2021	Horticulture	1	40	0	40	0	0	0	40	0	40	State Deptt
4	7/8/2021	Plant Protection	1	0	25	25	0	3	3	0	28	28	ATMA
5	11/8/2021	Plant Protection	1	35	0	35	2	0	2	37	0	37	AFPRO
6	14/10/2021	Home Sc.	1	0	27	27	0	0	0	0	27	27	ATMA
7	14/10/2021	Horticulture	1	0	27	27	0	0	0	0	27	27	ATMA
8	21/10/2021	Horticulture	1	26	25	51	2	0	2	28	25	53	State Deptt
9	21/10/2021	Horticulture	1	26	25	51	2	0	2	28	25	53	State Deptt
10	22/10/2021	Horticulture	1	2	26	28	0	2	2	2	28	30	ATMA
11	22/10/2021	Animal Husbandry	1	0	25	25	0	0	0	0	25	25	ATMA
12	28/10/2021	Horticulture	1	0	28	28	0	2	2	0	30	30	ATMA
13	4/2/2022	Extension	1	13	12	25	0	0	0	13	12	25	State Deptt
14	10/2/2022	Horticulture	1	40	0	40	5	0	5	45	0	45	ATMA
15	21/2/2022	Extension	1	27	13	40	2	2	4	29	15	44	State Agri Deptt
16	21/2/2022	Plant Protection	1	32	10	42	2	0	2	34	10	44	FTC Jetpur
17	22/2/2022	Horticulture	1	25	15	40	0	0	0	25	15	40	FTC Rajkot
18	22/2/2022	Home Science	1	25	15	40	0	0	0	25	15	40	FTC Rajkot
		Total	**18**	**351**	**287**	**638**	**18**	**10**	**28**	**369**	**297**	**666**	

3.4 Extension programmes (including activities of FLD Programmes)

Sl No	Nature of Extension Activity	No. of activities	Participants											
			Farmers (Oth.) (I)			SC/ST (Far.) (II)			Extn Officials (III)			Grand Total (I+II+III)		
			M	F	T	M	F	T	M	F	T	M	F	T
1	Field Day	7	58	0	58	2	0	2	2	0	2	62	0	62
2	Kisan Mela	0	0	0	0	0	0	0	0	0	0	0	0	0

3	Kisan Gosthi	3	46	8	54	6	0	6	2	0	2	54	8	62
4	Demonstration	8	12	204	216	0	11	11	5	0	5	12	220	232
5	Film Show	3	77	112	189	0	8	8	1	0	1	78	120	198
6	Group meetings	20	355	298	653	19	12	31	5	0	5	379	310	689
7	Lectures delivered	10	274	129	403	11	3	14	7	3	10	292	135	427
8	Newspaper coverage	5	0	0	0	0	0	0	0	0	0	0	0	500
9	Parthenium Aware. Week	1	18	12	30	0	0	0	0	0	0	18	12	30
10	TV talks	10	0	0	0	0	0	0	0	0	0	0	0	1000
11	Popular articles	4	0	0	0	0	0	0	0	0	0	0	0	1000
12	Ext. Literature	10	248	198	446	20	9	29	0	0	0	268	207	475
13	Advisory Services	202	845	298	1143	5	2	7	0	0	0	850	300	1150
14	Scientist visit to farmers field	30	94	1	95	7	0	7	3	0	3	104	1	105
15	Farmers visit to KVK	50	466	579	1045	5	5	10	10	0	10	481	584	1065
16	Diagnostic visits	42	151	17	168	8	0	8	10	0	10	169	17	186
17	ICAR Foundat-ion Day	1	25	0	25	0	0	0	1	0	1	26	0	26
18	Kisan Diwas	1	24	9	33	1	1	2	0	0	0	25	10	35
19	World Soil Day	1	34	0	34	4	0	4	1	0	1	39	0	39
20	World Milk Day	1	12	8	20	0	0	0	0	0	0	12	8	20
21	Azadi ka Amrut Mah. (FN for farmers)	1	54	0	54	0	0	0	1	0	1	55	0	55
22	World Water Day	1	28	0	28	0	0	0	0	0	0	28	0	28
23	Technology Week	1	170	97	267	5	3	8	5	1	6	180	101	281
24	Swachhata Hi Sewa	2	52	48	100	3	2	5	0	0	0	55	50	105
25	World Bee keeping Day	1	20	0	20	0	0	0	0	0	0	20	0	20
26	Fertilizer Awarness Prog	1	25	5	30	0	0	0	0	0	0	25	5	30
27	Int. Women's Day	1	23	132	155	0	5	5	2	0	2	25	137	162
28	Mahila Kisan Divas	1	0	30	30	0	2	2	1	0	1	1	32	33
29	Poshan Vatika Mahaabhiyaan	1	14	46	60	1	4	5	3	0	3	18	50	68
30	Tree Plantation Drive	2	2	82	84	0	3	3	0	0	0	2	85	87
31	Animal Health Camp	3	22	10	32	4	2	6	2	0	2	28	12	40
Total		**424**	**3149**	**2323**	**5472**	**101**	**72**	**173**	**61**	**4**	**65**	**3311**	**2399**	**8210**

