

TAMIL NADU AGRICULTURAL UNIVERSITY

**ACTION PLAN REPORT**  
**2008 – 2009**

**KRISHI VIGYAN KENDRA**

**THIRUVARUR**

**TAMIL NADU**

## I. GENERAL INFORMATION

1.	<b>Name and address of KVK with Phone, Fax , e-mail and web address</b>	Krishi Vigyan Kendra Needamangalam-614 404 Thiruvarur District Tamil Nadu Phone : 04367-260666 E-mail : kvkndm@tnau.ac.in
2.	<b>Name and address of host organization with Phone, Fax and e-mail</b>	Tamil Nadu Agricultural University, Coimbatore-641 003 Phone : 0422-2431222 Fax : 0422-2431672 Web site : www.tnau.ac.in Grams : FARMVAR
3.	<b>Name of the Programme Coordinator Residence Phone Number/ Mobile No.</b>	Dr. A. Saravanan 04362-230859 E-mail : kvkndm@tnau.ac.in
4.	<b>Year of sanction</b>	2004
5.	<b>Major farming systems/enterprises</b>	<p>The rice cropping season of this district is divided into Kurvai (Dry), Samba, Thaladi (Wet) and Summer. Rice is the major crop during Kuruvai and Thaladi seasons followed by Pulses (Blackgram and Greengram) Cotton, banana and sugarcane are the other crops grown depending upon the soil types. The area under rice cultivation is only in wetland category ; where as Pulses and Cotton are cultivated as rice fallow crops. The sugarcane and banana are being cultivated in areas of assured water supply as pure crops.</p> <p>Irrigation is mainly through 13 canals of Cauvery, Vennar and Grand Anaicut system. The total length of the 13 canals is 612 km. The gross area irrigated by these canals is 1,83,610 ha.</p> <p>The following are the crop rotation is being followed in Thiruvarur district.</p> <ol style="list-style-type: none"><li>1. Rice – Rice – Rice</li><li>2. Rice – Rice – Pulses (Blackgram &amp; Greengram) / Gingelly</li><li>3. Rice – Rice – Gingelly / Groundnut</li><li>4. Fallow – Rice – Cotton</li><li>5. Sugarcane / Banana - Rice</li><li>6. Pulses / Gingelly – Rice – Pulses (Blackgram &amp; Greengram)</li></ol>

		Alternate cropping against rice is only possible during Kuruvai season (dry). Pulses, Maize, Gingelly and Groundnut are cultivated as alternate crops. As the soil is Predominantly heavy clay type, rice is the only crop which thrives well in case of inundation without much difficulty especially during North East monsoon period.
6.	<b>Name of agro-climatic zone</b>	Cauvery Delta Zone (CDZ)
7.	<b>Soil type</b>	Heavy clay & clay loam
8.	<b>Annual rainfall (mm)</b>	1015

**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.A.Saravanan	Professor and Head (SS&AC)	16400-450-20900-500-22400	12.5.07	Permanent	OBC	ICAR
2.	Subject Matter Specialist	Dr.T.Senguttuvan	Professor (Agrl. Ento.)	16400-450-20900	1.8.07	Permanent	OBC	
3.	Subject Matter Specialist	Th.T.Dhamodharan	Asst. Professor (Agrl. Extn.)	10000-325-15200	23.6.05	Permanent	SC	
4.	Subject Matter Specialist	Th.P.Boominathan	Asst. Professor (Crop Physiology)	8000-275-13500	18.5.05	Permanent	OBC	
5.	Subject Matter Specialist	Dr.V.G.Mathirajan	Asst. Professor (Agrl. Ento.)	8000-275-13500	14.5.07	Permanent	OBC	
6.	Subject Matter Specialist	Dr.S.Anbumani	Asst. Professor (Agronomy)	8000-275-13500	23.5.07	Permanent	OBC	
7.	Subject Matter Specialist	Mrs.S.Jesupriya Poornakala	Asst. Professor (Home Science)	8000-275-13500	16.5.07	Permanent	OBC	
8.	Programme Assistant	Tmt.D.Reka	Home Science	5500-175-9000	4.6.07	Permanent	OBC	
9.	Computer Programmer	Th.M.Muruga	Computer	5500 (Consolidated)	28.8.07	Contractual	OBC	
10.	Farm Manager	Th.R.Karthik	Horticulture	5500-175-9000	5.6.07	Permanent	OBC	
11.	Accountant/Superintendent	Tmt.P.Amutha		4000-100-6000	11.7.07	Permanent	MBC	
12.	Stenographer	Tmt.S.Mehala		5000-100-6000	1.8.04	Permanent	OBC, Physically Handicapped	
13.	Driver	Th.T.Vijayarathinam		3200-85-4900	23.8.07	Permanent	SC	
14.	Driver	Th.K.Karthikeyan		4000-100-6000	20.8.07	Permanent	MBC	
15.	Supporting staff	Th.S.Rajendran		2250-55-2660-60-3200	31.1.06	Permanent	OBC	
16.	Supporting staff	Th.G.Sundaravelu		3050-75-3950-80-4950	17.6.05	Permanent	SC	

