

ACTION PLAN OF KVK, GADAG

FOR THE YEAR 2008-09

Presented at

Action Plan Meeting of KVKs

Venue

University of Agricultural Sciences, Dharwad

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Prepared by

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ACTION PLAN OF KVKS IN ZONE VIII 2008-09

I. GENERAL INFORMATION

1.	Name and address of KVK with Phone, Fax , e-mail and web address	K.H.Patil Krishi Vigyan Kendra Hulkoti – 582205 Dist.: Gadag Phone : (08372) 289069, 289606 Fax : (08372) 289474 E-mail : khpatil_kv_k_hulkoti@yahoo.com
2.	Name and address of host organization with Phone, Fax and e-mail	Agricultural Science Foundation Hulkoti – 582205 Dist.: Gadag Phone : (08372) 289069, 289606 Fax : (08372) 289474 E-mail : asf_hulkoti@yahoo.co.in
3.	Name of the Programme Coordinator Residence Phone Number/ Mobile No.	Dr. L.G.Hiregoudar Phone (R) : 08372 – 289772 (M) : 9448358772
4.	Year of sanction	1985
5.	Major farming systems/enterprises	<p><i>A) Field crop based Farming systems</i></p> <p>(i) Chilli + Onion + Cotton (ii) Groundnut – Rabi jowar/wheat (iii) Greengram – Sunflower / Rabi jowar / wheat /Bengalgram (iv) Maize – Bengalgram (Irrigated condition) (v) Kharif jowar and Hybrid cotton</p> <p><i>B) Horticulture based Farming systems</i></p> <p>(i) Vegetables (Irrigated condition) (ii) Flower crops (iii) Mango</p> <p><i>C) Major Enterprises</i></p> <p>(i) Dairy farming (ii) Sheep rearing (iii) Goat rearing</p>
6.	Name of agro-climatic zone	<ul style="list-style-type: none"> ▪ Northern Dry Zone (Region – 2) comprising of Gadag, Ron, Naragund and Mundaragi blocks ▪ Semi transitional Zone -8 comprising of Shirhatti block
7.	Soil type	Deep black to medium black soils, red sandy soil and red clay soils
8.	Annual rainfall (mm)	612 mm

9. Staff Strength:

Details	Programme Coordinator	Subject Matter Specialists	Programme Assistants	Administrative Staff	Drivers	Supporting Staff	Total
Sanctioned	1	6	3	2	2	2	16
Filled	1	6	3	2	2	2	16

9a. Details of staff:

Sl.No	Sanctioned post	Name of the incumbent	Designation	Pay scale	Joining date	Per. / Temp.	SC/ST/Physically Handicapped	Source of salary (KVK/HO)
1.	Programme Coordinator	Dr. L.G.Hiregoudar	Programme Coordinator	16400-22400	05.09.1992	Permanent	-	KVK
2.	Subject Matter Specialist	Mr. S.K.Mudlapur	SMS (Plant Protection)	8000-13500	26.09.1994	Permanent	-	KVK
3.	Subject Matter Specialist	Mr. S.H.Adapur	SMS (Ag. extension)	8000-13500	23.06.1995	Permanent	-	KVK
4.	Subject Matter Specialist	Smt. S.S.Rayanagoudar	SMS (Home Science)	8000-13500	26.06.1995	Permanent	-	KVK
5.	Subject Matter Specialist	Mr. V.D.Vaikunthe	SMS (Agronomy)	8000-13500	01.07.1995	Permanent	-	KVK
6.	Subject Matter Specialist	Mr. K.T.Patil	SMS (Horticulture)	8000-13500	01.07.1995	Permanent	-	KVK
7.	Subject Matter Specialist	Mr. N.H.Bhandi	SMS (Soil Science)	8000-13500	01.06.2005	Permanent	-	KVK
8.	Programme Assistant	Dr. B.M.Muragod	Programme Assistant (Animal Husbandry)	5500-9000	25.06.2007	Permanent	-	KVK
9.	Computer Programmer	Smt. L.C.Koravanavar	Programme Assistant (Computer Programmer)	5500-9000	01.06.2005	Permanent	-	KVK
10.	Farm Manager	Smt. H.V.Morab	Programme Assistant (Farm manager)	5500-9000	01.06.2005	Permanent	-	KVK
11.	Accountant/Superintendent	Mr. M.B.Jakkanagoudar	Accountant/ Superintendent	5500-9000	25.06.2007	Permanent	-	KVK
12.	Stenographer	Mr. Manju D.	Stenographer	4000-6000	11.06.2007	Permanent	-	KVK
13.	Driver	Mr. N.L.Hadapad	Driver	3050-4950	03.09.1992	Permanent	-	KVK
14.	Driver	Mr. G.D.Madivalar	Driver	3050-4950	20.07.1995	Permanent	-	KVK
15.	Supporting staff	Mr. S.B.Kotabagi	Clerk cum Fieldman	2550-3200	18.07.1985	Permanent	-	KVK
16.	Supporting staff	Mr. V.R.Navalli	Village Work Attendant	2550-3200	20.07.1993	Permanent	-	KVK

10. Plan of Human Resource Development of KVK personnel during 2008-09

S. No	Discipline	Area of training required	Institution where training is offered	Approximate duration (days)
1	Ag. Extension	WTO and GATT	NAARM, Hyderabad	7
2	Horticulture	Precision farming	TNAU, Coimbatore	10
3	Home Science	Value addition	CFTRI, Mysore	10
4	Agronomy	Integrated Farming System	UAS, Dharwad	5
5	Soil Science	Site specific nutrient management	UAS, Dharwad	5
6	Plant protection	Production of bio-agents	PDBC, Bangalore	10

11. Infrastructure:

i) Total Area (ha) with KVK along with Survey Numbers:

Area Cultivated (Ha.)	Area occupied by buildings and roads (Ha.)	Area with demonstration units (M ²)
20	1.5	5000

Survey Numbers

Survey No.	Area (ha.)
316	5.13
318	1.35
319	2.28
320	11.24

ii) Buildings

Admn. Building			Farmers' Hostel			Staff Quarters			Details of Demonstration Units		
Plinth area (m ²)	Cost (Rs. in lakh)	Year of Construction	Plinth area (m ²)	Cost (Rs. in lakh)	Year of Construction	Plinth area (m ²)	Cost (Rs. in lakh)	Year of Construction	Name	Plinth area (m ²)	Cost (Rs. in lakh)
800	33.46	1996	550	17.26	1997	400	45.00	2006	Dairy, sheep & goat	150	6.63
									Vermicompost	350	5.3
									Nursery	150	3.0

iii) Vehicles

Type of vehicle	Model	Actual cost (Rs. in lakhs)	Total kms. Run	Present status
Tempo traveller	1995	3.67	4.25	Not road worthy
Tractor	2003	5.0	601 hours	Good
Motor cycle	2005	0.4	10010	Good

iv) Equipments and AV aids

Sl. No.	Name of Equipments	Date of purchase	Cost (Rs.in lakh)	Present status
1	Computer	2003	1.25	Good
2	Camera	1998	0.14	Good
3	Television	1999	0.28	Good
4	Amplifier	1998	0.15	Good
5	Fax	2004	0.25	Good
6	OHP	2004	0.25	Good
7	Hipro lab model gin machine	2006	0.70	Good
8	Seed delinting machine	2006	0.18	Good
9	Cotton seed sorter	2007	0.50	Good
10	Seed treatment drum	2007	0.40	Good
11	Lap top	2007	0.54	Good
12	LCD	2007	0.56	Good
13	Ceramic black board	2007	0.12	Good
14	Rotavator	29-2-2008	0.92	Good

12. Details of SAC meeting conducted during 2007-08 and proposed during 2008-09

Sl. No	Date	
	Conducted during 2007-08	Proposed for 2008-09
1	▪ 7-10-2007	May, 2008
2	▪ 29-3-2008	September, 2008

II. PLAN FOR TECHNICAL ACTIVITIES

1: OPERATIONAL AREA DETAILS FOR 2008-09

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
1	Gadag	Hosur cluster [Comprising of Kanavi, Hosur, Shirunj, Yelishirunj]	Spreading Groundnut (Kharif & Summer), Greengram, Maize, Onion +Chilli, Chrysanthemum, Brinjal, Tomato, Green Chilli, Dairying and Goat rearing	Groundnut	
				<ul style="list-style-type: none"> ▪ Moisture stress in peg initiation stage in groundnut 	<ul style="list-style-type: none"> ▪ <i>In-situ</i> moisture conservation
				<ul style="list-style-type: none"> ▪ Imbalanced usage of nutrients 	<ul style="list-style-type: none"> ▪ Integrated Nutrient Management
				<ul style="list-style-type: none"> ▪ Incidence of leaf minor 	<ul style="list-style-type: none"> ▪ Leaf minor management
				<ul style="list-style-type: none"> ▪ Incidence of rust and tikka during pod formation stage 	<ul style="list-style-type: none"> ▪ Rust and tikka disease management
				Greengram	
				<ul style="list-style-type: none"> ▪ Incidence of Sphingid moth and powdery mildew 	<ul style="list-style-type: none"> ▪ Sphingid moth & powdery mildew management
				<ul style="list-style-type: none"> ▪ Non availability of labour for weeding 	<ul style="list-style-type: none"> ▪ Promotion of weeder
				<ul style="list-style-type: none"> ▪ Lack of grading and value addition 	<ul style="list-style-type: none"> ▪ Value addition
				Maize (Rainfed)	
				<ul style="list-style-type: none"> ▪ Moisture stress during seed setting stage 	<ul style="list-style-type: none"> ▪ Insitu moisture conservation
				<ul style="list-style-type: none"> ▪ Imbalanced usage of nutrients 	<ul style="list-style-type: none"> ▪ Integrated Nutrient Management
				<ul style="list-style-type: none"> ▪ Incidence of downy mildew 	<ul style="list-style-type: none"> ▪ Downy mildew management
				Onion + Chilli + Cotton	
				<ul style="list-style-type: none"> ▪ Low quality bulb production in onion 	<ul style="list-style-type: none"> ▪ Integrated Nutrient Management
				<ul style="list-style-type: none"> ▪ Incidence of purple blotch in onion 	<ul style="list-style-type: none"> ▪ Management of purple blotch
				<ul style="list-style-type: none"> ▪ Incidence of mites and thrips in chilli 	<ul style="list-style-type: none"> ▪ Management of mites and thrips
<ul style="list-style-type: none"> ▪ Low quality of dry chilli 	<ul style="list-style-type: none"> ▪ Usage of polythene sheets for chilli drying 				
<ul style="list-style-type: none"> ▪ Lack of value addition in chilli 	<ul style="list-style-type: none"> ▪ Value addition 				
Chrysanthemum					
<ul style="list-style-type: none"> ▪ Bud dropping & improper opening of flower buds 	<ul style="list-style-type: none"> ▪ INM 				
<ul style="list-style-type: none"> ▪ Leaf spot 	<ul style="list-style-type: none"> ▪ Leaf spot management 				

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
				Brinjal	
				▪ Fruit and shoot borer	▪ Fruit and shoot borer management
				Tomato	
				▪ Incidence of leaf curl	▪ Leaf curl management
				Live stock enterprises	
				▪ Low milk productivity due to nutritional disorder	▪ Nutrition management
				▪ Incidence of FMD & ET in goats	▪ Management of FMD & ET
				Storage pests	
				▪ Incidence of storage pests	▪ Storage pest management
				Entrepreneurship	
				▪ Lack of entrepreneurship in agriculture	▪ EDP for rural youths

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
2	Mundaragi	Shingatarayankere cluster [Comprising of Kadampur and Shingatarayankeri Tanda]	Spreading Groundnut, Greengram, Hybrid jowar (K), Onion, Chrysanthemum	Spreading Groundnut	
				▪ Unsustainable production	▪ Promotion of intercropping system (Groundnut + Foxtailmillet)
				▪ Poor shelling percentage	▪ INM in spreading groundnut
				Bunch Groundnut	
				▪ Cultivation of local variety	▪ Introduction of TAG-24 variety
				▪ Poor shelling percentage	▪ INM in groundnut
				▪ Incidence of leaf minor	▪ Leaf minor management
				Greengram	
				▪ Incidence of sphingid moth and powdery mildew	▪ Sphingid moth & powdery mildew management
				Hybrid jowar (K)	
				▪ Poor quality of fodder	▪ Introduction of CSV-15 variety
				▪ Moisture stress	▪ <i>In-situ</i> soil moisture conservation
				Onion (irrigation)	
				▪ Poor quality production of bulbs	▪ INM in onion
				▪ High incidence of weeds	▪ Chemical weed management
				Chrysanthemum	
				▪ Incidence of bud necrosis	▪ Bud necrosis management
				▪ Improper opening of buds	▪ INM in Chrysanthemum
				Buffaloe enterprise	
				▪ Infertility in buffaloes	▪ Nutrient Management
Storage pests					
▪ Incidence of storage pest	▪ Grain storage				
Entrepreneurship					
▪ Lack of entrepreneurship in agriculture	▪ EDP for rural youths				

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
3	Shirahatti	Holalpur cluster [Comprising of Magadi, Parasapur and Holalapur villages]	Spreading groundnut, Hybrid jowar (K) + Tur	Spreading Groundnut	
				▪ Lack of diversification	▪ Promotion of dryland horticulture
				▪ Use of impure seeds	▪ Supply of pure seeds
				▪ Non usage of balanced nutrition	▪ Integrated Nutrient Management
				▪ Unsustainable production	▪ Promotion of inter cropping system
				▪ Moisture stress	▪ <i>In-situ</i> soil moisture conservation
				▪ Drudgery in hand shelling	▪ Introduction of decorticator
				Hybrid jowar + Tur	
				▪ Poor fodder quality of jowar	▪ CSV-15 variety
				▪ Cultivation of long duration local variety of Tur	▪ Introduction of ICPL-87
				Buffaloe enterprise	
				▪ Low milk yield due to poor quality fodder and nutritional disorders	▪ Enrichment of dry fodder
				Grain storage	
				▪ Incidence of storage pests	▪ Storage pest management
Entrepreneurship					
▪ Lack of entrepreneurship in agriculture	▪ EDP for rural youths				

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
4	Ron	Mallapur cluster [Comprising of Mallapur, Sandigwad and Chikkamannur villages]	Onion + Chilli + Cotton, Cotton, Greengram, Groundnut, Rabi jowar and sunflower	Onion + Chilli + Cotton	
				▪ Moisture stress	▪ <i>In-situ</i> soil moisture conservation
				▪ Cultivation of local variety in onion	▪ Assessment of improved variety in onion
				▪ Non availability of labours for weeding in existing sowing method	▪ Refinement of sowing method in onion to facilitate intercultivation
				Greengram	
				▪ Non availability of labours during harvesting & unsuitability of China Moong variety for mechanized harvesting	▪ Assessment of mechanised harvesting in China Moong & S4 variety in greengram
				▪ Drudgery in hoeing & weeding operations	▪ Introduction of drudgery reducing equipments
				Cotton	
				▪ Unsustainable production	▪ ICM in desi cotton
				Rabi jowar	
				▪ Moisture stress	▪ <i>In-situ</i> soil moisture conservation ▪ Drought tolerance inducing technology
				Sheep enterprises	
				▪ Low productivity of local sheep	▪ Upgradation of local sheep with Ramboulette
				Nutrition	
▪ Nutrition deficiency in human beings	▪ Introduction of nutritional garden ▪ Value addition in locally available vegetables (Karchi Kai)				
Fuel saving enterprises					
▪ Drudgery in cooking	▪ Assessment of Oorja Chulha for fuel efficiency				

Sl. No.	Taluk	Name of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
5	Naragund	Gurlagatti cluster [Comprising of Kanakikoppa, Siddapur and Gangapur villages]	Maize, Bengalgram, Wheat, Sunflower and Hybrid Cotton	Maize	
				▪ Incidence of stem borer & downy mildew	Management of stem borer and downy mildew
				▪ Low fertility of soil	Green manuring
				Bengalgram	
				▪ Lack of integrated crop management practices	▪ ICM in bengalgram
				Wheat	
				▪ Drudgery in harvesting	▪ Introduction of improved sickle
				Hybrid cotton	
				▪ Incidence of pests and low yield	▪ Introduction of Bt cotton along with ICM
Dairy enterprises					
▪ Infertility in CB cows	▪ Nutritional management				
▪ Ticks and mites infection	▪ Management of ticks and mites				

SUMMARY OF LIST OF THRUST AREAS FOR THE KVK FOR 2008-09

- i) *In-situ* soil moisture conservation
- ii) INM in oilseeds, pulses, cereals and onion
- iii) IPM in chilli, brinjal, bengalgram and groundnut
- iv) Sustainable crop production technologies
- v) Soil fertility management
- vi) Seed production in onion
- vii) Feed management in milch animals
- viii) Ecto and Endo parasite management in live stock
- ix) Improvement of sheep breed
- x) Self employment opportunities for youths
- xi) Women drudgery reduction measures
- xii) Entrepreneurship development in agriculture
- xiii) Development of paratechnician in veterinary services

2. Abstract of interventions proposed based on the prioritized problems during 2008-09

S.No	Crop/Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
1	Greengram	Low productivity due to cultivation of local variety	--	Introduction of Selection-4 variety	Cultivation of Selection-4 variety along with ICM	ICM in Greengram	Field day
		Incidence of leaf defoliator (sphingid moth)	--	Management of leaf defoliator in greengram	Management of leaf defoliator in Greengram		--
		Non availability of labours during harvesting	Assessment of mechanized harvesting in china moong & selcection - 4 variety.	--	Mechanised harvesting in Greengram	Mechanised harvesting in Greengram	Exposure visits and demonstration
2	Bengalgram	Low productivity	--	ICM in Bengalgram	ICM in Bengalgram	--	Field day
		Incidence of wilt	Management of wilt through seed treatment with Trichoderma harzenium @ 10gm/Kg	--	Management of wilt in Bengalgram	Management of wilt in Bengalgram	--