3.5 Production and supply of Technological products (2021)

SEED MATERIALS

S.N	Crop	Variety	Stage	Area (ha)	Quantity(Q.)	Value (Rs.)
Kharif – 2021						
1.	Groundnut	GJG-32	Foundation	5.0	67.2	Valuation under process
2.	Groundnut	GJG-32	Breeder	2.0	40.8	
3.	Groundnut	GJG-17	Breeder	5.8	35.4	
4.	Groundnut	GAUG-10	Breeder	5.7	25.3	
5.	Castor	GJCH-9	Hybrid	1.0	-	Crop Standing
				19.5	**168.7**	
Rabi-2021-22						
6.	Wheat	GW-451	Mega	4.5	-	Crop Standing
7.	Wheat	GW-496	Mega	12	-	
			Total	**16.5**		
Rabi-2020-21						
1	Wheat	GW-451	Mega	12	302	790500
2	Wheat	GW-496	Mega	4.5	53.5	125750
			Total	**16.5**	**355.5**	**916250**

Technological products

S.N	Particular	Quantity	Provide to No. of farmers	Amount
1	Pheromone Trap	10	1	200
2	Pink bollworm Lure	80	4	800
3	Vegetables Packets	27	5	270
			Total	**1270**

3.6 Literature Developed/Published (with full title, author and reference)

(A) Research paper published

Sr. No.	Particulars of Research paper	Naas Rating
1	Meghwal P. K. and Jadav N. B. (2021) Adoption of information and suggestions from farmers to overcome the constraints in the efficient use of mobile communication technologies to transfer agril. information. *Indian Res. J. Ext. Edu*. 21 (2&3): 83-85	5.22
2	Zala P.H., Jadav N. B. and Kapuriya T. D. (2021) A study on relationship between selected characteristics of the farmers and their adoption. *Journal of community mobilization and sustainable development*, 16(3): 643-649.	5.67
3	Meghwal, P. K. and Jadav N. B. (2021) Exploring suggestion from the farmers regarding prevent pests damage in Groundnut (*Arachis Hypogaea*) crop. *Indian Res. J. Ext. Edu*. 21 (2&3): 101-103.	5.22
4	Jadav, N. B., Kumari, M., and Singh, J. (2021) Nutritional Status of Children on Complementary Feeding Practices. *Indian Journal of Extension Education,* 57(4): 13-17	5.95
5	Prajapati, V. S., Odedra, M. D., Gamit, V. V., Ahlawat, A. R., Patel, H. A. (2021) An overview of feeding management practices followed by the dairy farmers in a different states of India. *J. Entomology & Zoology Studies.* 9(1): 2248-2254	5.53

(B) Popular/ Technical articles (vernacular language)

Sr. No	Contributors	Year	Title	Magazine Name	Vol /Issue /Page No
1.	Jagdeep Singh & Mamta Kumari	2021	Bel ek Vardan: Bagvani evum Mahatva	Krishi Jivan	Apr-Jun, Pp-21
2.			Bel Aushadhiiy Guno Ka Mel	Mai Hu Kisan	May, Pp-46
3.			Krishi Apshisht se Dhan Srijan aur Paryavaran Sanrakshan	Mai Hu Kisan	July, Pp-46
4.			Pollution reduction and wealth creation from agricultural crop wastes with the help of Briquetting plant	Krishisewa	(www.krishisewa.com/miscellaneous/1341-pollution-reduction-and-wealth-creation-fromagriculturalcrop-wastes-with-the-help-of-briquetting-plant.html)

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

S.N	Contributors	Year	Title of Book/ Chapter	ISBN	Publisher
1	Dr. N. B. Jadav, Dr. Mamta Kumari, Dr. V.S Prajapati, Dr. S.V Undhad & A.R Parmar	2021	Achievements & Endeavours of KVK since Inception (Book)	-	KVK, JAU, Pipalia, Rajkot
2	Dr. Mamta Kumari & Dr. Jagdeep Singh	2021	Nutri Foods & Health (Book)	979852 8096599	Kindle Direct Publishing
3	Dr. Jagdeep Singh & Dr. Mamta Kumari	2021	Fundamentals of Modern Marketing (Book)	9789354 737862	Kindle Direct Publishing
4	Dr. Jagdeep Singh & Dr. Mamta Kumari	2021	How to Start an Import and Export Business? (Book)	9798529 903872	Kindle Direct Publishing
5	Dr. Jagdeep Singh & Dr. Mamta Kumari	2021	Agricultural/ biomass waste management through "green supply chain way": Indian "brickfield" perspective (Chapter)	9783110 62859	De Gruyter, Berlin, Germany

(D) Folder published in vernacular language:

