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JUNAGADH AGRICULTURAL UNIVERSITY, AMRELI

ACTION PLAN
(April- 2012 to March-2013)

The KVK is a Innovative technological information centre for the development of farming community, by the KVK carry out various activities as per objectives and mandates. i.e organizing on campus and off campus short and long term vocational training programmes in agriculture and allied vocational for the farmers, rural youth and farm women with emphasis on " Learning by doing ". Organizing training to update the extension personal with emerging advances in agricultural research. Gaps to generate production data and feedback will be conducting OFT for identification of specific location technologies. The above activities of KVKs will be organized in details for April, 2011 to March, 2012 is as narrated as under.

1. Training programmes :

The training programmes on various aspects related to Agricultural technology based on thrust areas will be organized during the quarter wise April, 2012 to March,2013. Details of training programmes is as under.

A. On campus Training Courses

Subject	Title of training	Durat i-on (days)	No. of partic i-pants	Type of partici -pants
I Quarter April 2012 to June 2012				
Crop Production	Production technology of cotton	1	35	PF
	Production technology of groundnut	1	35	PF
Plant Protection	Use of botanical pesticides	1	35	PF
	Seed treatment in cotton and groundnut	1	35	PF
Home Science	Preparation of low cost diet for children	1	35	FW
	Value addition in food grains	1	35	FW
Horticulture	Post harvest technology of mango	1		PF
	Organic farming in mango	1	35	PF
Extension Education	Youth Development through update knowledge on major Kharif crop	1	35	PF
	Organizing effective frontline	1	35	PF

	Demonstration			
Agril Engineering	Installation and maintenance of Drip irrigation	1	35	PF
	Post Harvest Technology in mango		35	
Live stock production & management	Care for animals	1	35	PF
	Lucerne- ideal fodder crops	1	35	PF
II. Quarter July 2012 to September 2012				
Crop Production	Production technology of sesame	1	35	PF
	Production of castor	1	35	PF
Plant protection	IPM in kharif crops	1	35	PF
	Preparation of bio pesticides	1	35	PF/RY
Home Science	Preparation of different types of pickles	1	35	FW
	Capacity building training for SHGs of women	1	35	FW
Horticulture	Production technology of chilly	1	35	PF
	Production technology of brinjal	1	35	PF
Extension Education	Update Knowledge of gram sevak in wheat crop	1	35	PF
	Characteristics and quality of ideal leader	1	35	PF
Agril Engineering	Training on bio gas	1	35	PF
	Use of Plastics in Agriculture	1	35	PF
III. Quarter October 2012 to December 2012				
Crop Production	Production technology of gram and wheat	1	35	PF
	Irrigation management of wheat and gram	1	35	PF
Plant protection	IPM and IDM in gram and wheat	1	35	PF
	IDM in cumin crop	1	35	PF
Home Science	Preparation of jam, jelly, catch up from fruits and vegetables	1	35	FW
	Drudgery reduction technologies for women	1	35	FW
Horticulture	Production technology of cumin crops	1	35	PF
	Production technology of fenugreek	1	35	PF
Extension Education	Youth Development through update knowledge on major Rabi crop	1	35	PF
	Leadership development	1	35	PF
Agril Engineering	Repairing and maintenance of farm implements	1	35	PF
	Training on rotavator and Cotton shredder	1	35	PF
IV. Quarter January 2013 to March 2013				
Crop	Production technology of summer	1	35	PF

Production	crops			
	Mulching in summer groundnut	1	35	PF
Plant protection	Management of store grain pest	1	35	PF
	IDM in summer groundnut and sesame	1	35	PF
Home Science	Protein and energy rich diet	1	35	FW
	Tie and dye work	1	35	FW
Horticulture	Planning of summer vegetable crops	1	35	PF
	Malformation in mango	1	35	PF
Extension Education	Youth Development through update knowledge on major Summer crop	1	35	PF
	Organizing effective frontline Demonstration	1	35	PF
Agril Engineering	Bio compost of Farm waste	1	35	PF
	Training on Biogas Plant	1	35	PF