S.No	Crop/Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
3	Kharif groundnut (Spreading type)	Poor shelling percentage	--	Integrated nutrient management	Management of micro nutrients for enhancing shelling percentage & oil content in groundnut	ICM in spreading groundnut	Field day
		Cultivation of local variety	--	Demonstration of JSP-39 variety	ICM in spreading groundnut	--	Leaflet on production technologies
		Incidence of leaf minor	-	Management of leaf minor	Timely management of leaf minor	-	-
		Incidence of tikka and rust	--	Management of tikka and rust	Management of tikka and rust	-	-
		Moisture stress	--	Compartment bunding	In situ moisture conservation practices in dry land area	-	--
	Farm implements 1) Twin wheel hoe weeder	Drudgery in weeding and hoeing operation	--	Demonstration of twin wheel hoe weeder	Drudgery reducing equipments	--	Exhibition of implements during field day
	2) Groundnut decorticator	Drudgery in hand shelling	Assessment of groundnut decorticator	--	Use of decorticator	--	Exhibition of implements during field day

S.No	Crop/Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
4	Summer groundnut	Cultivation of local variety	--	Demonstration of TAG-24 variety	ICM in TAG-24 variety	--	Field day
		Poor shelling percentage	--	INM in groundnut	--	--	--
		Improper irrigation management	-	Timely water management	Water management in summer groundnut	-	Exposure visits
		Incidence of leaf minor and tikka disease	--	Management of leaf minor and tikka disease	Integrated pest disease management	-	-
5	Sunflower	Imbalanced nutrition	--	INM in sunflower	INM in sunflower for higher productivity	INM in sunflower	Field day
		Incidence of powdery mildew	--	Management of powdery mildew	Timely spray of difenconazole for higher productivity	Integrated pest and disease management	Radio talk
		Moisture stress	--	Wider row method of sowing (120 cm x 10 cm)	Dry land technologies for moisture conservation	Wider row method of sowing (120 cm x 10 cm)	--
		More input cost on phosphoric fertilizers	Refinement on usage of phosphoric fertilizer dosage	--	Phosphorous nutrient management	Phosphorus nutrient management	--

S.No	Crop/Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
6	Hybrid cotton	Incidence of sucking pest & pod borers	--	Introduction of Bt-Cotton along with ICM	ICM in Bt-Cotton	ICM in Bt-cotton	<ul style="list-style-type: none"> ▪ Field day ▪ Publication of leaflet
7	Rabi Cotton	Low productivity due to cultivation of Jayadhar cotton variety	--	Introduction of DDHC-11 improved rabi cotton variety along with ICM	ICM in Rabi cotton	--	Field day
8	Maize	Imbalanced usage of nutrients	--	INM	ICM in maize for higher productivity	--	Field day
		Incidence of downy mildew & stem borer	--	Management of downy mildew & stem borer	Seed treatment & foliar application of Ridomnil M.Z & spray of profenophos for higher productivity	--	--
		Low fertility of soil in Cammand Area	Assessment of incorporation of sunhemp in maize with bio-fertilisers and micronutrients	--	Soil fertility management for higher production in Malaprabha Cammand Area	Soil fertility management in maize under Malaprabha Cammand Area	--
		Non profitable cropping pattern	Assessment of maize followed by bengalgram or wheat cropping pattern	--	Profitable cropping systems in Malaprabha Cammand Area	--	--

S.No	Crop/ Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
9	Kharif jowar + Redgram	Poor quality of fodder	--	Demonstration of CSV- 15 variety	ICM in Kharif jowar	--	Field day
		Moisture stress	--	Demonstration of compartment bunding	Insitu soil moisture conservation practices	--	--
		Cultivation of long duration variety in Red gram	--	Demonstration of medium duration ICPL-87 Red gram variety	ICM in Red gram		--
		No intercropping system	--	Demonstration on K.Jowar + R.gram inter cropping system	Cultivation of K.Jowar + R.gram inter cropping system (5:1) for higher productivity & income	--	--
10	Rabi jowar	Moisture stress	--	<ul style="list-style-type: none"> ▪ Compartment bunding ▪ Seed priming with CaCl₂ 	Moisture stress management in rabi jowar for higher productivity	--	Field day

S.No	Crop/ Enterprise	Prioritized Problem	Interventions				Others
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	
11	Onion	Poor quality bulb production in local variety	--	Introduction of Arka Kalyan variety with INM	INM in onion	--	Field day
		Non-availability of labour for weeding both in irrigated and dryland condition	<ul style="list-style-type: none"> ▪ Assessment of chemical weed management in onion ▪ Assessment of sowing method & seed rate in dryland situation 	--	Chemical weed management in onion	Weed management in onion	--
		Non-availability of high yielding variety seeds	--	--	Onion seed production technology	--	Seed production activities
12	Chilli	Low yield due to imbalanced nutrients	--	--	INM in chilli	--	Field day
		Murda complex	--	--	Murda complex management	--	Field day
		Poor quality of dry chilli	--	--	Post harvest technology in chilli	--	Facilitating supply of polythene sheets from Spices Board
13	Tomato	Leaf curl	--	Demonstration of leaf curl tolerant Arka Ananya hybrid	Leaf curl management	--	Field day
		Fruit borer	--	--	Fruit borer management through IPM	--	Field day
14	Brinjal	Fruit & shoot borer	Management of fruit and shoot borer	--	IPM in brinjal	--	--
15	Chrysanthe mum	Improper opening & dropping of buds	--	INM in chrysanthemum	INM in chrysanthemum	--	Field day
		Leaf spot incidence	--	--	Management of leaf spot	--	Field day

S.No	Crop/ Enterprise	Prioritized Problem	Interventions				
			Title of OFT if any	Title of FLD if any	Title of Training if any	Title of Training for extension personnel if any	Others
16	Dairy enterprise	Infertility in CB cows	--	Harmonal therapy along with nutritional management	<ul style="list-style-type: none"> ▪ Nutritional management in CB cows ▪ Azolla cultivation 	--	Infertility camp
17	Dairy enterprise	Low growth rate and body weight due to infestation of worms	--		Ecto and Endo parasites management	--	Deworming camp
		Lack of Artificial Insemination services for dairy animals	--	--	Vocational training of para technicians in AI services	--	--
18	Sheep enterprise	Low productivity of wool and meet in local breeds	--	Upgradation of local sheep with Ramboulette	Scientific sheep rearing practices	--	--
19	Fuel saving devices	Non-availability of fuel and drudgery in cooking	To assess the fuel efficiency and economics of cooking in oorja chulha	--	Drudgery reducing and fuel saving devices	--	Interaction of personnel from BP company with SHG members
20	Grain storage	Household pests in stored grains	--	Demonstration on preparation of neem baits	Grain storage methods	--	--
21	Nutrition	Nutrition deficiency	--	Introduction of nutritional garden	Balanced diet, nutrients, deficiency diseases	--	--
22	Farm implement	Drudgery in harvesting of wheat	--	Demonstration of improved sickle in wheat	Drudgery reducing equipment	--	Supply of improved sickles
23	Value addition	Lack of value addition	--	--	Promotion and value addition in pulses & vegetables	--	--
24	--	Lack of entrepreneurship in agriculture	--	--	EDP for rural youths	--	Exposure visits

3. Details of technology assessment

SI.No.	Problem Identified	Technology for assessment	No. of On Farm Trials
1.	Non-availability of labours for weeding in irrigated onion crop	Assessment of chemical weed management in irrigated onion crop	03
2.	Non-availability of labour for weeding in dry land onion crop	Assessment of sowing method and seed rate in dry land onion crop	06
3.	Non-availability of labours during harvesting of greengram	Assessment of mechanized harvesting in china moong & selection-4 variety	03
4.	Non profitable cropping system in Maize-Wheat based cropping system in command area	Assessment of Maize - Bengalgram/Wheat based cropping system in Malaprabha command area.	03
5.	Low Soil Fertility	Incorporation of Sunhemp as a green manure in Maize-Wheat based cropping system	03
6.	Incidence of brinjal shoot and fruit borer (Leucinodes Orbonalis)	1. Soil application of neem cake 500 kg/ha, two split at the time of planting, 60 DAT and Installation of pheromone traps with Lucin lures @ 8 No/ha, changes of lures at 20 DAT, 40 DAT, 60 DAT	03
		2. Foliar application of Profenophos 50 EC at flowering stage of the crop	03
7.	Drudgery in hand shelling	Assessment of groundnut decorticator	03
8.	Non-availability of fuel & drudgery in cooking	Assessment of Oorza chulha	03

PLAN OF ON FARM TESTING IN CASE OF ASSESSMENT FOR 2008-09

Assessment No.1

1. Title of the technology to be assessed : Assessment of chemical weed management in irrigated onion
2. Agro-Ecological Zone : Northern dry zone, Region – 2
3. Production System : Small production system under irrigated condition
4. Problem definition : High incidence of weed is severely affecting the production and quality of bulbs in irrigated Onion. Manual Weeding is not possible due to non-availability of labour

5. Problem Cause tree : Separate sheet enclosed
6. No. of farmers and area affected : More than 1500 farmers in an area of 1900 ha.
7. Rationale for proposing the assessment : Chemical weed assessment is proposed as there is severe scarcity of labours for weeding in the identified villages

8. Technology options being assessed along with justification

SI.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmer's Practice	Manual Weeding (3-4 times)	--	--
2.	Technological Option 1	Application of Butachlor @ 2 lit/ha as pre emergent weedicide and followed by Oxyflorofen @ 1 lit/ha as post emergent 30 days after 1 st application	UAS, Dharwad	Butachlor and Oxyflorofen are pre-emergent & post emergent weedicides respectively. This controls all kinds of weeds without any residual effect

9. Parameters to be measured in relation to the technology

- I. Weed intensity
- II. Weed biomass
- III. Cost of weeding
- IV. Bulb yield

10. Details of farmers

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Singatarayankeri	3 farmers	1.2

11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty. (Lit.)	Unit Cost (Rs./lit)	Total Cost (Rs.)
1	Butachlor	2.5	750	1875.00
2	Oxyflorofen	1.5	800	1200.00
Total				3075.00

Assessment No.2

1. Title of technology to be assessed : Assessment of sowing methods and seed rate in dryland onion crop
2. Agro ecological zone : Northern dry zone, Region – 2
3. Production system : Big farmer production system under dry land condition
4. Problem definition : In identified villages farmers are practicing Criss-Cross method of sowing using 2.5 Kg. seed/ha., wherein inter cultivation is not possible. Due to non-availability of labour for weeding, the productivity gets affected. Hence, this assessment is proposed.
5. Problem cause tree : Separate sheet enclosed
6. No. of farmers & area affected : More than 4500 farmers in an area of 8000 ha.
7. Rationale for proposing the assessment : Single line sowing is proposed to facilitate inter cultivation to check the weeds as manual weeding is not possible due to severe scarcity of labour.
8. Technology options being assessed along with justification

SI.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmer's Practice	Criss - Cross sowing method by using 2.5 kg of seed/ha	--	--
2.	Technological Option - 1	Single row sowing of seed/ha with 10 kg/ha seed rate	UAS, Dharwad	
3.	Technological Option - 2	Single row sowing with 2.5 kg / ha seed rate	--	Criss-cross method of sowing of onion by using 2.5 kg/ha is common practice and inter cultivation is not possible in this method. The recommend practice is single line sowing at 30cm row spacing, by using 10kg/ha seeds. This is not feasible due to moisture stress condition. Hence, It is proposed to assess single line sowing by adopting spacing of 20 cm row spacing using 2.5 Kg seeds/ha. This facilitates inter cultivation and reduces dependence on labours for weeding

9. Parameters to be measured in relation to the technology

- i. Cost of weeding
- ii. Bulb yield

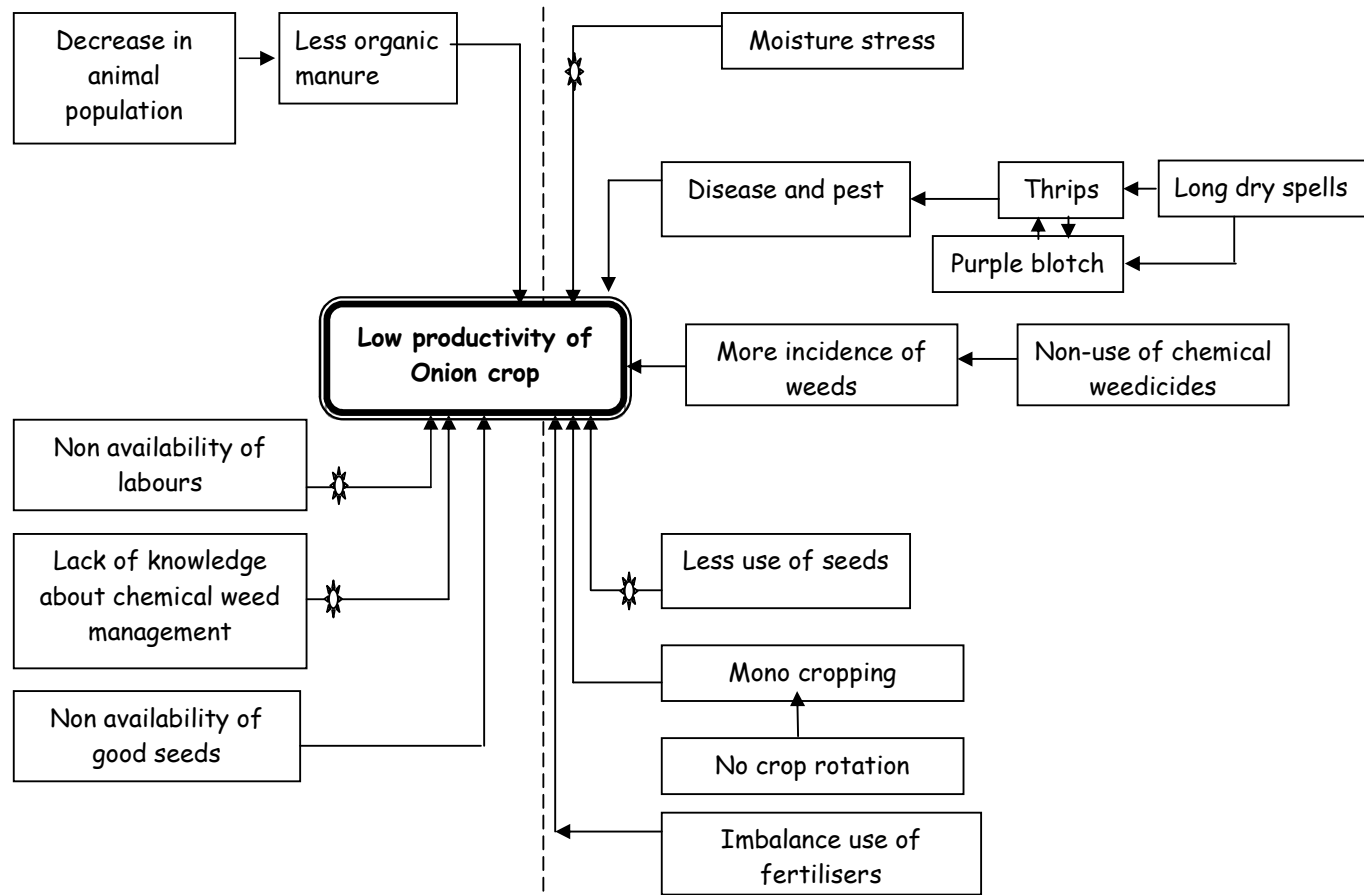
10. Details of farmers

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	6 farmers	2.4

11. Budget for Assessment

S. No	Critical inputs for technological options			Total Cost (Rs.)
	Name	Qty. (Kg.)	Unit Cost (Rs./Kg)	
1	Seeds	14	400.00	5600.00
			Total	5600.00

Problem-Cause tree for Low productivity of Onion crop



Socio-economic constraints

Bio-physical constraints

22

★ Intervention points

Assessment No.3

1. Title of the technology to be assessed : Assessment of mechanised harvesting in chinamoong and selection-4 variety
2. Agro-Ecological Zone : Northern dry zone -3, Region – 2
3. Production System : Medium & big farmers production system under rainfed situation
4. Problem definition : Non-availability of labours delays harvesting and high cost of labourers for picking are the constraints affecting the profitability in greengram
5. Problem Cause diagram : Enclosed
6. No. of farmers and area affected : More than 2500 farmers in an area of 3500 ha.
7. Rationale for proposing the assessment : Mechanical harvesting ensures timely harvesting and reduces the cost of harvesting. This ensures higher profitability.