S.N.	Title	Authors	Copies
1	Shakbhaji Pakoni prakrutik kheti	Sh. A.R Parmar, Dr. N.B. Jadav, Dr. S.V Undhad, Dr. V.S Prajapati, Dr. Mamta Kumari, P.D Chaudhary & K.D Chaudhary	1000
2	Dudhala janvarma vaigyanik dabe pashu mavjat ane pashu vyavasthapan	Dr. V.S Prajapati, Dr. N.B. Jadav, Dr. S.V Undhad, Sh. A.R Parmar, Dr. Mamta Kumari, P.D Chaudhary & K.D Chaudhary	1000
3	BT kapasma chusia jivat ane gulabi iyaldnu sankalit vyavasthapan	Dr. S.V Undhad, Dr. N.B. Jadav, Dr. V.S Prajapati, Sh. A.R Parmar, Dr. Mamta Kumari, P.D Chaudhary & K.D Chaudhary	1000
4	Khedut Mahilaoma kheti karya vakhate karyabharan ghatadvana upay	Dr. Mamta Kumari, Dr. N.B. Jadav, Dr. S.V Undhad, Sh. A.R Parmar, Dr. V.S Prajapati, P.D Chaudhary & K.D Chaudhary	1000

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

S.N	Date	Name of Scientist	Title	Venue	Type
1	9/3/21 to 10/3/21	Dr. Mamta Kumari, Dr. V.S Prajapati, Dr. S.V Undhad & A.R Parmar	Participatory Programme Planning, Monitoring & Evaluation	Online	Short Training
2	3/5/21 to 5/5/21	Dr. Mamta Kumari	Orientation Training for Newly Recruited SMS of KVKs	Online	Short Training
3	4/8/21 to 6/8/21	Dr. N. B. Jadav	Annual zonal workshop of KVK zone- VIII	Online	Workshop
4	1/9/21 to 3/9/21	Dr. N. B. Jadav, Dr. Mamta Kumari, Dr. V.S Prajapati, Dr. S.V Undhad & A.R Parmar	Use of Mass Media for Transfer of Technology	Online	Short Training
5	26/11/21 to 1/12/21	A.R Parmar	Training on Natural Farming	Adalaj, Gujarat	Short Training
6	1/12/21 to 3/12/21	Dr. Mamta Kumari, Dr. V.S Prajapati, Dr. S.V Undhad	Presentation Skills for Professional Excellence	SSK, JAU, Junagadh	Short Training
7	30/12/21	Dr. S.V Undhad	Maintenance of the Quality and Safety of Horticultural and Food Crops through Biological Control of Pests and Disease	NAU, Navsari	Workshop

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 *tach / morum*	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

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

A. Practicing Farmers & Farm Women:

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

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

B. Rural Youth:

i) Vocational Training: Group discussion with rural youth as well as line deptts.

ii) Skill Development: Group discussion with rural youth as well as line deptts.

C. In-service Personnel:

i) Extension Workers: Group discussion with rural youth as well as line deptts.
ii) 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.	Talangana	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	-	-	-	-
Total	-	-	-	-

4. Impact: NIL

5: Linkage

5.1 Functional linkage with different organization

S.N	Name of organization	Nature of linkage
A	**Junagadh Agricultural University**	
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	**State corporation and state deptt.**	
1	District Agricultural Officer, Deptt. of Agriculture, District Panchayat, Rajkot	➢ Joint diagnostic team visit at farmers' field ➢ Organizing collaborative training to farmers ➢ For collaborative off campus training ➢ For collaborative training and demonstration Programme ➢ Collaborative on campus training programme ➢ For providing hostel facilities to participants and organizing collaborative Mahila Krishi Mela
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)	2018-19	GOI	48000

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.	Demonstra-tion Units	Year of Establi-shment	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 2019-20 Up to March-2020)

Sr. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	94.00	87.77	82.68
2	**Traveling allowances**	1.00	0.50	0.41
3	**Contingencies**	12.00	8.18	8.72
	TOTAL (A)	**107.00**	**96.45**	**91.81**
B. Non-Recurring Contingencies				
1	**Works**	-	-	-
2	**Equipment's including SWTL & Furniture**	-	-	-
3	**Vehicle (Four wheeler)**	-	-	-

4	**Library (Purchase of assets like books & journals)**	-	-	-
	TOTAL (B)	**-**	**-**	**-**
C. REVOLVING FUND		-	-	-
	GRAND TOTAL (A+B+C)	**107.00**	**96.45**	**91.81**

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 Dec 2021	2474393	2128180	2408958	2193615

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 (Home 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
		CharanSamdhiyala	Jetpur		
		Jasapar	Jamkandorna		
		Satodad	Jamkandorna		
		Chitravad	Jamkandorna		

Table 2: Activities carried in the selected villages

Team	Visit to village		Goshthis/ Interface meetings conducted		Demonstrations conducted		
	No.	No. of	No.	No. of	Title of	No. of	No. of

	of visits	farmers	goshthis/ interface meetings	farmers	demonstration	demons	farmers
1	2	3	4	5	6	7	8
Team 27	8	27	2	60	Feed Management	7	7
Team 28	9	42	2	67	Kitchen gardening	11	11

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	3	90	223	19	658	298	-	-
Team 28	5	115	198	17	672	269	-	-

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 Celebration of International Women's Day

The International Women Day was celebrated by KVK Pipalia among 150 number of Farmwomen in collaboration with AFPRO (Action for Food Production) at Gundasari village, Jamkandorna. This year the theme was "Women Leadership in Agriculture: Entrepreneurship, Equity and Empowerment (3E's)". 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 in agriculture.

8.3 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. This year the theme was "Bee engaged: Build Back Better for Bees". Focusing the theme in mind KVK, Pipalia had also celebrated by organising an e-goshthi for the famers on "Beekeeping as an Economic Enterprise". This online progamme connects with 20 participants who were benefitted.

