For office use only

ACTION PLAN

(April-2016 to March-2017)

OF

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY
TARGHADIA (RAJKOT)

KRISHI VIGYAN KENDRA
JUNAGADH AGRICULTURAL UNIVERSITY
TARGHADIA (Rajkot) – 360 003

Action plan (April – 2016 to March– 2017)

It is proposed to organize the following batches of training programmes for farmers, farm women, rural youth and extension functionaries during April 2016 to March 2017

A. Training Programmes :

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

Subject	*Title of Training*	*Duration Days*	*No.of Parti.*	*Type of Parti.*
1	*2*	*3*	*4*	*5*
I. Quarter : (1st April to 30th June, 2016)				
Crop Production	- Improved cultivation practices for Cotton and Sesame	2	25	Farmers
Plant Protection	– Different types of Seed treatment for insect pests and diseases management.	2	25	Farmers & Farm Women
Animal Science	– Care and management of livestock during summer	2	25	Farmers
Horticulture	– Improved cultivation practices for important fruit crops	2	25	Farmers
Agril. Engg.	– Selection, maintenance and use of improved farm implements and machinery	2	25	Farmers
Home Science	– Value addition in mango – Use of sprouted pulses in preparation of low cost nutrition diet.	2 2	25 25	Farm Women Farm Women
II. Quarter : (1st July to 30th September, 2016)				
Crop Production	– Castor production technology	2	25	Farmers
Plant Protection	– Skill development for preparation of botanical pesticides	2	25	Farmers
Animal Science	– Importance and use of green fodder in milk production	2	25	Farmers
Horticulture	– Different propagation methods for fruit crops suitable for arid and semi arid region.	2	25	Farmers
Agril.Engg.	– In-situ moisture conservation practices in dry land agriculture	2	25	Farmers
Home Science	– Preparation of bakery products	2	25	Farm women
III. Quarter : (1st October to 31st December, 2016)				
Crop Production	– Improved cultivation practices for wheat & Gram	2	25	Farmers
Plant Protection	– Integrated insect pests & disease management in Rabi crops.	2	25	Farmers
Animal Science	– Foot & Mouth disease and its control – Balanced feeding of pregnant animal	2 2	25 25	Farmers Farmers
Horticulture	– Production technologies for rabi vegetables.	2	25	Farmers
Agril. Engg.	– Operation and maintenance of micro irrigation system	2	25	Farmers
Home Science	– Importance of green leafy vegetables in diet and preparing recipes from vegetables.	2	25	Farm women
IV. Quarter : (1st January to 31st March, 2017)				
Crop Production	– Importance of organic farming	2	25	Farmers
Plant Protection	– Storage grain pest and their management	2	25	Farmers
Animal Science	– Importance of Artificial Insemination	2	25	Farmers
Horticulture	– Improved cultivation practices for summer vegetables.	2	25	Farmers
Agril. Engg.	– Importance of secondary agriculture	2	25	Farmers
Home Science	– Soybean-A nutritional diet	2	25	Farm women