8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmer's Practice	Greengram pods picking and threshing is done manually	--	--
2.	Technological Option 1	Mechanised harvesting in China moong and S4 variety	--	Due to non-availability of labour during pod picking some farmers have started using mechanized harvester in greengram (Chinamoong & S-4 variety). It is proposed to assess the efficiency of harvester in two varieties viz., China Moong & S-4

9. Parameters to be measured in relation to the technology

- a. Cost of harvesting
- b. Mandays/ha
- c. Market rate
- d. Percentage of damaged/broken seeds

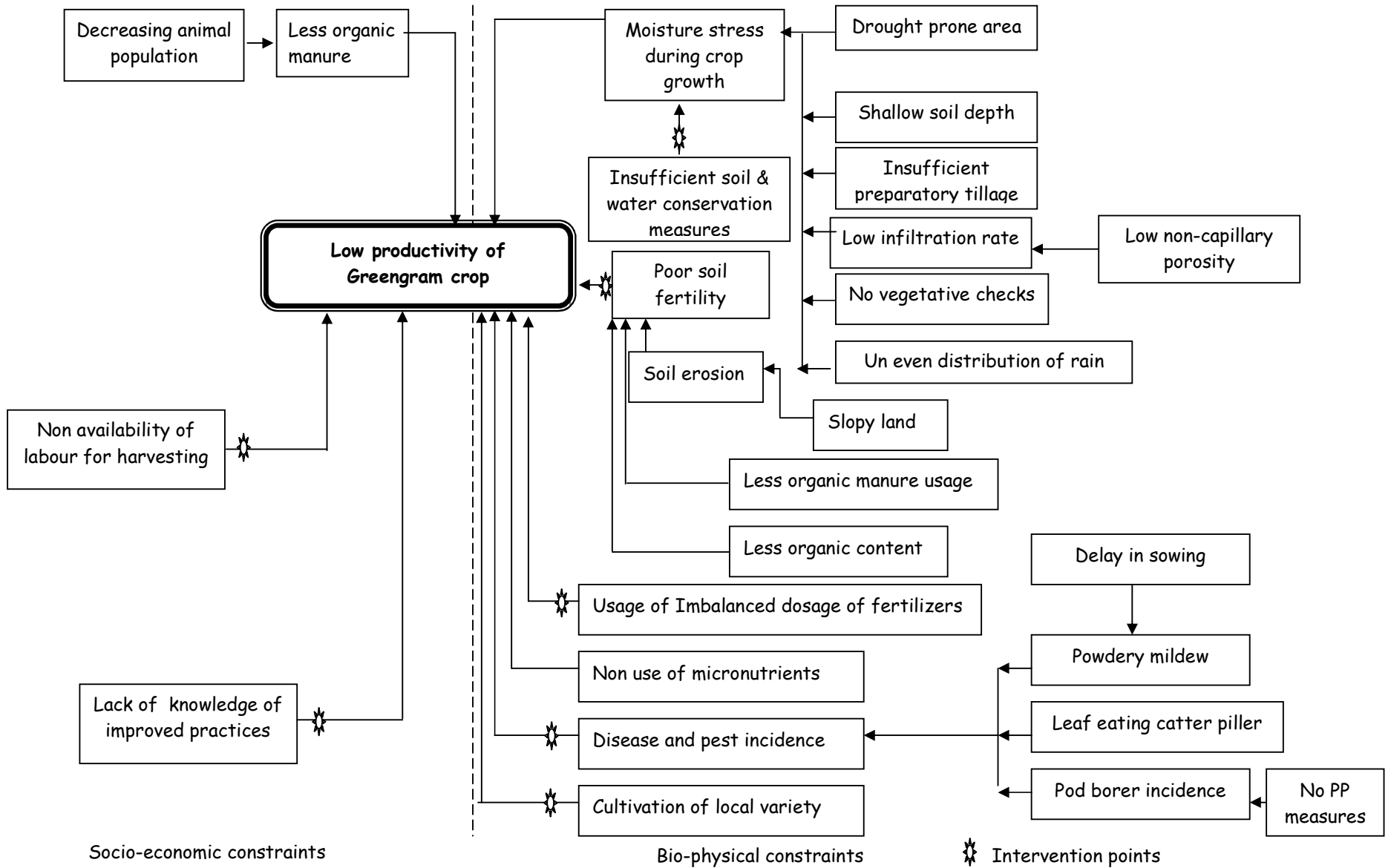
10. Details of farmers

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	6 farmers	2.4

7. Budget for Assessment

S. No	Critical inputs for technological options			Total Cost (Rs.)
	Name	Qty.	Unit Cost	
1	Seeds	15 Kg.	30/kg	450.00
2	Hired harvester charges	1.2 ha.	2250/ha	2700.00
Total				Rs. 3150.00

Problem-Cause tree for Low productivity of Greengram crop



Assessment No.4

1. Title of technology to be assessed : Assessment of Maize followed by Bengalgram or Wheat based cropping system in Malaprabha Command Area
2. Agro ecological zone : Northern dry zone, Region – 2
3. Production system : Medium and big farmers production system under irrigated situation.
4. Problem definition : Maize-Wheat/Bengalgram is the major cropping system in Malaprabha command area. Farmers have expressed that this cropping pattern is not profitable due to high cost of inputs and Non-availability of labourers.
5. Problem cause diagram : Enclosed
6. No. of farmers & area affected : 225 No. 490 ha
7. Rationale for proposing the assessment : Farmers are of the opinion that Maize-Bengalgram/ wheat based cropping system is not profitable compared to Maize & Wheat. To assess the economic performance of Maize-Wheat/Bengalgram based cropping system, OFT for assessment is proposed.
8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmer's Practice	Maize – Wheat / Bengalgram	UAS - Dharwad	--
2.	Technological Option-1	Maize – Wheat / Bengalgram	UAS, Dharwad	As per the farmers opinion, Maize-Wheat cropping system is not remunerative because of high input cost of maize and non-availability of sufficient canal water for wheat, whereas wheat / Bengalgram cropping system is found to be profitable as bengalgram requires 1-2 protective irrigations.

9. Parameters to be measured in relation to the technology
 - i) Yield
 - ii) Net Returns
 - iii) B.C. Ratio

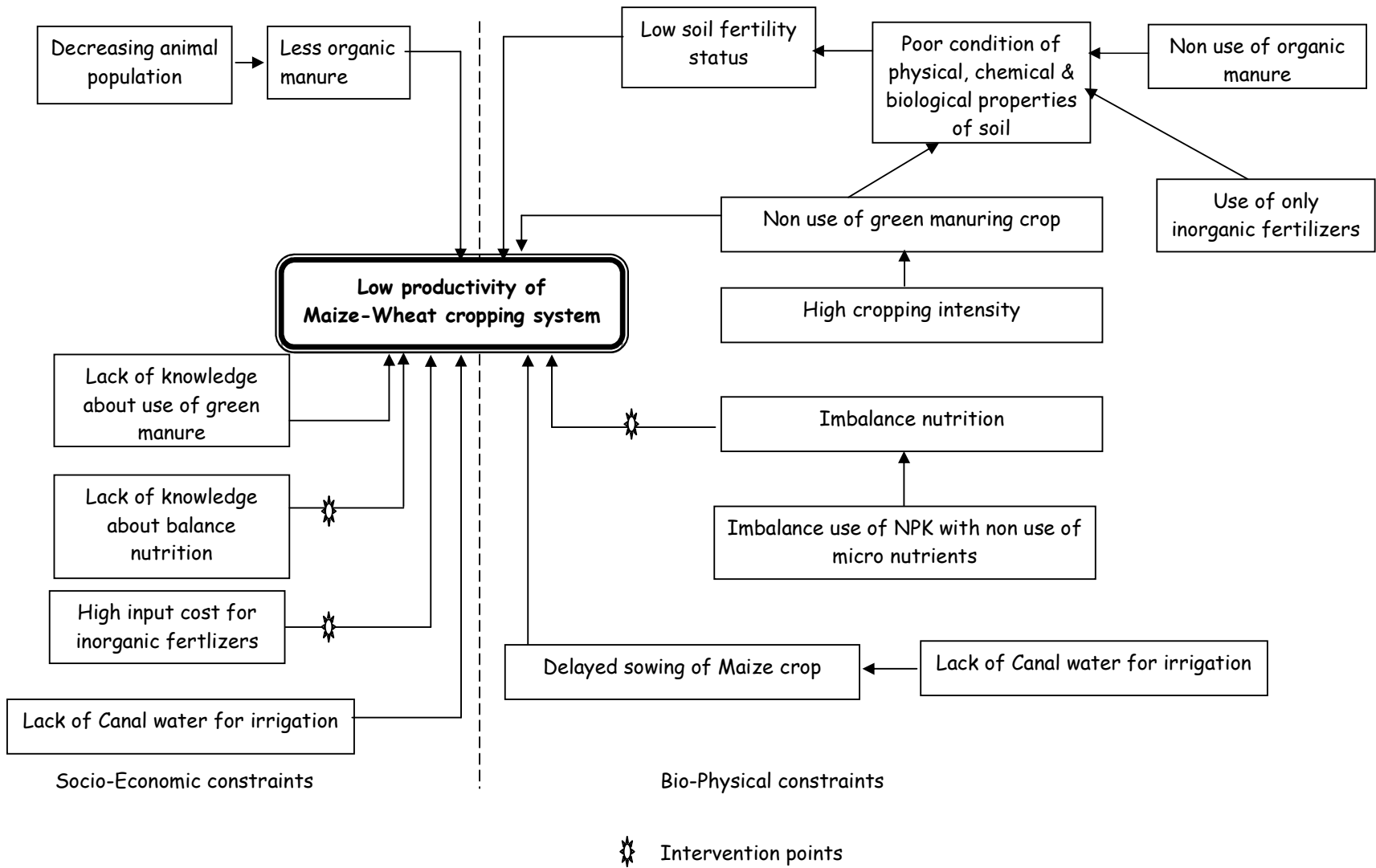
10. Details of farmers

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Gurulakappa	3 farmers	1.2
2.			

11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost /ha	Total Cost
1	Rhizobium	3 Kg.	40.00/Kg	120.00
2	Pheromone traps	9 Nos	20.00	180.00
3	Lures	27 Nos	15.00	405.00
4	Nimbecidine	1 Lit.	265.00	265.00
5	NAA (Planofix)	300 ml.	40.00	120.00
Total				1090.00

Problem-Cause tree for Low productivity of maize-wheat cropping system



Assessment No.5

1. Title of technology to be assessed : Incorporation of the Sunhemp as a green manure in Maize-Wheat based cropping system.
2. Agro ecological zone : Northern dry zone – III
3. Production system : Irrigation production system in cammand area.
4. Problem definition : Application of only in-organic fertilizers in Maize-Wheat cropping system in Malaprabha Command Area has reduced the soil fertility status and there by it is affecting the productivity of the cropping system.
5. Problem cause diagram : Enclosed
6. No. of farmers & area affected : 225 No, 490 ha
7. Rationale for proposing the assessment : Incorporation of Sunhemp as a green manuring crop in Maize during Kharif season improves the soil fertility status by ensuring availability of essential nutrients and initiates biological activity (micro flora) required for releasing nutrients in soil medium nutrients and ultimately improves the productivity of Maize and Wheat.

8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmers' Practice	Application of 88.5:32.5.:32.5 NPK Kg/ha without addition of organic manures.	--	--
2.	Technological Option-1	Sowing of Sunhemp in Maize in the ratios 1 : 2 and incorporating the sunhemp at 40 to 45 day of sowing + RDF	UAS, Dharwad	Incorporation of Sunhemp as a green manuring crop in Maize during Kharif season improves the soil fertility status ensuring availability of nutrients and ultimately improves the productivity of Maize and Wheat.

9. Parameters to be measured in relation to the technology

- 1) Analysis of soil p^H, EC, OC. Available N,P & K
- 2) Yield levels

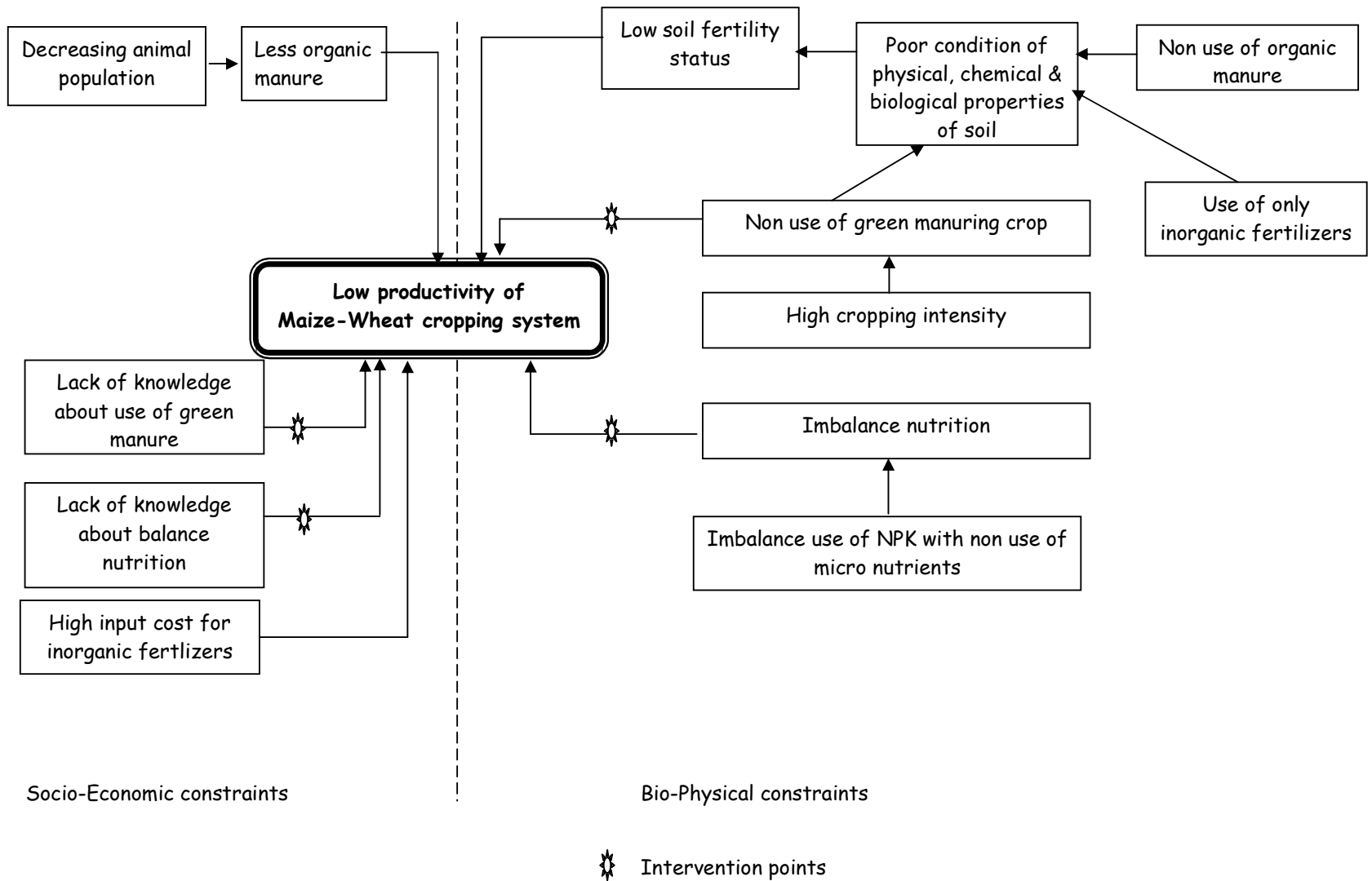
10. Details of farmers

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Gurlagatti	To be submitted later	1.2

11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost	Total Cost (Rs.)
1	Urea	313 Kg	5.20 per Kg.	1690.00
2	DAP	400 Kg.	9.90 per Kg.	3960.00
3	MOP	75 Kg.	5.25 per Kg.	395.00
4	ZnSo ₄	12 Kg.	265 per10 Kg.	318.00
5	Sunhemp seeds	18 Kg.	30 per kg.	540.00
6	Rhizobium	1 Kg.	30 per kg.	30.00
Total				6933.00

Problem-Cause tree for Low productivity of maize-wheat cropping system



Assessment No.6

1. Title of the technology to be assessed : Assessment of Neem cake and installation of pheromone traps with lucin lures for management of fruit and shoot borer in brinjal
2. Agro-Ecological Zone : Northern dry zone
3. Production System : Small production system under irrigated condition
4. Problem definition : Brinjal shoot and fruit borer is severe pest affecting the brinjal productivity. Incidence occurs immediately after transplantation and will be noticed throughout the growing season during Kharif. The yield loss is about 25-30%.
5. Problem Cause Diagram : Enclosed
6. Number of farmers and area affected in the operational villages : 216 farmers and 110 ha.
7. Rationale for proposing the assessment : Application of neem cake helps to manage the shoot and fruit borer menace. It has got a repellent and ovicidal effect. Installation of pheromone traps helps for mass trapping of adult moths that further checks multiplication of pest.
8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmers' Practice	Foliar application of monocrotophos @ 1.5 ml	UAS Dharwad	--
2.	Technological Option 1	Soil application of neem cake @ 500 Kg/ha two split at the time of planting & 60 DAT. Installation of pheromone traps with lucin lures @ 8 No/ha, changes of lures at 20 DAT, 40 DAT, 60 DAT	UAS Dharwar & PCI, Bangalore	<ul style="list-style-type: none"> ▪ Installation of pheromone traps with lucin lures mass trapping of adult of leucinodus or bonalis which reduce the pest population and application of neem cake helps in repelling and has ovicidal effect on pest
3.	Technological Option 2	Foliar application of Profenophos 50 EC at flowering stage of the crop	UAS, Dharwad	<ul style="list-style-type: none"> ▪ Spraying of Profenophos at flowering stage helps in adult moths to lay eggs on growing shoot & flower, thus controlling the pest

