## Quarter wise Summary of Annual Action Plan : 2009 - 2010 (First Half)

## 1. Training Programme:

Discipline	Total Cam <sub>j</sub>		Total	Total off campus		Total	Grand Total
	I	II		I	II		
Crop production	2	3	5	2	2	4	9
Pl. Protection	3	1	4	4	3	7	11
Horticulture	1	1	2	1	1	2	4
Ag. Eng.	1	1	2	2	3	5	7
Home Sci.	2	2	4	2	2	4	8
Fisheries	1	1	2	2	2	4	6
Total	10	9	19	13	13	26	45

## A. On Campus Training Programs

Subject	Title of Training	Dura- tion Days	No. of Parti.	Type of Parti.
Quarter-I (Octob	er to December-09)	, ,		1
Crop Production	Production Technology for Rabi crops	1	25	Farmers
Plant Protection	Integrated disease management in cumin	1	25	Farmers
	Aflatoxin Management in groundnut	1	25	Farmers
	Storage pest management in groundnut	1	25	Farmers
Horticulture	Production Technologies for spices	1	25	Farmers
Agril. Engineering	Micro irrigation systems	1	25	Farmers
Home Science	Culinary preparation from groundnut	1	25	Farm women
Fisheries	Preparation of LSF	1	25	Fish Farmers
Quarter-II (Janua	ry to March-10)	·	·	•
Crop	Soil Fertility Management	1	25	Farmers
Production	Vermicompost Techniques	1	25	Rural youth
Plant Protection	IDM in gram	1	25	Farmers
Horticulture	INM in fruit crops	1	25	Farmers
Agril.	Packaging and handling of vegetable	1	25	Rural
Engineering	crops			youth
Home Science	Consumer's awareness	1	25	Farm women
Fisheries	Mericulture practices	1	25	Fish Farmers

## **B.** Off Campus Training Programs

Subject	Title of Training	Duration	No. of Parti.	Type of Parti.				
		Days						
Quarter-I (Oc	Quarter-I (October to December-09)							
Crop	Production Technology of	1	25	Farmers				
Production	Wheat & Gram							
	Integrated nutrient							
	management in major rabi	1	25	Farmers				
	crops							
Plant	Pest & disease management in	1	25	Farmers				
Protection	cumin							
	Integrated pest & disease	1	25	Farmers				
	management in gram							
	Aflatoxin management in	1	25	Farmers				
	groundnut							
	Storage pest management in	1	25	Farmers				
	groundnut							

Horticulture	Nursery raising techniques	1	25	Farmers
Agril.	Renewable sources of energy	1	25	Farmers
Engineering	for rural sector			
	Mechanization in agriculture	1	25	Farmers
Home	Nutritional Education	1	25	Farm women
Science	Sprouted pulses – a nutritional	1	25	Farm women
	diet			
Fisheries	Brackish water aquaculture	1	25	Fish Farmers
	management practices - Tiger			
	shrimp			
	Seaweed cultivation	1	25	Fish Farmers

Quarter-II (Januar	Quarter-II (January to March-10)					
Crop Production	Micronutrient management	1	25	Farmers		
	Importance of soil analysis	1	25	Farmers		
Plant Protection	Self preparation of bio-	1	25	Rural		
	pesticide			youth		
	Natural enemies of pest	1	25	Farmers		
	Integrated pest management	1	25	Farmers		
	in vegetables					
Horticulture	Cultivation under	1	25	Rural		
	controlled environment			Youth		
Agril.	Greenhouse technology in	1	25	Rural		
Engineering	agriculture			Youth		
	Use of Biomass	1	25	Farmers		
	MIS-A boon for farmers	1	25	Farmers		
Home Science	Preparation and	1	25	Farm		
	preservation of pickles			women		
	Use of Solar Cooker	1	25	Farm		
				women		
Fisheries	Shrimp hatchery	1	25	Fish		
	management			farmers		
	Fresh water aquaculture	1	25	Fish		
				Farmers		

## **C.** Vocational Training Programme:

Sr.	<b>Title of Training</b>	Duration	No. of	Type of Parti.	Schedule
No.		Days	Parti.		quarter
1	Vermi composting	1	25	Rural youth	I
2	Preparation of	1	25	Rural Girls	II
	Handicrafts				