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

Subject	*Title of Training*	*Duration Days*	*No.of parti.*	*Type of Parti.*
1	*2*	*3*	*4*	*5*
I. Quarter : (1st April to 30th June, 2016)				
Crop Production	– Crop Production technology in kharif pulses & Gum guar	1	25	Farmers
	– Importance of organic farming	1	25	Farmers
Plant Protection	– Safe food and seed storage	1	25	Farmers
	– Management of soil arthropods in groundnut.	1	25	Farmers
Animal Science	– Hemorrhagic Septicemia and its control	1	25	Farmers
	– Importance of colostrums feeding in new born calves	1	25	Farmers
Horticulture	– Importance of drip irrigation in horticultural crops.	1	25	Farmers
	– Awareness regarding quality aspects of Seeds, Pesticides, Fertilizers and planting materials	1	25	Farmers
Agril. Engg.	– Rain water harvesting and their efficient use in crop production	1	25	Farmers
	– Small scale processing and value addition	1	25	Farmers
Home Science	– Preparation of milk products	1	25	Farm women
	– Household food security by kitchen gardening	1	25	Farm women
II. Quarter : (1st July to 30th September, 2016)				
Crop Production	– Improved cultivation practices for Cumin & Fennel	1	25	Farmers
Plant Protection	– Management of pink boll worm in cotton	1	25	Farmers
	– Integrated insect pests and diseases management in kharif crops	1	25	Farmers
Animal Science	– Awareness about control of Mastitis in animal by audio visual aid	1	25	Farmers
	– Infertility of cow & buffalo by infectious disease & its prevention	1	25	Farmers
Horticulture	– Technology on mulching in pomegranate plantation.	1	25	Farmers
Agril. Engg.	– Water harvesting and groundwater recharge technologies	1	25	Farmers
	– Post harvest technology of different field crops	1	25	Farmers
Home Science	– Different methods of tie and dye work	1	25	Rural youth
	– Nutritional diet for children & adolescent girl	1	25	FM & RY
III. Quarter : (1st October to 31st December, 2016)				
Crop Production	– Integrated weed management & water management in major rabi field crops	1	25	Farmers
	– Importance & use of bio fertilizers	1	25	Farmers
Plant Protection	– Ecofriendly management of insect pests & disease in vegetable crops.	1	25	Farmers
	– Management of disease of spices (Rabi) crops.	1	25	Farmers
Animal Science	– Clean milk production by proper milking, watering & washing	1	25	Farmers
	– Fodder crop production technology	1	25	Farmers
Horticulture	– Cultivation practices for onion & garlic.	1	25	Farmers
Agril. Engg.	– Use of small tools and implements for drudgery reduction in agriculture	1	25	Farmers
Home Science	– Home level processing of tomato	1	25	Farm women
	– Preparation of jam, squash, catch up from fruit	1	25	Farm women

1	2	3	4	5
IV. Quarter : (1st January to 31st March, 2017)				
Crop Production	– Efficient water management in summer field crops	1	25	Farmers
Pl. Protection	– Management of insect pest & disease in summer crops. – Different formulation of pesticides and their applications	1 1	25 25	Farmers Farmers
Animal Science	– Nutritive deficiency in Infertility problem of Cow & Buffalo – Zoonotic disease & its preventive measure	1 1	25 25	Farmers Farmers
Horticulture	– Processing of turmeric	1	25	Farmers
Agril. Engg.	– Selection, maintenance and safe use of plant protection equipments	1	25	Farmers
Home Science	– Importance of fruit & vegetables in daily diet – Value addition in aonla	1 1	25 25	Farm Women Farm Women

3. Vocational Training:

Sr. No.	Title of Training	Dura.Days	No. of parti	Type of Parti.
1.	– Preparation and preservation of fruits & vegetables products	6	25	Rural Girls
2.	– Hand stitches and handicraft	3	25	Rural Girls
3.	– Poultry Rearing	4	25	RY
4.	– Goat Rearing	4	25	RY

4. Extension Functionaries Training:

Sr. No.	Title of Training	Dura. Days	No. of parti.	Type of Parti.
1.	– Pre-seasonal training on Kharif crops	1	25	Ext Workers
2.	– Pre-seasonal training on Rabi crops	1	25	Ext Workers
3.	– Preventive measure and first aid treatment of important disease in dairy animals	1	25	Ext Workers (OFF)
4.	– Integrated pests management in *Kharif* crops	1	25	Extension Functionaries of Agriculture Department