8.4 Celebration of "Mahila Kisan Diwas"

The event was organized on the auspicious occasion of Mahila Kisan Diwas which we are celebrating on 15th October every year. KVK Pipalia also celebrated the occasion with the esteemed presence of Mrs Neetaben Mohanbhai Vagadiya and celebrated by giving emphasis on their role in agriculture and allied activities. A total 32 number of beneficiaries were attended the programme and makes it successful with a good two-way Communication.

8.5 Celebrations Poshan Maah (1.9.2021 to 30.9.2021)

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, Anganwari 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 to Anganwadi workers and all other beneficiaries. A total 75 number of beneficiaries were benefited by the programme.

8.6 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. Agriculture extension officers and all other scientists interact with farmers of Pipalia at KVK and provide them information about the latest agriculture insurance schemes. A total 35 number of farmers were actively participated during the programme

8.7 Celebration of "Swachhata Pakhwada"

Swachchta Pakhwada was celebrated by KVK Pipalia during 16-31 December 2021 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 Swachhta Shapath, Rally, slogan writing competition, community cleaning, awareness about organic farming in kitchen garden and composting techniques, shramdaan, etc. A total of 466 participants comprising farmers, farm women, school going children, etc.

8.8 Celebration of World Soil Health Day (05/12/2021)

The event was celebrated to know the importance of soil health and its role to increase the soil fertility which directly enhances their farming income with increase in productivity. The objective of the programme was to improve knowledge on soil health card based fertilizer application. The event was conducted at Badhiya Village of KVK operational area where 38 numbers of farmers had actively showed their presence and grasp the knowledge on the day of occasion.

8.9 Celebration of Poshan Vatika Maha Abhiyaan & Tree Plantation

In context of International Year of Millets 2023, Poshan Vatika Mahaabhiyan and plantation drive was organized by all the KVKs throughout the country on 17 Sept 2021. In this regard 65 farmers, farm women & adolescent girls from different villages under KVK, Pipalia jurisdiction had joined the event. They were provided with Nutri-kits sponsored by IFFCO and variety of plants for clean & green environment by Forest Deptt of Dhoraji. Awareness lectures and tree plantation were also arranged on this occasion.

8.10 Technology Week Celebration

KVK, Pipalia had celebrated Technology Week in collaboration with ATMA, Rajkot from Sept 27 to Oct 01, 2021. 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. On the valedictory day (01/10/2021), Dr. H. M. Gajipara, Director Extension Education, JAU, Junagadh had graced the programme with his presence and valuable words.

8.11 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.

