GENERAL INFORMATION ABOUT THE KRISHI VIGYAN KENDRA

1.	Name and address of KVK with Phone, Fax and e-mail	:	**KRISHI VIGYAN KENDRA**, HIREHALLI,TUMKUR-572 168 Phone:0816-2243792 Fax:0816-2243214 Email: iihrkvk@gmail.com
2.	Name and address of host organization with Phone, Fax and e-mail	:	**INDIAN INSTITUTE OF HORTICULTURAL RESEARCH** Hessaraghatta Lake Post, Bangalore-560089 Phone:080- 28466420 Fax:080-28466291 Email:director@iihr.ernet.in
3.	Name of the Programme Coordinator I/C Residence Phone Number/ Mobile No.	:	**Dr. L.B. Naik** Res:080-25449212 Mob:9449816584
4.	Year of sanction	:	March, 2009
5.	Year of start of activities	:	2009 -10
6.	Major farming systems/enterprises	:	Dry Land Agriculture, Horticulture & Dairy
7.	Name of agro-climatic zone	:	Central and Eastern - Dry Zone
8.	Soil type	:	Red sandy and black soils
9.	Annual rainfall (mm)	:	540.7 mm

10. Staff Strength as on 01-03-2010:

11.

	Programme Coordinator	Subject Matter Specialists	Programme Assistant	Administrative Staff	Auxiliary Staff	Supporting Staff	Total
Sanctioned	01	06	03	02	02	02	16
Filled	-	06	03	02	02	02	15

11. Details of staff as on 01-03-2010:

Sl. No.	Sanctioned post	Name of the incumbent	Discipline	Pay scale	Date of joining	Permanent/ Temporary
1.	Programme Co-ordinator I/C	Dr.L.B.Naik	Agronomy			
2.	Subject Matter Specialist	Sri. K.N. Jagadish,	Agril.Extension	15600 - 39100+5400	17.11.2009	Permanent
3.	Subject Matter Specialist	Sri P.R.Ramesh,	Soil Science	15600 - 39100+5400	17.11.2009	Permanent
4.	Subject Matter Specialist	Sri Prashanth J.M	Horticulture	15600 - 39100+5400	24.11.2009	Permanent
5.	Subject Matter Specialist	Sri B. Hanumanthe Gowda	Plant Protection	15600 - 39100+5400	02.12.2009	Permanent
6.	Subject Matter Specialist	Ms. Radha R.Banakar	Home Science	15600 - 39100+5400	05.12.2009	Permanent
7.	Subject Matter Specialist	Dr. Somashekhar	Plant Breeding	15600 - 39000+5400	07.12.2009	Permanent
8.	Computer Programmer	Ms. Jyoti Appu Naik	Computer Programmer	5200 - 20200+2800	30.09.2009	Permanent
9.	Farm Manager	Sri K.S.Sanna Manjunath	Farm Manager	5200 - 20200+2800	01.10.2009	Permanent
10.	Programme Assistant	Sri Shiva Shankar Murthy	Programme Assistant	5200 - 20200+2800	08.10.2009	Permanent
11.	Accountant/Superintendent	Sri. D. Krishnappa	Accounts	9300 - 34800+4200	14.10.2009	Permanent
12.	Stenographer	Veda Kurnalli	Stenographer	5200 -	17.02.2010	Permanent

				20200+2400		
Sl. No.	**Sanctioned post**	**Name of the incumbent**	**Discipline**	**Pay scale**	**Date of joining**	**Permanent/ Temporary**
13.	Driver	Sri M.H.Ningappa	Driver	5200 - 20200+2000	30.12.2009	Permanent
14.	Driver	Sri Hemanth Kumar	Driver	5200 - 20200+2000	4.1.2010	Permanent
15.	Supporting staff	Smt. Jaya	Supporting staff	5200 - 20200+1800	23.07.2009	Permanent
16.	Supporting staff	Sri P.Narayanappa	Supporting staff	5200 - 20200+1800	24.07.2009	Permanent

**** Pay Scale based on existing norms***

12. Plan of Human Resource Development of KVK personnel during 2010-11

Sl. No.	Discipline	Area of training required	Institution where training is offered	Approximate duration (days)	Training fee (Rs.)
1.	Soil Science	Soil Test Crop Response Approach INM in Oilseed Crops	DOR, Hyderabad	21 days	-
2.	Home Science	Value Addition to Fruit, vegetables and Minor Millets	CFTRI, Mysore	11 days	-
3.	Plant Pathology	Recent advances in Plant Disease Management	TNAU, Coimbatore	21 days	-
4.	Horticulture	IFS for sustainable production system	UAS Dharwad	21 days	-
5.	Plant Breeding	DNA Finger Printing for Sun Flower Hybrids	DOR, Hyderabad	7 days	-
6.	Agril.Extension	1. Agril.Extension - Approaches and Strategies 2. Multimedia Technology 3. Use of ICT	MANAGE Hyderbad, NAARM, Hyderbad NAARM, Hyderbad	21 days 5 days 5 days	-
7.	Computer	Programming language/s in Computer Science	NAARM, Hyderabad, Andra Pradesh	15 days	-

13. Infrastructure:

i) Land

Total Area (ha)	Area Cultivated (ha)	Area occupied by buildings and roads (ha)	Area with demonstration units (ha)
16	15.20	0.8	-

ii) Buildings

Admn. Building			Trainees Hostel			Staff Quarters			Demonstration Unit		
Plinth area (m^2)	Cost (Rs. in lakhs)	Year	Plinth area (m^2)	Cost (Rs. in lakhs)	Year	Plinth area (m^2)	Cost (Rs. in lakhs)	Year	No.	Plinth area (m^2)	Cost (Rs. in lakhs)
-	-	-	-	-	-	-	-	-	-	-	-

iii) Vehicles

Type of vehicle	Model	Actual cost (Rs.)	Total kms. Run	Present status
Bolero Diesel Jeep	2009	596783.00	20,295	Good
Motor Cycle	2010	52,658.00	-	
Honda – Aviator	2010	46025.00	-	
Power Tiller	2010	1, 42,400.00	17hrs	

iv) Equipments and AV aids

Sl. No.	Name of Equipments	Date of purchase	Cost (Rs.)	Present status
1.	Fax Machine	2010	21,381.00	Good
2.	Xerox Machine	2010	67,262.00	Good
3.	Camera Nikon – Digital	2010	24,950.00	Good
4.	Computer with accessories	2010	49,900.00	Good
5.	White Board with stand	2010	1500.00	Good

14. Details of SAC meeting conducted during 2009-10

Sl. No.	Date	Major recommendations of I st SACs held on 29.03.2010
1.	**29.03.2010**	1. It is suggested to take up the soil and water testing in Tumkur taluk 2. It is advised to lay out the demonstration in farmers fields on intercropping instead of monocropping 3. It is advised to give technical guidance for producing quality seeds in the farmers field 4. Thrust should be given to water harvesting technology and integrated farming system 5. Activities related to floriculture, poly house production can be taken up with the help of Department of Horticulture 6. It is suggested to take up the animal related activities with the help of state veterinary Department and SMS (Animal Science), KVK, Konehalli 7. Emphasis should be given for micro irrigation system for increasing water use efficiency 8. Resources of other KVK can be utilized for better implementation of various programmes 9. Emphasis should be given on aerobic paddy cultivation in area like Pavagada 10. Groundnut diggers can be used efficiently for harvesting groundnut crop 11. Tamarind processing machine should be demonstrated at KVK premises to motivate tamarind processing 12. Establishment of Nutrition kitchen garden in KVK farm 13. It is suggested to demonstrate the success stories of the farmer

15. Plan of Work for 2010-11

TABLE 1: OPERATIONAL AREA DETAILS FOR THE YEAR 2010-11

Sl. No.	Taluk	Blocks/ groups of villages	Major crops & enterprises being practiced	Major problems identified	Identified thrust areas
1.	Tumkur	Haralur, Beemasandra, Bairsandra, Gollahalli, Neralpur	Groundnut, Maize, Paddy, Ragi, Redgram, Tomato, Brinjal, Mango,Sapota, Arecanut, Coconut, Aster,Dairy	1. Use of local varieties and low yield. 2. No seed treatment 3.Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in Groundnut. 5. Zinc (Zn),Iron (Fe)deficiency in Maize and Zn in Paddy 6. Pod borer and sterile mosaic disease in red gram. 7.Shoot and fruit Borer in Brinjal 8. Powdery mildew and hoppers in Mango. 9. Lack of skill in nursery technique & management, 10.Lack of knowledge about importance of soil & water testing, 11. Lack of knowledge in pre and post harvest technology management. 12. Lack of knowledge for income generating activities, malnutrition and unhygienic practices. 13.Dropping and splitting of areca nuts	1.Popularization of HYV / hybrids 2. Seed production techniques in vegetables and field crops 3.Integrated Nutrient Management and Soil test based fertilizer application 4.Integrated Pest & Disease Management 5.Propagation techniques in fruits and vegetables 6.Income generating activities, 7.Value added products 8.Nutrition education and hygiene 9. Post harvest technology in vegetables and fruits
2.	Koratagere	Chikkavalli, Kymanhalli, Bidalot, Kodlahalli	Maize, Paddy, Ragi, Redgram, Tomato, Sunflower, Banana, Groundnut, Mango, Sapota, Arecanut, Coconut, Aster, Dairy, Frenchbean, Brinjal & Marigold.	1. Use of local varieties and low yield. 2. No seed treatment 3. Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in groundnut. 5. Zn, Fe deficiency in Maize and Zinc in Paddy 6. Pod borer, and sterile mosaic disease in red gram. 7. Flower and Fruit dropping, Powdery mildew and hoppers in	1.Popularization of HYV / hybrids 2.Seed Production Techniques in vegetables and field crops 3. Bud necrosis in sun flower 4. Management of saline soil in Paddy. 5.Integrated Nutrient Management and Soil test based fertilizer application 6.Integrated Pest & disease Management 7.Propagation
3.	Madhugiri	Badavanhalli, Siddapur, Siridragallu, Vadderahalli			