### 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.	All discipline	TQM	M/s. Dhan Foundation	7
2.	All discipline	Effective communication skill	MANAGE, Hyderabad	5
3.	All discipline	Concerned subject	ICAR Institutes	As and when offered
4.	Soil Science & Agrl. Chemistry	Advances in diagnosis of crop nutrient requirement and their management	IIHR, Bangalore	21

## 11. Infrastructure

### i) Total Area (ha) with KVK along with Survey Numbers: 19.97

Area Cultivated	Area occupied by buildings and roads	Area with demonstration units
10 ha	2.40	-

### ii) Buildings

Admn. Building			Farmer's Hostel			Staff Quarters			Details of Demonstration Units		
Plinth area (m <sup>2</sup> )	Cost (Rs. in lakh)	Year of Construction	Plinth area (m <sup>2</sup> )	Cost (Rs. in lakh)	Year of Construction	Plinth area (m <sup>2</sup> )	Cost (Rs. in lakh)	Year of Construction	Name	Plinth area (m <sup>2</sup> )	Cost (Rs. in lakh)
548.24	40.47	24.03. 2006	300	27.00	24.03. 2006	397.66	32.00	24.03. 2006	-	-	-

### iii) Vehicles

Type of vehicle	Model	Actual cost (Rs.)	Total kms. Run	Present status
Jeep	Bolero-LX-2HD	4,40,751/-	52,517 km	Good
Tractor with Trailer	Mahindra & Mahindra D1-47540HP (MICO)	4,37,607/-	600 hrs.	Good
Two wheeler	TVS STAR CITY	39,000	10,678 km	Good

### iv) Equipments and AV aids

Sl. No.	Name of Equipments	Date of purchase	Cost (Rs.in lakh)	Present status
1.	Computer with accessories	March, 2005	74,950/-	Good
2.	Digital Copier cum Printer	March, 2005	71,400/-	Good

