Quarter wise Summary of Annual Action Plan : 2007 - 2008

1. Training Programme:

Discipline	Practicing farmers				Farm women				Rural youth				Extension functionary				Sponsored training				Total on Campus				Total	Total off campus				Total	Grand Total
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV		I	II	III	IV		
Crop production	1	-	3	1	-	-	-	-	-	2	-	-	1	1		-	-	-	-	-	2	2	3	1	**8**	2	2	4	1	**9**	**17**
Horticulture	1	-	1	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1	1	1	**4**	2	1	1	1	**5**	**9**
Pl. Protection	2	-	-	2	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-	-	2	1	2	2	**7**	4	4	2	3	**13**	**20**
Home Sci.	-	-	-	-	-	1	1	1	-	-	1	-	1	-	-	-	-	-	-	-	-	2	2	1	**5**	2	1	2	1	**6**	**11**
Ag. Eng.	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	1	**5**	2	2	2	1	**7**	**12**
Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**	2	2	2	1	**7**	**7**
Total	**4**	**1**	**5**	**5**	**-**	**1**	**1**	**1**	**-**	**4**	**2**	**-**	**2**	**1**	**1**	**-**	**-**	**1**	**1**	**-**	**5**	**8**	**10**	**6**	**29**	**14**	**12**	**13**	**8**	**47**	**76**

A. On Campus Training Programs

Subject	Title of Training	Dura-tion Days	No. of Parti.	Type of Parti.
Quarter-I (October to December-07)				
Crop Production	• Improved cultivation practices for rabi crops	1	25	Farmers
Plant Protection	• Self preparation of bio-pesticide • Storage pest management in groundnut	1 1	25 25	Farmers Farmers
Horticulture	• Cultivation of medicinal and aerobatic plants	1	25	Farmers
Quarter-II (January to March-08)				
Crop Production	• Soil sampling and Importance of analysis	3	25	Rural youth
Horticulture	• Packaging and handling of vegetable crops	3	25	Rural youth
Home Science	• Culinary preparations from groundnut	3	25	Farm women
Agril. Engineering	• Micro irrigation in fruits and vegetable crops	3	25	Farmers
Quarter-III	**(April to June-08)**			
Crop Production	• Groundnut production technology • Improved production technology for cotton • Role of biofetilizers in crop production	3 3 3	25 25 25	Farmers Farmers Farmers
Horticulture	• Storage methods in fruit & vegetable crops	3	25	Farmers
Plan Protection	• Safe use of pesticides	3	25	Rural youth
Home Science	• Preparation of bakery products	3	25	Farm Women
Agril. Engineering	• Soil & water conservation structures	3	25	Farmers
Quarter-IV	**(July to September-08)**			
Crop Production	• Inter cropping in groundnut based cropping system • Sustainable agriculture	3 3	25 25	Farmers Farmers
Horticulture	• Nursery management in vegetable crops	3	25	Farmers
Plant Protection	• Stem rot control by *Trichoderma* • Pest-Disease management in groundnut	3 3	25 25	Farmers Farmers
Home Science	• Role of farm women in agriculture	3	25	Farm women
Agril. Engineering	• Use of improved Farm implements and machinery	3	25	Farmers

B. Off Campus Training Programs

Subject	Title of Training	Duration Days	No. of Parti.	Type of Parti.
Quarter-I (October to December-07)				
Crop Production	• Improved cultivation practices for rabi crops	1	25	Farmers
	• Integrated nutrient management in major rabi crops	1	25	Farmers
Horticulture	• Integrated nutrient management in fruit crops	1	25	Farmers
	• Cultivation practices of flowers	1	25	Farmers
Plant Protection	• Concept of bio-pesticide	1	25	Farmers
	• Pest & disease management in rabi crops	1	25	Farmers
	• Rodent control	1	25	Farmers
	• *Aflatoxin* management in groundnut	1	25	Farmers
	• Storage pest management in groundnut	1	25	Farmers
Home Science	• Care during pregnancy	1	25	Farm women
	• Cutting, tailoring and embroidery	1	25	Farm women
Agril. Engineering	• Renewable sources of energy	1	25	Farmers
	• Efficient water management in major rabi crops	1	25	Farmers
Fisheries	• Brackish water aquaculture management practices – Tiger shrimp	1	25	Fish Farmers
	• Subsidy assistance schemes from Govt.	1	25	Fish Farmers
Quarter-II (January to March-08)				
Crop Production	• Water management in summer groundnut	1	25	Farmers
	• Improved cultivation practices for pulses	1	25	Farmers
Horticulture	• Packaging and handling of vegetable crops	1	25	Rural youth