PF : Practicing farmer, PW : Practicing women

A. ON/OFF Campus Training Programme for Rural youth

Subject	Title of training	Duration (days)	No. of partic-pants	Type of partici-pants
Crop production	Weed management in major *kharif* crops	1	35	RY
Plant Protection	Production and handling of Bio-Agent & Microbial pesticides	1	35	RY
Home Science	Different types of painting on glass and clohes	1	35	RG
Horticulture	Net house technology	1	35	RY
Extension Education	Bank loans for field crops/crop insurance	1	35	RY
Agril Engineering	Water shed management	1	35	RY
	Total	**5**	**210**	

RY : Rural Youth

B. OFF Campus Training Programme Courses

Subject	Title of training	Duration (days)	No. of partic-pants	Type of partici-pants
I. Quarter April 2012 to June 2012				
Crop production	Reclamation of soil and their testing	1	35	PF
	Production technology of cotton	1	35	PF
Plant protection	IPM and IDM in groundnut crops	1	35	PF
	IPM and IDM in sesame crops	1	35	PF
Home Science	Safe storage of food grains	1	35	FW

	Work simplification for women in household and agricultural activities	1	35	FW
Horticulture	Newly varieties of vegetable crops	1	35	PF
	Nursery raising	1	35	PF
Extension Education	Update Knowledge of Extension worker in Agriculture	1	35	PF
	Income generation through Co-operative movement	1	35	PF
Agriculture Engineering	Use of Improved Farm Implements		35	
	Energy Conservation in Agriculture	1	35	PF
II. Quarter July-2012 to September- 2012				
Crop Production	Production technology of cotton	1	35	PF
	Weed management in cotton and groundnut	1	35	PF
Plant protection	Parawilt and sucking pest in cotton	1	35	PF
	Stem rot and sucking pest in groundnut	1	35	PF
Home Science	Minimization of nutrient loss in processing	1	35	FW
	Nutritional requirements for pregnant and lacting women	1	35	FW
Horticulture	Production technology of kharif vegetable crops		35	
	Importance of vegetable crops and JAU varieties	1	35	PF
Extension Education	Youth Development through update knowledge on major crop	1	35	PF
	Income generation through Co-operative movement	1	35	PF
Agril Engineering	Rain Water Harvesting	1	35	PF
	Efficient use of water in different irrigation system	1	35	PF
Livestock production & management	Artificial insemination	1	35	PF
III. Quarter October- 2012 to December- 2012				
Crop production	Production tech. of cotton	1	35	PF
	Production tech. of groundnut	1	35	PF
Plant Protection	IPM in wheat and cumin crops	1	35	PF
	Use of botanical pesticides	1	35	PF
Home Science	Awareness about vaccination in children	1	35	FW
	Different embroidery work	1	35	FW
Horticulture	Production technology of cumin	1	35	PF
	Planning for rabi vegetable crops	1	35	PF
Extension	Youth Development through update	1	35	PF

Education	knowledge on what and cumin crop			
	Income generation through FIG	1	35	PF
Agril Engine.	Installation and maintenance of Drip irrigation	1	35	PF
	Post Harvest Technology in wheat	1	35	PF
IV. Quarter January- 2012 to March -2013				
Crop production	Production tech. of wheat	1	35	PF
	Production tech. of gram	1	35	PF
Plant protection	Management of storage pest	1	35	PF
	Preparation of bio pesticides	1	35	PF
Home Science	Preparation of vitamin-C rich receipes	1	35	FW
	Value addition in milk	1	35	FW
Horticulture	Production technology of okra and ridge gourd	1	35	PF
	Green house technology	1	35	PF
Extension Education	Youth Development through update knowledge on sesame and g'nut crop	1	35	PF
	Income generation through FIG	1	35	PF
Agril. Engg	Use of Improved Farm Implements	1	35	PF
	Energy Conservation in Agriculture	1	35	PF

C. Training Programme (Quarter wise summary):

Sr. No	Subject	On campus					Off campus					G.T
		I	II	III	IV	T	I	II	III	IV	T	
1	Crop production	2	2	2	2	8	2	2	2	2	8	16
2	Plant Protection	2	2	2	2	8	2	2	2	2	8	16
3	Home Science	2	2	2	2	8	2	2	2	2	8	16
4	Horticulture	2	2	2	2	8	2	2	2	2	8	16
5	Extension Education	2	2	2	2	8	2	2	2	2	8	16
6	Agril. Engg.	2	2	2	2	8	2	2	2	2	8	16
7	Live stock production	1	-	-	-	1	-	-	1	-	1	2
Total		**13**	**12**	**12**	**12**	**49**	**12**	**12**	**13**	**12**	**49**	**98**

