

ANNUAL ACTION PLAN: 2020-21

1. Training Programmes:

Quarter wise summary of training

Discipline	On Campus				T	Off campus				T	GT
	I	II	III	IV		I	II	III	IV		
Plant Protection	1	1	2	1	5	1	2	2	1	6	11
Extension	0	0	1	1	2	0	0	1	1	2	4
Horticulture	1	1	1	1	4	1	2	2	2	7	11
Home Science	1	1	2	1	5	2	1	1	1	5	10
Animal Hus.	1	1	1	1	4	1	2	2	1	6	10
Vocational				1					1		2
Extension functionaries			1	1							2
Sponsored training											10
Total					20					26	60

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

I. Quarter (1 st April to 31 st June, 2020)				
Plant Protection	Integrated pest management in summer groundnut	1	25	PF
Horticulture	Nursery Raising	1	25	PF
Home Science	Women Empowerment	1	25	PF
Animal Hus	Importance of artificial insemination in cow and buffalo	1	25	PF
II. (1 st July to 30 th September, 2020)				
Plant Protection	Integrated Pest management in cotton & groundnut	1	25	PF
Horticulture	Production technology of fruit and vegetable	1	25	PF
Extension	Formation of new SHGs, CIGs,	1	25	PF
Home Science	Preparation of different types of bakery products like Pizza base, Nankhatai, different types of biscuits, Cake etc.	1	25	FW
Animal Hus	Importance of balance ration in milch animal	1	25	PF
III. Quarter (1 st October to 30 th Dec 2020)				
Plant Protection	Diseases management in spices	1	25	PF
Horticulture	Production technology of spices crops	1	25	PF
Home Science	Preparation of Protein and Energy rich diet	1	25	FW
Ani. Husbandry	Importance of colostrum's feeding in new born calves	1	25	PF
IV. Quarter (1 st January to 31 st March, 2021)				
Plant Protection	Storage pest management	1	25	PF
	Integrated pest management in summer groundnut	1	25	PF
Animal Hus	Fodder crop production technology	1	25	PF
Home Science	Preparation of different products from Aonla	1	25	FW
Extension	Leadership Development	1	25	PF
Horticulture	Irrigation and nutrient management in fruit crops	1	25	PF

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

I. Quarter (1 st April to 31 st June, 2020)				
Plant Protection	Integrated pest management in summer crops	1	30	PF
Home Science	Value addition in milk	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. (1 st July to 30 th September, 2020)				
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	Importance of Sprouted grams to make a diet balanced	1	30	FW
Animal Hus	Infertility of cow and Buffalo by diseases & its prevention	1	30	PF
III. Quarter (1 st October to 30 th Dec, 2020)				
Plant Protection	Integrated Pest and disease management in winter 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's feeding in new born calves	1	30	PF
	Creating awareness about balance nutrition management	1	30	PF
Horticulture	Production technology in spices crops	1	30	PF
	Cultivation practices of onion and garlic	1	30	PF
IV. Quarter (1 st January to 31 st March, 2021)				
Plant Protection	Disease and pest management in summer sesame and Groundnut	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	Organic Kitchen gardening & its importance on health	1	30	FW
Horticulture	Post Harvest Management Technology	1	30	PF
	Management of young Plants/ Orchards	1	30	PF

2. Vocational Training

Sr. No.	Title of Training	Dura. Days	No. of parti	Type of Parti.
1.	Preparation of different bakery product	2	30	Rural women
2.	Value addition	2	30	Rural women

3.Extension Functionaries

Sr.	Title of Training	Dura. Days	No. of parti
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

Sr. No.	Department	No. of Trainings	No. of Participants
1	ATMA	6	180
2	DAO, Rajkot	5	150
3	DRDA/FTC	1	30
4	GSFC/GNFC	4	120