Plant Protection	• Integrated pest & disease management in wheat • Integrated pest & disease management in gram • Integrated pest & disease management in cumin • Integrated pest management in vegetables	1 1 1 1	25 25 25 25	Farmers Farmers Farmers Farmers
Home Science	• Soft toys making for income generation	1	25	Farm women
Agril. Engineering	• Soil & water conservation structures • Micro irrigation in fruits and vegetable crops	1 1	25 25	Farmers Farmers
Fisheries	• Shrimp hatchery management • Preparation of LSF	1 1	25 25	Fish farmers Fish Farmers
Quarter-III (April to June-08)				
Crop Production	• Groundnut production technology • Improved production technology for cotton • Integrated nutrient management in kharif crops • Organic farming	1 1 1 1	25 25 25 25	Farmers Farmers Farmers Farmers
Horticulture	• Packaging & handling of fruit crops	1	25	Farmers
Plan Protection	• Seed treatment in groundnut • Use of *Trichoderma* in groundnut	1 1	25 25	Farmers Farmers
Home Science	• Preparation of pre mix spices (masala) • Balanced nutrition in child	1 1	25 25	Farm Women Farm Women
Agril. Engineering	• Rain water management • Ground water recharge techniques	1 1	25 25	Farmers Farmers
Fisheries	• Fresh water aquaculture practices- Major carps • Fresh water aquaculture practices- Scampi	1 1	25 25	Fish Farmers Fish Farmers

Quarter-VI (July to Sept.-08)				
Subject	**Title of Training**	**Duration Days**	**No. of Parti.**	**Type of Parti.**
Crop Production	• Castor production technology	1	25	Farmers
Horticulture	• Advanced Technology for Vegetables	1	25	Farmers
Plant Protection	• Biological control of pest & diseases • Integrated pest management in cotton • Stem rot control by *Trichoderma*	1 1 1	25 25 25	Farmers Farmers Farmers
Home Science	• Preparation of decorative items from waste materials	1	25	Farm women
Agril. Engineering	• Value addition & post harvest technology	1	25	Rural youth
Fisheries	• Needs of aquaculture	1	25	Fish Farmers

C. Vocational Training Programme:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Type of Parti.	Schedule quarter
1	Technique for vermi composting	3	25	Rural youth	II
2	Preparation of bakery products	3	25	Rural Girls	III
3	Preservation and value addition in vegetable and fruits	3	25	Rural youth	II

D. In service Training Programme:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Type of Parti.	Schedule quarter
1	Sustainable Agriculture	3	25	Extension Workers	II
2	Crop Production Technology –Kharif crops	3	25	Extension Workers	III
3	Crop Production Technology –Rabi crops	3	25	Extension Workers	I
4	Role of farm woman in Agriculture	3	25	Extension Workers	II

E. Sponsored Training Programme with other organizations:

Sr. No.	Title of Training	Duration Days	No. of Parti.	Type of Parti.	Schedule quarter
1	Influence of salinity on agriculture	1	25	Farmers	II
2	Watershed Management at farmers level	1	25	Farmers	III

Note: In addition to above-mentioned Trainings, as and when sponsored by State Govt. departments and NGOs, as per their schedule, sponsored trainings will be organized.

2. Demonstrations:

a. Physical targets of FLDs during 2007-08

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	5	10
		ii. Soybean	GS-1	5	10
		iii. Castor	GCH-6	5	10
(B) Pulses	Kharif	i. Pigeon pea	BDN-2	5	10
	Rabi	i. Gram	GG-2	5	10
	Summer	i. Cow pea	GC-1	5	10
		ii. Green gram	GM-4	5	10
		iii. Black gram	TPU-4/ T-9	5	10
(C) Other than Oilseeds Pulses	Kharif	i. Pearl millet	GHB-558	5	10
		ii. Sorghum	GFS-5	5	10
	Rabi	i. Wheat	GW-366/496	10	20
	Kharif	i. Cotton		5	10
	Rabi	i. Cumin	GC-4	5	10

II Component demonstrations				
Use of bio-agents	Rabi	**Chickpea**		
		NPV	5	10
	Kharif	**Groundnut**		
		Trichoderma	2	4

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

3. On-Farm Testing:

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

Farmers are either not using fungicides or using fungicides in improper way for seed treatment to protect the crop against soil/seed borne diseases.