5. Sponsored/ Collaborative Training with Other Organizations:

Sr. No.	Title of Training	Dura. Days	No. of parti.	Type of Parti.	Sponsoring Agency
1.	– Scientific Dairy management	1	25	Farmers	ATMA-Rajkot
2.	– Nutritional management in Mother and Child	1	25	Farmers	PHC
3.	– Intigrated pest management in vegetable crops	1	25	Farmers	ATMA-Rajkot
4.	- Irrigation management in Rabi crop.	1	25	Farmers	FTC-Rajkot
5.	- INM in *Bt.* Cotton	2	35	Ext. workers	Cotton connect
6.	- IPM & IDM in *Bt.* Cotton	2	35	Ext. workers	Cotton connect
7.	- Training programme for A.I. Workers	1	45	A.I. Workers	Gopal Dairy

Training Programme : Quarter wise Summary :

Sr. No.	*Subject*	*On Campus*					*Off Campus*					*G.T.*
		*1	2	3	4	T	1	2	3	4	T	
1.	Crop Production	1	1	1	1	**4**	2	1	2	1	**6**	**10**
2.	Pl. Protection	1	1	1	1	**4**	2	2	2	2	**8**	**12**
3.	Animal Science	1	1	2	1	**5**	2	2	2	2	**8**	**13**
4.	Horticulture	1	1	1	1	**4**	2	1	1	1	**5**	**9**
5	Agril. Engineering	1	1	1	1	**4**	2	2	1	1	**6**	**10**
6.	Home science	2	1	1	1	**5**	2	2	2	2	**8**	**13**
	Total	**7**	**6**	**7**	**6**	**26**	**12**	**10**	**10**	**9**	**41**	**67**

T = Total , G.T. = Grand Total , * 1, 2, 3,4 = Quarter

Summary of Training programme :

Sr. No.	*Subject*	*On campus*	*Off campus*	*Total*
1.	Crop Production	4	6	10
2.	Plant protection	4	8	12
3.	Animal Science	5	8	13
4.	Horticulture	4	5	9
5.	Agril. Engineering	4	6	10
6.	Home science	5	8	13
	Total	**26**	**41**	**67**
1.	Vocational training	-	4	4
2.	In service training	4	-	4
3.	Sponsored Training	6	1	7
	Grand Total	**36**	**46**	**82**

B. Front Line Demonstrations (Proposed)

Sr. No.	Crop	Variety	Objective	No. of Demons.	Area (ha)
Oilseed					
1	Groundnut	GJG-22	To test yield potentiality of newly released groundnut variety	50	20.0
2	Groundnut	GJG-9	To test yield potentiality of newly released groundnut variety	5	2.0
3	Groundnut	Inter cropping	Inter cropping of pigeon pea with Groundnut crop	2	0.8
4	Groundnut	GG-20	Management of wilt grub through seed treatment of chlorpyriphos 25 EC@25ml/Kg seed	10	4.0
Pulses					
1	Chickpea	GJG-3/ GJG-5	To test yield potentiality of newly released Chickpea variety	10	4.0
Cereals					
1	Wheat	GW-366/ GW-496	Fertilizer management in wheat crops.	5	2.0
Other Crops					
1	Cotton	Bt. Cotton	Management of pink ball worm through pheromone trap and Management practices	10	4.0
2	Cumin	GC-4	Management of wilt through bio agent	10	4.0
3	Onion	Guj.1	Crop diversification	5	2.0
4	Garlic	GG-4	Crop diversification	5	2.0
FLD Other than crops					
1	Cow	Chelated Min. mixture	To balance the deficiency of minerals in animals	20	-
2	Buffalo	By pass protein	To balance nutritive deficiency of animals	10	-
3	Fodder	Makhan grass	Fodder production technology	5	1.0
4	Seasonal vegetables	-	Kitchen gardening	5	0.5
Total				**152**	**46.3**

C. ON FARM TESTING (OFTs)

OFT-1 (New)

Chelated & Area Specific Mineral mixture for dairy buffaloes

Objective	**To increase milk yield & regularity of heat**
Reason	1. Low milk production & infertility problems in dairy buffalo
Technical Intervention	Enhancement of milk production with improve reproductive efficiency
Source of technology	NDRI, kernal, Hariyana
Treatments	1. Farmers practices (Control) 2. Buffalo fed with 50 gms/day mineral mixture supplementation (Reco.) 3. Buffalo fed with 50 gms/day chelated & area specific mineral mixture supplementation (Intervention)
Parameters	1 Milk yield 2 Postpartum estrus 3 No. of insemination for conception

OFT- 2 (Conti.)

