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PROGRESS REPORT

(2010 - 2011)

&

ACTION PLAN

(2011 - 2012)

*To be Presented
in*

**6th SCIENTIFIC ADVISORY
COMMITTEE MEETING**

ON

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Annual Action Plan : 2011 – 2012

1. Training Programmes: Quarter wise Summary of Trainings

Discipline	On Campus				Total	Off campus				Total	Grand Total
	I	II	III	IV		I	II	III	IV		
Crop production	2	2	2	2	8	3	3	3	2	11	19
Horticulture	1	2	2	2	7	2	2	3	2	9	16
Plant protection	2	2	2	3	9	3	2	3	2	10	19
Ag. Eng.	1	1	2	2	6	3	2	2	3	10	16
Home Sci.	2	2	1	1	6	3	2	2	3	10	16
Fisheries	1	1	1	2	5	3	2	3	3	11	16
All Discipline (For Ext. Func.)	1	1	-	-	-	-	-	-	-	-	2
Total	10	11	10	12	43	17	13	16	15	61	104

**A. On Campus Training Programs
For Farmers, Farm women and Rural youth**

Quarter-I (April to June-11)				
Subject	Title of Training	No. of Days	No. of Parti.	Type of Parti.
Crop Production	• ICM in groundnut	3	25	Farmers
	• INM in major Kharif crops	3	25	Farmers
Horticulture	• Protective cultivation (Green Houses, Shade Net etc.)	3	25	Farmers
Plant Protection	• IPM in major Kharif crops	3	25	Farmers
	• IDM in major Kharif crops	3	25	RY
Agri. Engineering	• Ground water recharge techniques	3	25	Farmers
Home Science	• Preparation of bakery products	3	25	Farm Women
Fisheries	• Carp breeding and hatchery management	3	25	Fisherman
Quarter-II (July to September-11)				
Crop Production	• Integrated Farming system	3	25	Farmers
	• Production of organic inputs	3	25	Farmers
Horticulture	• Nursery management in vegetable crops	3	25	Farmers
Plant Protection	• Pest-Disease management in Major Kharif crops	3	25	Farmers
Agri. Engineering	• Rain water Management	3	25	Farmers
	• Renewable Energy for rural sector	3	25	Farmers
Home Science	• Supplementary nutrition for child and pregnant women	3	25	Farm women
Fisheries	• Carp fry, fingerling and grow out rearing	3	25	Fisherman
Quarter-III (October to December-11)				
Crop Production	• Production Technology for Rabi crops	3	25	Farmers
Horticulture	• Production & Management Technologies for spices	3	25	Farmers
	• Off seasonal vegetables	3	25	Farmers
Plant Protection	• Aflatoxin & storage pest Management in groundnut	3	25	Farmers
	• IPDM in major rabi crops	3	25	Farmers
Agri. Engineering	• Post harvest Technology and value addition	3	25	Farmers
Home Science	• Income generation activities for empowerment of rural Women	3	25	Farm women
Fisheries	• Sea weed aquaculture and preparation of LSF	3	25	Fisherman

Quarter-IV (January to March-12)				
Crop Production	• Soil Fertility Management	3	25	Farmers
	• Vermicompost Techniques	3	25	Rural youth
Horticulture	• Cultivation of fruit crops	3	25	Farmers
	• INM in fruit crops	3	25	Farmers
Plant Protection	• Bio-control of pests and diseases	3	25	Farmers
	• IPDM in chilly	3	25	Farmers
Agril. Engineering	• Installation and maintenance of micro irrigation systems	3	25	Rural youth
	• Improved Farm Implements	3	25	Farmers
Home Science	• Gender mainstreaming through SHGs	3	25	Farm women
Fisheries	• Mericulture practices	3	25	Fisherman