- **Reasons for low yield of groundnut**

1. Lower plant population
2. Disease infestation
3. Lack of awareness about recommended package of practices

- **Problem solutions:**

1. Optimum plant population
2. Management of diseases well in advance
3. Awareness for using fungicide in proper way

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 fine sand and side application of groundnut row 30 days after sowing in moist condition (interventions).

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

No. of Demonstrations: 3

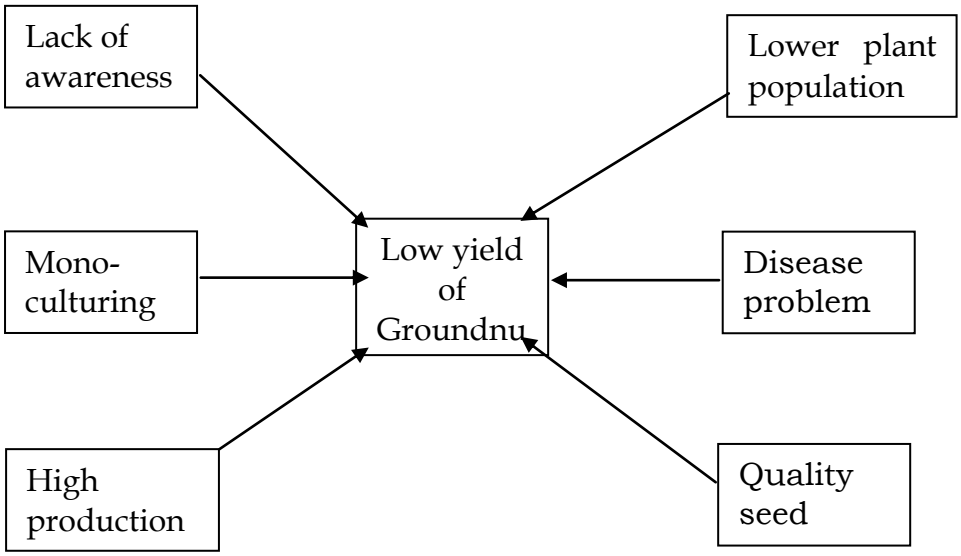

Fig.: 1 Problem –Cause diagram

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

Farmers are not aware of in situ moisture conservation practices and importance of proper tillage practices.

- **Reasons for low yield of groundnut**
  1. Improper Tillage
  2. Erratic rainfall and lack of moisture conservation practices
  3. Lack of awareness about recommended package of practices
- **Problem solutions:**
  1. Deep ploughing
  2. Adoption of recommended moisture conservation practices

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)