				Mango . 8, Low yield in Banana 9. Dropping and splitting of areca nuts. 10. Lack of skill in nursery technique & management 11.lack of knowledge about importance of soil & water testing, 12.Lack of knowledge regarding pre and post harvest technology management. 13. Lack of knowledge in income generating activities, malnutrition and unhygienic practices. 14.Drudgery 15. Shoot and fruit Borer, Bacterial blight in Brinjal.	techniques and post harvest in fruits and vegetables 8.Income generating activities, 9.Value added products 10.Nutrition education and hygiene 11.Drudgery reduction
4.	Pavagada	Kotgudda, Shilapur, Mugadal Betta, Arkyatanhalli	Groundnut, Sunflower, Ragi, Maize, Paddy, Redgram, Tomato, Brinjal & Dairy,	1. Use of local varieties and low yield. 2. Moisture stress 3. No seed treatment 4. Poor soil and nutrient management 5. Tikka disease, collar rot, root grub in Groundnut. 6. Insufficient water for paddy cultivation 7. Pod borer and sterile mosaic disease in red gram. 8. Shoot and fruit Borer Bacterial blight in Brinjal. 9.Lack of knowledge about importance of soil & water testing, 10. Lack of knowledge in pre and post harvest technology management. 11. Lack of knowledge for income generating activities, malnutrition and unhygienic practices. 12.Drudgery	1. Popularization of HYV / hybrids 2. Soil and water conservation 3. Seed Production Techniques in field crops 3. Management of Bud necrosis in sun flower 4.Aerobic paddy cultivation 4.Integrated Nutrient Management and Soil test based fertilizer application 5.Integrated Pest & disease Management 6.Income generating activities, 8.Value added Products 9.Nutrition education and hygiene 10.Drudgery reduction.
5.	Sira	Hendore, Kataveerana-halli, Chikkanahalli, Veerapura and Kamagondana - halli	Groundnut, Maize, Paddy, Ragi, Cotton, Redgram, Vegetables Mango, Sapota, Arecanut, Coconut,	1. Use of local varieties and low yield. 2.No seed treatment 3.Poor soil and nutrient management 4. Tikka disease, root grub, Red and hairy caterpillar in Groundnut. 5. Zn, Fe deficiency in Maize and Zn in Paddy	1. Popularization of HYV / hybrids 2. Seed Production Techniques in vegetables and field crops 3.Integrated Nutrient Management and Soil test based fertilizer application 4.Integrated Pest &

			Aster, Dairy & Brinjal	6. Pod borer, and sterile mosaic disease in red gram. 7. Powdery mildew and hoppers in Mango. 8. Lack of skill in nursery technique & management, 9.Lack of knowledge about importance of soil & water testing, 10. Lack of knowledge regarding pre and post harvest technology management. 11. Lack of knowledge in income generating activities, malnutrition and unhygienic practices. 12.Dropping and splitting of areca nuts 13. Shoot and fruit Borer in Brinjal. 14. Leaf reddening, flower drop, Black arm, Sucking pest and Bollworms problem in cotton	Disease Management 5.Propagation techniques and post harvest in fruits and vegetables 6.Income generating activities, 7.Value added Products 8.Nutrition education and hygiene 9. ICM in Cotton

SUMMARY OF LIST OF THRUST AREAS FOR THE KVK FOR 2010-11

i) High Yielding varieties / Hybrids

ii) Seed treatment with Bio fertilizers and fungicides

iii) Soil test based fertilizer application

iv) Integrated Nutrient Management

v) Intercropping / Mixed / Multistoried cropping system

vi) Seed Production Techniques in Vegetables and field crops

vii) Integrated Pest & Disease Management

viii) Post harvest technology in vegetables and fruits

ix) Soil and water conversation

x) Fodder production and dairy farming

xi) Propagation techniques in fruits and vegetables

xii) Value addition

xiii) Drudgery reduction

xiv) Income generating activities

xv) Child and women care and balanced nutrition

TABLE.2 Abstract of Interventions Proposed Based On the Identified Problems during 2010-11

Sl. No	Crop/ Enterprise	Identified 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.	Paddy	Salinity	-	Management of saline soils in paddy	Management of Salinity Soils in Paddy	Management of Salinity Soils in Paddy	Group discussion, Method Demonstration, Field Visits, Field Day
		Limited water	-	Aerobic paddy cultivation	Aerobic paddy cultivation	-	Group discussion, Method Demonstration, Field Visits, Field Day
2.	Ragi	Low yield	-	ICM in ragi	Improved Production Practices in Ragi	-	Group discussion, Field Visits, Field Day
		Mono cropping	-	Ragi based double cropping system	Importance of Double cropping system in Ragi	-	Group discussion, Field Visits, Field Day
3	Maize	1.Zinc deficiency 2.Downy mildew and TLB disease 3.Low yield	-	Enhancing productivity through ICM	Production Technologies in Maize	-	Group discussion, Field Visits, Field Day
4.	Groundnut	1.Tikka disease 2.Root grub 3.Lower yield	-	ICM in Groundnut	Integrated Crop Management in Ground Nut	-	Group discussion, Field Visits, Field Day
		1. Collar rot	Management of collar rot in groundnut	-	IDM in Ground Nut	IDM in Ground Nut	Group discussion, Field Visits
		1. Smaller seed size	Assessment of GPBD-5 a bold seeded variety	-	Seed Production Techniques in Ground Nut	Quality Seed Production in Oil Seeds	Group discussion, Field Visits
5.	Sunflower	Powdery mildew	Powdery mildew management in sunflower	-	IDM in Sun flower	-	Group discussion, Field Visits, Field Day
		1.Low nutrient use efficiency Low yield	-	Soil test based fertilizer application	Soil test based fertilizer recommendation		
6.	Redgram	1.Sterility mosaic		ICM in Redgram	IPM in Redgram	-	Group discussion,

		2.Pod borer 3.Low yield					Field Visits, Field Day
		1. Low yield due to seed drill sowing	Enhancing the productivity in Red gram production system (Transplanting)	-	-	-	-
7.	Cotton	1. Flower dropping 2.Leaf reddening 3. Sucking pest, bollworms		ICM in Cotton	IPM in Cotton	ICM in Cotton	Group discussion, Field Visits, Field Day
8.	Mango	1.Flower & fruit dropping 2.Fruit fly 3.Powdery mildew		ICM in Mango	Production Technologies in Mango	IDM in Mango	Group discussion, Field Visits, Field Day
		Mono - cropping in Mango	Assessment of Mucuna as a intercrop in Mango	-	-	-	Group discussion, Field Visits
9.	Banana	1.Low plant population 2.Low yield & income	Paired row planting system in banana	-	-	-	-
		1.Lower bunch size and yield	-	Micronutrient management in Banana	INM in Banana		Group discussion, Field Visits, Field Day
10.	Arecanut	1.Splitting of nuts and low yield	Management of nut splitting in Arecanut	-	-		Group discussion, Field Visits,
		Anaberoga	-	Integrated Management of Anaberoga	IDM in Areca Nut	IDM in Areca Nut	Group discussion, Field Visits, Field Day
11	Coconut	Mite problem	Management of mites	-	IPDM in coconut	-	-
12.	Pomegranate	Bacterial blight	-	Integrated Management of Bacterial blight	IDM in Pomegranate	-	Group discussion, Field Visits, Field Day
13.	Tomato	1. Local varieties 2.Low acidity and TSS	Performance and assessment of tomato varieties	-	-	-	-
		1.Low nutrient use efficiency	Assessment of microbial consortium for tomato production	-	INM in Tomato	-	Group discussion, Field Visits
		1.Local varieties 2. Bacterial blight and leaf curl	-	ICM in tomato	Importance of Seed Production in Tomato	-	Group discussion, Field Visits, Field Day

14.	Brinjal	1. Bacterial wilt 2. Low yield	-	ICM in brinjal	Seed Production Techniques in Brinjal	-	Group discussion, Field Visits, Field Day
15.	Dolichos	1. Low yield	-	Popularization of Arka Vijay high yielding variety.	Seed Production Techniques in Vegetables	-	Group discussion, Field Visits, Field Day
16.	French Bean	1. Rust Disease 2. Low Yield	-	ICM in French bean	Improved Cultivation Practices	-	Group discussion, Field Visits, Field Day
17.	Cabbage	1. Diamond Black Moth (DBM)	-	Integrated Pest Management in Cabbage	IPM in Cabbage	-	Group discussion, Field Visits, Field Day
18.	Aster	1. Smaller Flower Size and diameter 2. Dull colour and low yield	Assessment of HYV Phule Ganesh	-	-	-	Group discussion, Field Visits
		1. Low Yield.	-	Maintaining productivity in Aster	Quality Seed Production in Flower crops	-	Group discussion, Field Visits, Field Day
19.	Mari Gold	1. Smaller Flower Size and diameter 2. Dull colour and low yield	-	Popularization of Orange Double variety	Production Practices in Mari Gold	-	Group discussion, Field Visits, Field Day
20	Horticultural crops	Snail menace in horticultural crops Lack of knowledge on snail control	1.Management of snails in horticultural crops		1.Snail management in horticultural crops 2. Bait preparation for snail control		Method demonstration
21.	Ground Nut Decorticator	1.Drudgery	Assessment of Ground Nut Decorticator	-	Drudgery reducing equipments	-	Group discussion
22.	Post harvest technology	1.Improper drying of seeds 2.Improper use of storage methods 3.Unaware about safe storage technology	--	Safe storage method for pulses	Importance of safe storage to avoid post harvest losses		Method demonstration
23.	Azolla	1. Low Milk yield	-	Azolla alternate feed for Milching animals & Partial replacement of concentrates with Azolla	Azolla Cultivation	Azolla Cultivation	Group discussion

24.	Fodder	1. Low Yield 2. Non Availability of Green Fodder	-	Introduction of CO - 4 variety.	Production Technologies in Fodder Crops	-	Group discussion, Field Visits, Field Day
25.	Fodder	1. Non Availability of Green Fodder	-	Enrichment of dry fodder	Enrichment of Dry fodder and use of concentrate in Feed.	-	Group discussion, Field Visits, Field Day

TABLE 2A. Target set for number of interventions to be implemented during 2010-11

Sl. No.	Particulars of intervention	Target number / Quantity
1.	**On Farm Trial**	13
2.	**Front Line Demonstration (other than oil seeds, pulses and cotton)**	20
	Front Line Demonstration (Oilseeds)	02
	Front Line Demonstration (Pulses)	01
	Front Line Demonstration (Cotton)	01
3	**Training Programmes**	
	Farmers and farm women	65
	Rural Youth	04
	Extension personnel	08
	Sponsored programmes	07
	Vocational Programmes	05
4.	**Extension Programmes**	
	Field Day	15
	Kisan Mela	01
	Kisan Ghosthi	02
	Exhibition	02
	Film Show	01
	Method Demonstrations	10
	Farmers Seminar on Azolla cultivation	01
	Workshop	01
	Group meetings	04
	Lectures delivered	20
	Newspaper coverage	20
	Radio coverage	04
	TV coverage	02
	Radio Programmes	02
	TV Programmes	02
	Publications	15
	Popular articles	20
	Extension Literature	20
	Advisory Services	115
	Scientific visit to farmers field	98
	Farmers visit to KVK	255
	Diagnostic visits	40
	Field visits	85
	Exposure visits	04
	Ex-trainees Sammelan	-
	Agriculture Camps	-
	Clinic day	-
	Soil health Camp	-
	Animal Health Camp	02
	Agri mobile clinic	-