5. Front Line Demonstration

A. Agriculture and Horticulture

Sl. No.	Crop	Variety	Thematic area	Tech. Demo.	Critical inputs with cost (Rs.)	Season and year	Area (ha)	No. of farmer/demon.	Parameters identified
1	Groundnut	GG-20	IPM	Seed treatment with Chlorpyrifos	Chlorpyrifos 2.5 L =Rs. 900	Kharif-2020	4	10	Pest infestation & Yield B:C ratio
2	Groundnut	GG-22	Varietal	Improved variety	GJG-22, Seeds = 30 kg =Rs.2200	Kharif-2020	4	10	Yield, B:C
3	Groundnut	GG-20	IDM	Application of Trichoderma	Trichoderma : 2 Kg =Rs.140 Castor cake: 1Bag (50 Kg =Rs.500	Kharif-2020	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.60	Kharif-2020	4	10	Yield, B:C ratio
5	Cotton	Bt.	IPM	MDP tube	200g. Rs: 1000	Kharif-2020	20	50	Yield, B:C ratio, PB infestation
6	Brinjal	Local	IPM	MDP tube	500 gm Rs. 100	Kharif-2020	4	10	Yield, B:C ratio,
7	Tomato	Local	INM	Grade-4 micro nutrient	250 gm 2pkt	Kharif-2020	4	10	Yield, B:C ratio,
8	Wheat	INM	INM	Azotobacter, PSB	Azotobacter : 1 ltr=Rs. 120 PSB : 1 ltr =	Rabi-2020	5	10	Yield, B:C ratio

					Rs.120				
9	Cumin	GC-4	IDM	Tricho+Castor cake	Trichoderma : 2 kg =Rs.140 Castor Cake: 50 Kg. =Rs.500	Rabi-2020	4	10	Disease incidence & Yield , B:C ratio
10	Chick pea	GG-5	Varietal	Improved variety	Seeds GG-5 : 25 kg = Rs=1500	Rabi-2020	4	10	Yield, B:C ratio
11	Brinjal	GRB-5	Varietal	Improved variety	150 gm	Rabi-2020	4	10	Yield, B:C ratio
12	Garlic	Local	INM	Grade-4 micro nutrient	250 gm 2pkt =Rs.162	Rabi-2020	4	10	Yield, B:C ratio
13	Sesamum	GT-3	Varietal	Improved variety	Seeds GT-3 =2 kg =Rs. 300	Summer-2020	4	10	Yield, B:C ratio
14	Kitchen Gardening	-	Nutritional Security	Vege. Seeds	Seeds of different vegetable	Khharif-2020	0.5	50	Yield, B:C ratio
Total							69.5	220	

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 ration
Cattle	Gir	-	20	Bypass fat (50 gm/day/animal)	Milk yield and B:C ration
Cattle	Gir	-	20	Bypass protein (50 gm/day/animal)	Milk yield and B:C ration

6. OFT

1. Title of OFT: Response of Bio fertilizers to wheat yield (On going)

1. Details of technologies selected

Technology assessed: Use of bio fertilizer

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

Observation:

Yield (kg/ha),

Economics (B:C ratio), Farmers' perception

2. Title : Management of white grub in groundnut (On going)

Problem definition : Low yield and heavy damage due to white grub

Technology assessed: Integrated pest Management

Technology Option	Treatments	No. of trails
Farmers' practice	Chloropyriphos @ 4 lit./ha at the time of attack + Application of nitrogenous fertilizer Urea with irrigation (50 to 60 kg /ha)	3
Recommended practice	1. Seed treatment with Chloropyriphos @ 25 ml/kg 2. Application of Chloropyriphos @ 4 lit./ha in standing crop (if pest appears) 3. Spraying the trees on bund with Lambda cylothrin @ 15 ml /15 lit water	

Observations: Yield (kg/ha), Pest incidence (%) Economics (B:C ratio),

Farmers' perception

3 Title: Effect of Concentrate and bypass fat feeding on milk production in Gir cattle.(New)

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: Assessment of effect of the fungicides on disease of chilli**Problem Definition:** Low yield due to wilt**Technology Assessed:** To inhibit the growth of pathogen.**Treatment:****Farmer practices:** Two spray of Hexaconazole @ 1ml/liter of water. at 15 days' interval**Recommended practices:** Seed treatment of carbendazim @ 3gm/kg seed + soil application of Trichoderma @2.5 kg/ha at 15 DAS + soil drenching of C.O.C. @ 40 gm./10 ltr. of water during disease infestation**Intervention:** Two spray of Hexaconazole @ 1ml/liter of water. At 15 days' interval + soil drenching of C.O.C. @ 40 gm./10 ltr. of water during disease infestation**Observation to be recorded:** Yield (qtl/ha), B:C ratio**5 Title : 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 farmers perception**7. Extension Activities:**

Sr. No.	Activities	Proposed No.
1	KisanMela	1
2	Field Day	5
3	KisanGhoshi	5
4	Radio Talk	As and when required
5	TV Show	As and when required
6	Film Show	5
8	Khedutshibir	15
9	Kisanmahila 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