***In situ Soil* moisture conservation practices for rain fed groundnut**

No. of Demonstrations: 3

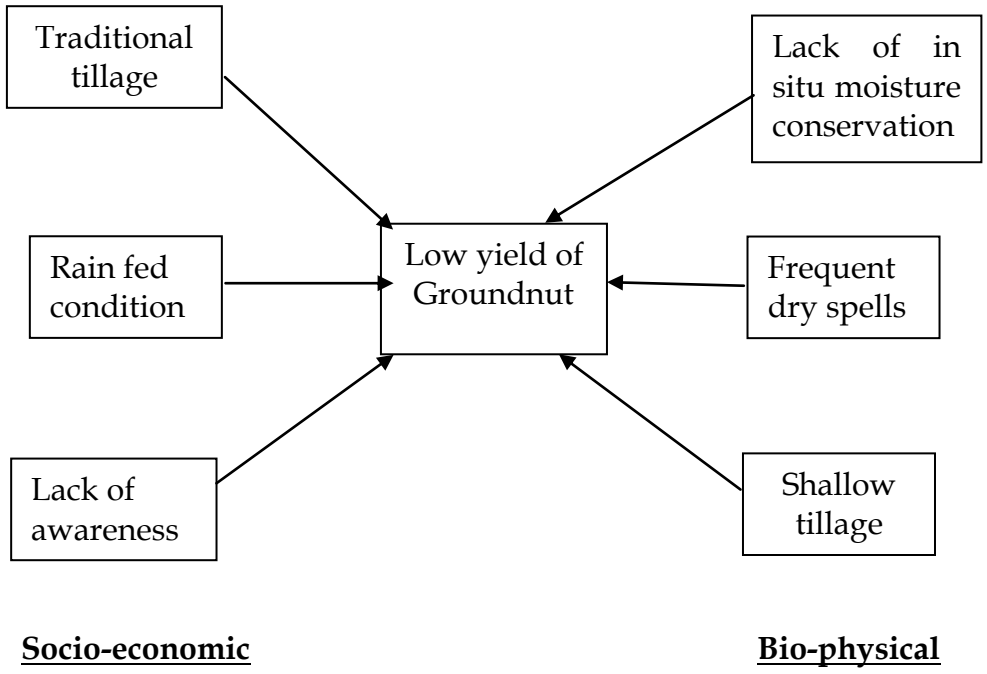

Fig.: 2 Problem –Cause diagram

(3) Integrated Nutrient Management in Mango

Farmers are either using organic manures only or only inorganic fertilizers with improper method and time of application.

Reasons for low yield of mango

- Improper selection of variety at the time of orchard establishment
- Improper management of orchard
- Alternate bearing
- Lack of awareness about recommended package of practices
- Affect of diseases and pests

Problem solutions:

- Proper selection of variety at the time of orchard establishment
- Proper management of orchard
- Reduce crop load at the time of fruiting i.e., on year
- Application of recommended package of practices
- Control over diseases and pests by spraying, dusting and drenching of different fungicide, insecticide and bactericides.

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

Optimum use of organic manures and inorganic fertilizers in mango
No. of Demonstrations: 3

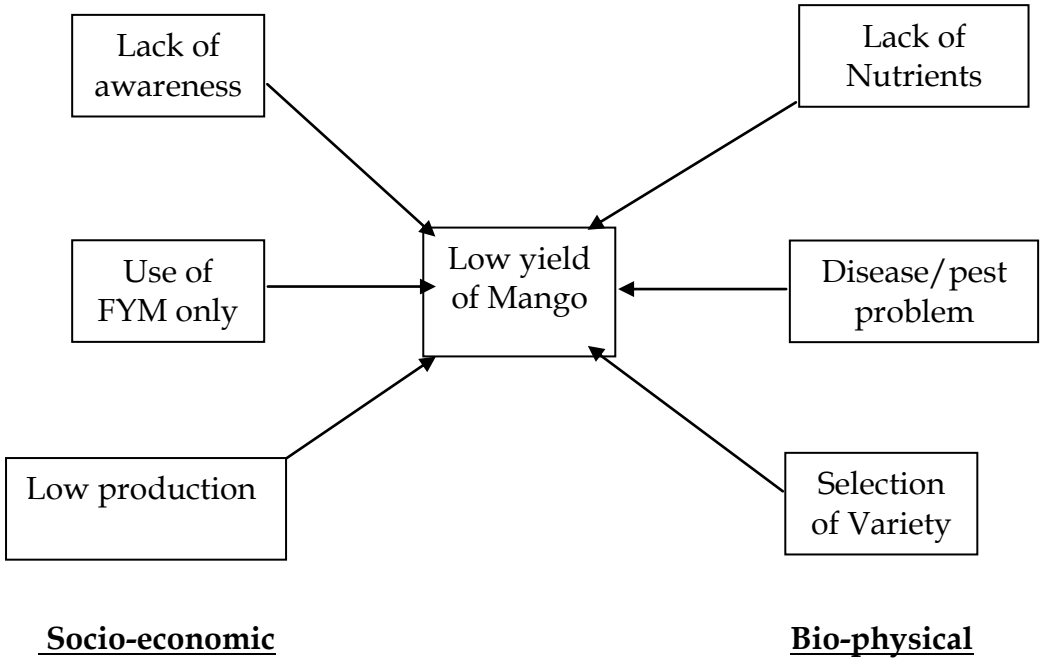

Fig.: 3 Problem –Cause diagram

(4). Integrated Management of Fruit fly in mango

Farmers are unaware of scientific recommended method for control of pest. They some times not applying any plant protection measures and who ever apply are neither maintain dose nor proper method and time of application.