	Soil test campaigns	01
	Farm Science Club Conveners meet	-
	Self Help Group Conveners meetings	-
	Mahila Mandals Conveners meetings	-
	Celebration of Nutrition week	01
	PRA exercise conducted	05
	Survey on socio economic improvement through Animal Science to SHG women	-
	Awareness on Cotton contract farming	-
	Distribution of BT cotton seeds under contract farming in collaboration with Cotton Corporation of India	-
	Insect trap awareness campaign	-
	AIDS awareness campaign	-
	Awareness on KVK activities to Tribes	05
	Formation of Joint Liability Groups	-
05	**Production and supply of seed materials**	
	1) Cereals	
	ii) Oilseeds	
	iii) Pulses	
	iv) Vegetables	3000 kg
	v) Flower crops	10 kg
	vi) Others (Specify)	-
	Production and supply of Planting materials	
	Fruits	500 Nos
	Spices	500
	Vegetables	10,000
	Forest species	-
	Ornamental crops	-
	Plantation crops	50,000 Nos
	Others	-
	Production and supply of bio-products	
	Bio agents	
	Bio fertilizers	100 kg
	Bio pesticides	100 kg
	Production and supply of livestock material	
	Sheep	-
	Goat	-
	Fisheries	-
	Others (Specify)	-
06	**Number of soil samples to be analyzed**	100
07	**Number of water samples to be analyzed**	100

PLAN OF ON FARM TESTING FOR 2010-11

1. Crop: Ground nut

1. **Title of the On Farm Trial** : Evaluation of groundnut varieties
2. **State whether it is Assessment / Refinement** : Assessment
3. **Agro-Ecological Zone** : Eastern and central dry zone
4. **Production System** : Monocropping (Rainfed)
5. **Problem identified** : lower yield, smaller pod size
6. **Number of farmers and area affected in the operational villages** : 150 & 165 ha
7. **Thrust areas** : Integrated crop management
8. **Rationale for proposing the OFT**: GPBD -4 is not preferred by the traders and farmers due to its smaller seed size. GPBD – 5 is having bigger pod size, high oil content farmers & traders are preferred and gives good yield.

9. Technology options for Assessment along with justification

Technology Option 1: Farmer's practice : Use of TMV -2

Technology Option 2

i. Recommended practice : GPBD -4
ii. Extent of adoption : 25 %
iii. Source : UAS, Dharwad.
iv. Reason of no/ low adoption : GPBD -4 is not preferred by the traders and farmers because its smaller seed size.

1. Technology Option 3

i. Assessment : GPBD - 5
ii. Justification : GPBD – 5 is of bigger pod size, traders and farmers are preferred much and gives good yield.

iii Source: UAS, Dharwad

10. Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options III**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Seeds	20 kg	45	900	Seeds	25 kg	45	1125
				900				1125

11. Area (ha.) for implementing 1 ha

i) Technology Option 1 : 0.2 ha
ii) Technology Option 2 : 0.2 ha
iii) Technology option 3 : 0.2 ha

12. Grand Total Cost proposed per OFT : Rs. 2025
13. Total Number of OFTs proposed : 05
14. Total budget required : Rs. 10,125

2. **OFT: Groundnut**

1. **Title of the On Farm Trial** : Management of collar rot disease in groundnut
2. **State whether it is Assessment / Refinement :** Assessment
3. **Agro-Ecological Zone** : Zone 4 &5
4. **Production System** : Rainfed
5. **Problem identified** : colonization of fungus in the rhizosphere at root zone causes incidence of collar rot in groundnut
6. **Number of farmers and area affected in the operational villages** : 1,200 & 1,500 ha
7. **Thrust areas** : Management of collar rot
8. **Rationale for proposing the OFT** :Non application of FYM, Neem cake, Gypsum & other soil amendments and seed treatment with Bioagents were not followed leads to incidence of collar rot, resulting in low yield. Hence, the proposal is made.
9. **Technology options for Assessment along with justification**

Technology Option 1 : Farmer's practice: Seed treatment with Captan @ 2.5g/kg.

Technology Option 2 :

i. Recommended practice: ST with *Trichoderma* @ 4g/kg.
ii. Extent of adoption : 40-50%
iii. Source : UAS, Bangalore
iv. Reason of no/ low adoption : In efficiency of present bio agent alone

Technology Option 3:

v. Assessment: ST with *Pseudomonas flouroscense* @4g/kg seeds & soil treatment with *Pseudomonas* @ 2.5kg & neemcake @ 2.5q with FYM 5 tons/ha.
vi. Justification : In addition to the disease management it protects the crop throughout the cropping period
vii. Source : PDBC, Bangalore

10. Budget proposed for OFT for 1 ha

S. No	Critical Inputs for Technology Option 2 (Recommended Practice)				Critical inputs for other technology Options			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	*Trichoderma*	500 gm	60/kg	30.00	*Pseudomonas flouroscense*	3 kg	250/kg	750/-
2	-	-	-	-	NSK	2.5 q	10/kg	2,500/-
	Total			30/-				**3,250/-**

Trichoderma @ Rs. 60/- *Pseudomonas flouroscense @ Rs*.250/-, NSK @ Rs. 1000/-

11. **Area (ha.) for implementing**

a. Technology Option 1 : 0.40
b. Technology Option 2 : 0.40
c. Technology option 3 : 0.40

12. Grand Total Cost proposed per OFT: Rs. 3280/-

13. **Total Number of OFTs proposed** : 03

14. **Total budget required** : **Rs. 9840**/-

3. Crop: Sunflower

1. Title of the On Farm Trial : Powdery mildew management in sunflower
2. State whether it is Assessment / Refinement : Assessment
3. Agro-Ecological Zone : Central dry zone
3. Production System : Rainfed
5. Problem identified : Sunflower is the major oilseed crop grown in Tumkur district during kharif season under rainfed condition as well as irrigated condition. Yield level was decreased due to powdery mildew incidence in sunflower growing areas. Nearly 30-40% yield loss was noticed in Sunflower crop due to powdery mildew incidence.
6. Number of farmers and area affected in the operational villages: 60% farmers & 45%of the area
7. Thrust areas: Disease management for yield maximization in Sunflower area .
8. Rationale for proposing the OFT : Identifying the most suitable cost effective technology for higher income.

9. Technology options for Assessment along with justification

Technology Option I : Not spraying of any chemical**.**

Technology Option II: Difenconazole (1ml/lt) Spraying at 3 weeks after sowing and at head formation(AICRP, Sunflower)
Technology Option III : Hexaconazole(1ml/lt) Spraying at 3 weeks after sowing At the head formation stage (AICRP, Sunflower)

Technology Option IV: Calixin(1 ml/ltr.) Spraying at 3 weeks at sowing At the head formation stage(AICRP, Sunflower)

Technology Option V: Introduction of powdery mildew resistance hybrid KBSH-53

13. Budget proposed for OFT

Critical inputs for other technology Option II				**Critical inputs for other technology Options III**			
Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
Seeds	5kg	180	900	Seeds	5kg	180	900
Difenoconozole	1lit	3000 /lt	3000	Hexaconazole	1lt	1,000	1,000
Total			**3900**				**1,900**

Critical Inputs for Technology Option IV				**Critical inputs for other technology Options V**			
Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
Seeds	5kg	180	900	Seeds	5kg		900
Calixin	1lt	1,760	1,760	(KBSH53)			900
Total			**2,660**				**900**

14. Area (ha.) for implementing :
i) Technology Option 1 (Farmer's Practice) **:** 0.2 ha
ii) Technology Option 2 (Recommended Practice) **:** 0.2 ha
iii)Technology option 3 **:** 0.2 ha
iv)Technology Option 4 **:** 0.2 ha
v) Technology Option 5 **:** 0.2 ha
15. Total Cost proposed per OFT **:** Rs. 1872.00
15. Grand Total Cost proposed per OFT **:** Rs. 9,360.00

4. Crop : Redgram

1. Title of the On Farm Trial : Enhancing the productivity in Red gram production system
2. State whether it is Assessment / Refinement : Assessment
3. Agro-Ecological Zone : Central dry zone
4. Production System: Rainfed
5. Problem identified: Lesser germination percentage, uneven crop stand,
6. Number of farmers and area affected in the operational villages: 80% of farmers & 50% of the area affected due to uneven rainfall
7. Thrust areas: Enhancing productivity
8. Rationale for proposing the OFT: Transplanting the seedlings raised in polythene bags results in uniform crop stand and plant population.

9. Technology options for Assessment along with justification

Technology Option 1 :
***** Direct sowing of Redgram (60x15 cm)
Technology Option 2:
*****Direct sowing of Redgram (90x 15cm spacing)

Technology option 3 :
* Transplanting of 30-40 days old seedlings which are raised in polythene bags as to achieve uniform stand and higher yield (UAS Dharwad))
* Spacing (120x30cm spacing)
11 Technology Option 4 being assessed along with justification with Source
*Transplanting of 30-40 days old seedlings which are raised in polythene bags as to achieve uniform stand and higher yield (UAS Dharwad))
* Spacing (120x45cm spacing)

12. Budget proposed for OFT

Sl NO	**Critical inputs for recommended technology Option II**				**Critical inputs for other technology Option III**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Redgram (BRG-1)	15kg/ha	75/kg	1125	Redgram (BRG-1)	15kg/ha	75/kg	1125
2					Polythene cover	5kg/ha	100/kg	500
3	**Total**			**1125**	**Total**			**1625**

S. No	**Critical inputs for recommended technology Option IV**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Redgram(BRG-1)	15kg/ha	75/kg	1125
2	Polythene cover	5kg/ha	100/kg	500
3	**Total**		**1625**	

13. Area (ha.) for implementing
1. Technology Option 2 (Recommended Practice) : 0.2 ha
2. Technology option 3 **:** 0.2ha
3. Technology option 4 **:** 0.2ha
13. Grand Total Cost proposed per OFT **:** Rs .975
14. Total Number of OFTs proposed **:** 5
15. Total budget required **:** Rs.4875

5. OFT: Mango

1. Title of the On Farm Trial : Assessment of Mucuna (Medicinal plant) as intercrop in Mango

2. State whether it is Assessment / Refinement: Assessment

3. Agro-Ecological Zone : Zone 4 &5

4. Production System : Rainfed

5. Problem identified: Low soil fertility, Lower income and more weeds infestation

6. Number of farmers and area affected in the operational villages: 25 & 40 ha

7. Thrust areas : Intercropping system

8. Rationale for proposing the OFT : Mucuna is a medicinal crop .It can be used as cover crop, which adds nitrogen to soil and suppress the growth of weeds & more remunerative with less cost of cultivation . Hence, the proposal is made.