Title :- Comparison of solar cooker with traditional cooking system

Items:-

1. Murbba,
2. sweet potato,
3. sweet corn,
4. Roasted groundnut

Objective:-

(1) To improve quality of Prepared items
(2) To reduce drudgery of farm women
(3) To reduce time and fuel consumption

Treatment: - Item no. 1

(1) Preparation by traditional method
(2) preparation by sunlight heat
(3) preparation by solar cooker

Treatment: - Item no. 2-4

(1) Preparation by traditional method
(2) Preparation by roasting
(3) Preparation by solar cooker

No. of Replications: - 4

Observations:-

(1) Time consumption
(2) Fuel consumption
(3) Movement
(4) Cost saving
(5) Organo laptic test
    a. Colour
    b. Texture,
    c. Test
    d. Consistency
    e. Overall acceptance
(6) Keeping quality

OFT-3 (Conti.)

Title: Effect of salt & oil on spoilage of mango pickles

Problem Definition: Spoilage in mango pickle

Technology Assessed: Prevention of spoilage in mango pickles

Objective:
1. To prevent spoilage in mango pickle
2. To increase self life of mango pickle
3. Cost saving

Treatments:

Common ingredients use for all the treatments:- Mango 1 kg, turmeric powder 5 gm, jaggary/sugar 600 gm, fenugreek 50 gm, mustard 30 gm, asafetida (hing) 5 gm, coriander 30 gm, funnel 30 gm, red chili powder 30 gm.

1. Salt 12% (120 gm) + Rapeseed Oil 800ml/ kg mango **(**Local practices)
2. Salt 15% (150 gm) + Rapeseed Oil 250ml/ kg mango (Recommended practices)
3. Salt 20% (200 gm) + Rapeseed Oil 200ml/ kg mango (Intervention)

No. of Replication: - 3 (Farm women)

Observations:- Self life (days), Colour, Texture, Cost

OFT-4

Title : Management of White grub in Groundnut.

Objective: To minimize the infestation of grub in Groundnut.

Treatments :

1. Sowing of groundnut without Seed treatment. (Farmers practice)
2. Seed treatment with chlorpyriphos 25 E.C.@ 25 ml/kg seed.(GAU Reco.)
3. Seed treatment with clothanidin 50 WDG 2 g/kg seed (AINP on White grub and Other Soil Arthropods, , RARI, Department of Entomology Durgapura, Jaipur 2008) (GAU Reco.)
4. *Metarhizium anisopli* @ 1.5 Kg + 250 Kg Castor cake/ha. Furrow application at the time of sowing (GAU Reco.)
5. Application of urea @ 6Kg/ha at the time of damage start. (Intervention-1)

OFT – 5

Title : Use of *Trichoderma* for wilt disease management in cumin

Objective : Application of biological control agent *Trichoderma* for managing the disease problem in cumin.

Treatments :

1. No use of trichoderma or fungicide at the time of sowing. But they use fungicides after initiation of diseases. (Farmers practices.)
2. Application of *Trichoderma* @ 5 kg /ha with organic manure @1000 kg / ha at the time of sowing.. (Recommended practices.)
3. Application of *Trichoderma* @ 5 kg /ha along with organic manure @1000 kg / ha at the time of sowing and second application of *Trichoderma* @ 5 kg /ha along with organic manure by broadcasting method at 15 days after germination. (Intervention).

No. of Replications: - 3

Observations :-

1. Per Cent Plant infestation within 1x1 m^2 quadrate from each plot at 45 days after germination.
2. Record yield per hectare.