Reasons for low yield of mango

- Improper selection of variety at the time of orchard establishment
- Improper management of orchard
- Alternate bearing
- Lack of awareness about recommended package of practices
- Problems of diseases and pests

Problem solutions:

- Proper selection of variety at the time of orchard establishment
- Proper management of orchard
- Reduce crop load at the time of fruiting
- Application of recommended package of practices
- Integrated pests and dieses management.

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.

Integrated management of Fruit fly in mango
No. of Demonstrations: 3

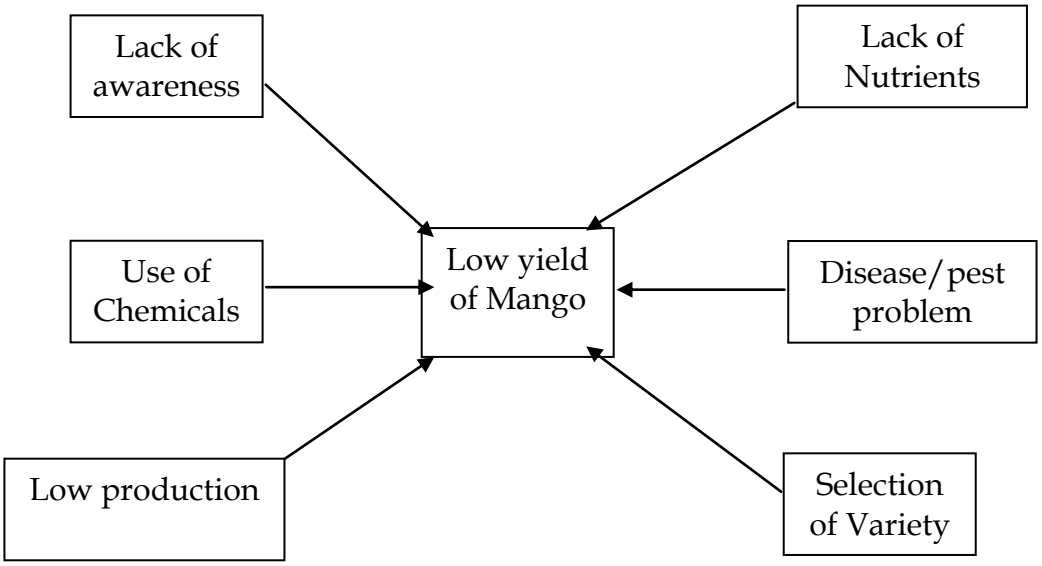

Fig.: 4 Problem –Cause diagram

4. Other Extension Activities:

Sr. No.	Activity	Proposed Number
1.	Kisan Mela	-
2	Field day	20
3.	Kisan Gosthi	25
4	Radio / TV Talks	5
5	TV Show	12
6	Film show	-
7.	Exhibition	2
8	News Paper Coverage	10
9	Popular Article	10
10	Extension Literature (No.)	
	i) Folders / Pamphlets	10
	ii) Slides	-
	iii) Video film show	5
11	**Advisory Service**	2
13.	Diagnostic service	
	i) Farmers visit to K.V.K	150
	ii) Scientist visit to farmers Field	150
14.	Communication media	
	i) Subscriber of krushi go vidhya Magazine	50

5. Infrastructure development :

- Administrative Buildings, Farmers' hostel and Staff quarters may be completed.
- Rate proof Godown, Threshing Yard and Demonstration Units are in plan to be developed when ever approved and granted by ICAR, New Delhi
- At the station, Automatic Weather Station has been installed.

Cluster of villages selected

Sr. No.	Name of Village
Porbandar Taluka	
1.	Bagvadar
2.	Visavada
3.	Vadala
4.	Advana
5.	Boricha
Kutiana Taluka	
1.	Khageshri
2.	Ishwaria
3.	Chauta
4.	Mahiyari
5.	Amipur
Ranavav Taluka	
1.	Bileshwar
2.	Hanumangadh
3.	Bordi
4.	Kandorana
5.	Bapodar