## D. In service Training Programme:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Type of Parti.	Schedule quarter
1	Cotton Production Technology	2	25	Extension Workers	II
3	Nutritional recipes for child	2	25	Extension Workers	I

#### 2. Demonstrations:

## a. Physical targets of FLDs during 2009-10 (First Half)

Particular of the	Season	Name of crop and variety		Area (in ha.)	No. of Demo.	
I. Front Line Demonstrations						
(A) Oilseeds	Kharif	i. Groundnut	GG-20	10	20	
		ii. Sesame	GT-2	5	10	
(B) Pulses	Kharif	i. Pigeon pea	BDN-2	5	10	
	Rabi	i. Gram	GG-2	10	20	
(C) Other than	Summer	i. Pearl millet	GHB-558	5	10	
Oilseeds Pulses	Rabi	i. Wheat	GW-366	10	20	
	Rabi	i. Cumin	GC-4	5	10	

II Component demonstrations				
Use of bio-agents	Rabi	Chickpea		
		NPV	5	10
	Kharif	Groundnut		
		Trichoderma	5	10

#### b. Targeted FLDs on implements under cotton mini Mission-2

Sr. No.	Implement	Area (in ha.)	No. of Demo.
1	Shedder	25	2
2	Tractor drawn Sprayer	25	2

#### c. Other FLDs

Sr.	Discipline	Component	Justification	No. of
No.				FLD
1.	Fisheries	Insulated Boxes & disinfectants	With a view to improve product quality and reduce post harvest loses	10
2	Home Science	Solar Cooker	To Create awareness about renewable energy sources	10

- 3. On-Farm Testing
- A. On going OFTs
- (1) Application method of *Trichoderma* against stem rot disease in groundnut Intervention:

Method of application of *Trichoderma*, a biological agent for management of stem rot disease in groundnut.

#### **Treatments:**

- 1. No use of fungicides (Farmers practice)
- 2. Mix *Trichoderma* @ 2.5 kg/ha with castor cake @ 500 kg/ha at the time of sowing (Recommended by JAU).
- 3. Mix *Trichoderma* @ 2.5 kg/ha with 50 kg FYM and side application of groundnut row 30 days after sowing in moist condition (interventions)

## (2) *In situ* Soil moisture conservation practices for rainfed groundnut Intervention:

Optimum tillage practice for moisture conservation in rainfed groundnut.

#### **Treatments:**

- 1. Shallow tillage with 7-8 inter culturing (Farmers practice)
- 2. Deep tillage with 2-4 inter culturing (Recommended Practice).
- 3. Medium tillage with 4-5 inter culturing (intervention)

## (3) Integrated Nutrient Management in Mango

#### **Treatments**

- 1. Farmer practice: Use of FYM @ 100 kg per plant
- 2. Recommended dose of Fertilizers:

FYM 100 kg & N: P: K 500:200:500 g/plant

3. Intervention: Dose of Fertilizers

FYM 150 kg & N: P: K 375:100:250 g/plant

### (4) Integrated Management of Fruit fly in mango

## Treatments: 1. Farmer practice:

- (a) Use of Methyl eugenol traps.
- (b) Collection of damaged fruits and destroyed it.

#### 2. Recommended practices:

- (a) Collection of damaged fruits and destroyed it.
- (b) Plough around the trees during winter to expose and kill the pupae
- (c) In month of March spay the one tree with Fenthion 10ml and Methyl eugenol 10ml in 10 lit. water and other eleven trees spay with Fenthion 10ml
- (d) Use of Methyl eugenol traps (Methyl eugenol 0.056ml or 4 drops and 4 drops of dichlorvos on sponge).
- (e) Growing of shyam Tulsi around the orchard and spray it with Fenthion.
- (f) Spay the solution of Mollases 150g and Malathion 100ml in 100lit. water in form of big droplets on the trees and grasses grown on bunds and boundaries of orchard.

#### 3. Intervention:

- (a) Collection of damaged fruits and destroyed it.
- (b) Plough around the trees during winter to expose and kill the pupae
- (c) Growing of shyam Tulsi around the orchard and spray it with Fenthion.
- (d) Use of Methyl eugenol traps.