9. Parameters to be measured in relation to the technology

- a. % incidence of pest
- b. Yield
- c. B.C. ratio

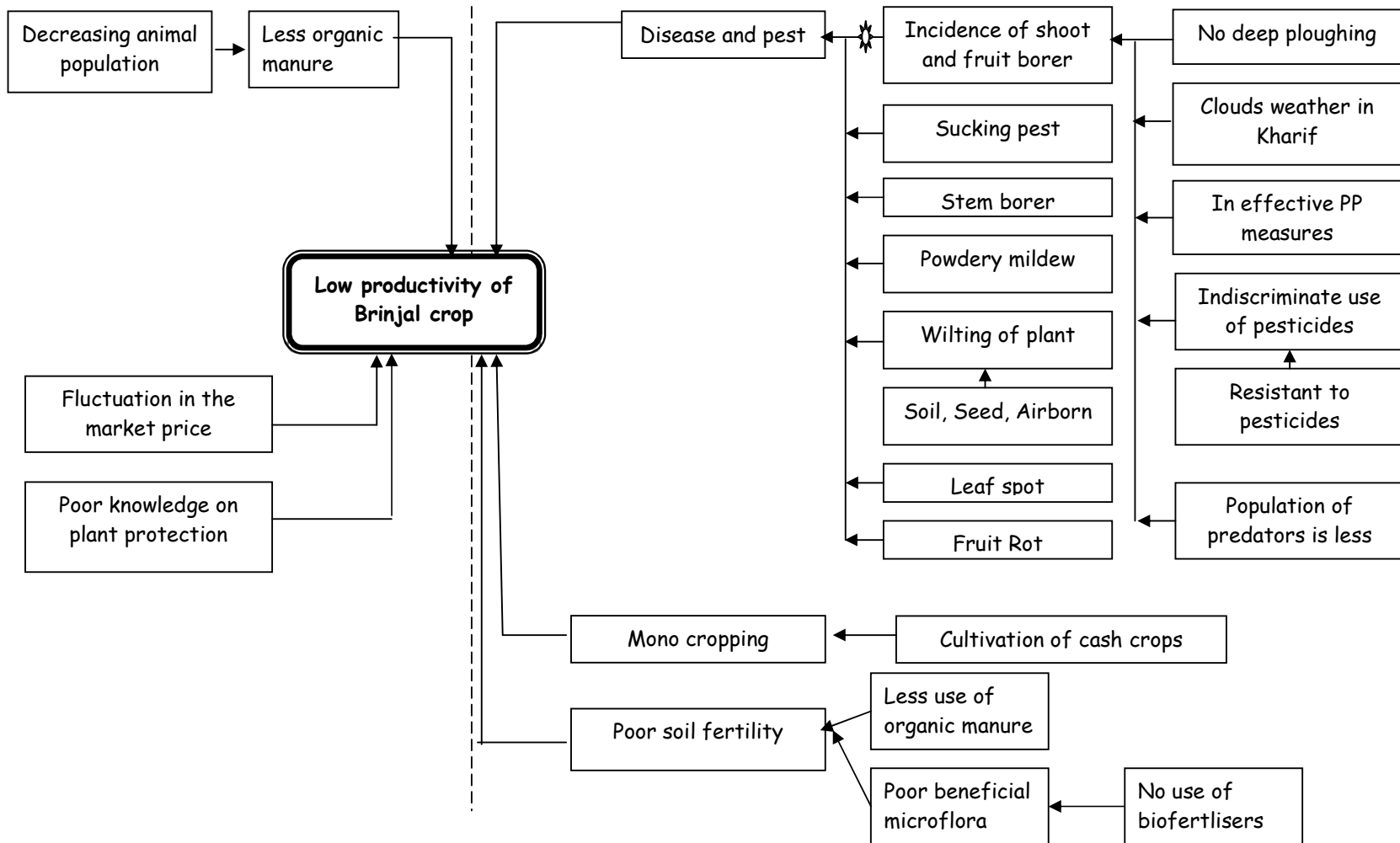
10. Details of farmers

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Hosur	To be submitted later	2.4

11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost	Total Cost (Rs.)
1	Neem cake	550 Kg	Rs. 600/Qtl	3300.00
2	Phermone traps	10 No.	Rs.34/ trap	340.00
3	Lucin lures	30 No.	Rs. 15/lure	450.00
4	Profenophos	2 lit	Rs.475/lit	950.00
Total				5040.00

Problem-Cause tree for Low productivity of Brinjal crop



Socio-economic constraints

Bio-physical constraints

⚙ Intervention points

Assessment No.7

1. Title of the technology to be assessed : To assess the efficacy of hand operated groundnut decorticator
2. Agro-Ecological Zone : --
3. Production System : --
4. Problem definition : Hand shelling of groundnut is the major work done by farm women for seed purpose and for consumption purpose. This causes more drudgery and it is labour intensive. Therefore, hand decorticator will be assessed for shelling of groundnuts
5. Problem Cause Diagram : Enclosed
6. Number of farmers and area affected in the operational villages : No. of farmers – More than 50%
Villages -- Identified villages
7. Rationale for proposing the assessment : In the identified villages, groundnut is the major crop. Majority of farm women deshell the groundnut with hand which is labour intensive and drudgery is involved. To make the process easier and to compare the economics and the output, the decorticator will be assessed compared to hand shelling.

8. Technology options being assessed along with justification

SI.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmer's Practice	Hand shelling	--	--
2.	Technological Option 1	Hand operated groundnut decorticator	UAS Dharwad	<ul style="list-style-type: none"> ▪ Hand operated decorticator ensures timely shelling and is cost effective and reduces the drudgery

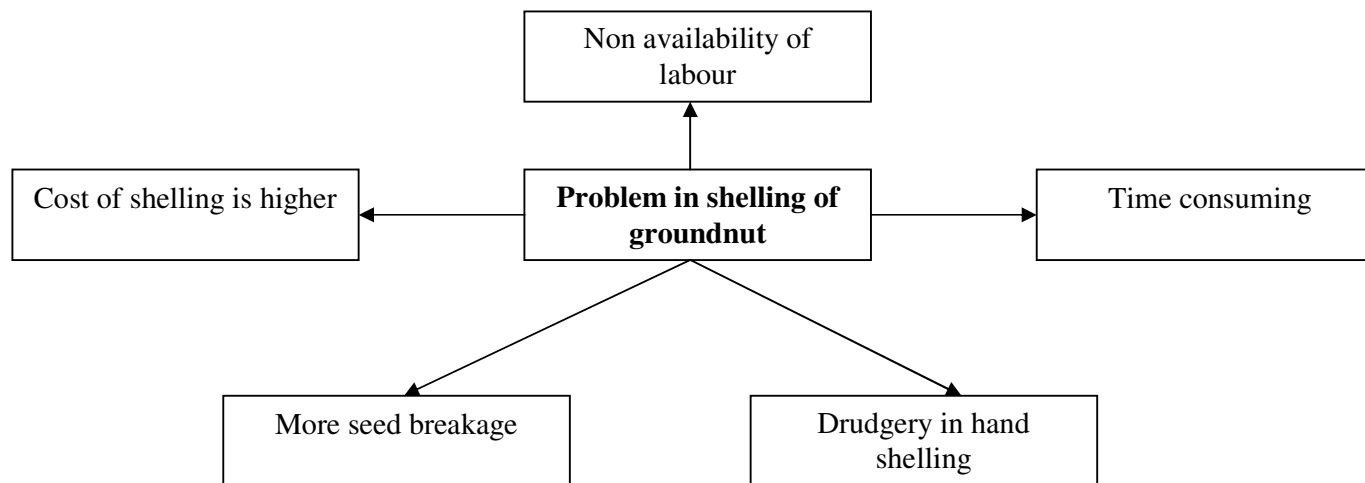
9. Parameters to be measured in relation to the technology
 - a. Output/hour
 - b. Damage percentage
 - c. Economics of shelling
 - d. Seed germination percentage

10. Details of farmers – List will be submitted later

11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost	Total Cost
1	Groundnut decorticator	3	3500	10500.00
Total				10500.00

Problem Cause diagram



Assessment No.8

1. Title of the technology to be assessed : Assessment of Oorja chulha for fuel efficiency and drudgery reduction
2. Agro-Ecological Zone : --
3. Production System : --
4. Problem definition : In the identified villages more than 70% of farmwomen face lot of problems in collecting firewood. In addition the excess inhalation of smoke during cooking causes health problems among farm women, To overcome this problem, an OFT has been proposed for comparative analysis of Oorja chulha and traditional chulha.
5. Problem Cause Diagram : Enclosed
6. Number of farmers and area affected in the operational villages : Majority of the farm families in the district
7. Rationale for proposing the assessment : In the identified villages it is very difficult for the farmwomen to collect and store the fuel especially during rainy season. To make the cooking environment clean, safe and to reduce drudgery in collecting firewood, the British Petroleum Company (tied up with Indian Institute of Sciences, Bangalore) has introduced Oorja chulha in many villages of Gadag district. In this chulha, the cooking is done with pallets which are commercially available at the rate of Rs.6 per Kg. The women can use this chulha during scarcity of fuel and during rainy season. Apart from this, the chulha is smoke free and reduces the health hazards.

8. Technology options being assessed along with justification

SI.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farm Womens' Practice	Cooking in traditional chulha	--	--
2.	Technological Option 1	Oorja chulha is a smokeless, cost effective and fuel efficiency device suitable to rural womenfolk. The chulha is run on pellets which are commercially available	IIS, Bangalore	<ul style="list-style-type: none"> During rainy season and peak period, rural women have problem in collecting and storage of fire wood. So to reduce drudgery in collecting and cutting firewood, an assessment of Oorja chulha has been taken up

9. Parameters to be measured in relation to the technology

- Time saving
- Fuel/pellets required per cooking
- Economics of cooking
- Acceptability by farmwomen
- Drudgery of farmwomen

10. Details of farmers

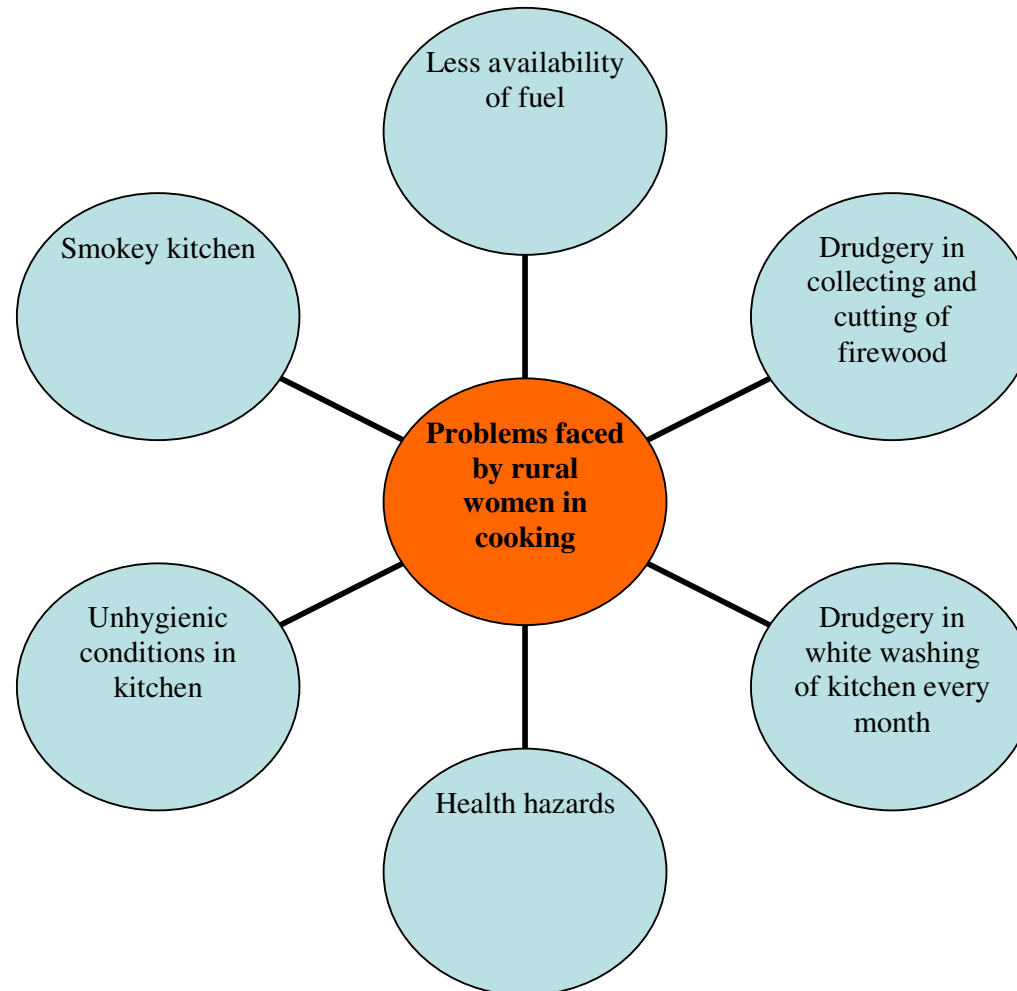
SI.No.	Name of Village	Name of Farmer
1.	Mallapur in Ron Block	Smt. Akkamahadevi Hugar
2.	Mallapur in Ron Block	Smt. Mahadevi Hosur
3.	Mallapur in Ron Block	Smt. Kasturi Mathpathi

11. Budget for Assessment

S. No	Critical inputs for technological options			Total Cost
	Name	Qty.	Unit Cost (Rs.)	
1	Oorja chulhas (Nos.)	3	1000.00	3000.00
2	Pellets (Kg.)	25	6.00	150.00
Total				3150.00

Problem Cause Diagram

Attributing factors for the problems of women folk in cooking



3. Details of technology refinement

SI.No.	Problem identified	Technology for refinement	No. of On Farm Trials
1.	Incidence of wilt disease in Bengal gram crop	Management of wilt in Bengal gram through seed treatment with trichoderma @ 10 gm/kg of seed	03
2.	High input cost on phosphatic fertilizers and low productivity in sunflower.	Refinement of phosphatic dosage in sunflower	03

PLAN OF ON FARM TESTING IN CASE OF REFINEMENT FOR 2008-09

Refinement No.1

1. Title of the technology to be assessed : Refinement of Trichoderma dosage for effective control of wilt disease in Bengal gram
2. Agro-Ecological Zone : Northern dry zone
3. Production System : Big farmers production system under irrigated condition
4. Problem definition : Bengalgram is grown under irrigated situation in the identified village of the Naragund block. Incidence of wilt is major problem affecting the productivity. The incidence starts at 10-15 days after sowing and continues up to harvesting stage. The incidence accounts for yield loss of 20-30%
5. Problem Cause Diagram : Enclosed
6. Number of farmers and area affected : 418 farmers and 250 ha.
in the operational villages
7. Rationale for proposing the assessment : The present recommendation for the management of wilt is seed treatment with Trichoderma @ 4 gm/kg seed. It is observed that this dosage is not adequate to manage the wilt disease, hence dosage of 10 gm of Trichoderma is proposed as a refinement for the management of wilt.

8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmers' Practice	▪ Seed treatment with captan @ 25 gm/kg	UAS Dharwad	▪ Increased dosage of Trichoderma will have prolonged effect because of colonization of Trichoderma spore in the rhizosphere which in turn check the multiplication of spores of wilt causing fungi
2	Technology Option 1	▪ Seed treatment with Trichoderma 4 gm/Kg	UAS Dharwad	
3	Technology Option 2	▪ Seed treatment with Trichoderma @ 10 gm/Kg	PDBC & PCI, Bangalore	

9. Parameters to be measured in relation to the technology

- a. Percentage of infestation of wilt
- b. Yield

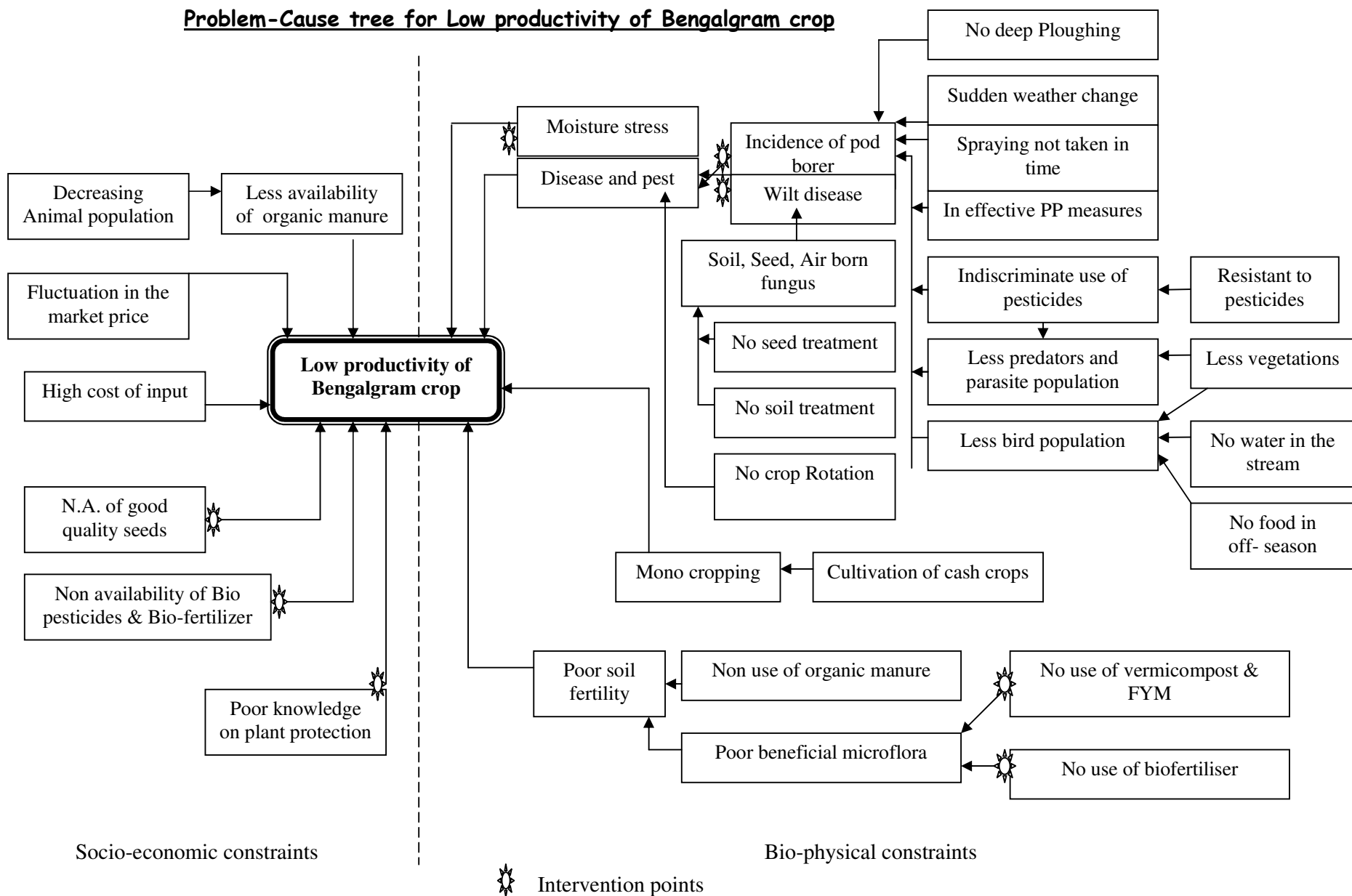
10. Details of farmers

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Gurlagatti cluster	6 farmers	2.4 ha

11. Budget for Refinement

S. No	Critical inputs for technological options			Total Cost (Rs.)
	Name	Qty.	Unit Cost	
1	Trichoderma	1500 gms	Rs. 200/1000 gm	300.00
Total				300.00

Problem-Cause tree for Low productivity of Bengalgram crop



Refinement No.2

1. Title of technology to be assessed : Refinement of phosphorous dosage in Sunflower
2. Agro ecological zone : Northern dry zone
3. Production system : Small production system
4. Problem definition : The present recommendation of NPK is 35 : 50 : 35 NPK and Kg/ha. It is observed that there is imbalance in the ratio of N:P which is affecting productivity of Sunflower. Apart from this, cost incurred on phosphatic fertilizer is high. There is a need to balance the N:P ratio.
5. Problem cause diagram : enclosed
6. No. of farmers & area affected : 250 No. and 1500 ha
7. Rationale for proposing the assessment : Reduction of phosphate dose maintains the required N:P ratio (>1) which enhances the crop yield and reduces the cost in phosphatic fertilizers.