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

Sl. No	Date	
1.	Conducted during 2007-08	Proposed for 2008-09
	16.10.2007	October, 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.	Needamangalam	Keelapattu	Rice	<ul style="list-style-type: none"> <li>• Difficulty adopting SRI</li> <li>• Low yield due to stem borer</li> <li>• Low yield due to depletion of micro nutrients.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of rotary weeder</li> <li>• Pheromone based management of stem borer.</li> <li>• Popularization of micro nutrient mixture application.</li> </ul>
		Sonapettai	Rice	<ul style="list-style-type: none"> <li>• Difficulty adopting SRI</li> <li>• Low yield due to stem borer</li> <li>• Low yield due to leaf folder and sheath rot.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of rotary weeder</li> <li>• Pheromone based management of stem borer.</li> <li>• Popularization of super <i>Pseudomonas</i></li> </ul>
		Munnavaikottai	Rice	<ul style="list-style-type: none"> <li>• Low productivity in direct sown paddy due to weed menace.</li> <li>• Low income in the existing planting method</li> <li>• Low yield due to leaf folder and sheath rot.</li> </ul>	<ul style="list-style-type: none"> <li>• Optimization of inter row spacing for easy operation of weed.</li> <li>• Popularization of SRI</li> <li>• Popularization of super <i>Pseudomonas</i></li> </ul>
		Naval poondi	Rice	<ul style="list-style-type: none"> <li>• Low yield due to sodicity.</li> </ul>	<ul style="list-style-type: none"> <li>• Soil reclamation measure.</li> </ul>
		Periyakkottai	Rice	<ul style="list-style-type: none"> <li>• Non availability of labour for transplanting.</li> <li>• Low yield due to leaf folder and sheath rot.</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of mechanized transplanting.</li> <li>• Popularization of super <i>Pseudomonas</i></li> </ul>
			Groundnut	<ul style="list-style-type: none"> <li>• Poor population due to traditional method of sowing</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of bullock drawn seed drill.</li> </ul>
		Orathur	Home science	<ul style="list-style-type: none"> <li>• Mal nutrient in pre school children</li> </ul>	<ul style="list-style-type: none"> <li>• Preparation of supplementary food.</li> </ul>
		Kadampur	Rice	<ul style="list-style-type: none"> <li>• Non availability of labour for transplanting.</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of mechanized transplanting.</li> </ul>
		RayapuraM	Rice	<ul style="list-style-type: none"> <li>• Low yield due to blast and sheath blight</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of newer fungicides</li> </ul>

		Thattaikalpadugai	Rice	<ul style="list-style-type: none"> <li>• Indiscriminate use of pesticide and fertilizers</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of organic farming.</li> </ul>
		Vaiyakulathur Paithancheri	Rice fallow black gram	<ul style="list-style-type: none"> <li>• Low yield due to severe incidence of spodoptera</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of IPM</li> </ul>
		Pullavarayankudikadu	Forage	<ul style="list-style-type: none"> <li>• Non availability of green fodder</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of fodder crops</li> </ul>
2.	Mannargudi	Melanagai	Rice	<ul style="list-style-type: none"> <li>• Non availability of labour for transplanting.</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of mechanized transplanting.</li> </ul>
			Groundnut	<ul style="list-style-type: none"> <li>• Drudgery of farm women.</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of groundnut stripper</li> </ul>
			Vegetables	<ul style="list-style-type: none"> <li>• Production of poor quality seedlings</li> <li>• Low yield due to shoot and fruit borer</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of hi-tech nursery</li> <li>• Popularization of IPM</li> </ul>
		Devankudi	Rice	<ul style="list-style-type: none"> <li>• Low productivity in direct sown paddy due to weed menace.</li> </ul>	<ul style="list-style-type: none"> <li>• Optimization of inter row spacing for easy operation of weed.</li> </ul>
		Edamelayur	Rice	<ul style="list-style-type: none"> <li>• Low income in the existing planting method</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of SRI</li> </ul>
		Athichapuram	Rice	<ul style="list-style-type: none"> <li>• Low yield due to BPH</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of IPM</li> </ul>
		Painganadu	Groundnut	<ul style="list-style-type: none"> <li>• Poor population due to traditional method of sowing</li> <li>• Drudgery of farm women</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of bullock drawn seed drill.</li> <li>• Introduction of groundnut stripper</li> </ul>
3.	Valangaiman	Alangudi, Tholur	Rice	<ul style="list-style-type: none"> <li>• Low yield due to salinity</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of salient tolerant TRY-2</li> </ul>
		Pulavarnatham	Rice	<ul style="list-style-type: none"> <li>• Non availability of labour for transplanting.</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of mechanized transplanting.</li> </ul>
		Therkupattam	Rice fallow cotton	<ul style="list-style-type: none"> <li>• Poor germination and establishment</li> </ul>	<ul style="list-style-type: none"> <li>• Alternate method of crop establishment</li> </ul>
4.	Thiruthuraiipoondi	Muthupettai,	Coconut	<ul style="list-style-type: none"> <li>• Low yield due to poor nutrient management</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of INM</li> </ul>
			Home science	<ul style="list-style-type: none"> <li>• Lack of awareness on value addition of fish</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of value addition of fish</li> </ul>
		Thambikkottai	Coconut	<ul style="list-style-type: none"> <li>• Low yield due to poor nutrient management</li> </ul>	<ul style="list-style-type: none"> <li>• Popularization of INM</li> </ul>
		Perugavazhnan		<ul style="list-style-type: none"> <li>• Low income per unit area</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of high density multi tier system</li> </ul>

