ANNUAL ACTION PLAN: 2024

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	1	2	2	6	12
Extension	0	1	0	1	2	0	1	0	1	2	04
Horticulture	1	1	1	1	4	1	1	2	2	6	10
Home Science	1	1	1	1	4	2	1	1	1	5	09
Animal Hus.	1	1	1	1	4	1	1	2	2	6	10
Vocational Trg		1		1	2				1	1	03
Extension func.		2	2	1	5		1	1		2	07
Sponsored Trg											12
Natural farming /Millet Awareness	1	1	1	1	4	1	2	2	1	6	10
Total					**31**					**34**	**77**

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

I. Quarter (1st Jan to 31st March, 2024)				
Plant Protection	Integrated pest management in summer groundnut	1	25	PF
Horticulture	Irrigation and nutrient management in fruit crops	1	25	PF
Home Science	Preparation of different types of bakery products like Pizza base, different types of biscuits, Cake etc. from Millets	1	25	PF
Animal Hus	Importance of artificial insemination in cow and buffalo	1	25	PF
NF /Millet	Introduction of natural farming and awareness against millets	1	25	PF/ FW
II. (1st April to 30th June, 2024)				
Plant Protection	Integrated Pest management in cotton & groundnut Integrated Disease management in kharif 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 Jam, Squash, Ketchup from fruits	1	25	FW
Animal Hus	Importance of balance ration in milch animal	1	25	PF
NF /Millet	Introduction of natural farming and awareness against millets and its importance	1	25	PF/F W
III. Quarter (1st July to 30th Sept, 2024)				
Plant Protection	Integrated pest and diseases management in coriander	1	25	PF
Horticulture	Nursery raising	1	25	PF
Home Science	Organic Kitchen gardening & its importance on health	1	25	FW
Ani. Husbandry	Importance of colostrum feeding in new born calves	1	25	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	25	PF/F W
IV. Quarter (1st Oct to 31st Dec, 2024)				
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
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	25	PF/ FW

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

I. Quarter (1st Jan to 31st March, 2024)				
Plant Protection	Integrated pest management in summer crops	1	30	PF
Home Science	Processing and value addition in millets Importance of millets in diet	1 1	30 30	FW FW
Animal Hus	Clean milk production by proper milking watering and animal washing	1	30	PF
Horticulture	Importance of drip irrigation in horticultural crops	1	30	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	30	PF/ FW
II. (1st April to 30th June, 2024)				
Plant Protection	Integrated Pest management in cotton & groundnut	1	30	PF
Extension	Procedure for formation of new SHGs, CIGs	1	30	PF
Horticulture	Production technology in protected cultivation	1	30	PF
Home Science	Art & Crafts for rural youth	1	30	FW
Animal Hus	Infertility of cow and Buffalo by diseases & its prevention	1	30	PF
NF /Millet	Significance of natural farming and awareness against millets and its importance	1	30	PF/ FW
NF /Millet	Importance of natural farming and awareness against millets and its importance	1	30	PF/ FW
III. Quarter (1st July to 30th Sept, 2024)				
Plant Protection	Integrated pest and disease management in Cotton & Groundnut Bio control of Pests and Diseases	1 1	30 30	PF PF
Home Science	Drudgery reduction technologies in agriculture	1	30	FW
Animal Hus	Importance of colostrum feeding in new born calves Creating awareness about balance nutrition management	1 1	30 30	PF PF
Horticulture	Pruning and training in fruit crops Management of young Plants/ Orchards	1 1	30 30	PF PF
NF /Millet	Significance of natural farming and awareness against major millets and its importance	1	30	PF/ FW
NF /Millet	Importance of natural farming and awareness against minor millets and its importance	1	30	PF/ FW
IV. Quarter (1st Oct to 31st Dec, 2024)				
Plant Protection	Diseases management in cumin & coriander Storage pest management	1 1	30 30	PF PF
Extension	Development of entrepreneurship among rural youth	1	30	PF
Animal Hus	Fodder crop production technology Increase nutritive value of low quality roughages for milking animals	1 1	30 30	PF PF
Home Science	Women Empowerment through Income generating activities	1	30	FW
Horticulture	Cultivation practices of onion and garlic Post-Harvest Management Technology	1 1	30 30	PF PF
NF /Millet	Importance of natural farming and awareness against major millets and its importance	1	30	PF/ FW

2.Vocational Training

S.N	Title of Training	Dura. Days	No. of participants	Type of Participants
1.	Preparation of different bakery products	4	30	Rural women
2.	Value addition in fruits, vegetables & millets	4	30	Rural women
3.	Bee Keeping	1	25	PF