8.12 Success Stories under DFI

S.N	Farmer's Name	Crop/ Enterprise	Village	Taluka	Area (acre)
1	Dharamshi Manjibhai Gajera	Plant Protection	Moti parabadi	Dhoraji	2.5
2	Mukeshbhai M. Hirapara	Plant Protection	Jasapar	JamKandorna	5.5
3	Prafulbhai G.Radadiya	Plant Protection	Mandlikpur	Jetpur	4.0
4	Narshibhai C. Ramoliya	Plant Protection	Dudhivadar	JamKandorna	4.3
5	Pravinbhai trada	Horticulture	Jasapar	JamKandorna	5.0
6	Rameshbhai C. Bhut	Plant Protection	Nani vavadi	Dhoraji	4.0
7	Chaganbhai Kanjibhai Desai	Plant Protection	Rayadi	Jamkandorna	1.2
8	Chandubhai R. Radadiya	Plant Protection	Bhola	Dhoraji	2.45
9	Kiritbhai Desai	Plant Protection	Rayadi	Jamkandorna	4.0
10	Mohanbhai Savajibhai Khunt	Plant Protection	Vadodar	Dhoraji	12.77
11	Rajubhai Rambhai Meyad	Plant Protection	Vadodar	Dhoraji	5.0
12	Vinodbhai Chaganbhai Desai	Plant Protection	Rayadi	Jamkandorna	3.5
13	Bhupatbhai A. Vasoya	Plant Protection	Rayadi	Jamkandorna	2.0
14	Dineshbhai K. Vasoya	Plant Protection	Rayadi	Jamkandorna	6.0
15	Sureshbhai B. Renpara	Plant Protection	Rayadi	Jamkandorna	2.0
16	Ankitbhai C. Ranpariya	Plant Protection	Rayadi	Jamkandorna	12.0
17	Kiranbhai Samajibhai Desai	Plant Protection	Rayadi	Jamkandorna	8.0
18	Rajeshbhai B. Ranpariya	Plant Protection	Rayadi	Jamkandorna	3.0
19	Naranbhai C. Ranpariya	Plant Protection	Rayadi	Jamkandorna	9.0
20	Pravinbhai B. Ranpariya	Plant Protection	Rayadi	Jamkandorna	8.0
21	Atulbhai Naranbhai Ranpariya	Plant Protection	Rayadi	Jamkandorna	3.0
22	Viththal Ravaji Chavada	Plant Protection	Amarapur	Jetpur	3.0
23	Chandubhai B. Vaishnav	Plant Protection	Jamnavad Road	Dhoraji	12.0
24	Pankajbhai V. Vachhani	Plant Protection	Jamnavad Road	Dhoraji	3.0
25	Mayur P. Bhesdadia	Plant Protection	Jamnavad Road	Dhoraji	8.0
26	Jasmat Ukabhai Diyora	Plant Protection	Bhola	Dhoraji	2.0
27	Mohanbhai Hirpara	Horticulture	Dhoraji	Dhoraji	5.0
28	Nandlal Gokalbhai Undhad	Horticulture	Thanagalol	Jetpur	1.0
29	Dhirubhai Kaneria	Plant Protection	Pipalia	Dhoraji	1.5
30	Chetan vrajlalbhai Satasiya	Horticulture	Thanagalol	Jetpur	5.0
31	Nileshbhai Hadiya	Plant Protection	Jamanavad	Dhoraji	6.0
32	Vipulbhai B. Khandekha	Plant Protection	Dhoraji	Dhoraji	4.0
33	Amrut Gordhanbhai Parmar	Plant Protection	Navagadh	Jetpur	2.0
34	Girdhar Vallabhbhai Jethava	Plant Protection	Navagadh	Jetpur	5.0
35	Jivaraj Dudabhai Savaliya	Plant Protection	Gondal	Gondal	10.0
36	Pravin popat baraiya	Plant Protection	Navagadh	Jetpur	3.0
37	Shiyal mukeshbhai Kalubhai	Plant Protection	Taravada	Jamkandorna	3.0
38	Jinabhai Polabhai Makvana	Plant Protection	Taravada	Jamkandorna	4.0
39	Bharat Haribhai Undhad	Plant Protection	Thanagalol	Jetpur	3.0
40	Arvindbhai V. Undhad	Plant Protection	Thanagalol	Jetpur	10
41	Ramaji Bachubhai Desai	Plant Protection	Parabadi	Dhoraji	5.0
42	Sanjay Bhikha Radadiya	Plant Protection	Dhoraji	Dhoraji	12
43	Najabhai kholabhai	Plant Protection	Taravada	Jamkandorna	3.0
44	Ramnik Parbat Bhut	Plant Protection	Gondal	Gondal	2.0
45	Dineshbhai Trada	Plant Protection	Taravada	Jamkandorna	7.0
46	Dinesh Jayanti Rathod	Plant Protection	Taravada	Jamkandorna	2.0
47	Rabadiya Ravi Dhirubhai	Plant Protection	Jetpur	Jetpur	3.0
48	Dhaval Amipara	Plant Protection	Jasapar	Jamkandorna	5.0

49	Chandu Arajanbhai Amipara	Plant Protection	Jasapar	Jamkandorna	3.0
50	Maheshbhai B. Dholariya	Plant Protection	Navagadh	Jetpur	14
51	Dinesh Bhimaji Babariya	Plant Protection	Navagadh	Jetpur	4.0
52	Yash R. Satasiya	Plant Protection	Jamkandorna	Jamkandorna	3.0
53	Mansukh Mohab Hirapara	Plant Protection	Upleta	Upleta	6.0
54	Ramnik Bachu Kaneriya	Plant Protection	Upleta	Upleta	4.0
55	Jagdish Viththal Maru	Plant Protection	Upleta	Upleta	8.0
56	Piyushbhai Chandulal Babaria	Plant Protection	Dhoraji	Dhoraji	4.94
57	Hasmukhbhai K. Sondrva	Plant Protection	Taravada	Jamkandorna	4.0
58	Saileshbhai Ponkiya	Plant Protection	Jasapar	Jamkandorna	3.0
59	Rajubhai Gokalbhai Ponkiya	Horticulture	Jasapar	Jamkandorna	5.0
60	Rajubhai M. Kariya	Horticulture	Bandhiya	Jamkandorna	6.0
61	Chhaganbhai V Pethani	Horticulture	Bandhiya	Jamkandorna	5.0
62	Rasikbhai Trada	Horticulture	Bandhiya	Jamkandorna	10
63	Sunilbhai Chovatia	Horticulture	Varjang Jaliya	Upleta	7.0
64	Babubhai K. Trada	Horticulture	Jasapar	Jamkandorna	3.5
65	Vimalbhai K. Patel	Horticulture	Ujada	Jamkandorna	10
66	Bharatbhai L. Babariya	Horticulture	Roghel	Jamkandorna	10
67	Rameshbhai B. Thummar	Horticulture	Jamkandorna	Jamkandorna	10
68	Rajeshbhai Gelabhai Hirpara	Horticulture	Upleta	Upleta	10
69	Manojbhai Devabhai Thakor	Horticulture	Jamnavad	Dhoraji	12
70	Khushalbhai Rakholiya	Horticulture	Jamnavad	Dhoraji	3.5
71	Veljibhai Anandbhai Hadiya	Horticulture	Jamnavad	Dhoraji	14
72	Hasmukhbhai Hirabhai Hadiya	Horticulture	Jamnavad	Dhoraji	4.0
73	Dilipbhai N. Vachhani	Horticulture	Jamnavad	Dhoraji	4.8
74	Hansaben Merkhibhai Samla	Ani. Husbandry	Tarvada	Jamkadorna	1.0
75	Chandanben S. Dabhi	Ani. Husbandry	Vegadi	Dhoraji	1.0
76	Jayshreeben D. Rakholiya	Ani. Husbandry	Jamnavad Road	Dhoraji	0
77	Vanita B Jagani	Ani. Husbandry	Jamnavad Road	Dhoraji	0
78	Rekhaben Sangani	Ani. Husbandry	Jamnavad Road	Dhoraji	0
79	Kankuben Devabhai Thakor	Ani. Husbandry	Jamnavad	Dhoraji	0
80	Rekhaben M. Thesiya	Ani. Husbandry	Jamnavad Road	Dhoraji	0
81	Mukeshbhai Vrajlal Pethani	Ani. Husbandry	Patanvav	Dhoraji	2.0
82	Mansukhbhai L. Savliya	Ani. Husbandry	Patanvav	Dhoraji	5.0
83	Mansukhbhai Laljibhai Savliya	Ani. Husbandry	Patanvav	Dhoraji	2.5
84	Hareshbhai M. Bhalani	Ani. Husbandry	Udakiya	Dhoraji	3.0
85	Kishorbhai Valbhabhai Khunt	Ani. Husbandry	Pedhala	Jetpur	3.0
86	Dineshbhai L. Sojitra	Ani. Husbandry	Upleta	Upleta	0
87	Jayntibhai K. Ranpariya	Ani. Husbandry	Deradi	Jetpur	0
88	Rajubhai G. Sitapara	Ani. Husbandry	Pipalia	Dhoraji	3.0
89	Jayntibhai K. Ranpariya	Ani. Husbandry	Nani dudhivadar	Jamkandorna	1.0
90	Anilbhai Sutariya	Horticulture	Tanasava	Upleta	2.8
91	Jentibhai Parmar	Horticulture	Chikhaliya	Upleta	5.0
92	Sandipbhai kapuriya	Horticulture	Arni	Upleta	2.5
93	Kishanbhai M. Tank	Horticulture	Kalana	Dhoraji	6.1
94	Dhirubhai Jagani	Floriculture	Jamnavad	Dhoraji	6.1
95	Bhaveshbhai Renpara	Horticulture	Jasapar	JamKandorna	3.0
96	Devrajbhai C. Ranparia	Horticulture	Raydi	JamKandorna	2.0
97	Rekhaben Hemanbhai Vasoya	Horticulture	Raydi	JamKandorna	0.80
98	Dineshbhai KhimjibhaiVasoya	Horticulture	Raydi	JamKandorna	6.0
99	Pravinbhai B. Ranpariya	Horticulture	Raydi	JamKandorna	4.0