8. Technology options being assessed along with justification

Sl.No.	Technological Options	Details of Technology	Source of Technology	Justification
1.	Farmers' Practice	Application of 22 : 57 : 0 NPK Kg/ha	--	--
2.	Technological Option-1	Application of NPK @ 35:50:35 NPK Kg./ha	UAS Dharwad	
3	Technological option - 2	Application of NPK @ 35:25:35 NPK Kg/ha		Reduction of Phosphatic dose maintain the required N:P ratio (more than one) which enhance the crop yield and reduces the cost on phosphatic fertilizers.

9. Parameters to be measured in relation to the technology

- a) Analysis of soil p^H, EC, OC available N, P & K.
- b) Yield levels.

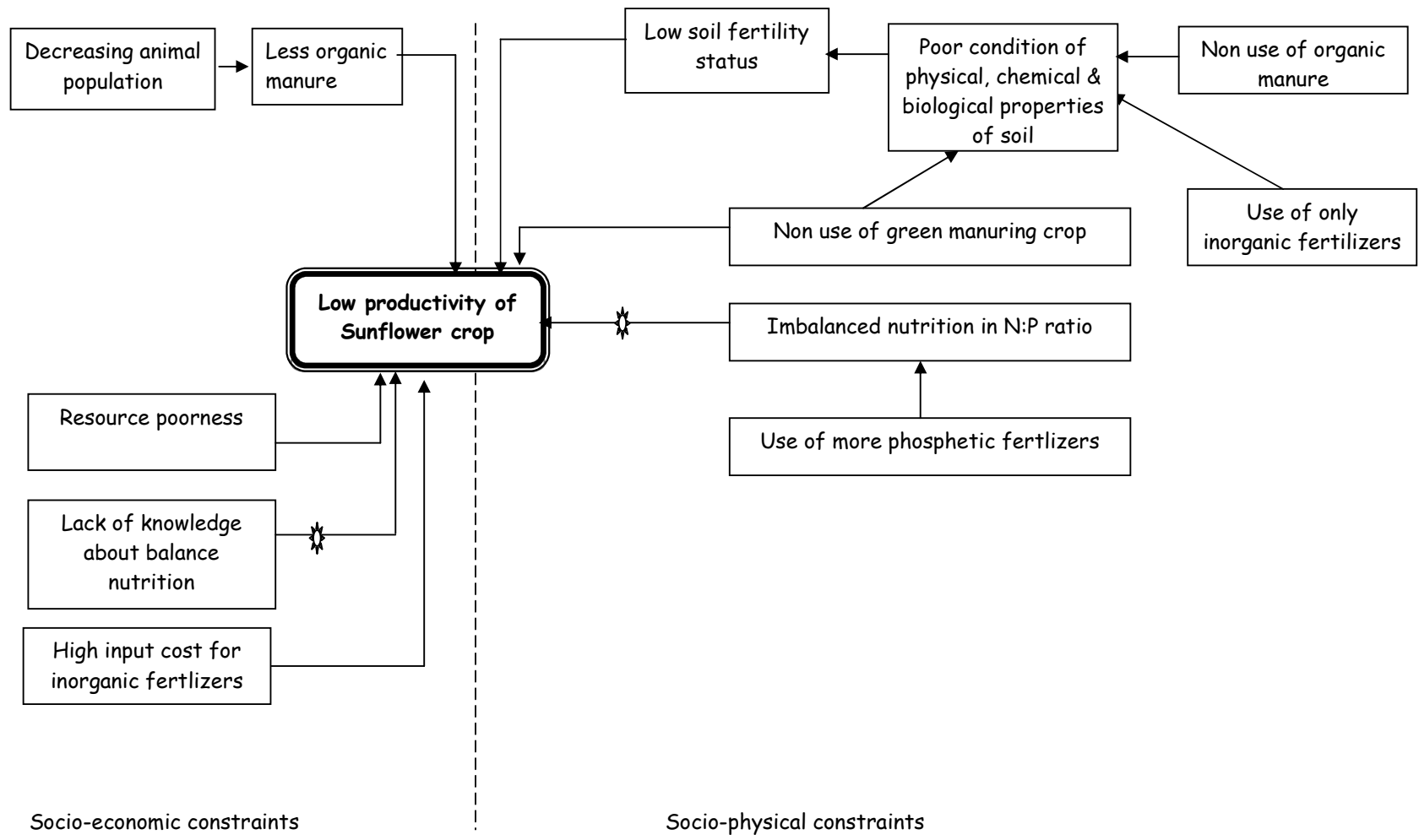
10. Details of farmers

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	3 farmers	1.2

11. Budget for Refinement

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost	Total Cost
1	Urea	100 Kg	520.00	520.00
2	DAP	166 Kg	990.00	1643.00
3	MOP	116 Kg.	525.00	609.00
4	Azosprillium	1 Kg	40.00	40.00
			Total	2812.00

Problem-Cause tree for Low productivity of Sunflower crop



✱ Intervention points

4. Details of Frontline Demonstrations

FLD ON PULSES

Crop : Greengram

1. Technology to be demonstrated : ICM in Greengram
2. Production System : Medium and big farmers under rainfed production system
3. Season of the demonstration : Kharif - 2008
4. Problem definition : Low productivity is due to cultivation of local variety (china moong), moisture stress in critical stages, incidence of sphingid moth, powdery mildew and non-availability of labours during harvesting.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Greengram	1.75	8-10	4-5	a. Cultivation of local variety b. Moisture stress c. Incidence of leaf defoliator sphingid moth d. Incidence of powdery mildew	(i) Cultivation of local variety (ii) Incidence of Leaf defoliator (iii) Incidence of powdery mildew (iv) Moisture stress

5. Objective of the demonstration : To enhance the productivity of Greengram and to increase net income of farmers.
6. Rationale for selection of the technology : Selection-4 is high yielding compared to local variety. Application of vermicompost and biofertilizers improve the soil moisture retention capacity and timely spray of profenophos and profenoconazole effectively control leaf defoliators and powdery mildew disease

7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration of Selection-4 variety	UAS, Dharwad	2001	<ul style="list-style-type: none"> ▪ Tolerant to shattering and lodging ▪ High yielding compared to china moong ▪ Luster and shining green Colour of grains
▪ Usage of Bio-fertilizer and Vermicompost	UAS, Dharwad	--	<ul style="list-style-type: none"> ▪ Increase the soil fertility and retention of soil moisture for longer period with enhanced microflora
▪ Spraying of profenophos @ 2ml/lit.	UAS, Dharwad	--	<ul style="list-style-type: none"> ▪ Effectively controls leaf detoliator
▪ Spraying of profenoconozle @ 1 ml/lit.	UAS, Dharwad	--	<ul style="list-style-type: none"> ▪ Effective control of powdery mildew

8. Parameters to be measured in relation to the technology :
- i) Yield /ha
 - ii) Net returns /ha
 - iii) B.C. Ratio
 - iv) Pest and disease index

9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	125 farmers	50

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Seed (Selecion – 4)	625 Kg	50.00	31250.00
2	Biofertilizers (Seed treatment)	25 Kg	40.00	1000.00
3	Vermicompost	250 Qt.	300.00	75000.00
4	Azospirillum + PSB Soil Application	1000 Kg	40.00	40000.00
5	Profenophos	25 lit	535.00	13375.00
6	Profenoconozole	12.5 lit	1150.00	14375.00
				175000.00

Crop : Bengalgram

1. Technology to be demonstrated : ICM in Bengalgram
2. Production System : Small production system under irrigated condition
3. Season of the demonstration : Rabi 2008-09
4. Problem definition : Low productivity is due to severe infestation of pod borer and wilt

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Bengalgram	10.0	20-22	14-15	<ul style="list-style-type: none"> ▪ Lack of knowledge on improved agronomic practices ▪ Incidence of pod borer & wilt 	<ul style="list-style-type: none"> ▪ Incidence of pod borer ▪ Incidence of wilt

5. Objective of the demonstration : To increase the net income of farmers
6. Rationale for selection of the technology : Adoption of integrated crop management practices will enhance the net income of farmers
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
ICM Package	UAS, Dharwad	--	<ul style="list-style-type: none"> ▪ Enhance the productivity of crop

8. Parameters to be measured in relation to the technology :
 - i) Yield
 - ii) Pest and disease index
 - iii) Net returns
 - iv) B : C Ratio

9. Details of Farmers Proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Guralakoppa	125 farmers	50

10. Budget for Demonstrations

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Trichoderma	12.5 Kg	200.00	2500.00
2	Rhizobium	62.5 Kg	40.00	2500.00
3	PSB	62.5 Kg	40.00	2500.00
4	NAA	12.5 lit	385.00	4812.00
5	Pheromone traps	400 No	20.00	8000.00
6	Lures	1200 No	15.00	18000.00
7	NPU	12.5 lit	1750.00	21875.00
8	Profenophas	37.5 lit	535.00	20062.00
9	Accephate	37.5 Kg	365.00	13687.50
10	Bt. Culture	50 Kg	295.00	14750.00
11	Soil application of Azospirillum & PSB @ 7.5 kg each /ha	750 Kg	40.00	30000.00
12	Vermicompost @ 2.5 Qt./ha	125 Qt	300.00	37500.00
				176187.00

FLD ON OIL SEEDS

Crop : Kharif Groundnut

1. Technology to be demonstrated : ICM in Groundnut (spreading)
2. Production System : Small and marginal farmers under rainfed production system
3. Season of the demonstration : Kharif - 2008
4. Problem definition : Low productivity is due to moisture stress, imbalanced nutrition and incidence of leaf minor disease

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Groundnut	5.70	15-16	12-13	a. Moisture stress b. Imbalance nutrition c. Incidence of leaf minor disease	i. Moisture stress ii. Imbalance nutrition iii. Cultivation of local variety iv. Incidence of leaf minor & tikka

5. Objective of the demonstration : To enhance the productivity and to increase net income of the farmers
6. Rationale for selection of the technology :
 - (i) Seed treatment with biofertiliser enhances the availability of nitrogen and phosphorus
 - (ii) Application of micro nutrients improves shelling percentage and
 - (iii) Timely spray of monocrotophos controls leaf minor

Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Compartment bunding for insitu moisture conservations	UAS, Dharwad	--	▪ Enhances soil moisture availability
▪ Demonstration of JSP-39	UAS, Dharwad	--	▪ High yielding
▪ Seed treatment with trichoderma	UAS, Dharwad	--	▪ Reduce the incidence of collar rot
▪ Seed treatment with rhizobium and PSB @ 2.5 kg /ha	UAS, Dharwad	--	▪ Enhances the availability of nitrogen & phosphorus
▪ Application of ZnSo ₄	UAS, Dharwad	--	▪ Improves shelling
FeSo ₄ @ 25 Kg/ha & Gypsum @ 5 Qt/ha	UAS, Dharwad	--	▪ Percentage & oil content
▪ Pest and disease management	UAS, Dharwad	--	
-- Monocrotophos @ 1.5 ml/lit	UAS, Dharwad	--	▪ Checks the leaf minor incidence
-- Chlorothalonil @ 1 ml/lit	UAS, Dharwad	--	▪ Reduce incidence of tikka & rust disease

7. Parameters to be measured in relation to the technology :
- i) Shelling percentage
 - ii) Oil content
 - iii) Net returns
 - iv) B:C Ratio

8. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Holalapur and Hosur	125 farmers	50

9. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Trichoderma	15 Kg	200.00	3000.00
2	Biofertilizer	250 Kg	40.00	10000.00
3	Micronutrients			
	ZnSo ₄	12.5 Qt	3500.00	43750.00
	FeSo ₄	12.5 Qt	900.00	11250.00
	Gypsum	250 Qt	220.00	55000.00
4	MOP	25 Qt	525.00	13125.00
5	Monocrotophos	35 lts	375.00	13125.00
6	Chlorothalonil	15 lts	925.00	13875.00
7	Pods of JSP-39 variety	3.75	3500.00	13125.00
	Total			176250.00

Crop : Summer Groundnut

1. Technology to be demonstrated : ICM in Summer Groundnut
2. Production System : Medium and big farmers production system under irrigated situation
3. Season of the demonstration : Rabi/Summer – 2008-09
4. Problem definition : Cultivation of variety (TMV-2), imbalanced nutrition, incidence of leaf minor and improper irrigation management are the factors affecting the productivity

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Groundnut	10.00	18-20	15-16	(i) Cultivation of local variety (ii) Poor shelling percentage (iii) Improper irrigation management (iv) Incidence of leaf minor & tikka disease	(i) Cultivation of local variety Poor shelling percentage (ii) Incidence of leaf minor & tikka disease (iii) Improper irrigation management

5. Objective of the demonstration : To enhance the productivity of groundnut and to increase net income of the farmers.
6. Rationale for selection of the technology : TAG-24 is high yielding variety compared to local variety. Seed treatment with the biofertiliser enhances the availability of nitrogen and phosphorous and application of micronutrients ensures availability of minor elements. The timely spray of monocrotophos & chlorothalonil effectively control leaf minor and tikka disease respectively.

7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration of TAG-24 variety	UAS – Dharwad	--	▪ High yielding variety
▪ Seed treatment with trichoderma		--	▪ Reduce the incidence of collar rot
▪ Seed treatment with rhizobium & PSB @ 2.5 kg each/ha		--	▪ Enhance the availability of nitrogen and phosphorus
▪ Application of micronutrients		--	
-- ZnSo ₄ @ 25 Kg/ha		--	▪ Improve shelling percentage & oil content
-- FeSo ₄ @ 25 Kg/ha		--	
-- Gypsum @ 5.0 Qt/ha		--	
▪ Pest & disease management		--	▪
-- Monocrotophos @ 1.5 ml/lit		--	▪ Check the leaf minor incidence
-- Chlorothalonil @ 1 ml/lit		--	▪ Reduce the incidence of tikka disease

8. Parameters to be measured in relation to the technology :
- i) Shelling percentage
 - ii) Oil content
 - iii) Net returns
 - iv) B:C Ratio

9. Details of Farmers Proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Singatarayanakeri, Hosur and Holalapur	60 farmers (To be submitted later)	25

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost
1	Seeds (TAG-24)	12.5 Qt (Pods)	3700.00	46250.00
2	Trichoderma	6 Kg	200.00	1200.00
3	Biofertilisers	62 Kg	40.00	2480.00
4	Micronutrients			
	ZnSo ₄	3.12 Qt	3500.00	10920.00
	FeSo ₄	3.12 Qt	900.00	2808.00
	Gypsum	62 Qt	220.00	13640.00
5	MOP	6.25Qt	525.00	3282.00
6	Chlorothalonil (2 spray)	7.5 lit	925.00	6938.00
	Total			87518.00

Crop : Sunflower

- 1. Technology to be demonstrated : ICM in Sunflower
- 2. Production System : Medium and big farmers production system under rainfed situation
- 3. Season of the demonstration : Kharif – 2008-09
- 4. Problem definition : Low productivity is due to moisture stress, imbalanced nutrition severe infestation of powdery mildew.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Sunflower	2.25	12-14	5-6	(i) Moisture stress (ii) Thick plant population (iii) Imbalanced nutrition (iv) Poor seed setting (v) Incidence of powdery mildew	(i) Moisture stress (ii) Incidence of powdery mildew & SND (iii) Poor seed setting

- 5. Objective of the demonstration : To enhance the productivity and to increase net income of the farmers.
- 6. Rationale for selection of the technology : Wider row method of sowing helps in better seed setting and timely spray of Difenconazole controls the powdery mildew.