D.Vocational Training:

Sr. No	Title of training	Duration (days)	No of Partici.	Type of Participant
1	Different bakery products	3	25	Rural girls
2	Production of bio-control agents and	1	25	Rural Youth

	bio-pesticides			
3	Solar drying of food production and packaging	1	25	Rural Youth

E.In Service Training:

Sr. No	Title of training	Duration (days)	No of Parti.	Type of Participant
1	Pre-seasonal Training on *cotton and groundnut* crops	3	25	Ext.workers
2	Pre-seasonal Training on *wheat and cumin* crops	3	25	Ext.workers
3.	Child care and their development	1	25	Ext. workers (Anganwadi)

F. Sponsored Training:

Sr. No	Title of training	Duration (days)	No of Parti.	Type of participant
1	Safe use of pesticides	1	25	Agro dealer
2	Balance use of fertilizers	1	25	Farmers
3	Production technology and seed production of onion	1	25	Farmers
4	Importance of training	1	25	Farmers
5	Preservation of fruit and vegetables	1	25	FW/RG
	Total	**5**	**125**	

The 5 training courses will be organizing with the 125 participant's by the collaboration with the different agency like NGO and Agro dealer in different subjects.

G. Summary of Training Programmes:

Sr. No	Subject	On campus	Off Campus	Total
1	Crop Production	8	8	16
2	Plant Protection	8	8	16
3	Home Science	8	8	16
4	Horticulture	8	8	16
5	Livestock production & Management	1	1	2
6	Extension Education	8	8	16
7	Agril. Engineering	8	8	16
8	Vocational training	2	1	3
9	In service Training	2	1	3
10	Sponsored Training	3	2	5
	Total	**56**	**53**	**109**

During the year 2012-13, 56 on campus and 53 off campus training programmes will be organised in different subjects for the Farming community by the KVK, Amreli.

H. Extension activity:

Sr.No	Activity	Proposed No.
1	Field day	18
2	Kisan Gosthi	60
3	Radio talk	As & when required
4	TV show	As & when required
5	Khedut shibir	12
6	News paper coverage	As & when required
7	Diagnostic service	As & when required
8	Advisory service	As & when required
9	Popular articles	3
10	Extension Literature	4
11	Celebration of Important day	1

I Front Line Demonstration (Proposed)

Sr No	Crop/Input	Variety	Title	No of Demons.	Area (ha)
Kharif-2012					
1	Groundnut	*Trichodermma*	Yield potentiality	20	8
2	Soyabean	Guj.soya-3	Yield potentiality	10	4
3	Cotton	IPM	Control of pest	25	8
4	Brinjal	GJBG-1	Yield potentiality	5	2
			Total	**60**	**22**
Rabi - 2012-13					
1	Gram	GG-3	Yield potentiality	10	4
2	Wheat	GW-366	INM	25	8
3	Cumin	GC-4	IDM	10	4
			Total	**45**	**16**
Summer-2013					
1	Groundnut	TG-37	INM	10	4
2	Sesame	Guj.sesame-3	Yield potentiality	10	4
			Total	**20**	**8**
1	Renewable Energy applications	Box type Solar Cooker	Energy conservation	20	8
2	Agriculture	Tractor	Farm	5	2

	Engineering(Farm Machinery)	operated Boom Sprayer	Mechanization		
3	Agriculture Engineering(Farm Machinery)	Tractor operated Blower Sprayer	Farm Mechanization	5	2
4	Agriculture Engineering(Farm Machinery)	Wheel hoe	Drudgery reduction	10	4
5	Agriculture Engineering(Farm Machinery)	Automatic seed cum fertilizer drill	Farm Mechanization	5	2
				40	**18**
			GT	**165**	**64**

During the year 2012-13, it will be organized 165 FLD in 64 hectare for the Farming community by the KVK, Amreli.

J ON FARM TESTING

OFT-1- Plant protection:

(A) Technology Assessment

Trial -1

(1) Title:- Integrated management of insect pests and diseases of groundnut under rainfed condition

(2) Problem diagnose / defined:- Lack of knowledge for use of combination of Insecticides with fungicides.