#### B. New OFTs to be proposed

#### OFT: 1 Management of Anemia in adolescent girls

#### Objective:

1. Improving the hemoglobin percentage in rural adolescent girls

#### **Treatments:**

- 1. Iron &Folic acid tables from PHC
- 2. Dietary iron concentrate

3.

**No. of replications:** 20 girls

#### **Observations:**

- 1. Body weight (kg)
- 2. Hemoglobin (%)

#### OFT: 2 Fortification of Soy in wheat chapatti for farm women

#### Objective:

1. To reduce the problem of Protein deficiency among the farm women

#### **Treatments:**

- 1. T1- Local practice
- 1. T2-90% wheat flour + 10 % processed soy flour

No. of replications: 20 families

#### **Observations:**

- 1. Pre and post Hb levels
- 2. Body weight
- 3. General health improvement

## OFT: 3 Seaweed cultivation using Bamboo Raft in the backwater area of Miyani/Navibandar villages

#### **Problem Diagnose**

Fish farmers neither aware nor practicing alternative methods for optimum exploitation of the natural resources for extra income generation

#### **Objectives**

- 1. To generate extra income
- 2. Optimum exploitation of natural resource
- 3. To create awareness about seaweed cultivation

#### Technology

Seaweed cultivation using bamboo raft in back water area (Recommended by CSMCRI (CSIR), Bhavnagar )

**No. of replications:** 25 Rafts

Operational Area: Miyani / Navibandar of the Porbandar district

#### Observations

- 1. Production
- 2. Income

## 4. Other Extension Activities:

Sr.No.	Activity	Proposed Number	
1.	Kisan Mela	1	
2	Field day	10	
3.	Kisan Gosthi	30	
4	Radio / TV Talks	10	
5	TV Show	5	
6	Film show	-	
7.	Exhibition	5	
8	News Paper Coverage	12	
9	Popular Article 6		
10	Extension Literature (No.)		
	i ) Folders / Pamphlets	6	
	ii ) Slides	-	
	iii) Video film show	5	
11	Advisory Service	2	
13.	Diagnostic service		
	i ) Farmers visit to K.V.K	250	
	ii) Scientist visit to farmers Field	200	
14.	Communication media		
	i) Subscriber of krushi go vidhya	75	
	Magazine		

# Quarter wise Summary of Annual Action Plan : 2009 – 2010 (Second half)

### 2. Training Programme:

Discipline	Total Cam		Total	Total off campus		Total	Grand Total
	III	IV		III	IV		
Crop production	2	2	4	3	2	5	9
Pl. Protection	2	2	4	2	3	5	9
Horticulture	2	2	4	2	2	4	8
Ag. Eng.	1	1	2	2	2	4	6
Home Sci.	1	1	2	2	2	4	6
Fisheries	1	1	2	2	2	4	6
Total	9	9	18	13	13	26	44

C. On Campus Training Programs

	Training Programs			
Quarter-III (Ap	,		ı	1
Crop	<ul> <li>Groundnut based cropping</li> </ul>	1	25	Farmers
Production	system	1	25	Farmers
	<ul> <li>Weed management in major</li> </ul>			
	Kharif crops			
Horticulture	<ul> <li>Storage methods in fruits &amp; vegetables</li> </ul>	1	25	Farmers
	<ul> <li>Production of low volume and high value crops</li> </ul>	1	25	Farmers
Plan	Safe use of pesticides	1	25	RY
Protection	<ul> <li>Biological control of pest and diseases</li> </ul>	1	25	Farmers
Agril. Engineering	Soil & water conservation structures	1	25	Farmers
Home Science	Preparation of bakery products	1	25	Farm Women
Fisheries	Portable plastic carp hatchery	1	25	Farmers
Quarter-IV	(July to September-10)	_		
Crop	Integrated Farming system	1	25	Farmers
Production	Production of organic inputs	1	25	Farmers
Horticulture	Nursery management in vegetable crops	1	25	Farmers
	Off-seasonal vegetables	1	25	Farmers
Plant Protection	Integrated Management of mealy bug in cotton	1	25	Farmers
	Pest & Disease management in groundnut	1	25	Farmers
Agril. Engineering	Use of improved Farm implements and machinery	1	25	Farmers
Home Science	Gender mainstreaming through SHGs	1	25	Farm women
Fisheries	Fish processing and value addition	1	25	Farmers