8.New Technical Programme**Title: Women's Empowerment and Nutritional Status of their Children in Dhoraji Taluka**

Name of the lead organization: Krishi Vigyan Kendra, JAU, Pipalia

Name of principle investigator & Associates: Dr. N. B. Jadav (PI), Senior Scientist & Head

Dr. P.S.Sharma (Co-PI) Scientist (Home Science)

S. V. Undhad (Associate) Scientist

Dr.V.S.Prajapati (Associate) Scientist

A. R. Parmar (Associate) Scientist

Problems statements (Source :
of problems)

Empowerment is an important tool for increasing political, social, or economic strength of an individual and developing confidence in one's own capabilities. In recent years, gender equality and women's empowerment have been recognized as crucial to the health and socio-economic development of entire country, not just individual families, the influence of women's empowerment on children's health and well-being has emerged as an issue of considerable research and interest in the developed as well as developing countries.

Women's disempowerment creates barriers to social development and results in severe consequences for child health and nutrition. As women are often the primary caregivers, their empowerment can influence nutritional status of their children but there is dearth of study on women empowerment and nutritional status of their children. Keeping in view this study was undertaken with following specific objectives. Based on prior literature, many studies have found an association between women's empowerment and child nutrition status and their well being.

Despite the existing studies, several questions remain unanswered concerning the measurement and aggregation of quantitative indicators of women's empowerment and their associations with measures of child health status, such as the effect of women's decision-making power on child morbidity and mortality, and the association between women's asset ownership and their uptake of child health services.

Objectives-

1. To measure empowerment level of rural women having children aged six to sixty months
2. To determine the nutritional status of children aged six to sixty months
3. To assess the relationship between women empowerment and nutritional status of their children

Methodology-

Study Area

The study will be conducted in Jetpur and Dhoraji Taluka of Gujarat state. six villages of each taluka will be selected randomly considering the proximity. (20 km from taluka place)

Sample size

The sample size will be sixty women having children aged six to sixty months. Five women respondents will be selected randomly from each villages constituted total 60 respondents. When mother had more than one child aged six to 60 months, the older child will be excluded.

Data Collection and Statistical Analysis

Tools for data collection will be digital weighing scale, height board or stature meter and structured-questionnaire. The precision of the digital weighing scale will be 100 gm. The height will be recorded to the nearest 0.1 cm. The weight will be taken on barefoot and minimal cloths. For child less than 1 year of age, the "mother-and-baby function" will be used that enabled determination of the body weight of child while being held in the arms of the mother. Z-score will be used to determine underweight, stunting and wasting based on WHO Growth Standard. Individual face-to-face interview of mothers having children aged 6-60 months will be taken by using teacher made well structured gujarati version interview schedule.

The anthropometric measurement will be carried out as per WHO guideline. Anthropometric calculation will be done in WHO Anthro version 3.2.2. Children whose Weight-for-Age Z-Score (WAZ), Height-for-Age Z-score (HAZ) and Weight-for-Height Z-score (WHZ) will be below minus two standard deviations (-2 SD) from the median of the WHO reference population will be classified as underweight, stunted (short for their age) or chronically malnourished and wasted (thin) or acutely malnourished respectively. Health status of women will be measured by BMI. Women's empowerment will be assessed using Women's Empowerment Index

The five indicators as described in results will be taken for measurement of the Women's Empowerment Index. These five indicators will be weighted by the experts and on the basis of weighage and using following formula empowerment index will be worked out for individual respondents.

$$\text{Empowerment index} = \{(A_1/B_1) \times W_1\} + \{(A_2/B_2) \times W_2\} + \{(A_3/B_3) \times W_3\} + \{(A_4/B_4) \times W_4\} + \{(A_5/B_5) \times W_5\}$$

A = Actual obtained scores of individual indicator

B = Maximum obtainable scores of individual indicator

W – Weightage given by expert for individual indicator

Women's involvement in household decision-making (Include 5 decisions: access to health care, child rearing, purchasing, personal belonging and freedom to visit or mobility)

1. Women's membership in community groups.
2. Women's cash earnings.
3. Women's ownership of house/land/ Livestock.
4. Women's education

The data calculated were tabulated will be analysed in light of the objective by using appropriate statistical tools viz. Percentage, mean, correlation coefficient etc.

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