9. Technology options for Assessment along with justification

Technology Option 1 : Farmer's practice : Mango + Ragi

Technology Option 2 :

i. Recommended practice : Mango + Cowpea (pulses)
ii. Extent of adoption : 30 %
iii. Source : UAS, Banagore
iv. Reason of no/ low adoption : Growing cowpea as inter crop in mango will not give more income and weeds will not be controlled effectively

Technology Option 3 :

i. Assessment : Mango + Mucuna
ii. Justification : Mucuna as inter crop gives more remunerative and controls the weeds effectively.
iii. Source : IIHR, Bangalore (CHES, Hirehalli)

Budget proposed for OFT for 1 ha

	Critical Inputs for Technology Option 2 (Recommended Practice)				**Critical inputs for other technology Options 3**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
	Cowpea Seeds	4.0 kg	80	320	Mucuna seeds	12.0 kg	80	960
	Total		80	320			**80**	**960**

Area (ha.) for implementing

Technology Option 1 : 0.20
Technology Option 2 : 0.20
Technology option 3 : 0.20

Grand Total Cost proposed per OFT: Rs. 1,280/-

13. **Total Number of OFTs proposed** : 05

14. **Total budget required** : **Rs. 6,400**/-

6. OFT : Crop : Banana

1. **Title of the On Farm Trial** : Paired row with zigzag method of planting in banana
2. **State whether it is Assessment / Refinement**
3. **Agro-Ecological Zone** : Central dry zone
4. **Production System** : Irrigated system

5. **Problem identified** : Low density and low yield

6. **Number of farmers and area affected in the operational villages** : 100& 60 ha

7. **Thrust areas** : Integrated crop Management

8. **Rationale for proposing the OFT** : The No. of plants in normal planting is 2260/ha & the No. of plants in paired row planting zig zag method is 3800/ha.High density planting will reduce the no. of laterals which would be encouraging the higher yield with reduced cost of cultivation and also helps in easy cultural operations. In view of above, the present assessment has been proposed.
9. **Technology options for Assessment along with justification**

Technology Option 1 : Farmer's practice : Square method 1.8m x 1.8m spacing

Technology Option 2 :

i. Recommended practice : Square method (2.1mx2.1m spacing)
ii. Extent of adoption : 25 %
iii. Source : UAS, Bangalore
iv. Reason of no/ low adoption : Lower yield per hectare, high cost involved for staking

Technology Option 3 :

v. Assessment : Paired row with zigzag method (2x1.2x1.5m)
vi. Justification : More number of plants with zig zag method compare to RPP method
vii. Source : NRC on banana (Thirchi)

10. Budget proposed for OFT for 1 ha

S. No	Critical Inputs for Technology Option 2 (Recommended Practice)				Critical inputs for other technology Options			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	suckers	suckers 452	12/-	5,424	suckers	suckers 832	12/-	9,984
			12-	**5,424/-**			**12/-**	**9,984/-**

11. **Area (ha.) for implementing**

a. Technology Option 1 : 0.20
b. Technology Option 2 : 0.20
c. Technology option 3 : 0.20

13. Grand Total Cost proposed per OFT: Rs. 15,408
14. Total Number of OFTs proposed : 03
15. Total budget required : Rs. 46,224/-

7. Crop: Arecanut

1. **Title of the On Farm Trial** : Management of Nut splitting in Arecanut
2. **State whether it is Assessment / Refinement**: Assessment
3. **Agro-Ecological Zone** : central dry zone
4. **Production System**: Irrigated
5. **Problem identified**: Severe nut splitting and yield loss
6. **Number of farmers and area affected in the operational villages**: 200 and 320 ha
7. **Thrust areas** : Integrated Nutrient management
8. **Rationale for proposing the OFT**: Sudden flush of water after a period of water stress and boron deficiency leads to the nuts splitting which leads to poor growth and cracking of the nuts. Deterioration of nuts cause to low and poor yield and low income to the farmers. To over come this problem assessment of micronutrient application to the soil has been proposed

9. Technology options for Assessment along with justification

Technology Option 1: Farmer's practice: Application of complex fertilizers (17All) 2 bags and less FYM application

Technology Option 2
Recommended practice: FYM 12 kg/tree +RDF 100: 40: 140 NPK g /tree
Extent of adoption: 15 %
Source: UAS, Bangalore
Reason of no/ low adoption: There is no recommendation specific dosage of micronutrient and lack of knowledge

Technology Option 3
i. Assessment : FYM 12 kg/tree + RDF 100: 40: 140 NPK g /tree + Borax 30g

ii. Justification: Proper Drainage facility & application of boron reduces the nut splitting
iii Source: CPCRI, Kasaragod

10.Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options III**			
	Name	**Qty. (kg)**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.(kg)**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Urea	24.2	5.0	121	Urea	24.2	5.0	121
2	SSP	22.0	4.0	88	SSP	22.0	4.0	88
3	Mop	25.4	4.6	117	Mop	25.4	4.6	117
					Borax	8.0	60	480
			13.6	**326**			73.6	**806**

11. Area (ha.) for implementing :

Technology Option 1 : 0.2
Technology Option 2 : 0.2
Technology option 3 : 0.2

12. Grand Total Cost proposed per OFT : Rs. 1,132
13. Total Number of OFTs proposed : 05
14. Total budget required : 5,660

8. Crop : Coconut

1. Title of the On Farm Trial : Integrated management of eriophid mite in coconut
2. State whether it is Assessment / Refinement : Assessment
3. Agro-Ecological Zone : Central Dry zone and Southern Dry zone
4. Production System : Irrigated /Rainfed
5. Problem identified : Higher incidence of eriophyd mite due to lack of resistance in palms and improper control measures results in yield reduction & income loss
6. Number of farmers and area affected in the operational villages : 100 farmers & 50 ha area affected with mite infestation.
7. Thrust areas : Integrated Nutrient Management
8. Rationale for proposing the OFT : To make coconut palms healthier by proper nutrition and to increase the productivity of coconut garden

9. Technology options for Assessment along with justification

Technology Option I : *Application of 20-25kg of FYM/palm, *250 gm/palm complex fertilizer.
Technology Option II : *50 kg FYM, 500:320:1200g NPK per palm / year, 5 Kg neem cake / palm,50 g borax / palm / year, 500g MgS04 / palm / year, Eco neem Plus 1% (10ml/palm, 3 times / year)
Source: UAS, GKVK,
Justification: Assessment of technological option improves soil fertility, induces tolerance for incidence of pests inturn increases the overall productivity of the garden

Technology Option III: * 50 kg FYM, 500:320:1200g NPK per palm / year, 5 Kg neem cake / palm Nutritional tonic (250 ml / palm twice a year at 6 months interval)
Source:TNAU, CBE,

Justification: Assessment of technological option improves soil fertility, induces tolerance for incidence of pests inturn increases the overall productivity of the garden**.**
10. Budget proposed for OFT

S. No	**Critical inputs for technology Option II Recommended technology**				**Critical inputs for technology Option III**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	--	--	--	--	--	--	--	--
2	Urea	60kg	5/kg	300-00	Urea	60	5/kg	300-00
3	SSP	110kg	4/kg	440-00	SSP	110	4/kg	440-00
4	MOP	100kg	4.6/kg	460-00	MOP	100	4.6/kg	460-00
5	Borax	2.5kg	300/kg	750-00	Coconut tonic	12.5 Ltr.	425	5,312-50
6	Mg so4	2.5kg	60/kg	150-00				
7	Econeem plus	1.5 ltr	800/lt	1,200-00				
8	Neem cake	250kg	10/kg	2,500-00				
				5,800				**6,512.5**

11. Area (ha.) for implementing:
Technology Option I **:** 0.5 ha.
Technology Option II **:** 0.5 ha
Technology option III **:** 0.5 ha
12. Grand Total Cost proposed per OFT **:** Rs. 12,313
13. Total No. of OFTs proposed **:** 2
14. Total Budget required **:** 24,626.00

9. Crop : Tomato

1. **Title of the On Farm Trial**: Assessment of tomato varieties
2. **State whether it is Assessment / Refinement**: Assessment
3. **Agro-Ecological Zone** : Eastern and central dry zone
4. **Production System** : Irrigated
5. **Problem identified**: Susceptible for pest and bacterial wilt, leaf curl, low acidity and low yield and low market preference.
6. **Number of farmers and area affected in the operational villages:** 25 % and 120 ha
7. **Thrust areas** : Integrated crop management
8. **Rationale for proposing the OFT**: Farmers are adopting local variety (Laxmi), disease susceptible and low acidity content and lesser preference by the consumer and it fetches lower price in the market. Whereas Arka Vikas (Rainfed) has high acidity and high yielding while DMT-2 has disease tolerant, high acidity content and high consumer preference to fetch the more price in the market. Hence, high yielding varieties Arka Vikas & DMT-2 will be assessed and hence it is proposed.

9. **Technology Option 1**: Farmer's practice: Local varieties (Laxmi)

Technology Option 2

Recommended practice : Arka Meghali (Rain fed)
Extent of adoption : 15 %
Source : IIHR, Bangalore
Reason of no/ low adoption : Susceptible to bacterial wilt, low acidity and lack of Knowledge

Technology Option 3

i. Assessment : Vaibhav (Rainfed)
ii. Justification : High yielding, tolerant to bacterial wilt ,
iii .Source : UAS, Bangalore

Technology Option 4

i. Assessment : HYV -DMT-2 (Rainfed)
ii. Justification : High yielding, high acidity content, tolerant to bacterial wilt &leaf curl
iii .Source : UAS, Dharwad

10. Budget proposed for OFT

Sl. No.	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options 3**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1.	Seeds	75 g	2000 /kg	150	Seeds	75 g	2000 /kg	150
			2000	150			2000	150

Critical inputs for technology Options 4			
Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
Seeds	75 g	2000 /kg	150
		2000	150

11. Area (ha.) for implementing

Technology Option 1 : 0.2
Technology Option 2 : 0.2
Technology option 3 : 0.2
Technology option 4 :0.2

12. Grand Total Cost proposed per OFT : Rs. 450
13. Total Number of OFTs proposed : 05
14. Total budget required : 2,250/-

10. Crop: Tomato

1. Title of the On Farm Trial: Assessment of microbial consortium for tomato production
2. State whether it is Assessment / Refinement: Assessment
3. Agro-Ecological Zone : Eastern and central dry zone
4. Production System : Irrigated
5. Problem identified: Low nutrient use efficiency, poor soil fertility and low productivity
6. Number of farmers and area affected in the operational villages: 150 and 220 ha
7. Thrust areas : Integrated Nutrient management
8. Rationale for proposing the OFT: Low soil fertility is due to the low organic matter content in the soil in turn low beneficial microorganisms in the soil. Farmer need not apply *Azospirillium*, *Azatobactor*, *PSB* and PGPR bacteria individually. Since the microbial consortium contains all the above microorganisms in single carrier. The use of combined microbial inoculants specific to tomato for nutrient supplement, growth promotion and biological means of disease management. Hence the out come of this assessment will reduced the usage of chemical fertilizers and pesticides. Therefore, the proposal was made.