7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Wider row method of sowing (120cmX10cm)	UAS, Dharwad	--	▪ Soil moisture retention
▪ Nutrient management	UAS, Dharwad	--	
-- ZnSo ₄ @ 10 Kg/ha		--	▪ Higher seed yield
-- Boron @ 1 Kg/ha		--	▪ Better seed setting
-- Gypsum @ 2 Qt/ha		--	▪ Bold & good quality seeds
▪ Powdery mildew & SND management	UAS, Dharwad	--	
Difenconazole		--	
Imidacloprid – seed treatment		--	▪ Effective control of powdery mildew

8. Parameters to be measured in relation to the technology :
- i) Seed weight
 - ii) Yield
 - iii) Net returns
 - iv) B:C Ratio

9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	60 farmers (list to be submitted later)	25

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Micronutrients			
	ZnSo ₄	2.5 Qt	3500.00	8750.00
	Boron	25 Kg	200.00	5000.00
	Gypsum	50 Qt	220.00	11000.00
	Imidacloprid	625 gm	9.00	5625.00
	Difenconazole (2 sprays)	19 lts	2500.00	47500.00
	Profenophos	19 lts	545.00	10355.00
	Total			88230.00

FLD ON COTTON

Crop : Rabi Cotton

1. Technology to be demonstrated : ICM in Rabi Cotton
2. Production System : Medium and big production system under rainfed situation
3. Season of the demonstration : Rabi – 2008-09
4. Problem definition : Low productivity is due to cultivation of local variety (Jayadhar), moisture stress, square dropping and incidence of grey mildew.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Rabi Cotton	2.25	8-10	5-6	(i) Cultivation of local variety (ii) Moisture stress (iii) Square dropping (iv) Incidence of grey mildew (v) Leaf reddening	(i) Cultivation of local variety (ii) Moisture stress (iii) Square dropping (iv) Incidence of grey mildew

5. Objective of the demonstration : To enhance the productivity and to improve yarn quality parameters.
6. Rationale for selection of the technology : DDHC-11 variety is high yielder and has superior yarn parameters compared to Jayadhar variety. Application of biofertilisers & vermicompost improve the soil moisture retention capacity and usage of growth regulator helps to check square droppings.

7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration of DDHC-11 variety	UAS, Dharwad	2001	▪ Good quality yarn parameters & high yielding
▪ Usage of Biofertilisers	UAS, Dharwad	--	▪ Increases the soil fertility & retention of soil moisture for longer period
▪ NAA spray	UAS, Dharwad	--	▪ Checks the square dropping
▪ Spray of Carbandizim for the control of grey mildew	UAS, Dharwad	--	▪ Effectively controls grey mildew
▪ Foliar spray of MgSO ₄	UAS, Dharwad	--	▪ Leaf reddening management

8. Parameters to be measured in relation to the technology :
- i) Yield
 - ii) Yarn parameters
 - iii) Net profit
 - iv) B:C Ratio

9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Sandigawad	To be submitted later	20

10. Budget for Assessment

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Seeds (DDHC-11)	200 Kg	450.00	9000.00
2	Biofertilisers			
	• Azospirillum	200 Kg	40.00	8000.00
	• PSB	200 Kg	40.00	8000.00
3	Vermicompost	100 Qt	300.00	30,000.00
4	NAA	10 lit	350.00	3500.00
5	Carbandazim	20 Kg	475.00	9500.00
6	Magnesium Sulphate	40 Kg	50.00	2000.00
				70,000.00

Crop : Bt Cotton during Kharif Season

1. Technology to be demonstrated : Introduction of Bt. Cotton along with ICM
2. Production System : Medium and big production system under irrigated condition
3. Season of the demonstration : Kharif – 2008
4. Problem definition : Farmers in Malaprabha Command Areas and other areas are cultivating hybrid Cotton (non-bt.) and the productivity is very less due to high incidence of pod borers and sucking pests.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Hybrid Cotton	12.5	22-25	18-20	(i) Sucking pest & podborer (ii) Imbalanced nutrition (iii) Lack of knowledge regarding irrigation management	(i) Imbalanced nutrition (ii) Sucking parts & pod borer

5. Objective of the demonstration : Introduction of Bt. Cotton to increase the net income of farmers
6. Rationale for selection of the technology : Bt. Cotton is resistant to pod borer and responsive to intime fertilizer application & timely spray to control the sucking pest.
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration of Bt. Cotton (RCH – 2) along with ICM package	UAS, Dharwad		▪ Reduced cost of cultivation and increased net income of farmers
▪ Installation of Heli-traps	--	--	
▪ NSKE spray	--	--	
▪ Nipping	--	--	
▪ Profenophos spray	--	--	

8. Parameters to be measured in relation to the technology :
 i) Yield
 ii) Net profit
 iii) B:C Ratio

9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Gangapur and Mulgund	25 farmers (To be submitted later)	10.0

10. Budget for Assessment

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost
1	Seeds (Bt. Cotton) (RCH-2)	20 Kg	1320.00	26400.00
2	Pheromone Traps	50 No	20.00	1000.00
3	Lures	150 No	15.00	2250.00
4	Endosulfan	15 lit	240.00	3600.00
5	Cypermethrin	2.5 lit	225.00	565.00
6	MgSO ₄	5 Kg	45.00	225.00
7	NAA (Planofix)	2.5 lit	400.00	1000.00
	Total			35000.00

FLD ON CEREALS

Crop : Kharif Jowar

1. Technology to be demonstrated : Demonstration of CSV-15 variety in Kharif Jowar
2. Production System : Small & medium production system under rainfed situation
3. Season of the demonstration : Kharif – 2008
4. Problem definition : Low productivity is due to cultivation of local variety and moisture stress observed during the critical stages of the crop growth.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Kharif Jowar	3.5	15-16	10 -12	(i) Cultivation of local variety (ii) Moisture stress	(i) Moisture stress (ii) Cultivation of local seeds

5. Objective of the demonstration : To improve the grain and fodder quality
6. Rationale for selection of the technology : CSV-15 variety is high yielding and having good performance of grain and fodder quality compared to local variety
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration on CSV-15 variety	UAS, Dharwad	--	▪ Good grain and fodder quality
▪ Compartment bunding	UAS, Dharwad	--	▪ <i>In situ</i> moisture conservation

8. Parameters to be measured in relation to the technology : i) Yield ii) Grain and fodder quality as assessed by farmers

9. Details of Farmers proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Holalapur and Singatarayanakeri	50 farmers	20.0

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Seeds (CSV-15)	160 Kg.	25.00	4000.00

Crop : Rabi Jowar

1. Technology to be demonstrated : Seed priming with CaCl₂ (2%) in Rabi Jowar
2. Production System : Small & medium production system under rainfed condition
3. Season of the demonstration : Rabi season of the year 2008-09
4. Problem definition : Low productivity in rabi jowar is due to moisture stress during critical stages of crop growth

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Rabi Jowar	6.50	12.15	8-10	Moisture stress	Moisture stress

5. Objective of the demonstration : To induce drought tolerance and enhance productivity
6. Rationale for selection of the technology : Seed priming with CaCl₂ (2%) induces the drought tolerance and helps in uniform germination.
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Seed priming with CaCl ₂ (2%)	UAS, Dharwad	--	▪ Good germination ▪ Induces the drought tolerance

8. Parameters to be measured in relation to the technology :
 - i) Yield
 - ii) Seed weight
 - iii) Net profit

9. Details of Farmers Proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur & 2 cluster villages	50 farmers	50 ha

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			Total Cost (Rs.)
	Name	Qty.	Unit Cost (Rs.)	
1	Seeds (M-35-1)	500 Kg.	30.00	15000.00
2	CaCl ₂	15 Kg.	95.00	1425.00
				16425.00

FLD ON HORTICULTURE CROPS

Crop : Onion

1. Technology to be demonstrated : Introduction of high yielding Arka Kalyan in Onion
2. Production System : Big production system under dry land condition
3. Season of the demonstration : Kharif season of the year 2008-09
4. Problem definition : Farmers cultivate local variety (Bellary Red) that is low yielding and is having poor bulb quality and is susceptible to pest and purple blotch disease

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
	100	220	120	(i) Cultivation of local variety (ii) Imbalance use of nutrition (iii) Incidence of purple blotch	(i) Cultivation of local variety (ii) Imbalanced nutrition (iii) Incidence of purple blotch

5. Objective of the demonstration : To increase the productivity of Onion
6. Rationale for selection of the technology : Arka Kalyan is high yielding, tolerant to purple blotch and produce good quality bulbs.
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
<ul style="list-style-type: none"> ▪ Demonstration of high yielding Arka Kalyan variety 	IIHR, Bangalore	1990	<ul style="list-style-type: none"> ▪ High yielding variety ▪ Tolerance to purple blotch ▪ Good quality bulbs ▪ Good Keeping quality

8. Parameters to be measured in relation to the technology :
 - i) Bulb diameter
 - ii) Bulb colour
 - iii) Bulb weight
 - iv) Bulb yield
 - v) Market Rate

9. Details of Farmers proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Hosur	12 farmers (List to be submitted later)	5 ha

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1	Seeds	50 Kg.	400.00	20000.00

Crop : Tomato

1. Technology to be demonstrated : Demonstration of leaf curl tolerant Arka Ananya hybrid in Tomato
2. Production System : Medium production system under irrigated condition
3. Season of the demonstration : Rabi/Summer
4. Problem definition : In identified villages especially during summer season, the farmers cultivate different hybrid Tomatos which are susceptible to leaf curl resulting in 30 – 40 percent yield loss.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Tomato	180	350	190	(i) Incidence of leaf curl (ii) Imbalance nutrient usage (iii) Non availability of pest & disease resistant hybrids	(i) Incidence of leaf curl

5. Objective of the demonstration : To manage the leaf curl incidence and to enhance the yield
6. Rationale for selection of the technology : Arka Ananya released by IIHR, Bangalore is tolerant to leaf curl disease
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
▪ Demonstration of leaf curl tolerant hybrid Arka Ananya	IIHR, Bangalore	2002-03	<ul style="list-style-type: none"> ▪ Hybrid is tolerant to leaf curl disease ▪ High yielding ▪ Demand in fresh market as fruit is more acidic

8. Parameters to be measured in relation to the technology :
 - i) Percentage of leaf curl index
 - ii) Fruit weight
 - iii) Yield

9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Kanavi	12 farmers (list to be submitted later)	2.4

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost (Rs.)
1	Seeds	240 gms	Rs. 25/gm	6000.00

Crop : Chrysanthemum

1. Technology to be demonstrated : Integrated nutrient management in Chrysanthemum
2. Production System : Small production system under irrigated condition
3. Season of the demonstration : Kharif
4. Problem definition : Dropping of buds and uneven opening of buds in chrysanthemum are serve problems faced by farmers in identified villages. This is due to application of imbalanced dose major nutrients and non-application of micronutrients.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Chrysanthemum	35	80	46	(ii) Non use of balanced nutrition (iii) Incidence of leaf spot and Bud necrosis	(iv) Uneven opening and dropping of buds

5. Objective of the demonstration :
 - 1) To produce good quality flower
 - 2) To increase the yield
 - 3) To increase the income of the farmers
6. Rationale for selection of the technology : Balanced nutrition along with application of micronutrients can correct the deficiency disorders of causing improper opening and dropping of buds
7. Details of Technology to be demonstrated :

Name of the technology	Source of Technology	Year of release	Attributes of Technology
<ul style="list-style-type: none"> ▪ Foliar application of NPK (19:19:19) before and after bud initiation followed by foliar spray of micronutrients. 	IIHR, Bangalore	--	<ul style="list-style-type: none"> ▪ Integrated nutrient management in chrysanthemum

8. Parameters to be measured in relation to the technology :
- i) No. flower / plant
 - ii) Flower diameter
 - iii) Stalk length
 - iv) Flower weight
 - v) Flower yield

9. Details of Farmers proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Beladadi	To be submitted later (20 farmers)	8

10. Budget for Demonstration

Sl. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost (Rs.)
1	Water soluble 19:19:19 NPK fertilizer	60 Kg.	Rs.150 / Kg.	9000.00
2	Multiflex	8 lit	Rs. 200 / lit	1600.00
			Total	10600.00

FLD on Livestock Enterprises

Enterprise : Dairy Animals

1. Technology to be demonstrated : Balanced nutrition and hormonal therapy for infertility management
2. Production System : --
3. Season of the demonstration : Kharif
4. Problem definition : Due to nutritional disorders in milch animals, milk productivity is decreasing because of anestrus condition. This calls for organizing front line demonstration on nutritional management along with hormonal therapy to solve the problem of infertility
5. Objective of the demonstration : To convince the farmers about balanced nutrition along with hormonal therapy for higher milk production
6. Rationale for selection of the technology : KVK had conducted On Farm Testing on management of anestrus by testing balanced nutrition along with hormonal therapy during 2006-07 which has given encouraging results. Hence this technology is proposed under frontline demonstration

7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Balanced nutrition 50 Kg per animal for 1.5 months [Crusted grains - 45% Brans - 17% Oil cakes - 35% Mineral mixture – 02% Salt - 01%] Along with Hormonal (Bucerulin) 4 ml/animal (IM)	Balanced nutrition : UAS, Dharwad Balanced nutrition } + hormonal therapy } KVK, Hulkoti	2006-2007	Hormonal treatment along with nutritional management induces oestrus condition

8. Parameters to be measured in relation to the technology

- d. No. of animals in estrus condition
- e. No. of animals conceived

9. Details of Farmers Proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Gurlagatti	20 farmers (to be submitted later)	20 animals

10. Budget for Demonstration

SI. No	Critical inputs for demonstrations			Total Cost (Rs.)
	Name	Qty.	Unit Cost	
1	Harmone – GnRh (Rx Receptal / Bucerlin)	80 ml	Rs. 500/ 10 ml vail	4000.00
2	Concentrate or balanced feed	1000 Kg	Rs. 8/Kg of feed	8000.00
			Total	12000.00

Enterprise : Sheep

- 1. Technology to be demonstrated : Upgradation of local sheep with Ram boulette
- 2. Production System : --
- 3. Season of the demonstration : Kharif
- 4. Problem definition : Sheep rearing is one of the occupation in the identified villages. Shephards are rearing local sheep which produce less meat and wool. There is need to enhance the productivity of meat and wool through upgradation of local sheep

- 5. Objective of the demonstration : To facilitate the farmers for upgradation of local sheep with Ramboulette for higher wool & meat production

- 6. Rationale for selection of the technology : Upgradation of local Sheep with Ramboulette enhances the productivity of wool and meat

7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Upgradation of local sheep with Ramboulette	--	--	Upgradation of local sheep with Ramboulette enhances the productivity of wool and meat production

8. Parameters to be measured in relation to the technology

- f. Body weight at birth
- g. Age at maturity
- h. Growth rate

9. Details of Farmers Proposed

SI.No.	Name of Village	Name of Farmer	Area(ha)
1.	Mallapur	To be submitted later	5 sheeps

10. Budget for FLD

S. No	Critical inputs for demonstrations			Total Cost (in Rs.)
	Name	Qty.	Unit Cost	
1	Ramboullete "Ram"	2 Nos	Rs.3500/Ram	7000.00
			Total	7000.00

Enterprise : Nutrition

1. Technology to be demonstrated : Nutrition garden
2. Production System : --
3. Season of the demonstration : Kharif - 2008
4. Problem definition : In the identified villages of Gadag district, the daily intake of fruits and vegetables for a family is very less which leads to health hazards. To create awareness and easy accessibility of nutritionally rich fruits and vegetables, demonstrations are proposed.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Nutrition garden	--	--	--	--	Health hazards due to nutritional deficiency

5. Objective of the demonstration :
 1. To sensitise farm women on nutrition, balanced diet, deficiency diseases etc.
 2. Promotion of nutrition garden
6. Rationale for selection of the technology : The establishment of nutritional garden helps farm families to get fresh vegetables and fruits and avoid deficiency diseases. The vegetables will be made available throughout the year which improves the nutritional status of the families.