(3) Details of technologies selected for assessment / refinement:-

1. Mixing compitable or uncompitable insecticides and fungicides each other and seed treatment with macozeb (Farmer's Practices)
2. Spray the spray mixture as spray following schedule Thiamethoxam 25 WG @ 4g+ hexaconazole 5EC @ 10ml/10 liter at 35 DAS, actamiprid 20 SP @ 2g+ chlorothalonil 75 WP @25g/10 lit. at 50 DAS and imidachloprid 17.8 SL @ 4ml+ carbendazim 50 WP @ 5g+ mancozeb 75WP @ 26g/10lit at 65DAS for effective and integrated management of the sucking insect pests and disease(i.e. aphid, jassids, thrips, tikka, rust etc). (Recommendation)
3. Seed treatment with tebuconazole 1.5g/kg of seed and spray the tank mixture of acetamiprid 20 SP @ 2g + chlorothalonil 75 WP @ 25g/10lit at 40 DAS and imidachloprid 17.8 SL @ 4ml + macozeb 75 WP @ 26g/10 lit at 60 DAS. (Intervention)

OFT : 2 – Home Science :

Title:Prevalence of Anemia Among rural adolescent girls

Majority of rural girls of this area are illiterate and they have poor economics status and also lack of knowledge about nutrition of fruits, vegetables & other foods. Due to poor economic condition, they are enable to purchase fruits & vegetables from Market for their daily dietary need. It has resulted in poor health and imbalanced nutritional status of farm women / adolescent girls. Therefore, majority of women/ adolescent girls have suffering from Anemia (Iron deficiency disease) having low Hb level. Hence, we have decided to conduct On Farm Testing on Prevalence of Anemia Among rural adolescent girls using iron rich diet with iron tablet to improve Hb level.

Reason for Prevalence of Anemia

1) Low iron content in diet
2) Use of traditional diet
3) Lack of knowledge about nutritional foods
4) Prevelence of infectious diseases
5) Poor socio-economic condition

Intervention Point

1) Use of iron tablet
2) Use of iron rich diet to improve Hb level

Objective

1) To improve the Hb level in rural adolescent girls

Treatment

T_1 : - Traditional practice - existing dietary pattern
T_2 :- Recommended practice - iron tablet / day with existing dietary pattern
T_3 :- Iron tablet / day + 50 gm roasted Soybean + 100 gm Rice flakes / day with existing dietary pattern.

No of Replications :- 15 girls (16 to 18 yrs)

Observations

1. Body weight
2. Measure Hb level before practices & after three months practices
3. Occurrence of disease if any

Note :- Roasted Soybean contains 10.4 mg% iron. Rice flakes contains 20.0 mg % iron

OFT : 3 – Agril. Engineering:

Title : Mulching in Papaya crop

Problem : Poor growth and high mortality in Papaya seedlings

Causes :

1) Poor soil fertility
2) Improper sowing time
3) High temperature
4) High evaporation of soil moisture
5) Inefficient use of irrigation water
6) Lack of knowledge
7) Non availability of quality seedlings
8) Poor plant protection measures

Intervention : High evaporation rate of soil moisture

Treatments: T1 – Local Method (without mulching)
T2 –Wheat straw mulching
T3 - Plastic Mulching

OFT : 4 – Horticulture:

1.	Title of OFT – 5	:	Induction of Early flowering in mango through paclobutrazol
2.	Description about the problem	:	The farmers of this region are using almost double to triple dose of paclobutrazol for early flowering and regular bearing in mango. So they obtained good production but it is not economically beneficial to the farmer due to higher treatment cost.
3.	Treatment	:	T-1= Cultar 20 ml / tree (Recommended) T-2= Cultar 50-60 ml / tree (Farmer's Practice) T-3= Cultar 30 ml / tree (Modified treatment) T-4= Control or without Cultar treatment

OFT -5 - Agronomy

Title : Efficient use of Nitrogen & response of Cotton to Phosphorus

Problem diagnose/defined : Non efficient use of Nitrogenous & Phosphatic fertilizers

Details of technologies selected for assessment/refinement :

T1: Farmers Practice i.e. 23 kg N / ha + 57 kg P2O5 / ha as a Basal dose & 115 kg N / ha in three splits

T2 : Recommended practice i.e. 40 kg N / ha as a Basal dose & 120 kg N / ha in three splits

T3 : Refined practice i.e.Application of 26 kg N / ha as basal dose in the form of A.S. & 133 kg N / ha in five splits each at 20 days interval in the form of Urea.

Survey work:

Extension Education :

PRA survey of newly adopted village