D. Off Campus Training Programs

Quarter-III (April to June-10)							
Crop Production	Groundnut production technology	1	25	Farmers			
	Improved production technology for cotton	1	25	Farmers			
	<ul> <li>Integrated nutrient management in kharif crops</li> </ul>	1	25	Farmers			
Horticulture	Management of young plants/orchards	1	25	Farmers			
	Importance of floriculture	1	25	Farmers			
Plan Protection	Seed treatment in	1	25	Farmers			
	groundnut	1	25	Farmers			

	Stem/collar rot management in groundnut			
Agril.	Rain water management	1	25	Farmers
Engineering	Ground water recharge techniques	1	25	Farmers
Home Science	Low cost nutritional diet	1	25	RY
	Balanced nutrition in child	1	25	Farm
				Women
Fisheries	<ul> <li>Carp breeding and hatchery</li> </ul>	1	25	Fish
	management			Farmers
	Fresh water aquaculture	1	25	Fish
	practices- Scampi			Farmers

Quarter-IV (Ju	Quarter-IV (July to Sept10)					
Subject	Title of Training	Duration Days	No. of Parti.	Type of Parti.		
Crop Production	<ul><li>Crop Diversification</li><li>Weed Management in major Kharif crops</li></ul>	1	25 25	Farmers Farmers		
Horticulture	<ul> <li>Advanced Technology for Vegetables</li> <li>Production and management technology of medicinal plants</li> </ul>	1 1	25 25	Farmers Farmers		
Plant Protection	<ul> <li>Biological control of pest &amp; diseases</li> <li>Integrated pest management in cotton</li> <li>Stem rot control by <i>Trichoderma</i></li> </ul>	1 1 1	25 25 25	Farmers Farmers Farmers		
Agril. Engineering	<ul> <li>Improved farm implements</li> <li>Small scale processing and value addition</li> </ul>	1	25 25	RY RY		
Home Science	<ul> <li>Preparation of decorative items from waste materials</li> <li>Preparation of Bakery items</li> </ul>	1	25 25	RY RY		
Fisheries	<ul><li>Needs of aquaculture</li><li>Integrated fish farming</li></ul>	1	25 25	Farmers Farmers		

## C. Vocational Training Programme:

Sr.	Title of Training	Duration	No. of	Type of Parti.	Schedule
No.		Days	Parti.		quarter
1	Small scale processing and value addition	1	25	Rural youth	III
2	Self preparation of bio pesticides	1	25	Rural youth	IV
3	Nursery raising for income generation	1	25	Rural youth	IV

#### 2. Demonstrations:

### a. Physical targets of FLDs during 2009-10 (Second Half)

Particular of the	Season	Name of c	Area (in ha.)	No. of Demo.	
I. Front Line Demo	I. Front Line Demonstrations				
(A) Oilseeds	Kharif	i. Groundnut	INM	4	10
	2010	ii. Castor	GC-3	4	10
(B) Pulses	Kharif 2010	i. Pigeon pea	GT-101	4	10
(C) Bio agent	Kharif 2010	i. Groundnut	Trichoderma	4	10

## b. Targeted demonstrations on Organic inputs under National Project on Organic Farming (AGR-17)

Sr. No.	Detail	Area (in ha.)	No. of Demo.
1	Crop: Wheat	0.8	2

#### c. Other FLDs

Sr. No.	Discipline	Component	Justification	No. of FLD
1.	Fisheries	Insulated Boxes & disinfectants	With a view to improve product quality and reduce post harvest loses	10
2	Home Science	Solar Cooker	To Create awareness about renewable energy sources	10
3	Home Science	Fortification of Soy in wheat chapatti for farm women	To reduce the problem of Protein deficiency among the farm women	20
4	Fisheries	Bamboo Raft in the backwater area of Miyani/Navibandar villages	<ul><li>4. To generate extra income</li><li>5. Optimum exploitation of natural resource</li><li>6. To create awareness about seaweed cultivation</li></ul>	20

#### 3. On-Farm Testing

#### A. On going OFTs

## (1) Application method of *Trichoderma* against stem rot disease in groundnut

#### Intervention:

Method of application of *Trichoderma*, a biological agent for management of stem rot disease in groundnut.