9. Technology options for Assessment along with justification

Technology Option 1: Farmer's practice: Application of complex fertilizers (17all) 2 bags

Technology Option 2
Recommended practice: FYM 25t/ha +RDF 180: 100: 60 NPK kg /ha
Extent of adoption: 20 %
Source : IIHR, Bangalore
Reason of no/ low adoption: Lack of knowledge and high cost involved in chemical fertilizers

Technology Option 3
i. Assessment : FYM 25t/ha +RDF 135: 75: 60 NPK kg /ha + Microbial consortium 4 kg /ha
ii. Justification: Application of organic manures and biofertilizers increases the nutrient use efficiency and soil fertility and also it retains the soil moisture and nutrients, resulting it reduces the application of inorganic fertilizers and pesticides.
iii Source: IIHR, Bangalore

10. Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options III**			
	Name	**Qty. (kg)**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty. (kg)**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Urea	39.0	5.0	195	Urea	29.3	5.0	147
2	SSP	63.0	4.0	252	SSP	46.9	4.0	188
3	Mop	10.0	4.6	46	Mop	10.0	4.6	46.0
					Microbial Consortium	4.0	100	400
			13.6	**493.0**			13.6	**781**

* Microbial consortium : Combination of *Azosprillium, Azotobacter, PSB Pseuomonas florescence* and Plant Growth Promoting *Rhizosphere* Bacteria

11. Area (ha.) for implementing :
Technology Option 1 : 0.1
Technology Option 2 : 0.1
Technology option 3 : 0.1

12. Grand Total Cost proposed per OFT: Rs. 1,274
13. Total Number of OFTs proposed : 05
14. Total budget required : 6,370

11. Crop : China Aster

1. Title of the On Farm Trial : Performance of assessment of china Aster variety
2. State whether it is Assessment / Refinement: Assessment
3. **Agro-Ecological Zone** : Eastern and central dry zone
4. **Production System** : Irrigated
5. **Problem identifie**d: Small size flowers, diameter, low attractive colour and low yield
6. **Number of farmers and area affected in the operational villages**: 30 and 15 ha
7. **Thrust areas** : Integrated crop management
8. **Rationale for proposing the OFT**: Farmers are cultivating the local variety which has lower flower buds, small size diameter and low yield. Further, kamini variety fetches lower price in the market due to small size and dull colour flowers whereas phule ganesh pink having attractive colour, large sized and more numbers of flowers per plant and fetches higher price in the market. Hence assessment has been proposed.
9. **Technology options for Assessment along with justification**

Technology Option 1: Farmer's practice: Local variety

Technology Option 2
Recommended practice: Kamini,
Extent of adoption: 30 %
Source : IIHR, Bangalore
Reason of no/ low adoption: Medium yield and less attractive colour

Technology Option 3

i. Assessment : Phule ganesh Pink (PG-8)
ii. Justification : High yielding, Large flower diameter and size & attractive pink colour and more number of flowers per plant (42 - 44)
iii Source: MPKV, Rahuri

10. Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options III**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Seeds	150g	4000/ kg	600	Seeds	150g	4000/kg	600
				600				600

Seeds @ Rs. 4000/- per kg

11. Area (ha.) for implementing:

Technology Option 1 : 0.2 ha
Technology Option 2 : 0.2 ha
Technology option 3 : 0.2 ha

12. Grand Total Cost proposed per OFT: Rs. 1200
13. Total Number of OFTs proposed : 05
14. Total budget required : 6000

12. Crop : Horticultural crops

1. Title of the On Farm Trial: Management of Snails in Horticultural crops (Arecanut)
2. State whether it is Assessment / Refinement: Assessment
3. Agro-Ecological Zone : Central Dry zone
4. Production System : Irrigated
5. Problem identified : Snails are becoming serious pests of horticultural crops like Arecanut, Coconut, banana, brinjal, tomato, chillie, jasmine, Aster. This pest is causing economic damage to all these horticultural crops. Farmers locally control the pest using common salt and some of them use metaldehyde that is not available in right time and harmful to pets and children in the vicinity. So an alternative way of controlling is noxious pest is required.
6. Number of farmers and area affected in the operational villages : 50% of farmers in horticultural crops of Tumkur Dt.
7. Thrust areas : Pest/Snail management for increased yields in horticultural crops
8. Rationale for proposing the OFT : Identifying the most appropriate/safer method of snail management
9.Technology Option 1 : Farmers not adopting any control measures or use locally available salt for snail control
Technology Option 2 : Some farmers use Metaldehyde for snail control. (UAS Extension Folder) Most of the farmers are hesitate to use metaldehyde since most of them are organic growers. They find difficulty in procuring the chemical and also it is costly.
Technology Option 3 : Slightly Ripened Papaya only (Dept. of Entomology, UAS, Bangalore)
Technology Option 4 : Technology is cost effective and organic farmers come foreward to use this technology option. Here snails have to be collected manually (Dept. of Entomology, UAS, Bangalore)
Technology Option 4 : Papaya/Rice bran Bait with 10 gms of Methomyl. In this option snails need not be collected manually but methomyl in bait kills them (Dept. of Entomology, UAS, Bangalore)

10. Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options 4**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Metaldehyde	25 kg	275	6875	Papaya	50	10	500
Total				**6875**				**500**

S. No	**Critical Inputs for Technology Option 3**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	Papaya/Rice bran	50	20	1000
2.	Methomyl	0.5 kg	600	600
Total				**1600**

11. Area (ha.) for implementing : 4ha.
Technology Option 1 (Farmer's Practice) : 1ha.
Technology Option 2 (Recommended Practice) : 1ha.
Technology option 3 : 1ha.
Technology Option 4 **:** 1ha.
12. Grand Total Cost proposed per OFT **:** Rs. 1795
13. Total Number of OFTs proposed **:** 5
14. Total budget required : 8975

13. Enterprise: Post harvest technology

1. Title of the On Farm Trial : Assessment of ground nut decorticator
2. State whether it is Assessment / Refinement: Assessment
3. **Agro-Ecological Zone** : Eastern and central dry zone
4. **Production System** : Irrigated
5. **Problem identifie**d: Drudgery and scarcity of labour
6. **Number of farmers and area affected in the operational villages**: 350 & 480 ha
7. **Thrust areas** : Drudgery reduction
8. **Rationale for proposing the OFT**: Very fast shelling and less drudgery

10. Technology options for Assessment along with justification

Technology Option 1: Farmer's practice: Hand Shelling

Technology Option 2
Recommended practice: UAS (B) model
Extent of adoption: 25 %
Source : UAS Bangalore
Reason of no/ low adoption: More time, energy and labour consuming

Technology Option 3
i. Assessment : CIAE, Bhopal Model
ii. Justification **:** Less time , less energy and less labour consuming
iii. Source : CIAE, Bhopal

10. Budget proposed for OFT

S. No	**Critical Inputs for Technology Option 2 (Recommended Practice)**				**Critical inputs for technology Options III**			
	Name	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**	**Name**	**Qty.**	**Unit Cost (Rs.)**	**Total Cost (Rs.)**
1	UAS (B) model Groundnut Decorticator	02	1500	3000	CIAE BHOPAL model Groundnut Decorticator	02	1500	3000
				3000				3000

11. Area (ha.) for implementing:

Technology Option 1 : -
Technology Option 2 : 02 farmers
Technology option 3 : 02 farmers

12. Grand Total Cost proposed per OFT: Rs. 6000
13. Total Number of OFTs proposed : 2
14. Total budget required : 12000

Table 4. Season-wise plan of Front Line Demonstrations (FLD) for 2010-11

A. Other than oil seeds pulses and cotton: KHARIF

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
1	Soil and water management	Paddy	30	50	27	Salinity	Introduction of IR - 30864 Green manuring crops (Daincha) FYM 5 t/ha RDF : 100:50:50 NPK Kg/ha Water Management Azospirillium@ 2 kg/ha PSB @ 2kg/ha ZnSo4-20 kg/ha	Seed 62.5 kg/ha Azosprillium-2kg/ha PSB-2kg ZnSo4- 20kg Daincha- 62.5kg	1563 200 200 1000 1625	2	10
								Total	**4,588**	**9,176**	
2.	Sustainability in yield through effective water management in rice (Aerobic method)	Paddy	42	60-65	38	Indiscriminate use of water -higher seed rate & cost of production -usage of aged seedlings -improper weed, pest & disease management	1.Drill sowing 2.25X25 cm spacing 3. FYM: 10 ton/ha 4.100:50:50 NPK Kg/ha 5.Use of cono weeder & 6.pyrosulfuron ethyl @ 250gm/ha 7. -Lesser water requirement (30-40% less)	Unit cost: -Seed rate 7kg/ha MAS-26 -Azospirillum -PSB -Pyrozosulfuron ethyl Cono weeder	90 184 184 600 2400	01	04
								Total	**5216**	**5216**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
3	ICM	Ragi	12	20	10	Moisture stress, use of low yielding varieties	Variety MR-6 - Inter cropping of MR-6 with Red gram.(BRG-2) - RDF: 50:40:25 NPK kg/ha - FYM-7.5 t/ha - Carbendizim @2 gm/kg seed - Azospirillium@ 2 kg/ha - PSB @ 2kg/ha	Ragi Seeds-12kg Red garm -10 kg Bavistin -20g Azospirillium-2kg/ha PSB-2kg	216 850 75 200 200	10	25
								Total	1,514	15,140	
4.	Sequential cropping	Ragi based cropping system	12	20	10	Mono cropping Moisture stress, use of low yielding varieties	Cowpea (Early Kharif) followed by Ragi (Medium durated variety GPU- 48) RDF: 50:40:25 NPK kg/ha - FYM-7.5 t/ha - Carbendizim @2 gm/kg seed - Azospirillium@ 2 kg/ha - PSB @ 2kg/ha	cowpea Seeds-30 kg Ragi -12 kg Bavistin -60g Azospirillium-2kg/ha PSB-2kg	1800 216 200 200 200	5	12
								Total	2,616	13,080	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
5.	ICM	Maize	35	85	37	Zinc deficiency Downy mildew and TLB disease	Introduction of NAH-2049 hybrid - FYM-7.5 t/ha -RDF: 100:50:25 NPK kg/ha -ZnSo4 @10kg/ha - Atrazin @2.5 kgha	Seeds-15 kg ZnSo4- 10kg Atrazin @2.5 kg/ha	1200 500 950	5	12
								Total	**2,650**	**13,250**	