100	Dharmeshbhai B. Sardhara	Horticulture	Fareni	Dhoraji	1.0
101	Gopalbhai Nariya	Horticulture	Vadodar	Dhoraji	1.0
102	Girishbhai Damjibhai Satasiya	Horticulture	Dhoraji	Dhoraji	10
103	Nileshbhai M. Vachhani	Horticulture	Moti marad	Dhoraji	4
104	Hareshbhai Kanjibhai Viradia	Horticulture	Mota mahika	Dhoraji	8.30
105	Rasikbhai Babaria	Horticulture	Dhoraji	Dhoraji	8.30
106	Viralbhai Panara	Horticulture	Moti marad	Dhoraji	3.0
107	Hadiya Rohit Govindbhai	Horticulture	Jamnavad	Dhoraji	5.6
108	Saileshbhai Savabhai Radadia	Horticulture	Mandalikpur	Jetpur	1.4
109	Madhuben R. Banugariya	Khakra Making	Supedi	Upleta	0
110	Shilpaben Nitinbhai Vachhani	Tailoring unit	Jamnavad Road	Dhoraji	0
111	Sheetalben K. Rakholiya	Tailor	Jamnavad Road	Dhoraji	0

Proceeding of the 9th Scientific Advisory Committee (SAC) Meeting of KVK Pipalia (Rajkot-II) held on 10th February 2021

The Ninth Scientific Advisory Committee meeting of Krishi Vigyan Kendra, Junagadh Agricultural University, Pipalia held at Krishi Vigyan Kendra, Junagadh Agricultural University, Targhadia on 10th February, 2021. The meeting was chaired by Hon'ble Vice Chancellor, Dr. V P Chovatia, Junagadh Agricultural University, Junagadh.

The following members were remained present in the meeting.