B. Off Campus Training Programs

For Farmers, Farm women and Rural youth

Quarter-I (April to June-11)				
Subject	Title of Training	No of Training	No. of Parti.	Type of Parti.
Crop Production	• Production technology (Kharif crops)	1	25	Farmers
	• scope of input conservation	1	25	Farmers
	• Integrated nutrient management in kharif crops	1	25	Farmers
Horticulture	• Layout and Management of Orchards	1	25	Farmers
	• Importance of floriculture	1	25	Farmers
Plant Protection	• Seed treatment in groundnut	1	25	Farmers
	• Stem/collar rot management in groundnut	2	50	Farmers
Agril. Engineering	• Irrigation water management	1	25	Farmers
	• Ground water recharge techniques	2	50	Farmers
Home Science	• Design and development of low/minimum cost diet	1	25	RY
	• Balanced nutrition in child	1	25	Farm Women
	• Value addition in Agriculture product	1	25	RY
Fisheries	• Carp culture management practices	1	25	Fisherman
	• Fresh water aquaculture practices- Scampi	2	50	Fisherman

Quarter-II (July to Sept.-11)				
Crop Production	• Crop Diversification	1	25	Farmers
	• Weed Management in major Kharif crops	2	50	Farmers
Horticulture	• Advanced Technology for Vegetables	1	25	Farmers
	• Propagation techniques of Ornamental Plants	1	25	RY
Plant Protection	• Integrated pest management	1	25	Farmers
	• Stem rot control by <i>Trichoderma</i>	1	25	Farmers
Agril. Engineering	• Improved farm implements	1	25	RY
	• PHT and value addition	1	25	RY
Home Science	• Drudgery reducing technologies for farm women in agriculture	1	25	RY
	• Vaccination in mothers and children	1	25	RY
Fisheries	• Needs of aquaculture	1	25	Fisherman
	• Integrated fish farming	1	25	Fisherman
Quarter-III (October to December-11)				
Crop Production	• Production Technology of Wheat & Gram	1	50	Farmers
	• INM in major rabi crops	1	25	Farmers
	• Management of Problematic soils	1	25	RY
Horticulture	• Nursery Management	2	50	RY
	• Rejuvenation of old orchards	1	25	Farmers
Plant Protection	• IPDM in major rabi crops	1	50	Farmers
	• <i>Aflatoxin</i> & Storage pest management in groundnut	1	25	Farmers
	• Self preparation of bio pesticides	1	25	RY
Agril. Engineering	• Renewable sources of energy for rural sector	1	25	Farmers
	• Post Harvest Technology	1	25	RY
Home Science	• Household food security by kitchen gardening and nutrition gardening	1	25	RY
	• Designing and development for high nutrient efficiency diet	1	25	Farm women
Fisheries	• Brackish water aquaculture management practices – Tiger shrimp	1	25	Fisherman
	• Seaweed cultivation	1	25	RY
	• Hatchery management and culture of freshwater prawn	1	25	Fisherman

Quarter-IV (January to March-12)				
Crop Production	<ul style="list-style-type: none"> Micronutrient management Reclamation of problematic soil 	1	25	Farmers
		1	25	Farmers
Horticulture	<ul style="list-style-type: none"> Cultivation under controlled environment Plant propagation techniques 	1	25	Farmers
		1	25	Rural Youth
Plant Protection	<ul style="list-style-type: none"> Natural enemies of pest Integrated pest management in vegetables 	1	25	Rural youth
		1	25	Farmers
Agril. Engineering	<ul style="list-style-type: none"> Improved farm implements Biomass recycling MIS-A boon for farmers 	1	25	Rural Youth
		1	25	Farmers
		1	25	Farmers
Home Science	<ul style="list-style-type: none"> Preparation and preservation of pickles Use of Solar Cooker Rural crafts 	1	25	Farm women
		1	25	Farm women
		1	25	Farm women
Fisheries	<ul style="list-style-type: none"> Shrimp hatchery management Fresh water aquaculture Composite fish culture 	1	25	Fisherman
		1	25	Fisherman
		1	25	Fisherman