6.	Integrated crop management in Brinjal	Brinjal	15	23	16	-Use of Private varieties -Shoot and fruit borer with incidence	-Introduction of Arka Anand / Keshav -Root dipping in Trichoderma harzianum 20gm/lt -Using neem cake 250kg/ha	Seeds- 375gm Neem cake-50kg Trichoderma-1 kg Endosulfon -12 lit Dimethoate-1lt Mancozeb -2kg	5625 2500 150 800 500 600	1.0	10
								Total	**10,175**	**10,175**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
7	Maintaining productivity	French bean	8t	12t	6t	-Use of private varieties -Aphids, fruit borer & yellow mosaic problem -Wilt incidence -Root rot problem	Integrated crop management in French bean	Arka -65kg Anoop/Suvidha seeds Neem cake-250kg Endosulfan-1lt Trichoderma-1 kg Carbendizim-1kg	6500 2500 375 100 450	2.0	10
								Total	**9925**	**19,850**	
8	HYV / Hybrids	Marigold	45	80	25	use of low yielding varieties, Smaller Flower Size and diameter	Popularization of Double orange variety	Seeds – 750g	2000	2	10
								Total	**2,000**	**4,000**	

Other than oil seeds pulses and cotton: RABI

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
9	ICM	Mango	400	800	250	Flower& fruit dropping Fruit fly, Powdery mildew	FYM@25kg/plant RDF 30:180:680NPK gm/plant, Mango Spaecial,spray(@125 g/25lt) in July, November and December months Spraying during Flowering Planofix @ 4ml/16lt spray Carbaryl @4gm/lt spray Mango euginol trap-10 nos	Mango special 30kg Mango trap-10 /ha Planofix -1 lit Sulfex- 1 kg Carbaryl -4 kg	4,500 250 500 300 1400	2	10
								Total	**6,950**	**13,900**	
10	Nutrient management	Banana	250	400	180	Imbalanced nutrient application & low nutrient use efficiency leads to lower bunch size	Banana Special (5gm/lt) spray From5th month to 10th month and at 1 and 2 months after Bunch emergence	Banana Special 30kg MOP 720 kg	4500 3312	2	10
								Total	**7812**	**15,624**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
11	Maintaining productivity in Aster	Aster	50	80	40	-Use of local varieties -Wilt & cut worm	-Introduction of Arka kamini--Wilt & cut worm	Arka kamini seeds-750 gm Methyl parathion -1lt Carbendizim-1kg	7500 800 450	1.0	5
								Total	**8750**	**8750**	
12	IDM	Arecanut	150	200	120	Anabe roga	Neem cake @2kg/plant Drenching with Calixin@0.3%. Root feeding calixin @1.5 % RDF FYM 20kg/plant	Neem cake 200 kg / 100palm Calixin 6.25 ltrs	2000 5018.00	100 palms	10
								Total	**7,018**	**7018.0**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
13	Maintaining milk production	Azolla	--	--	--	Farmers do not know the importance of feeding Azolla and its low cost of production	-Cultivation of Azolla :Fertilizer application -SSP-10gm +MOP-10gm +100gm dung for a pit size of 3x2 meter+400gm Azolla	Plastic sheet 50gm MOP 50gm SSP	Rs.700/Sheet	3x2m	5
								Total	**3500**	**3500**	

14	Maintaining productivity in fodder	Fodder	--	--	--	Using local variety which is low yielding. Not aware of potentiality of new varieties.	Cultivation of CO-3 and CO-4 fodder	Root slips 14000	200Rs/1000 root slips	0.5	7
								Total	**2800**	**2800**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
15	IDM	Pomegranate	60	100	65	Bacterial blight	I. Streptocycline 0.5 g/lit + COC 3.0 g/lit mixed with red soil and paste to pruned parts. II. 1% Boudreaux Mixture III. Streptocycline 500ppm + COC 0.25% at emergence stage IV. 0.4 % Boudreaux Mixture V. Streptocycline 500ppm + COC 0.25 % VI. 0.4% Boudreaux Mixture + Bavistin 0.1% repeat the spray as and when required	Streptocycline 750g Blitox -3125 g Boudreaux Mixture Bavistin 625g	7,030 1125 4500 463	2	10
								Total	**13,118**	**26,236**	
16	Integrated Crop management	Tomato	17t	25t	14t	-Poor nutrient management -Fruit borer and wilt incidence	-Using Arka Ananya -Tricoderma viridae 2kg Neem cake soil application -Imidoclophrid -Neem Soap (eco-neem product)	Arka ananya seeds-100gm Trichoderma-100gm Neem cake-250kg Marigold-500gm Imidacloprid-200gm Indaxicarb-0.3lt Neem soap-6.0kg	2500 10 2500 100 1600 1200 1920	2.0	10
								Total	**9830**	**19,660**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
17	HYV / Hybrids	Dolichos	55	80	50	Local varieties	Popularization of Arka Vijay variety	Seeds 37 kg	5,500	2	10
								Total	**5,500**	**11,000**	
18	IPM	Cabbage	175	300	120	DBM pest	Mustard as a trap crop Bt spray @1 ml /lit at 10 days after sowing Indoxicarb 0.5 ml/lit Neem soap spray @10 g/lit Pongamia soap @10g /lit	Seeds -2.5 kg Bt formulation 650 ml Indoxicarb 100 ml Neem soap 7.5 kg Pongamia soap-2.5 kg	250 650 80 937 312	2	10
								Total	**2,229**	**4,458**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
19	Nutritious feed	Fodder	-	-	-	Feed dry fodder (ragi)	Enrichment of dry fodder 100kg Jaggery 5kg Urea -2 kg Salt -1kg Minerial mixture -1kg	Jaggery 5kg Urea -2 kg Salt -1kg Minerial mixture -1kg	20 10 10 40	05	05
								Total	**80**	**400**	

20	Post harvest technology (Redgram)	--	--	-	- Improper drying of seeds - Improper use of storage methods - Unaware about safe storage technology	Safe storage of pulses -25 hours drying on concrete threshing yard for 5 days -Storing redgram seeds in a bucket -Spreading 3cm depth medium fine sand on seeds -Covering with lid	Plastic buckets	Plastic buckets 5 no.	600	5 unit	5 unit
								Total	**600**	**3000**	

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
21	Drudgery reduction	Ground nut	-	-		Drudgery and scarcity of labour	Ground nut decorticator	Ground nut decorticator - - 10	15,000	10	10
								Total	**15,000**		

B. Oil seeds
KHARIF

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
1	Integrated crop management in groundnut	Groundnut	2.9	8-10	4.0	-Imbalanced fertilizers -Non use of gypsum -No seed treatment -Poor soil moisture conservation -Less seed rate -RHCP, leaf miner, bud necrosis, tikka leafspot, collar rot -No crop rotation	-Variety: **GPBD-4/Chintamani-2** - Recommended Dose of Fertilizer: **25: 50: 25** NPK kg/ha (Based on STCR) -FYM: 7.5 ton/ha -Seed treatment with **Trichoderma** @4gm/kg and **rhizobium** @375gm/ha -Soil drenching with **chloropyriphos** @ 1.5 lit/ha -**Intercropping** with **Redgram (4:1)** -**Gypsum** application @ 500 kg/ha	Seed rate: 100kg/ha Rhizobium: 375 gm/ha Chloropyriphos: 1.5 lit Gypsum:500 kg	4500 40 375 1000	10	25
								Total	**5915**	**59,150**	

RABI

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
2	Soil test based fertilizer application	Sunflower	5.6	12	4.2	Imbalanced application of fertilizer & low soil fertility	Hybrid:KBSH-53 Balanced application of fertilizer(NPK) based soil test value for targeted yield	Seeds -5 kg Urea -136 kg SSP-469kg MOP- 104 kg	1000 680 1876 478	2	10
								Total	**4,034**	**8,068**	

C. Pulses
KHARIF

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		
1	Yield maximization in Redgram	Red gram (Early sowing)	3.8	10-12	3.5	-Use of local seeds (own seeds) -Seed treatment not followed -Improper nutrient management -Improper IPM measures (Pod borer, mites, Sterility mosaic, wilt) -Lack of awareness on use of pheromone traps and NPV	-Variety: BRG-1 -Recommended Dose of Fertilizer: 25: 50: 25 NPK kg/ha. -IPM measures: Cultural: Deep ploughing to expose immature stages of pests Use of pheromone traps Biological: NPV@ 250 LE/ha Chemical: Indoxicarb @ 0.5ml/lit	Seed rate: 15 kg/ha Rhizobium:375 g PSB: 1kg NPV @ 250 LE/ha Traps: 10 Nos. Indaxicarb: 0.6 lt/ha	675 35 92 500 400 600	10	10
								Total	**2,302**	**23,020**	

D. Cotton

Sl. No	Thrust area	Crop / livestock / enterprises	Yield gap (q/ unit ha / number) or (number/unit)			Reasons for yield gap	Technology to be demonstrated	Critical inputs to be provided		Area (ha) / Number and total cost	No. of farmers
			District average yield	Potential yield	Farmers yield			Name & Quantity (kg/ha) or number/unit	Cost (Rs./ha) or Rs./unit		

KHARIF

1	Integrated crop Management	Bt cotton	6-7	23-25	17-18	Application of balanced fertilizers (No basal dose application) Improper spacing(75-90X45-60 cm) Square & boll dropping Incidence of sucking pests	Integrated crop management in Bt cotton	Seeds-1.125kg Neembicide-2.5 litre Zinc sulphate-10 kg 19:19:19-2.5 kg Planofix-100 ml PP chemicals-2 litre	2125 625 500 250 250 500	20	50
								Total	**4,250**	**85,000**	

TABLE 5 Plan For Training Programmes For Extension Functionaries During 2010-11

Crop / Enterprise	Identified Thrust Area	Organization	Training Course Title	No. of Courses	Skill to be transferred
Ragi & Groundnut	Pest management	Dept. of Agriculture	ICM in Ragi	01	Seed treatment, Method of sowing
Arecanut	Pest Management	Dept. of Horticulture	IDM in Arecanut	01	Bordeaux mixture preparation
Banana	Nutrient Management	Dept. of Horticulture	Recent advances in Cultivation of	01	Bunch bagging with

			Banana		nutrient. Mixture Paired row system planting
Tomato	INM	Dept. of Horticulture	Use of Bio Fertilizers in Tomato	01	Seed treatment , Soil application
Redgram	Pest Management	Dept. of Agriculture	Integrated Pest Management	01	Seed treatment , use of pheromone traps, release of bio agents
Value addition	Value Addition	Dept of Women and Child Welfare	Enrichment and popularization of low cost nutritious foods	01	Preparation of value added products.
Nutritional Education	Management of mal nutrition	Dept of Women and Child Welfare	Enrichment and popularization of value added products	01	Preparation of value added products.
Dairy	Low Milk Yield	Dept. of Animal Science	Production and feeding methods of Azolla milch animals to improve the milk production and health	01	Feeding methods