3.Extension Functionaries

SN	Title of Training	Days	No. of participants
1	Management of pink bollworm in cotton and white grub in groundnut	2	50
2.	Management of soil borne diseases in important crops	2	50
3.	Cattle health management through vaccination and feed management	2	50
4.	Nursery management and raising of seedlings	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 1.5 L =Rs. 1200	Kharif-2024	4	10	Pest infestation & Yield B:C ratio
2	Groundnut	GG-20	IDM	Application of Trichoderma	Trichoderma: 2 Kg =Rs.140 Castor cake: 1Bag (50 Kg =Rs.850	Kharif-2024	4	10	Disease incidence & Yield , B:C ratio
3	Cotton	Bt	INM	Application of Azotobacter, PSB	Azotobacter: 1 lt=Rs.120 PSB Cultur :1 lt =Rs.120	Kharif-2024	4	10	Yield, B:C ratio
4	Cotton	Bt.	IPM	Pheromone trap	Trap = 4 NOS. Lure = 8 NOS.	Kharif-2024	10	10	Yield, B:C ratio, PB infestation
5	Wheat	INM	INM	Azotobacter, PSB	Azotobactor: 1 ltr=Rs. 120; PSB : 1 ltr = Rs.120	Rabi-2024	5	10	Yield, B:C ratio
6	Cumin	GC-4	IDM	Tricho+Castor cake	Trichoderma: 2 kg =Rs.140 Castor Cake: 50 Kg. =Rs.700	Rabi-2024	4	10	Disease incidence & Yield , B:C ratio
7	Chickpea	GJG-6	Varietal	Improved variety	Seeds GJG-6 25 kg Rs=2400	Rabi-2024	4	10	Yield, B:C ratio
8	Sesamum	GT-6	Varietal	Improved variety	Seeds GT-6=2 kg =Rs. 350	Summer-2024	4	10	Yield, B:C ratio

9	Brinjal	Local	IPM	MDP tube	Rs. 1100	Kharif-2024	4	10	Yield, B:C ratio,
10	Onion	Azoto+ PSB	INM	Bacterial culture	1 lt each 240/-	Kharif-2024	4	10	Yield, B:C ratio
11	Brinjal	GRB-7	Varietal	Improved variety	200 gm= Rs 300	Rabi-2024	4	10	Yield, B:C ratio
12	Garlic	Local	IPM	Buveria bassiana	4 kg = Rs. 500	Rabi-2024	4	10	Yield, B:C ratio
13	Okra	GO-6	Varietal	Improved variety	1 kg	Rabi-2024	4	10	Yield, B:C ratio
14	Farm Women	-	Nutritional Security	Kitchen Gardening	Vegetable seeds Rs 10 per pkt	Kharif-2024	0.5	50	-
15	Farm Women	-	Drudgery Reduction	Drudgery Reduction tools	Twin Wheel Hoe; Rs 2000 per pc	Kharif-2024	-	10	Average time taken for weeding, Body posture
						Total	**59.5**	**190**	

B. Animal Husbandry

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

C. NABARD (Model village- Kolithad)

Demonstration farm: 5; Chickpea (GJG-6)

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

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 EFFECTIVENESS OF BUVERIA BASSIANA IN COMBINATION WITH INSECTICIDES AGAINST ONION THRIPS (NEW)

1.Problem definition: Low yield due to heavy thrips infestation

2. Details of technologies selected:

Rajkot district covered large area in Onion cultivation. But this crop suffers mainly from thrips attack, the farmers use number of costly chemical for control of thrips in onion and increase cost of cultivation. Now a days recommended biological input also available for management of thrips in Onion. Hence, this will make with on farm testing.

3. Objective: To increase yield of onion by reducing thrips attack.

4. Technologies assessed: To reduce thrips attack by using biological product in combination with insecticides

5. Year of assessment: 2023-24

6. Source of technology: JAU, Junagadh

7. No. of trials :3

8. Critical inputs supplied: Buveria bassiana 4 kg + dimethoate 500 ml

9. Observations to be recorded: Yield, B:C ratio and Farmers perception

10. Treatments:

Treatment 1 (Farmers practices): Application of Dimethoate 30 EC 10 ml/10 liter of water

Treatment-2 (Recommendation): Application of Buveria bassiana 1.15 wp 30 gm + Dimethoate 30 EC 5 ml/10 liter

Treatment-3: Application of Buveria bassiana 1.15 wp 60 gm

11. Observations: B: C ratio and farmers' perception

6. TITLE: PRESERVATION TECHNIQUES OF DIFFERENT CEREALS AND PULSES WITH ORGANIC METHODS (NEW)

Problem Identified: Lack of knowledge on various methods of grain storage.

Objectives: - To check the shelf life of cereals & pulses after storage for 6 months.

Year of assessment: 2024-25

No. of Trials: 5

Treatments:

Treatment 1- Farmers practice- No treatment or use of jute bags or plastic bags to store grains.
Treatment 2- Recommendation- Application of castor oil (15ml/1.0 Kg grain)
Observations: - Quality of stored grains & infestation percentage at every month

7. EXTENSION ACTIVITIES:

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

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