7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Nutrition garden	--	--	Nutrition garden provides fresh fruits and vegetables throughout the year

8. Parameters to be measured in relation to the technology
 - a. Quantum of daily consumption of fruits and vegetables before and after intervention
 - b. Amount spent on purchase of vegetables per week before and after intervention
 - c. General Health status of family members as assessed by themselves

9. Details of Farmers Proposed - 10 farm families and list will be submitted later

10. Budget for FLD

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (in Rs.)
1	a) Leafy vegetables			
	Methi	1.0 Kg	100.0	100.0
	Amaranthus	1.0 Kg	250.0	250.0
	Palak	0.5 Kg	500.0	250.0
	Coriander	0.5 Kg	80.0	40.0
2	b) Other vegetables			
	i) Seedlings			
	Brinjal	250 Nos	5/seedling	1250.0
	Chilli	250 Nos	5/seedling	1250.0
	Tomato	250 Nos.	5/seedling	1250.0
	ii) seeds			
	Ridge gourd	0.5 Kg	250/Kg	125.0
	Bitter gourd	0.5 Kg	500/Kg	250.0
	Cucumber	0.5 Kg	250/Kg	125.0
	Okra	0.5 Kg	100/Kg	50.0
Bottle gourd	0.5 Kg	250/Kg	125.0	
3	c) Fruits			
	Lime	1 No.	20	200.0
	Papaya	1 No.	10	100.0
4	d) Spice			
	Curry leaf	1 No.	10	100.0
Total				5465.00

Note: Cost required for a unit of nutrition garden : Rs.546.50

Enterprise : Farm implements

1. Technology to be demonstrated : Demonstration of improved sickle in wheat
2. Production System : Wheat production system
3. Season of the demonstration : Summer
4. Problem definition : In the identified villages of Gurlagatti cluster, farmwomen belonging to small and marginal farm families use traditional sickle which is heavy for harvesting of wheat. This gives more strain to the palm and shoulders. In order to reduce the drudgery and to increase efficiency of farmwomen in harvesting, demonstration on improved sickle is proposed.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Improved sickle	--	--	--	--	Drudgery in harvesting of wheat due to the use of traditional sickle

5. Objective of the demonstration :
 1. To reduce drudgery in harvesting wheat stalks
 2. To increase efficiency of farmwomen in harvesting
6. Rationale for selection of the technology : Improved sickle is light in weight with serrated blade and cuts the wheat stalks easily causing less drudgery to farmwomen.

7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Improved sickle	CIAE, Bhopal	--	<ul style="list-style-type: none"> ▪ Light in weight ▪ Serrated blade ▪ Work efficiency is more

8. Parameters to be measured in relation to the technology
 - a. Time required for harvesting wheat in an unit area with traditional and improved sickle
 - b. Quantity of wheat harvested per hour in traditional and improved sickle
 - c. Acceptability of farm women
 - d. Percentage of drudgery in both the sickles (as felt by farmwomen)

9. Details of Farmers Proposed - 20 farmwomen (list will be submitted later)

10. Budget for FLD

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (in Rs.)
1	Improved sickle	20	100	2000.00
Total				2000.00

Enterprise : Farm implements

1. Technology to be demonstrated : Demonstration of twin wheel hoe weeder in groundnut
2. Production System : Small production system
3. Season of the demonstration : Kharif - 2008
4. Problem definition : In the identified villages of Mallapur cluster, more than 60% of families belong to small and marginal category. These families hire the bullock pairs on cost basis for weeding and hoeing operation. Many a times, timely weeding and hoeing will not be possible because of non-availability of bullock and labour. So the demonstration on Twin wheel hoe weeder will be conducted to reduce drudgery and timely weeding.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Twin wheel hoe weeder	--	--	--	--	<ul style="list-style-type: none"> ▪ Drudgery of farmwomen in weeding operation ▪ Timely and non availability of bullock pairs for hoeing among small and marginal farmers

5. Objective of the demonstration :
 1. To reduce drudgery of farm women in weeding
 2. To facilitate timely weeding and hoeing operations
 3. To reduce cost of cultivation among small and marginal farm families

6. Rationale for selection of the technology : It is more suitable to small and marginal farmers who do not own pair of bullocks. Hiring of bullock pairs for hoeing and weeding is costlier which in turn increases drudgery and cost of cultivation. The weeder has adjustable blade with twin wheels which facilitates easy operation by women.

7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Twin wheel hoe weeder	CIAE, Bhopal	--	<ul style="list-style-type: none"> ▪ Suitable to small and marginal farm families ▪ Reduces drudgery of farmwomen

8. Parameters to be measured in relation to the technology

- a. Time required for weeding and intercultivation in traditional method and twin wheel hoe weeder
- b. Cost incurred per day in traditional and twin wheel hoe weeder
- c. Mandays required / acre / day

9. Details of Farmers Proposed - 10 farmwomen (list will be submitted later)

10. Budget for FLD

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (in Rs.)
1	Twin wheel hoe weeder	10	1000	10000.00
Total				10000.00

Enterprise : Grain storage

1. Technology to be demonstrated : Management of stored grain pest through usage of neem baits
2. Production System : --
3. Season of the demonstration : Rabi
4. Problem definition : In the identified villages, green gram is the main pulse crop. A farm family usually store 30 to 40 Kgs of greengram per year for consumption purpose and for seed purpose. During storage, the infestation with bruchids in greengram was more leading to loss of grains and adds drudgery in cleaning of grains. So demonstration on grain storage methods specially on preparation of neem baits will be taken up.

5.

Crop/Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Grain storage	--	--	--	--	<ul style="list-style-type: none"> ▪ Loss of grains and drudgery in repeated cleaning of grains due to infestation of bruchids

6. Objective of the demonstration :
 1. Creating awareness on grain storage methods
 2. To reduce loss of stored grains due to infestation of bruchids
 3. To reduce drudgery in repeated cleaning of grains
7. Rationale for selection of the technology : Neem bait is very effective against storage pest as the effect of bait is for longer time and it is cheap as raw material is available locally.

8. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Preparation of neem bait	CIKS, Chennai	--	<ul style="list-style-type: none"> ▪ Preparation of neem bait is easy, raw material is locally available and baits can be stored for 2 to 3 years

9. Parameters to be measured in relation to the technology
 - a. Egg load per 100 gms of seeds
 - b. Broken seeds per 100 gm in farmers practice and neem baits
 - c. Number of bruchids per 100 gm of seeds
10. Details of Farmers Proposed - 5 farmwomen (list will be submitted later)
11. Budget for FLD – Budget not required, as raw material is available locally

5. Details of Training activities

5a. Plan of training programmes for farmers/farm women during 2008-09

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation to the programme
Greengram	Low productivity of local variety	Introduction of high yield variety	ICM in S4 variety	Identification of morphological characters of two varieties	2	3	90	FLD
	Incidence of leaf defoliator	Management of leaf defoliator	Management of leaf defoliator	Identification of pest	1	2	60	FLD
	Non availability of labours for weeding	Introduction of mechanized weeding	Mechanised harvesting in greengram	--	1	2	60	OFT
Bengal gram	Low productivity	Enhancement of productivity	ICM in bengalgram	Identification of pest, IPM package	2	2	60	FLD
	Incidence of wilt	Management of wilt	Management of wilt	Identification of disease, chemicals for control measure, treatment method	1	1	30	OFT
Kharif groundnut (SP)	Poor shelling percentage	To increase shelling percentage	INM in groundnut	Identification and application of nutrients	2	4	120	FLD
	Low yield of local variety	Introduction of new variety	ICM in JSP39 variety	Identification of varietal characters	1	3	90	FLD
	Incidence of leaf minor	To manage leaf minor	Management of leaf minor	Identification of pest and chemicals for management	1	2	60	FLD

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation to the programme
	Incidence of tikka and rust	To manage tikka and rust	Management of tikka and rust	Identification of disease, symptoms for management & preparation of dosage	1	2	60	FLD
	Moisture stress	Moisture conservation	Insitu soil moisture conservation	Preparation of compartment bunds	1	3	90	FLD
	Drudgery in weeding & hoeing	To reduce drudgery	Drudgery reduction equipment	Operation of twin wheel hoe weeder	1	3	90	FLD
	Drudgery in hand shelling	To reduce drudgery	Use of groundnut decorticator	Operation of decorticator	1	2	60	OFT
Summer groundnut	Low yield of local variety	Introduction of new variety for higher yield	ICM in TAG-24 variety	Identification of characters in TAG-24	2	2	60	FLD
	Poor shelling percentage	To improve shelling percentage	INM in groundnut	Identification of symptoms of deficiency and usage of nutrients	1	3	90	FLD
	Improper irrigation method	Water use efficiency	Water management	Irrigation methods	1	2	60	FLD
	Leaf minor	To manage leaf minor	Leaf minor management	Identification of pest, chemicals, dosage & method of spray	1	2	60	FLD

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation to the programme
Sunflower	Imbalanced nutrition	Balanced nutrition	INM in sunflower	Symptoms of nutrition deficiencies and quantity & methods of application of nutrients	1	3	90	FLD
	Powdery mildew	To manage powdery mildew	Management of powdery mildew	Identification of disease and chemical dosage	1	2	60	FLD
	Moisture stress	Spacing management	Dryland technologies for moisture conservation	Spacing method (Wider row spacing)	1	2	60	FLD
Hybrid cotton	Low productivity	Introduction of Bt. Cotton	ICM in Bt cotton variety	Identification of Bt. Cotton characteristics	1	2	60	FLD
Desi cotton	Low productivity	Introduction of DDHC-11 variety	ICM in DDHC-11 variety	Identification of varietal characteristics	1	2	60	FLD
Maize	Imbalanced nutrition	Balanced nutrition	INM in maize	Deficiency symptoms & nutrient for application	1	2	60	FLD
	Downy mildew & stem borer	To manage pest & disease	Management of stem borer & downy mildew	Identification of pest & disease, symptoms & chemicals, dosage	1	2	60	FLD
	Low soil fertility	To improve soil fertility	Soil fertility management in command area	-	1	2	60	OFT
	Non profitable cropping pattern	Assessment of maize-wheat bengalgram cropping pattern	Profitable cropping system in command area	-	1	2	60	OFT

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation the programme
Kharif jowar + Redgram	Poor quality fodder in jowar	Introduce CSV-15 variety	ICM in Kharif jowar	-	1	2	60	FLD
	Moisture stress	Moisture conservation	<i>In-situ</i> soil moisture conservation	Methods of moisture conservation	1	2	60	FLD
	Long duration variety in redgram	To introduce short duration varieties	ICPL-87 variety and ICM in red gram	Characters of ICPL-87 variety	1	2	60	FLD
Rabi jowar	Moisture stress	Moisture conservation & seed priming	Moisture stress management	Methods of moisture conservation & seed treatment with CaCl ₂	1	2	60	FLD
Onion	Poor quality bulb	Introduction of Arka Kalyan variety	ICM in onion	Characters of Arka Kalyan variety	1	3	90	FLD
	Non availability of labours for weeding	To manage weed	Chemical weed management	Identification of weedicides, dosage & method of application	1	2	60	OFT
Chilli	Imbalanced nutrition	Balanced nutrition	INM in chilli	Nutrition deficiency & identification of nutrition, dosage & time of application	1	2	60	--
	Murda complex	Management of murda complex	Management of murda complex	Identification of symptoms	1	2	60	--
	Poor quality dry chilli	Post harvest technology	PHT in chilli	--	1	2	60	--

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation to the programme
Tomato	Leaf curl	To manage leaf curl	Leaf curl management	Identification of disease, symptoms & chemicals, dosage & methods of spray	1	1	30	FLD
	Fruit borer	To manage fruit borer	Fruit borer management	Identification of pest & chemicals for control	1	1	30	--
Brinjal	Fruit & shoot borer	To manage fruit and shoot borer	IPM in brinjal	Identification of pest, symptoms & IPM components	1	1	30	OFT
Chrysanthemum	Improper opening of buds	To manage nutrition	INM in Chrysanthemum	Identification of nutrition deficiency symptoms & proportion of balanced nutrition	1	1	30	FLD
	Leaf curl	To manage leaf curl	Management of leaf curl	Identification of disease, symptoms & chemical dosage & time of application	1	1	30	FLD
Dairy enterprise	Infertility in CB cows	To increase milk production	Nutritional management in CB cows	Preparation of low cost feed & enrichment of dry fodder and cultivation of Azolla	2	4	150	FLD
	Worm infestation	To manage worms	Ecto & endo parasite management	Identification of ecto & endo parasites	1	2	60	FLD
Sheep	Low production of meat & wool	To increase production of meat & wool	Scientific sheep rearing practices	Upgradation methods	1	2	60	FLD

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation the programme
Fuel saving devices	Non availability of fuel & drudgery	Fuel efficiency & reduce drudgery	Drudgery reducing & fuel saving devices	Operation of Oorza chulha	1	2	60	OFT
Grain storage	Household pest in stored grain	To manage household pest	Grain storage methods	Identification of storage grain pest & preparation of neem baits	1	2	60	FLD
Human nutrition	Nutrition deficiency	To establish kitchen garden	Balanced diet, nutrition & deficiency disease	Deficiency symptoms, layout of kitchen garden	1	2	60	FLD
Farm implements	Drudgery in harvesting	To introduce improved sickle	Drudgery reducing equipments	Operation of sickle	1	2	30	FLD
Total						97	2910	

5.b Plan of training programmes for rural youth during 2008-09

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation the programme
Entrepreneurship	Lack of entrepreneurship skills in agriculture	To impart EDP skills	Entrepreneurship development in agriculture	Skills in production, processing & marketing	10	5	150	-
Value addition	Lack of value addition in pulses & vegetables	Value addition	Promotion & value addition in pulses & vegetables	Preparation of value added products	2	5	150	-
Total						10	300	

5c. Plan for Training Programmes for Extension Functionaries during 2008-09

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation the programme
Greengram	Low production in local variety	To increase productivity	ICM in greengram (S4 variety)	-	2	1	30	FLD
	Non availability of labours for harvesting	Mechanized harvesting	Mechanised harvesting in greengram	-	2	1	30	OFT
Bengalgram	Wilt	To manage wilt	Management of wilt through seed treatment with trichoderma @ 10 g/Kg	-	1	1	30	OFT
Groundnut	Poor shelling percentage	To improve shelling percentage	INM in groundnut	-	1	1	30	FLD
Sunflower	Imbalanced nutrition	To improve production	INM in sunflower	-	1	1	30	FLD
	Powdery mildew	To manage powdery mildew	Powdery mildew management through spraying of difenconazole	-	1	1	30	FLD
Hybrid cotton	Incidence of pests	Enhancement of productivity	ICM in BT cotton	-	1	1	30	FLD

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Specify FLD/OFT in relation the programme
Maize	Low soil fertility in command area	To improve soil fertility	Soil fertility management in command area	-	1	1	20	OFT
Onion	Weed menace	To manage the weed	Chemical weed management in irrigated onion	Identification of different weeds, dosage preparation of weedicides	1	1	30	OFT
Total						9	260	

5d. Plan of Vocational training programmes for Young Farmers (Rural Youth) during 2008-09

Crop / Enterprise	Major problem	Objective of training programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants
Dairy enterprise	Lack of veterinary services	Development of Paratechnicians in veterinary service	Integrated training on veterinary services	All the skills necessary for development of Paratechnicians in veterinary service	30	1	30

5e. Plan for sponsored training programme during 2008-09

Crop / Enterprise	Major problem	Objective of programme	Training Title	Skill component involved	Duration	No. of Courses	Number of participants	Sponsoring Agency
Oilseed crops	Low productivity	To enhance productivity	ICM in oilseeds	Relevant skills will be taught based on the requirement of trainees	3	3	90	KSDA
Pulse crops	Low productivity	To enhance productivity	ICM in pulses		3	3	90	KSDA
Soil management	Poor soil fertility	To enhance soil fertility status	Soil fertility management		3	3	90	KSDA
Organic farming	Lack of knowledge	Promotion of organic farming practices	Organic farming practices		3	3	90	KSDA
Fruit crops	Lack of knowledge on diversification	Promotion of fruit crops	Fruit crop cultivation practices		1	5	150	NABARD
Dairy enterprise	Low milk production	To enhance milk production	Management of milch animals		5	8	240	SGSY KSDA
Agro enterprise	Lack of knowledge	Value addition	Value addition and agriculture produce		5	3	150	KSDA
Water management	Improper water management in command area	Water management	Water management in command area		2	5	150	CADA
					Total	33	1050	

6. Details of Extension Programmes planned for 2008-09

Month	Block & village	Extension Programme	Specify FLD/OFT in relation to the programme	Expected number of participants		
				Farmers/Farm women/Rural youth	Extension Personnel	Total
Aug – 08	Ron, Mallapur	Field day / Demon. on mechanized harvesting	FLD/OFT	125	4	129
Sept – 08	Shirahatti, Holalapur	Field day in groundnut	FLD	100	2	102
Sept – 08	Naragund, Gurlagatti	Field day in maize	FLD	150	5	155
Oct – 08	Ron, Mallapur	Field day in onion	FLD	150	4	159
Jan – 09	Naragund, Gurlagatti	Field day in Bengal gram	FLD	100	2	102
Dec – 09	Naragund, Gurlagatti	Infertility camp for dairy cows	FLD	75	2	77
Jan – 09	Naragund, Gurlagatti	Deworming camp to sheep	FLD	75	2	77
Feb – 09	Naragund, Gurlagatti	Demonstration of improved sickle & supply	FLD	60	2	62
March - 09	Gadag, Hosur	Demonstration of polythene sheet for drying chilli	--	100	5	105
Nov - 08	Mundaragi, Shingatarayankeri	Assessment of cooker	OFT	50	2	52
Aug – 08	Mundaragi, Shingatarayankeri Gadag, Kanavi	Demonstration of twin wheel hoe weeder	FLD	100	2	102
Dec – 08	Mundaragi, Shingatarayankeri	Assessment of decorticator	OFT	50	2	52
March – 09	Mundaragi, Shingatarayankeri	Field day in summer groundnut	FLD	100	2	102
Nov – 08	Ron, Sandigawad	Field day in sunflower	FLD	75	2	77
Oct – 08	Naragund, Guralgatti	Field day in Bt. Cotton	FLD	230	2	77