Table 6: Plan of vocational training programmes for Young Farmers (Rural Youth) during 2010-11

Crop / Enterprise	Identified Thrust Area	Training title*	No. of programmes and Duration (days)	Skill to be transferred
Mushroom	Income generation	Mushroom cultivation	2 (3 days)	Media preparation and inoculation
Fruit crops	Plant multiplication	Propagation techniques in Horticultural crops	1 (7 days)	Grafting, Budding

Composting	Organic farming	Vermicomposting	1 (7 days)	Production of Vermicompost and Vermiwash
Bio Pesticide	IPM	Production of Neem based products	1(3 days)	Neem Soap, Neem Powder, neem Oil, NSKE,etc.
Vegetables	Seed Production	Improved Seed Production Practices in Vegetables	1(7 days)	Emasculation, Pollination, Roughing
Home Science	Value addition	Preparation of value added products	2 (3 days)	Blending techniques
Home Science	IGA	Production of Agarbatti, Candle, Phenyl , Soap Powder	1(5days)	Products Preparation

Table 7: Plan of training programmes for farmers/farm women during 2010-11

Crop / Enterprise	Major problem	Identified Thrust Area	Training Course Title*	No. of Courses	Skill to be transferred
Crop production **<u>Cereals</u>** Paddy	• Poor nutrition • Blast disease • Saline soil • Low yield	• Nutrient Management • Pest and disease Management	• Nutrient Management in Paddy • IPDM in Paddy • Saline soil Management	1 1 1	• Seed treatment • Identification of pest and diseases • Leaching of soluble salts

Ragi	• Monocropping • Imbalanced nutrient • Low yield	• ICM	• Improved production practices in Ragi • Importance of double cropping system	2 1	• Method of sowing
Maize	• Nutrient deficiency • Pest Problem	• INM • IPM	• Nutrient Management in Maize • Pest Management in Maize	2 1	• Method of fertilizer application • Scare a crow/bird techniques
Oil seeds Groundnut	• Low productivity • Tikka disease • Collar rot • Rot grub	• ICM • IDM	• IDM in ground nut • Production practices in Groundnut • Time and method of gypsum application	1 2 1	• Seed treatment • Bio fertilizer application • Gypsum application
Sunflower	• Bud necrosis • Low productivity	• ICM • IDM	• Nutrient management in sunflower • IDM in sunflower	1 1	• Seed treatment • Time and method of application
Pulses Red gram	• Sterility mosaic • Pod borer • Low yield	• IPM & IDM	• Improved production techniques • Intercropping system in Redgram • IPM in Redgram	1 1 1	• Transplanting method • Intercropping system • IPM tools
Cotton	• Flower dropping • Leaf reddening • Sucking pests	• ICM • IPM	• Production practices in cotton • IPM	2 1	• Seed treatment • Foliar application • IPM tools
Horticulture **Fruits :** Mango	• Monocropping • Flower and fruit dropping • Fruit fly • Powdery mildew	• ICM • IDM	• Production technologies in mango • IDM in mango	2 1	• Propagation • Intercropping system • Pheromone traps • PGR application
Banana	• Poor management practices • Poor bunch weight • Pest and disease problems	• ICM • Nutrient management • Pest management	• Production practices in Banana • INM in Banana • IPDM in Banana	1 1 1	• Paired row method of planting • Application foliar spray • Sucker treatment
Arecanut	• Poor management of orchard • Imbalance nutrient application	• ICM • Nutrient management • Pest & disease	• Integrated crop management • Method of soil sampling • Pest and disease management	2 1	• .Nursery techniques • Soil sampling and BM preparation

	• Anaberoga & Bud rot • Nut splitting	management		2	
Pomegranate	• Poor management orchards • Bacterial blight	• ICM • IDM	• Pruning and training methods • Integrated management in Bacterial blight	1 1	• Pruning and training • IDM tools
Vegetables: Tomato	• Local varieties • Low seed availability • Pest mgmt.	• ICM • High Yielding Variety • Nutrition	• Seed production • Production technology. • Plant protection • Nutrient management.	1 1 1 1	• Seed production • Seed treatment • Grading • Packing
Brinjal	• Shoot & Fruit Borer • Bacterial wilt	• ICM • IPDM	• Improved HYV in brinjal • Integrated pest & disease management • Seed production techniques	1 1 1	• Pollination, Emasculation • IPM tools
Dolichos	• Local varieties • Low yield	• ICM	• Seed production techniques	2	• Pollination, Emasculation
French bean	• Rust disease • Low yield	• ICM • Disease management	• Improved cultivation practices	2	-
Cabbage	• DBM	• IPM	• IPM cabbage	2	Pheromone Traps , Trap crops
Flowers Aster, Marigold	• Smaller flower size • Dull colour • Low Yield	• ICM	• Improved Cultivation Practices	2	Nursery techniques
Nutrition Kitchen Garden	• Mal Nutrition	• Balanced Nutrition	• Importance of Kitchen Garden	2	Lay out Crop rotation
Ground Nut Decorticator	• Drudgery	• -	• Drudgery reducing equipments	2	Method demonstration on twin wheel hoe weeder, sarl kurpi etc.,
Azolla	• Low Milk yield	• -	• Azolla alternate feed for milching animals	1	Feed mixture

Fodder	• Low yield • Non availability of green fodder	• -	• Production technologies in fodder crops	1	-
Vermicomposting	• Non utilization of farm waste	• Farm resource utilization	• Importance and role of vermin compost in organic farming	2	• Multiplication techniques
Mushroom cultivation	• Non utilization of farm wastes	• Farm resource utilization	• Importance and role of Mushroom cultivation	3	• Demonstration
Processing of Fruit & Vegetables	• Under utilization	• Value addition	• Demonstration of preparation of different Jam. Jelly, squashes, pickle etc., • Value added products of Ragi • Value added products of Amla	2 2 2	• Demonstrations
			Total	**65**	

Table 8. Plan for sponsored training programme during 2010-11

Crop/ Enterprise	Identified Thrust Area	Organization	Training course title*	No. of Courses	Sponsored Agency	Skill to be transferred
Processing	Value addition	NABARD & KVK	Entrepreneurship development programmes	2	NABARD	Method demonstration
Value added products of Amla	Value addition	KAMPA, Bangalore	Entrepreneurship development programmes	5	KAMPA, Bangalore	Method demonstration

Table 9: Details of Extension programmes planned for 2010-11

Month	Block & village	Extension activity*	Its relation to KVK activities (Tables 2 to 6)**	Expected category of participants	Remarks
1	2	3	4	5	6
Apr, 10	Chikkavalli, Kyamanahalli, Bidalota, Kodalahalli, Badavanahalli, Siddapura, Vaderahalli, Haraluru, Bheemasandra	Group meeting/Training/ Method demonstrations	FLD / OFT/Off Campus and On campus training	140	-
May, 10	Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli	Group meeting/Training/ Method demonstrations	FLD / OFT/Off Campus and On campus training	120	-
June, 10	Haraluru, Bheemasandra, Bairasandra, Gollahalli, Neeralapura, Chikkavalli, Kyamanahalli, Bidalota, Kodalahalli, Badavanahalli, Siddapura, Vaderahalli, Haraluru, Bheemasandra	Group meeting/Training/ Method demonstrations	FLD / OFT/Off Campus and On campus training	145	
ssJuly, 10	Badavanahalli, Siddapura, Siridaragallu, Vaderahalli, Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli	Group meeting/Training/ Method Demonstrations/Field visits	FLD / OFT/Off Campus and On campus training	160	-
August, 10	Chikkavalli, Kyamanahalli, Bidalota, Kodalahalli, Badavanahalli, Siddapura, Vaderahalli, Haraluru, Bheemasandra	Field visit/ Training	FLD/OFT/ problematic field visits	125	-
September, 10	Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli	Group meeting/Training/ Method Demonstrations/Field visits/Field day	FLD / OFT/Off Campus and On campus training/ Field days	145	-

October, 10	Badavanahalli, Siddapura, Siridaragallu, Vaderahalli, Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli, Chikkenahalli	Group meeting/Training/ Method Demonstrations/Field visits/Exhibitions/ Field day,	FLD / OFT/Off Campus and On campus training/ Field days	180	-
November, 10	Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli	Training/Method Demonstrations/Field visits/ /Field day/ Women in agriculture	FLD / OFT/Off Campus and On campus training/ Seminar	160	-
December, 10	Chikkavalli, Kyamanahalli, Bidalota, Kodalahalli, Badavanahalli, Siddapura, Vaderahalli, Haraluru, Bheemasandra	Training/Method Demonstrations/Field visits/Exhibitions/ Seminar	FLD / OFT/Off Campus and On campus training	175	-
January, 11	Chikkavalli, Kyamanahalli, Bidalota, Kodalahalli, Badavanahalli, Siddapura, Vaderahalli, Haraluru, Bheemasandra	Training/ Method Demonstrations/ Field visits/	FLD / Off Campus and On campus training	120	-
February, 11	Badavanahalli, Siddapura, Siridaragallu, Vaderahalli, Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli, Chikkenahalli	Group meeting/Training/ /Field visits/Exhibitions	FLD/Off Campus and On campus training	85	-
March, 11	Kotagudda, Shailapura, Mugadala betta, Arekyathanahalli, Hendore, Kataveeranahalli, Veerapura, Kyamagondanahalli	Group meeting/Training/ /Field visits/Exhibitions/seminars	Off Campus and On campus training	125	-

Table 10: Details of print & electronic media coverage planned for 2010-11

Sl. No.	Nature of literature/publications and no. of copies	Proposed title of the publication
1.	Leaf lets/folders - 17 & 500 copies each	1. Seed production in hybrid paddy 2. Seed production in hybrid chilli 3. Soil sampling 4. Importance of farm pond 5. INM in coconut 6. Production technology of Aster 7. Value added products of ragi 8. Amla 9. Production technologies of Maize 10. Production technologies of Ragi 11. Production technologies of Groundnut 12. Integrated pest and disease

		management in tomato 13. Integrated pest and disease management in Arecanut 14. Integrated pest and disease management in Coconut 15. Bio pesticides 16. Modern Bee keeping 17. Enrichment of dry fodder
2.	Technical Bulletins -5	1. Improved production technologies in vegetables 2. Integrated pest and disease management in Horticulture crops 3. Seed production technologies in vegetables and flowers crops 4. Integrated nutrient management in important Horticulture crops 5. By- products of cereals
3.	News paper articles -15	1. Role of micronutrients and growth regulators in vegetables 2. Use of bio fertilizers and growth regulators in vegetables 3. Weed control in drill sown paddy 4. Soil & Water conservation and Integrated Nutrient Management in horticultural crops 5. IFS for dry lands, Fodder tree species, Bamboo cultivation, Agroforestry systems 6. Strategies for sustainable production & rainfed fruit crops 7. Physiological disorders in mango & its remedies 8. Dehydration of Vegetables 9. Preservation of fruits and vegetables through non thermal method 10.Importance of green manuring in horticulture 11.Importance of Green Leafy Vegetables in the Diet. 12.Mango and Aonla products 13.Mango pest management 14. Value added products of Ragi 15. New high yielding varieties /hybrids released by IIHR
4.	Books – 3 & 500 copies each	1. Dry land horticulture 2. Improved cultivation practices in mango 3. Management of pest and disease in Coconut and Arecanut
Sl. No.	**Nature of media coverage**	**Proposed title of the programme to be telecasted/ broadcast**
1.	Radio talks - 7	1. Activities of KVK 2. Vegetables seed production 3. Importance of soil testing 4. Management practices for coconut and Arecanut gardens 5. Pest and disease management of oil seed crops 6. Pest and disease management of paddy 7. Value added products of minor millets
2.	TV courage -2	1. IPM technologies in Redgram 2. Management of nursery