C. Vocational Training Programme:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Type of Parti.	Schedule quarter
1	Small scale processing and value addition	3	25	Rural youth	III
2	Vermicomposting techniques	3	25	Rural youth	III
3	Self preparation of bio pesticides	3	25	Rural youth	IV
4	Plant propagation techniques	3	25	Rural youth	II
5	Preparation of bakery products	3	25	Rural youth	II
6	Preparation of handicrafts	3	25	Rural youth	I
7	Preparation of LSF	3	25	Rural youth	IV

D Training Programme Extension Functionaries:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Schedule quarter
1	Integrated crop management (Major crops)	3	25	I
2	Integrated Farming System	3	25	II

**1. Front Line Demonstrations:
Physical targets of FLDs**

Particular of the	Season	Name of crop and Variety/Technology	Area (in ha.)/Unit	No. of Demo.	
I. Front Line Demonstrations					
(A) Oilseeds	Summer 2012	i. Sesame	Full package	4	10
	Kharif-2011-12	ii Groundnut	INM	5	10
(B) Pulses	Rabi 2012	i. Gram	GG-3	4	10
(C) Other than oilseeds & pulses	Kharif 2011	i. Cotton Bt.	INM with full package	10	25
	Rabi 2012	i. Wheat	GW-366	5	10
		ii. Cumin	GC-4	4	10
iii. Coriander	GC-1	4	10		
(D) Component	Kharif 2012	i. Groundnut	<i>Trichoderma</i>	4	10
		ii. Cotton	<i>Verticillium lecani</i>	4	10
(E) Fisheries	-	<i>Kappaphycus</i>	Bamboo raft for sea weed cultivation and genotypes	25	25
(F) Home Science	-	-	Solar cooker	10	10
(G) Farm implements	-	-	Improved farm implements	20	4

2. On-Farm Testing.

A. On going

OFT: 1 Management of Anemia in adolescent girls

Objective:

1. Improving the hemoglobin percentage in rural adolescent girls

Treatments:

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

No. of replications: 20 girls

Observations:

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

B. New OFTs to be proposed

OFT: 1

1. Title of on-farm trial: Integrated Management of sucking pest in Bt. cotton

2. Problem definition: Improper management of sucking pest in Bt. cotton.

Farmers are using only costly chemical pesticides in higher doses indiscriminately.

Objectives:

1. To reduce the indiscriminate use of chemical pesticides
2. To promote the use of bio pesticides

3. Details of technologies selected

Technology Assessed: Integrated Pest Management

Treatments:

1. **Farmer's practice** - Higher doses of new chemical pesticides
2. **Recommended practice** - Dimethioate 10ml/10 lit of water or Imidachloprid 7.5 ml/10 lit of water or Profenophos 16 ml/10 lit of water
3. **Intervention** - Alternate spraying of recommended pesticides + *Verticillium lecanii* @ 30 g/10 lit of water + Neem oil (1500 ppm) @ 30 ml/10 lit of water

4. Observations:

Yield (Kg/ha)
Number of aphids & jassid (3 leaves per plant)
Number of thrips & mites (3 leaves per plant)
Economics (B:C ratio)

OFT: 2

1. Title of on-farm trial: Effect of seed treatment on wilt in chickpea

2. Problem definition:

Farmers are not giving seed treatment to chickpea seed before sowing particularly in Ghed area.

Objectives:

1. To create awareness of seed treatment in chickpea in Ghed area
2. To study the efficacy of *Trichoderma* & vitavax for seed treatment in chickpea

3. Details of technologies selected

Technology Assessed: Seed treatment in chickpea

Treatments:

1. **Farmer's practice** - No seed treatment
2. **Recommended practice** Seed treatment with Carbendazime @ 3g/kg seed
3. **Intervention** - Seed treatment with *Trichoderma* @ 8 g/kg seed + vitavax (Carboxin) @ 3g/kg seed

4. Observations:

Yield (Kg/ha)
Disease incidence, %
Economics (B: C ratio)

OFT: 3

1. **Title of on-farm trial:** Effect of Micronutrients on groundnut yield.
2. **Problem definition:** Low yield of groundnut due to improper nutrient management
Farmers are using only nitrogenous and phosphate fertilizers