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

- Saving of inputs and increasing the returns through SRI
- Direct sowing of rice using drum seeder for labour saving
- Increasing the productivity of rice and rice fallow crops
- Enhancing the farm revenue through alternate farming / cropping
- Farm mechanization in rice and groundnut
- Promoting horticultural crops for enhancing the returns
- Creating awareness on micro irrigation and fertigation
- Soil test based INM & management of problem soils
- Location specific IPM in major cultivated crops
- Promotion of organic farming
- Popularization of biocontrol agents and bio fertilizers
- Women empowerment in entrepreneurship
- Training on value addition of agricultural produce



## 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	Paddy	<ul style="list-style-type: none"> <li>• Low productivity due to salinity</li> <li>• No suitable variety</li> <li>• Pests and Diseases.</li> </ul>	Assessment of performance of saline tolerant TRY-2 in salt affected areas of Valangaiman taluk		-	-	-
		<ul style="list-style-type: none"> <li>• Heavy clay content of soil</li> <li>• Drudgery in operating cono weeder</li> <li>• Heavy weight of cono weeder</li> </ul>	Suitability of Rotary weeder in place of conoweeder for the system of rice intensification.		SRI	SRI	-
		<ul style="list-style-type: none"> <li>• Difficulty in square planting</li> <li>• Difficulty in mat nursery</li> <li>• SRI incurs skilled labour</li> </ul>	Optimization of spacing under less density nursery for System of Rice Intensification'		SRI	SRI	-
		<ul style="list-style-type: none"> <li>• Difficult in weeder operation due to narrow row space</li> <li>• Weed menace</li> </ul>	Optimization of inter row spacing in lowland Direct Drum Seeder"		Direct sowing	Direct sowing	-

	<ul style="list-style-type: none"> <li>• Low yield due to pests and diseases</li> <li>• Nutritional disorders</li> <li>• Water inundation</li> </ul>	Pheromone based management of yellow stem borer in Samba / Thaladi paddy.		IPM	IPM	-
	<ul style="list-style-type: none"> <li>• Low productivity in the existing system of planting.</li> </ul>		Popularization of system of rice intensification	SRI	SRI	-
	<ul style="list-style-type: none"> <li>• Micro nutrient deficiency in thaladi /samba</li> </ul>		Popularizing application of micronutrients mixture for yield enhancement in thaladi paddy	INM	INM	-
	<ul style="list-style-type: none"> <li>• Low productivity due to salinity and sodicity.</li> </ul>		Reclamation of sodic soils through application gypsum and organic manure	Reclamation of soils	Reclamation of soils	-
	<ul style="list-style-type: none"> <li>• Non availability of labour</li> </ul>		'Popularization of Rice Transplanter '	Mechanization in rice cultivation	Mechanization in rice cultivation	-
	<ul style="list-style-type: none"> <li>• Out break of BPH in samba / thaladi</li> </ul>		Popularization of IPM with newer insecticides to control BPH causing yield loss in rice during Samba & thaladi seasons	IPM	IPM	-