Table 11: Nature of collaborative activities planned for 2010-11

Thrust area	Collaborative Organizations	Nature of activities*	No. of Activities
Crop productivity Seed production activities in vegetables,INM & IPM in vegetables and field crops	KSDA / NGOs / DOH/SHGs	Training / Field visits, Group meetings , Trainings, Demonstrations, Publication	02
Seed production activities in pulses	NGO- ORDER/ NABARD	Training / Field visits, Group meetings , Trainings, Demonstrations & Publication	15
Poor nutrient management	KSDA/DOH/ NGOs	Field visits, Trainings, Demonstrations	02
Post harvest techniques	Dept. of Horti	Post harvest technology through Trainings, Seminars	02
IGA to farmers families	Dept. of women and child development	IGAs on Soap powder & phenyl making demon / training on value addition to cereals, pulses, vegetables and fruits.	02

Table 12: Financial status of revolving fund and plan for its utilization

Opening balance as on 01.04.2009	Expenditure incurred during 2009-10	Receipts during 2009-10	Closing balance as on 31.03.2010	Proposed expenditure during 2010-11	Proposed receipts during 2010-11
1,00,000	33,751	1,00,000	1,66,249	1,66,249	7,77,700

Table 13: Physical status of revolving fund and plan for its utilization

Opening stock position of materials* as on 01.04.2009	Quantity produced during 2009-10	Quantity sold during 2009-10	Closing stock position as on 31.03.2010	Expected production during 2010-11	Expected number of beneficiaries
Arecanut seedlings	25,000	-	25,000	50,000	500

*** Product may include seeds, planting material, bio agents/fertilizer, livestock and Samples analyzed.**

Table 14. Plan for utilization of Revolving Fund (2010-11)

Amount to be invested (Rs.)	Purpose	Expected production	Approximate value of the produce
50,000	**Seed production** Bhendi -Arka Anamika	8 qt	160000
5000	Aster	5 kg	20000
10000	Arecanut	30,000 Nos.	300000
4000	Drumstick	2000 Nos	10000
5000	Coconut.	500 Nos	12200
5000	Mango.	500 Nos	15000
25000	Hybrid chilli	5 kg	100000
40000	Hybrid Tomato	5 kg	100000
6000	French bean	4 qt	40000
10000	Neem and pongamia soap	100 kg	12500
6000	Ragi malt	130 kg	8000
		Total	**7,77,700**

Table 15: 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
A	10 acre	Borewell	All season	Arecanut	5 acre	20 qt	1,00,000
B	4.0 acre	Borewell	-"-	Coconut	2.0 acre	4000 Nos.	12,000
C	10.0 acre	Borewell	- "-	Mango Guava Citrus Banana Sapota Pomagranet Fig Jackfruit Amla, Tamarind Jamun Custard apple	7.5 acre	-	-
D	16 acre	Borewell	- "-	Vegetable Seed productuion	14 acre	3000 kg	6,00,000

16. 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.	Hybrid paddy KRH-2	Seed growers to KSSC	40
2.	Redgram BRG-2	Seed growers to KSSC	90
3.	Bhendi Arka Anamika	Seed growers to IIHR	6
4.	Ragi	Seed growers to KSSC	60
5.	French Bean – Arka Suvidha	Seed growers to IIHR	25
6.	Groundnut GPBD-4	Seed growers to KSSC	125
7.	Tomato -Arka Meghali	Seed growers to IIHR	0.5

17. 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 2010-11. Please give details.

Sl. No	Name of activity	Extent of coverage's	
		No. of farmers	Area (ha)
1.	**-**	**-**	**-**

***individual/SHGs/farmers' associations/corporate/institutions/private agencies etc**

18. National Horticulture Mission (NHM) is being implemented through out the country. You are requested 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 2010-11

Projects:

Sl. No	Particulars	Cost (Rs.)
1.	Management of nursery in medicinal crops	**4.0 lakhs**

Training Programme:

Sl. No	Title of training	Cost (Rs.)
1	Post harvest Technology in fruits and vegetable crops	4 Days
2	Vegetable seed production activities	4 days

19. Whether ATMA is functioning in your district? YES/NO
-Yes-

If yes, what type of coordination and collaboration does your KVK is proposed to have during 2010-11?

Conducting trainings & FLD programmes

If Yes, whether Strategic Research and Extension Planning (SREP) has been prepared?

-Yes -

20 what type of scientist-Farmer linkages are proposed by your KVK for 2010-11?

- One to one linkage : Seed production technique in vegetables /field crops
- One Scientist to group of farmers/farmwomen: conducting training programmes, method demonstration
- Group of Scientists to group of farmers/farmwomen : Seminars, Field days, Field visits etc.,

21. Activities of soil, water and plant testing laboratory

Year of establishment	Expenditure is Rs.(lakhs)	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
-	-	-	-	-	-

22. Details of budget utilization (2009-10)

Sl. No.	Particulars	Sanctioned	Released	Expenditure
A. Recurring Contingencies				
1	**Pay & Allowances**	1600000	1600000	1161087
2	**Traveling allowances**	50000	50000	59020
3	**Contingencies**			
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	100000	100000	100000
B	POL, repair of vehicles, tractor and equipments	100000	100000	95007
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	40000	40000	26600
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	50000	50000	50000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	20000	20000	0
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	10000	10000	0
G	Training of extension functionaries	10000	10000	0
H	Maintenance of buildings	50000	50000	49966
I	Extension Activities	10000	10000	9767
J	Establishment of Soil, Plant & Water Testing Laboratory			
K	Library	10000	10000	9863
TOTAL (A)		**2050000**	**2050000**	**1561310**
B. Non-Recurring Contingencies				
1	**Works**			
2	**Equipments including SWTL & Furniture**	260000	260000	193868
3	**Vehicle** (Four wheeler/Two wheeler, please specify)			
	Jeep Bolero			124306
	Two Wheeler (2 no.s) +Power tiller	250000	250000	98683
4	**Library** (Purchase of assets like books & journals)			
TOTAL (B)		**510000**	**510000**	**416857**
C. REVOLVING FUND		100000	100000	33366
GRAND TOTAL (A+B+C)		**2660000**	**2660000**	**2011533**

23. Details of Budget Estimate (2010-11) - ICAR KVKs alone may consider Pay and Allowances based on VI Pay Commission Orders from ICAR, for rest of the KVKs please estimate based on the existing norms, since ICAR is yet to take decision in this regard.

SL. No.	Particulars	Proposed
A. Recurring Contingencies		
1	**Pay & Allowances**	50,00,000
2	**Traveling allowances**	5,00,000
3	**Contingencies**	
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2,00,000
B	POL, repair of vehicles, tractor and equipments	4,00,000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	1,50,000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	1,00,000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	1,35,910
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	1,17,831
G	Training of extension functionaries	25,000
H	Maintenance of buildings	3,00,000
I	Establishment of Soil, Plant & Water Testing Laboratory	22,50,000
J	Library	10,000
TOTAL (A)		**88,88,131**
B. Non-Recurring Contingencies		
1	**Works**	-
2	**Equipments including SWTL & Furniture**	-
3	**Vehicle** (Four wheeler/Two wheeler, please specify)	-
4	**Library** (Purchase of assets like books & journals)	10,000
TOTAL (B)		**10,000**
C. REVOLVING FUND		-
GRAND TOTAL (A+B+C)		**88,98,131**

24. Targets for E-linkage activities for 2010 - 11

S. No	Nature of activities	Likely period of completion (please set the time frame)	Remarks if any
01	Final installation of E-Linkage facility	-	-
02	Creation of web-site	September, 2010	
03	Development of Technological Models with modules in major disciplines	-	-
04	Creation and maintenance of relevant database system for KVK	December, 2010	-
05	Any other (Please specify)	-	-

25. Activities planned under Rainwater Harvesting Scheme during 2010-11 (only to those KVKs which are already having scheme under Rain Water Harvesting)

S. No	Activities planned during 2009-10	Remarks if any
-	-	-

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

- Staff research projects/Ad-hoch projects
- Participating in departmental Bi-monthly workshop by master trainers
- Consultancy & Documentation of ITK
- Survey and collection of local variety seed
- Documentation of Achievements of progressive farmers/farmwomen
- Mobilization of farmers for seminar/field day/workshop

FARMERS FIELD SCHOOL

Title of FFS: Integrated Pest Management (IPM) in Tomato

Problem Definition: Tomato is the most important remunerative crop of the district. The reduction in the income is mainly due to lack of knowledge on pest and disease management, time of transplanting, poor agronomic practices (Weeding, water management , earthing up & staking).

Scientific rationale

Farmers are switching over to the other vegetables mainly due to pest and diseases and low price during peak harvesting time. Through FFS the identified problems will be tackled to effect the net returns.

Learning process

- Tomato growers/farmers will learn about the IPM approaches by actively involving from Plough to Plate.

- The participants will be divided into 4-5 groups. Each group will take IPM technology, conduct Agro Ecological Situation of the Area (AESA), to take up measurement/observation of plant height, No. of fruits/plant, incidence of pest and disease in IPM plots and farmers practice plots.

Budget

Particulars	Amount (Rs.)
1. Seeds (3 packets)	1000-00
2. IPM measures	
Marigold seeds – 100 gm (Trap crop)	100-00
Imidacloprid (0.3 ml/l) – 200 ml (White fly)	350-00
Neem cake – 50 kg (Fruit borer)	500-00
Triazophos (1.5 ml/l) (Leaf minor)	250-00
Mancozeb (2.5 gm/l) (Early and late blight)	300-00
Pheromone trap – 5 No. (Fruit borer)	500-00
3. FFS kit	1500-00
4. Stationeries	900-00
5. Caps and Bags	3000-00
6. Refreshment	4000-00
7. Field day	1000-00
8. Publication	5000-00
9. POL	3600-00
10. Exposure visit for FFS farmers	3000-00
Total	25,000.00