D. Extension Activities:

Sr. No.	Activity	Proposed No.
1	Kisan Mela	1
2	Field Day	8
3	Kisan Ghosthi	12
4	Radio Talk	As and when require
5	TV Show	As and when require
6	Film Show	12
7	Animal Health Camp	4
8	Improved implements demonstration	5
9	Khedut shibir	10
10	Kisan mahila meeting	2
11	News paper Coverage	As and when require
12	Popular Articles	12
13	Extension Literature	5
14	Advisory Service	As and when require
15	Ex-Trainee Sammelan	1
16	Seminar	1
17	Pashu Mela	1
18	Exhibition	1
19	Night meeting	6

New Technical Programme for the next year :

1.	Title	:	Consciousness of bio pesticide user in adopted villages of KVK, Targhadia
2.	Name of the lead organization		Krishi Vigyan Kendra,JAU, Pipalia
3.	Name of Principle investigator	:	➢ Shri D. A. Saradava Subject Matter Specialist (Plant protection) ➢ Dr. A. V. Khanpara Programme co-ordinator ➢ Miss H. A. Manvar Subject Matter Specialist (Home Science) ➢ Dr. A. M. Parakhia Director of Extension Education Junagadh Agricultural University
4.	Problems statements (Source of problems & clear statement of problems)	:	Health consciousness
5.	Introduction	:	
	The potential benefits to agriculture and public health programmes through the use of biopesticides are considerable. The interest in biopesticides is based on the advantages associated with such products which are: (i) inherently less harmful and less environmental load, (ii)designed to affect only one specific pest or, in some cases, a few target organisms, (iii)often effective in very small quantities and often decompose quickly, thereby resulting in lower exposures and largely avoiding the pollution problems and (iv)when used as a component of Integrated Pest Management (IPM) programs, biopesticides can contribute greatly		

	During the past five decades farmers humans have almost been wholly dependent upon synthetic/chemical pesticides. Agriculture has been revolutionized by the use of chemicals for crop protection. The effect of synthetic chemicals on agriculture has been so dramatic that conventional agriculture now means using chemicals. Despite the immense benefits, these chemicals have given rise to serious environmental problems. Furthermore, the emergence and spread of increasing resistance in many vector species, concerns over environmental pollution, and the ever increasing cost of the new chemical insecticides, make it apparent that vector and pest control can no longer be safely based upon the use of chemicals alone. Consequently, increasing attention has been directed toward natural enemies such as predators, parasites, and pathogens. In the mid seventies, WHO and other international organizations initiated studies into existing biological control agents and the development of new ones. Today, biological control is widely regarded as a desirable technique for controlling insects, due to its minimal environmental impact and its avoidance of problems of resistance in the vectors and agricultural pests.		
6	**Objective :**		(i) To evaluate the personal and situational characteristics of the farmers using bio pesticides. (ii) To know the knowledge level of farmers using bio pesticides. (iii) To assess quantity of different bio pesticides used by respondents. (iv) To study the constraints faced by farmers using bio pesticides. (v) To know the suggestions given by farmers adopting bio pesticides.
7	**Methodology**		The study will be conducted in padhari taluka adopted by the KVK, JAU, Targhadia and five village of same Taluka will be selected purposively for the present study.. Further, 10 farmers from each village will be selected for the study. Thus, making sample of 50 respondents will be selected.. The respondents will be surveyed through personal interview schedule. The experiment will be conti. Kharif 2015-16 to 2017-18 Name of adopted Village (1) Sarapdad (2) Metoda (3) Kerala (4) Suvag (5) Amreli Non adopted will be randomly selected. Questionary : (1) Name of Farmer. (2) Name of Village (3) Land in ha. (4) Are you aware with bio pesticides? (5) Which type bio pesticides are you using?

			(6) Quantity of bio pesticides are you using? (7) For which crop? (8) For which pest & disease. (9) Have you any benefit by using bio pesticides? (10) Yield increase : How much (11) Your opinion about bio pesticides use? (12) You have experienced any effect on Natural enemies