S.N	Name & Designation	Position	S.N	Name& Designation	Position
1	Dr. V. P. Chovatia Hon. Vice Chancellor, JAU, Junagadh.	Chairman	16	Rameshbhai Bachubhai Amipara, Progressive Farmer, Jashapar	Member
2	Dr. H. M. Gajipara Director of Extension Education, JAU, Junagadh	Member	17	Bharatbhai Virjibhai Progressive Farmer, Jashapar	Member
3.	Dr. D.S. Hirpara Research Scientist, DFRS, JAU, Targhadia	Member	18	Sh. Atul Sharma, AIR, Rajkot	Invitee Member
4.	Shri R. R. Tilva DAO, Rajkot	Member	19	Rita B Vora, CEE, Jasdan	Invitee Member
5.	Shri P T Shiyani, DCF, Forest Department, Rajkot	Member	20	Pinki S. Sharma AEE, DEE, JAU, Junagadh	Invitee Member
6	Smt. Vasant Joshi, AIR, Rajkot	Member	21	Dr. L.L. Jivani, Senior Scientist & Head, KVK, JAU, Morbi	Invitee Member
7	Shital Vegda, (MDT-CME), District Watershed Dev. Unit	Member	22	Dr. J.H. Choudhary SMS, KVK, JAU, Targhadia	Invitee Member
8	Dr Dipen K Parsana, Veterinary Officer, Rajkot Dairy	Member	23	Dr M K Jadeja, SMS, KVK Targhadia	Invitee Member
9	P.B. Chaudhary, HO, Rajkot	Member	24	Shri D.P. Sanepara SMS, KVK - Targhadia	Invitee Member
10	Dr. B.B. Kabaria Senior Scientist & Head, KVK, JAU, Targhadia	Member	25	Dr. M.M. Tajpara SMS, KVK- Targhadia	Invitee Member
11	Dr H C Chhodvadia, Associate Extension Educationist, JAU, Junagadh	Invitee Member	26	Smt. H.A. Manvar SMS (Home Science), KVK, JAU, Targhadia	Invitee Member
12	Dr Amit H Patel, Deputy Manager, Rajkot dairy	Invitee Member	27	AB Dabhi, A.O, KVK, Targhadia	Invitee Member
13	Dr. D.A. Saradava KVK, JAU, Morbi	Invitee Member	28	Jetparia Jethabhai Amarsinhbhai Progressive Farmer, Morbi	Invitee Member
14	Dr. G. R. Sharma, Principal, Polytechnic in Agri. Engg., Targhadia	Invitee Member	29	Sh. S. V. Undhad, SMS (Plant Pathology), KVK, JAU, Pipalia	Member
15	Babaria Dilipbhai, Progressive Farmer, Jetpur	Member	30	Shri A.R.Parmar, SMS (Horticulture), KVK, JAU, Pipalia	Member
31	Dr. V. S. Prajapati, SMS (Animal Husbandry), KVK, JAU, Pipalia	Member	33	Dr. N.B. Jadav, Senior scientist & Head, KVK, Pipalia	Member Secretary
32	Dr. Mamta Kumari, SMS (Home Science), KVK, JAU, Pipalia	Member			

In the beginning, Dr. B.B. Kabariya, Senior Scientist & Head, KVK, Junagadh Agricultural University, Targhadia welcomed Chairman of the Committee and Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh, Dr. V. P. Chovatia, Dr. H. M. Gajipara, Director of Extension Education, JAU, Junagadh and all the members and progressive farmers of the cluster villages of KVK, Pipalia, Targhadia and Morbi district.

Hon. Vice Chancellor, Dr. V. P. Chovatia, 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 2020 (Jan 2020 to Dec 2020) including training achievements, extension activities, etc. conducted by this center and action plan for the Year 2021 (Jan-21 to Dec-21). All scientists of KVK *viz*, Dr. N.B. Jadav, Dr. V. S. Prajapati, Shri S. V. Undhad, Shri. A.R. Parmar, and Dr. Mamta Kumari presented the progress report 2020 and annual action plan 2021(Jan 21 to Dec 21) of Animal Husbandry, Plant Protection, Horticulture, Home science discipline, respectively.

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

1. More trainings should be organized on Integrated Farming System.
2. Accountability of varietal Front Line Demonstration (FLD) should be in terms of money.
3. To measure the impact of Training/Campaign among the KVK operational villages and also collect feedback from the farmers.
4. Increase number of Agro Advisory Services/Text Messages/WhatsApp Messages or group and same must be presented in the meetings.
5. Publish good numbers of research papers having NAAS rated journal of 6 and above.
6. Continue the campaign for management of pink boll worm in cotton and white grub in groundnut for the next year.
7. To create awareness and organized training regarding *Brucellosis* disease in animals.
8. Training should be organized on "Bee Keeping".
9. To create awareness and organize demonstration about management of fruit borer in horticultural crops.

In chairman remarks, Hon'ble Vice Chancellor, Dr. V. P. Chovatia, Junagadh Agricultural University, Junagadh appreciated the work done by the center. He gave emphasis on importance on soil and water testing, aware the farmers about attack of pest well in advance and increase diagnostic visit to solve farmers field problem. Also he suggested to write and publish good research papers for upgrading university rank.