7. Details of Seeds / Planting Material/ Livestock / Bioproducts to be produced during 2008-09

Sl.No.	Category	Crop / Enterprise	Variety / Breed	Quantity (kg / No)
1	Production and supply of seed materials			
	Cereals	Jowar	M-35-1	5000
	Oilseeds	Groundnut	GPBD-4	3300
			D.S.G – 1	500
	Pulses	Greengram	Selection – 4	1000
		Bengalgram	KAK-2	200
			Annigeri-1	1000
	Vegetables	Onion (seeds)	Arka Kalyan	300
Others (Specify)	Chilli	Dyavanur Kaddi	200	
	Cotton	DDHC-11	1900	
2	Production and supply of Planting materials			
	Fruits	Mango	Alphonso	3000 Nos.
		Lime	Khazi	500 Nos.
	Spices	Curry leaf	Local	500 Nos.
	Forest species	Simarouba	Kali	20000 Nos.
	Plantation crops			
3	Production and supply of bio-products			
	Bio agents	Vermicompost	--	40000
		Earthworms	Eudrillus eugenia	200
4	Production and supply of livestock material			
	Sheep	Lambs (Ramboullete X local)		10 Nos.
	Goat	Kids (Jamunapur X local)		20 Nos

8. Activities of soil, water and plant testing laboratory

Year of establishment	Expenditure (Rs. in lakh)	No. of soil samples planned to be analyzed and reported	No. of water samples planned to be analyzed and reported	No. of Plant Samples planned to be analyzed and reported	Remarks if any
2006	11.8	75	50	--	--

9. Details of process documentation planned for 2008-09 in relation to output, outcome and impact

SI. No.	Title of document	Expected date of submission
1	Changing face of Keralli cluster of villages: An impact assessment	October, 2008

10. Details of print media coverage planned for 2008-09

SI. No.	Nature of literature/publications and no. of copies	Proposed title of the publication
1	Leaf let – 500	Production technology of Bt cotton
2	Leaf let – 1000	Quality bulb production in onion
3	Leaf let – 1000	Safe storage of grains

11. Details of electronic media coverage planned for 2008-09

SI. No.	Nature of media coverage	Proposed title of the programme to be telecast/ broadcast
1	Radio talk	▪ Management of fruit and shoot borer in brinjal
2	Radio talk	▪ Management of wilt in Bengal gram
3	Television	▪ Production technology of Bt cotton
4	Television	▪ Quality bulb production in onion
5	Television	▪ Upgradation of local sheep for quality production of meat and wool
6	Radio talk	▪ Fuel saving devices

12. Nature of collaborative activities planned for 2008-09

Thrust area	Collaborative Organizations	Nature of activities*	No. of Activities
INM in oilseeds and pulses	Karnataka State Department of Agriculture	Training	5
Post harvest technology in chilli	Spices Board, Hubli	Training / workshop	1
Self employment	Zilla Panchayat (SGSY programme)	Training	10
Soil fertility management	Department of Watershed Development and CADA	Training	10
Value addition	Deshpande Foundation, USA	Training/ workshop	5

13. Activities proposed under Farmers Field School (FFS) – Detailed proposal is to be provided in the following format

Title of FFS : Integrated Pest Management in Bengalgram

Problem definition : Bengalgram is one of the major crop grown in Gadag district and contributes to the district economy, to considerable extent. The incidence of pod borer is the major problem affecting the net income of farmers. Farmers have been recklessly using pesticide to control the pest menace which results in escalating the cost of production apart from destroying the natural predators. This calls for an approach to involve the farmers in management of pest through eco-friendly means i.e Integrated Pest Management through Farmers Field Concept.

Main Objectives of FFS:

- i) To provide basic agro-ecological knowledge and skills on bengalgram throughout the crop season through participatory means.
- ii) To reduce the cost of cultivation mainly incurred on pesticides
- iii) To enhance Farmers' participatory decisions on the management of pest.
- iv) To increase the net income of farmers
- v) To conserve the natural predators.

Scientific rationale of FFS:

The FFS approach helps to understand the problem and its causes through participatory approach. It helps to study the agro-ecological system of the production and adopt environment friendly measures to tackle the problem.

The learning process involved in FFS :

Integrated Pest Management training through FFS approach is unique in many ways. It hold farmers' interest till end of the programme. The training which stretches through the bengalgram season addresses the pest menace and it's control through eco-friendly methods. Life cycle of each pest is studied by the farmers. They understand the beneficial and non-beneficial insects. Farmers can able to study the agro-ecological analysis of their production system and learn the role of community in addressing the pest menace.

Priorities of FFS:

- Agro-eco -system analysis of Bengal gram production system
- Management of pest through eco-friendly means
- Reduction of cost of production
- Community role in addressing the problem

Budget details:

Sl. No.	Particulars	Amount (Rs.)
1	Critical inputs for conducting IPM in bengalgram (1 ha)	3750.00
2	Snacks during ten training sessions @ Rs. 500/session (10 sessions)	5000.00
3	Honorarium for 2 facilitators for 4 months @ Rs.3000/per month	24000.00
4	Field day expenditure	5000.00
5	Contingency	10000.00
Total Rs.		47750.00

14. Schedule for creation of Database at KVK during 2008-09

S. No	Name of Database	Content of Database	Expected date of Completion
01	Resource inventory of the District	<ol style="list-style-type: none"> 1. Nine fold classification of land 2. Number and size of operational holdings 3. Weather parameters of the district. (for a minimum period of ten years) 4. Details of soil profile 5. Detailed cropping pattern (for a minimum period of ten years) 6. Area, production and productivity of major crops 7. Details of livestock wealth in the district 8. Production and productivity of livestock produces 9. Area under irrigation from different sources 10. Seasonal availability of labour 11. Trend in wholesale price of major crop and livestock products (for a minimum period of ten years) 12. Details on input agencies 13. Details on infrastructural facilities available for production, post harvest and marketing 14. Details of institutional credit facilities 15. Any others relevant to district 	1 st July, 2008
Data required since inception of the KVK			
1.	Farmers Database	Details of farmers	31 st August, 2008
2.	Technology Inventory for the District	Details of suitable technologies for a district with their details	
3.	Database for Technologies assessed and Refined	Technologies taken up for assessment and refinement with their attributes	
4.	Frontline Demonstrations Database	Details of crops and enterprises along with technologies identified for demonstration	
5.	Training Database	Details of training programmes across all categories and types of participants	
6.	Database of Extension Programmes	Details of extension activities conducted with types of participants	
7.	Seeds and Planting Material Database	Details of crops along with varieties produced and sold	
8.	KVK Inventory of Assets	Details of inventories including all assets explaining year of purchase, present condition etc.	
9.	KVK Accounts Database	Various accounts along with their sanction, expenditure etc.	

15. Are there any activities planned for production and supply (Either buy back or directly farmer to farmer) of seeds/ planting material/Bio-agents etc. In villages (other than KVK farm) so that public private partnership is utilized. Please give details in the following format

Sl. No	Seeds/Planting material /Bio-agent	Name of the public-private partnership arranged	Quantity of output expected (Qtl)
1	Onion seeds	KVK-Identified SHG members of Gadag district	15
2	Vermicompost and Earthworm	KVK-Kamadenu Savayava SHG, Kotumachagi-other farmers	Vermicompost - 500 Earthworm - 5
		KVK – Bedara Kannappa SHG, Soratur-other farmers	Vermicompost - 500 Earthworm - 5

16. What is the extent of cultivable wasteland in your district? Are there any specific activities planned to be implemented in these wastelands by the KVK during 2008-09. Please give details.

Area under cultivable waste land is very less. Hence no activities are proposed.

17. National Horticulture Mission (NHM) is being implemented through out the country. You are requested to plan for implementing some of the activities envisaged in NHM in your district in collaboration with district head of department of horticulture. Please give details of any such plans for 2008-09

Gadag district is not covered under National Horticulture Mission so far. Once included, the details will be submitted.

18. Whether ATMA is functioning in your district? YES/NO

Gadag district is to be covered under ATMA during 2008-09. So far only one preliminary meeting has been conducted and role of KVK is yet to be elaborated.

19. What type of Scientist-Farmer linkages are proposed by your KVK for 2008-09?

During 2008-09, livelihood planning is planned to broad base the income of SHGs through need based integrated interventions in agriculture and allied activities. The planning is carried out by KVK Scientists in consultation with the family members of the farm family to assess and monitor the interventions. This linkage will help to develop better insight into the livelihood development process.

20. Please give details of activities planned, other than those listed above.

III. ACTION PLAN FOR FARM ACTIVITIES

1. Financial status of revolving fund and plan for its utilization

Opening balance as on 01.04.2007	Expenditure incurred during 2007-08	Receipts during 2007-08	Closing balance as on 31.03.2008	Proposed expenditure during 2008-09	Proposed receipts during 2008-09
7.05	5.49	8.01	9.57	10.00	20.00

2. Physical status of revolving fund and plan for its utilization

	Opening stock position of materials* As on 1.4.2007		Quantity produced during 2007-08 (Qtls.)	Quantity sold during 2007-08 (Qtls.)	Closing stock position as on 31.03.2008 (Qtls.)	Expected production during 2008-09 (Qtls.)	Expected number of beneficiaries
	Name of materials	Quantity (Qtls.)					
I	Farm unit						
1	Greengram	--	13.0	13.0	--	10.0	120
2	Blackgram	--	27.89	27.89	--	-	
3	Pongemia seeds	--	0.19	0.19	--	0.4	35
4	Jatropha seeds	--	0.7	0.7	--	-	--
5	Jatropha pods	--	0.28	0.28	--	2.0	100
6	Onion bulbs	--	35.0	35.0	--	60.0	10
7	Stylo scabra	--	0.1	0.1	--	0.2	15
8	Stylo seabrana	--	0.2	0.2	--	0.3	20
9	Chilli	--	0.57	0.57	--	2.0	22
10	Wheat	--	12.10	12.1	--	-	--
11	Lentil	--	0.03	0.03	--	-	--
12	Horsegram	--	0.25	0.25	--	6.0	--
13	Tur	--	0.17	0.17	--	-	--
14	Jowar	--	0.2	0.2	--	50.0	150
15	Cotton	--	74.35	74.35	--	19.0	200

16	Amla	--	1.0	1.0	--	1.5	30
17	Groundnut	--	23.89	23.89	--	38.0	80
18	Karounda	--	0.19	0.19	--	0.3	10
II	Dairy Unit						
1	Milk	--	290 litres	290 litres	--	20000 litres	--
III	Earthworm Unit						
1	Earthworms	--	1.31	1.31	--	2.0	120
IV	Vermicompost Unit						
1	Vermicompost	--	240.0	240.0	--	400.0	70
V	Seed and Seedling Unit						
1	Mango	--	2500 Nos.	2500 Nos.	--	3000 Nos.	50
2	Show plants	--	800 Nos.	800 Nos.	--	-	
3	Simarouba	--	1000 Nos.	1000 Nos.	--	20000 Nos.	500
4	Tamarind	--	100 Nos.	100 Nos.	--	--	--
5	Papaya	--	150 Nos.	150 Nos.	--	--	--
VI	Sheep Unit						
1	Sheep	--	3 lambs	3 lambs	--	10 lambs	10

3. Plan for utilization of Revolving Fund (2008-09)

Amount to be invested (Rs.)	Purpose	Expected production	Approximate value of produce (Rs.)
Raising of various seedlings			
200000.00	Simarouba	20000 Nos.	300000.00
60000.00	Mango	3000 Nos.	90000.00
5000.00	Curry leaf	500 Nos.	7500.00
7500.00	Lime	500 Nos.	12500.00
Drudgery reduction equipments			
10000.00	Twin Wheel hoe weeder	20 Nos.	12000.00
1500.00	Improved sickle	25 Nos.	2500.00
284000.00	Total		424500.00

4. Status of KVK farm and Demonstration units

No. of blocks	Area	Source of irrigation	Season	Crop/enterprise/demonstration units	Size (no. of units/area)	Expected output	
						Quantity	Value (Rs.)
14	20 ha	Bore well as protective irrigation	Kharif	Groundnut	3.5 ha.	35 Qtls	70000.00
				Greengram	1.8 ha.	10 Qtls.	20000.00
				Onion+	0.4 ha	15 Qtls.	7500.00
				Chilli+		2 Qtls.	8000.00
				Cotton		3 Qtls.	6000.00
				Onion+	1.6 ha.	50 Qtls.	25000.00
				Cotton		6 Qtls	12000.00
				Cotton+	0.8 ha.	16 Qtls.	30000.00
				Groundnut		3 Qtls.	6000.00
				Cotton	1.6 ha.	10 Qtls.	20000.00
				Horsegram	1.2 ha.	6 Qtls.	6000.00
			Fodder Horsegram	0.8 ha.	--	0.00	
			Rabi	Bengalgram	2.4 ha.	12 Qtls.	24000.00
			Jowar	3.6 ha.	50 Qtls.	50000.00	
	Onion (seeds)	0.8 ha.	3 Qtls.	90000.00			
Perennial	Grassland	0.2 ha.	--	0.00			
	Mango	0.8 ha.	24 Qtls.	12000.00			
	Coconut	0.8 ha.	500 No.	2000.00			
			Vermicompost unit	350 sq. mt.	400 Qt. Vermicompos 2 Qtls. Earthworms	80000.00 50000.00	
			Dairy unit	100 sq. mt.	20000 liters	160000.00	
			Sheep unit	20sq.mt.	10 lambs	18000.00	
			Goat unit	30sq.mt.	20 kids	34000.00	
Total							730500.00

IV. PLAN FOR FINANCIAL MANAGEMENT

Table 26. Details of Budget utilization (2007-08) and Proposed during 2008-09

(Rs. in lakhs)

Sl. No.	Particulars	2007-08			2008-09
		Sanctioned	Released	Expenditure	Budget Proposed
A. Recurring Contingencies					
1	Pay & Allowances	36.00	36.00	35.997	39.38
2	Traveling allowances	1.00	1.00	0.999	1.50
3	Contingencies				
(i)	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2.17	2.17	2.166	2.25
(ii)	POL, repair of vehicles, tractor and equipments	1.12	1.12	1.119	1.15
(iii)	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	0.91	0.91	0.907	1.00
(iv)	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	0.84	0.84	0.839	1.00
(v)	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	0.88	0.88	0.879	0.94
(vi)	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	0.42	0.42	0.419	0.416
(vii)	Training of extension functionaries	0.28	0.28	0.28	0.30
(viii)	Maintenance of buildings	0.28	0.28	0.274	0.30
(ix)	Library	0.10	0.10	0.098	0.10
TOTAL (A)		44.00	44.00	43.977	48.336

Table 26. (Continued)

(Rs. in lakhs)

Sl. No.	Particulars	2007-08			2008-09
		Sanctioned	Released	Expenditure	Budget Proposed
B. Non-Recurring Contingencies					
1	Works				
	i) Staff quarters (escalation)	0.00	0.00	0.00	9.10
	ii) Green house demo unit	0.00	0.00	0.00	3.50
	iii) Establishment of bio-control lab	0.00	0.00	0.00	6.00
	iv) Establishment of storage models	0.00	0.00	0.00	0.50
	v) Road to staff quarters	0.00	0.00	0.00	6.25
	vi) construction of compound wall for staff quarters	0.00	0.00	0.00	4.00
2	Equipments including SWTL & Furniture				
	i) Laptop	0.00	0.00	0.00	0.90
	ii) Spiral binding unit	0.00	0.00	0.00	0.25
3	Vehicle				
	i) Replacement of Tempo traveler vehicle	0.00	0.00	0.00	9.00
	ii) Motor cycles – 6 Nos.	0.00	0.00	0.00	3.30
4	Library	0.00	0.00	0.00	0.25
5	Agriculture equipments				
	i) Processing and grading unit	0.00	0.00	0.00	5.50
6	AV aids				
	i) Video camera	0.00	0.00	0.00	0.65
	ii) Opaque projector	0.00	0.00	0.00	1.00
7	Farm development	0.00	0.00	0.00	10.00
TOTAL (B)		0.00	0.00	0.00	60.20
C. REVOLVING FUND		0.00	0.00	0.00	0.00
D. RAIN WATER HARVESTING UNIT		0.00	0.00	0.00	0.00
GRAND TOTAL (A+B+C+D)		44.00	44.00	43.977	108.58

SUMMARY OF TARGETS SET FOR NUMBER OF INTERVENTIONS TO BE IMPLEMENTED DURING 2008-09

S. No	Particulars of intervention	Target	
		No. of technologies	Number of Trials
01	Technologies to be assessed	8	30
02	Technologies to be refined	2	6
03	Front Line Demonstration	Area(ha)	Number of Demonstrations
	Oilseeds	110	245
	Pulses	100	250
	Cereal Crops	70	100
	Horticultural Crops	15.4	44
	Plantation Crops	--	--
	Commercial Crops (Cotton)	30	75
	Enterprises	70 (No.)	70
04	Training Programmes	Number of Courses	Number of Participants
	Farmers and farm women	97	2910
	Rural Youth	10	300
	Extension personnel	9	260
	Vocational programmes	1	30
	Sponsored programmes	33	1050
05	Extension Programmes	Number of Programmes	Number of Participants
		15	1430

S. No	Particulars of intervention	Target	
		Quantity (kg) / Number	Number of Farmers
06	Production and supply of seed materials		
	Cereals	5000	200
	Oilseeds	3800	100
	Pulses	2200	150
	Vegetables	300	100
	Others (Specify)		
	Chilli (seeds)	120	30
	Cotton (seeds)	1200	200
07	Production and supply of planting materials		
	Fruits	3500 Nos.	300
	Spices	500 Nos.	160
	Forest species	20000 Nos.	500
08	Production and supply of bio-products		
	Bio agents		
	Vermicompost	40000	70
	Earthworms	200	120
09	Production and supply of livestock material		
	Sheep	10	10
	Goat	20	20
		Number	Number of Farmers
07	Number of soil samples to be analyzed	230	230
08	Number of water samples to be analyzed	50	50
09	Number of plant samples to be analyzed	--	--