Objectives:

1. To create awareness for use of micronutrients in groundnut
2. To study the effect of soil application of Micronutrient grade on groundnut

3. Details of technologies selected

Technology assessed: Nutrient management in groundnut

Treatments:

1. **Farmer's practice** - Application of only DAP & Urea in different doses
2. **Recommended practice** - 12.5-25-0 NPK kg/ha
3. **Intervention** - RDF through Ammonium sulphate & single super phosphate + application of Micronutrient Grade V (soil application) @ 20 kg/ha (Fe 2%, Mn 0.5%, Zn 5%, Cu 2%, B 0.5%)

4. Observations:

Yield (Kg/ha)
Harvest Index
Economics (B:C ratio)

OFT: 4

1. **Title of on-farm trial:** Effect of Bio fertilizers on wheat yield.
2. **Problem definition:** Low yield of Wheat
Farmers are using only nitrogenous and phosphate fertilizers

Objectives:

- To create awareness for use of bio fertilizers
- To find out the effect of bio fertilizer

3. Details of technologies selected

Technology assessed: Use of Bio fertilizers

Treatments:

1. **Farmer's practice** - Application of only DAP & Urea in different doses
2. **Recommended practice** - 120-60-0 NPK kg/ha
3. **Intervention** - Seed treatment with Azatobacter & PSB culture (250g/10kg seed) + 75% of RDF

4. Observations:

Yield (Kg/ha)
NPK Status in soil (Initial & After)
Economics (B:C ratio)

OFT: 5

1. Title of on-farm trial: Effect of mulching in summer sesame

2. Problem Definition:

Farmers are using more irrigation water and thereby deposition of salts and over exploitation of ground water. Weed infestation is also one of the problems in summer crops.

Objectives

- To utilize water more effectively
- To reduce the weed infestation

3. Details of technologies selected

Technology Assessed: Mulching

Treatments:

1. **Farmer's practice** - No mulch
2. **Recommended practice** – Black plastic mulch (30 micron)
3. **Intervention** – organic mulching (wheat straw/groundnut shell)

4. Observations:

Yield (Kg/ha)

Moisture Status (Before Irrigation)

Economics (B:C ratio)

OFT: 6

1. Title of on-farm trial: Effect of sulphur on onion production

2. Problem Definition: No use of sulphur in onion

Farmers are using only NPK fertilizers in onion.

Objectives

- To study the effect of sulphur on onion
- To promote the use of sulphur in onion

3. Details of technologies selected

Technology assessed: Nutrient management

Treatments:

1. **Farmer's practice** - No use of sulphur
2. **Recommended practice** – RDF + 20 kg sulphur/ha through gypsum at the time of sowing or elemental sulphur 20-25 DATP
3. **Intervention** – RDF + 20kg sulphur/ha (readily available in the market) at the time of sowing

4. Observations:

Yield (Kg/ha)

Bulb size

Economics (B:C ratio)

OFT: 7

1. Title of on-farm trial: Effect of stocking densities in fresh water aquaculture

2. Problem Definition: Farmers are not maintaining stocking density

Objectives

- To enhance the production of fish & prawn
- To make fisherman aware of the importance of stocking density

3. Details of technologies selected

Technology assessed: Poly culture

Treatments:

1. Farmer's practice - Not maintaining proper density and monoculturing
2. Recommended practice – Stocking carp fingerlings @ 2500-3500 no./ha and fresh water prawn @ 15000-25000 no./ha
3. Intervention – Stocking of carp fingerlings and fresh water prawn together at recommended rate in polyculture

4. Observations:

Productivity (Kg/ha)
Density (Nos. per ha)

4. Other Extension Activities:

Sr. No.	Activity	Proposed Number
1.	Kisan Mela	1
2	Field day	15
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	500
	ii) Scientist visit to farmers Field	400
14.	Communication media	
	i) Subscriber of <i>krushigovidhya</i> Magazine	200