#### **Treatments:**

- 4. No use of fungicides (Farmers practice)
- 5. Mix *Trichoderma* @ 2.5 kg/ha with castor cake @ 500 kg/ha at the time of sowing (Recommended by JAU).
- 6. Mix *Trichoderma* @ 2.5 kg/ha with 50 kg FYM and side application of groundnut row 30 days after sowing in moist condition (interventions)

## (2) In situ Soil moisture conservation practices for rainfed groundnut Intervention:

Optimum tillage practice for moisture conservation in rainfed groundnut.

#### **Treatments:**

- 4. Shallow tillage with 7-8 inter culturing (Farmers practice)
- 5. Deep tillage with 2-4 inter culturing (Recommended Practice).
- 6. Medium tillage with 4-5 inter culturing (intervention)

## (3) Integrated Nutrient Management in Mango Treatments

- 1. Farmer practice: Use of FYM @ 100 kg per plant
- 2. Recommended dose of Fertilizers:

FYM 100 kg & N: P: K 500:200:500 g/plant

3. Intervention: Dose of Fertilizers

FYM 150 kg & N: P: K 375:100:250 g/plant

## (4) Integrated Management of Fruit fly in mango Treatments:

- 3. Farmer practice:
  - (a) Collection of damaged fruits and destroyed it.

#### 4. Recommended practices:

- (a) Collection of damaged fruits and destroyed it.
- (b) Plough around the trees during winter to expose and kill the pupae.
- (c) In month of March spay the one tree with Fenthion 10ml and Methyl eugenol 10ml in 10 lit. water and other eleven trees spay with Fenthion 10ml
- (d) Use of Methyl eugenol traps (Methyl eugenol 0.056ml or 4 drops and 4 drops of DDVP on sponge).
- (e) Growing of shyam Tulsi around the orchard and spray it with Fenthion.
- (f) Spay the solution of Mollases 150g and Malathion 100ml in 100lit. water in form of big droplets on the trees and grasses grown on bunds and boundaries of orchard.

#### 3. Intervention:

- (a) Collection of damaged fruits and destroyed it.
- (b) Plough around the trees during winter to expose and kill the pupae.
- (c) Growing of shyam Tulsi around the orchard and spray it with Fenthion.
- (d) Use of Methyl eugenol traps.

#### B. New OFTs to be proposed

#### OFT: 1 Management of Anemia in adolescent girls

#### Objective:

1. Improving the hemoglobin percentage in rural adolescent girls

#### **Treatments:**

- 4. Existing Dietary pattern (Control)
- 5. Iron & Folic acid tables from PHC
- 6. Dietary iron concentrate (Sprouted pulses 50g/day/person in 2 equal doses)

No. of replications: 20 girls

**Observations:** 

- 3. Body weight (kg)
- 4. Hemoglobin (%)

#### 4. Other Extension Activities:

Sr.No.	Activity	Proposed Number
1.	Kisan Mela	1
2	Field day	10
3.	Kisan Gosthi	30
4	Radio / TV Talks	10
5	TV Show	5
6	Film show	-
7.	Exhibition	5
8	News Paper Coverage	12
9	Popular Article	6
10	Extension Literature (No.)	
	i ) Folders / Pamphlets	6
	ii ) Slides	-
	iii) Video film show	5
11	Advisory Service	2
13.	Diagnostic service	
	i ) Farmers visit to K.V.K	250
	ii) Scientist visit to farmers Field	200
14.	Communication media	
	i) Subscriber of krushi go vidhya	75
	Magazine	

## 5. Details of New Operational villages

Sr. No.	Taluka	Name of the block	Name of the village	Major crops & enterprises
1.	Porbandar	Cluster I	1. Sisli 2. Pravada 3. Tukda(Miyani) 4. Bakharala 5. Madhavpur	Groundnut Wheat Cumin Coriander Sorghum Gram Fenugreek
2.	Ranavav	Cluster II	<ol> <li>Amardad</li> <li>Khambhala</li> <li>Thoyana</li> <li>Vadotra</li> <li>Mokar</li> </ol>	Groundnut Cotton Sorghum Wheat Cumin Pearlmillet
3.	Kutiyana	Cluster III	1. Kansabad 2. Roghda 3. Kotada 4. Amar 5. Kadegi	Groundnut Cotton Castor Sorghum Wheat Cumin Gram