Finally, the meeting was concluded by performing the vote of thanks by 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: 2022

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	2	1	2	6	1	2	2	2	7	13
Extension	0	0	1	1	2	0	1	0	1	2	4
Horticulture	1	1	2	1	5	1	1	2	2	6	11
Home Science	1	1	1	1	4	2	1	1	1	5	9
Animal Hus.	1	1	1	1	4	1	1	2	2	6	10
Vocational				1					1		2
Extension functionaries			1	1							2
Sponsored training											10
Total					21					26	61

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

I. Quarter (1st Jan to 31st March, 2022)				
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 Jam, Squash, Ketchup from fruits	1	25	PF
Animal Hus	Importance of artificial insemination in cow and buffalo	1	25	PF
II. (1st April to 30th June, 2022)				
Plant Protection	-Integrated Pest management in cotton & groundnut -Integrated Disease management in groundnut	1 1	25 25	PF PF
Horticulture	Production technology of fruit and vegetable	1	25	PF
Extension	Formation of new SHGs, CIGs,	1	25	PF
Home Science	Preparation of different types of bakery products like Pizza base, different types of biscuits, Cake etc.	1	25	FW
Animal Hus	Importance of balance ration in milch animal	1	25	PF
III. Quarter (1st July to 30th Sept, 2022)				
Plant Protection	Integrated pest and diseases management in coriander	1	25	PF
Horticulture	-Nursery raising -Organic farming in different horticultural crops	1 1	25 25	PF 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
IV. Quarter (1st Oct to 31st Dec, 2022)				
Plant Protection	Diseases management in spices Storage pest management	1 1	25 25	PF 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

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

I. Quarter (1st Jan to 31st March, 2022)				
Plant Protection	Integrated pest management in summer crops	1	30	PF
Home Science	Value addition in fruits & vegetables	1	30	FW
	Importance of green leafy vegetables 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
II. (1st April to 30th June, 2022)				
Plant Protection	-Integrated Pest management in cotton & groundnut	1	30	PF
	-Integrated Disease management in kharif crops	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	Preparation of different types of pickles	1	30	FW
Animal Hus	Infertility of cow and Buffalo by diseases & its prevention	1	30	PF
III. Quarter (1st July to 30th Sept, 2022)				
Plant Protection	-Integrated pest and disease management in Rabi crops	1	30	PF
	-Bio control of Pests and Diseases	1	30	PF
Home Science	-Work simplification in household activities and 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
IV. Quarter (1st Oct to 31st Dec, 2022)				
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

2.Vocational Training

S. No	Title of Training	Dura. Days	No. of participants	Type of Participants
1.	Preparation of different bakery products	2	30	Rural women
2.	Food Processing & Preservation	2	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 Chlorpyriphos	Chlorpyriphos & Lambda 2.5 L =Rs. 525	Kharif-2022	4	10	Pest infestation & Yield B:C ratio
2	Groundnut	GG-22	Varietal	Improved variety	GJG-22, Seeds = 30 kg =Rs.2200	Kharif-2022	4	10	Yield, B:C
3	Groundnut	GG-20	IDM	Application of Trichoderma	Trichoderma : 2 Kg =Rs.140 Castor cake: 1Bag (50 Kg =Rs.765	Kharif-2022	4	10	Disease incidence & Yield , B:C ratio
4	Cotton	Bt	INM	Application of Azotobacter, PSB	Azotobacter : 1 lt=Rs.120 PSB Culture : 500 ml =Rs.240	Kharif-2022	4	10	Yield, B:C ratio
5	Cotton	Bt.	IPM	MDP tube	200g. Rs: 1000	Kharif-2022	20	50	Yield, B:C ratio, PB infestation
6	Brinjal	Local	IPM	MDP tube	500 gm Rs. 100	Kharif-2022	4	10	Yield, B:C ratio,
7	Tomato	Local	Variety	GT-6	400 gm 2pkt	Kharif-2022	4	10	Yield, B:C ratio,
8	Wheat	INM	INM	Azotobacter, PSB	Azotobactor : 1 ltr=Rs. 120 PSB : 1 ltr = Rs.240	Rabi-2022	5	10	Yield, B:C ratio
9	Cumin	GC-4	IDM	Tricho+Castor cake	Trichoderma : 2 kg =Rs.140 Castor Cake: 50 Kg. =Rs.690	Rabi-2022	4	10	Disease incidence & Yield , B:C ratio
10	Chick pea	GG-5	Varietal	Improved variety	Seeds GG-5 : 25 kg = Rs=2100	Rabi-2022	4	10	Yield, B:C ratio
11	Brinjal	GRB-5	Varietal	Improved variety	150 gm	Rabi-2022	4	10	Yield, B:C ratio
12	Tomato	Local	INM	Grade-4 micro nutrient	250 gm 2pkt =Rs.162	Rabi-2022	4	10	Yield, B:C ratio
13	Sesamum	GT-3	Varietal	Improved variety	Seeds GT-3 =2 kg =Rs. 360	Summer-2022	4	10	Yield, B:C ratio
14	Farm Women	-	Nutritional Security	Kitchen Gardening	Vegetable seeds Rs 10 per pkt	Kharif-2022	0.5	50	Yield, B:C ratio
15	Farm Women	-	Drudgery Reduction	Drudgery Reduction tools	Twin Wheel Hoe Rs 2000 per pc	Kharif-2022	-	10	Average time taken for weeding, Body

									posture
Total							69.5	230	

B. Animal Husbandry

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

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 oxycloride @ 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 kg/ha)

Observations: B:C ratio and farmers' perception

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

Objectives: -

2. To evaluate the sensory characteristics of Peanut milk parallel to cow's milk
3. To analyze the nutritional properties of both milk.
4. 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.

7. EXTENSION ACTIVITIES:

Sr. No.	Activities	Proposed No.
1	KisanMela	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	Khedutshibir	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	Ex-Trainee Sammelan	2
15	Others- Seminar	4

16	Exhibition	2