		<ul style="list-style-type: none"> <li>Yield decline due to pests and diseases</li> </ul>		Popularization of super <i>Pseudomonas</i> for the management of leaf folder and sheath rot in rice.	Biological control of pest and diseases	Biological control of pest and diseases	-
		<ul style="list-style-type: none"> <li>Yield decline due to blast and sheath in samba / thaladi</li> </ul>		Popularization of Azoxystrobin for the management of Rice blast and sheath blight.	IPM	IPM	-
		<ul style="list-style-type: none"> <li>Indiscriminate use of pesticides and fertilizers</li> </ul>		Popularization of rice organic farming in farmers holdings	Organic farming	Organic farming	-
2	Rice Fallow Pulses	<ul style="list-style-type: none"> <li>Water stress in the later stage of crop growth</li> <li>Pests and diseases</li> </ul>	Management of water stress in rice fallow pulses under low land irrigated eco-system.		Production technologies for rice Fallow Pulses	Production technologies for rice Fallow Pulses	-
		<ul style="list-style-type: none"> <li>Yield decline due to incidence of <i>Spodoptera</i></li> </ul>		Popularization of IPM for <i>Spodoptera</i> in rice fallow pulses	IPM	IPM	-
3	Ground nut	<ul style="list-style-type: none"> <li>Low yield due to poor population stand</li> <li>Lack of nutritional management</li> <li>Low yielding varieties</li> </ul>	Management of Sclerotia stem rot in rice follow groundnut		IPM	IPM	-

		<ul style="list-style-type: none"> <li>• Low area coverage by plough sown placement</li> </ul>		Popularization of Bullock drawn seed drill in Groundnut cultivation	Mechanization in groundnut cultivation	Mechanization in groundnut cultivation	-
4	Cotton	<ul style="list-style-type: none"> <li>• Poor establishment</li> <li>• Uneven population</li> <li>• Pest incidence</li> </ul>	Performance of alternative method of crop establishment in rice fallow cotton		Nursery techniques	Nursery techniques	-
		<ul style="list-style-type: none"> <li>• Incidence of sucking pests</li> <li>• Poor establishment</li> <li>• Cropping condition</li> </ul>	Efficacy of Phenthoate and Imidacloprid against mealy bug in rice fallow cotton production		IPM	IPM	-
5	Vasambu	<ul style="list-style-type: none"> <li>• Low productivity in rice due to prolong inundation</li> <li>• Non availability of labour</li> </ul>	Introduction of vasambu		Alternate cropping	Alternate cropping	-
6	Cole crops	<ul style="list-style-type: none"> <li>• Low income from rice based cropping system</li> </ul>	Introduction of cole vegetables under garden land condition in Cauvery delta zone		Alternate cropping	Alternate cropping	-
7	Vegetable	<ul style="list-style-type: none"> <li>• Production of poor quality seedlings.</li> </ul>		Popularization of Hi – tech nursery for Hybrid Vegetable seedlings.	Hi –tech nursery technologies	Hi –tech nursery technologies	-

8	Brinjal	<ul style="list-style-type: none"> <li>• Severe incidence of fruit and borer</li> <li>• Poor yielding local varieties</li> <li>• Poor nutritional management</li> </ul>	Management of Brinjal shoot and fruit borer through ecofriendly methods		IPM	IPM	-
9	Coconut	<ul style="list-style-type: none"> <li>• Low income per unit area</li> </ul>		High density multi tier cropping system in Coconut garden.	Multi tier cropping system in Coconut	Multi tier cropping system in Coconut	-
		<ul style="list-style-type: none"> <li>• Low yield due to imbalanced nutrients</li> </ul>		Popularization of Integrated nutrient management in coconut ecosystem	INM	INM	-
10	Bamboo	<ul style="list-style-type: none"> <li>• Low income from rice based cropping system</li> </ul>		Introduction and Popularization of Thornless Bamboo	Alternate cropping	Alternate cropping	-
11	Forage crops	<ul style="list-style-type: none"> <li>• Non availability of green fodder</li> </ul>		Popularization high yielding Fodder crop Cumbu Napier Hybrid grass Co 3	Alternate cropping	Alternate cropping	-
		<ul style="list-style-type: none"> <li>• Poor quality feed for milch animals</li> </ul>		Popularization of Pillipesera in cauvery old delta.	Alternate cropping	Alternate cropping	-
12	Home Science	<ul style="list-style-type: none"> <li>• Mal nutrition</li> <li>• Poverty</li> <li>• Lack of awareness of nutrition</li> </ul>	Alleviating mal nutrition in the rural poor pre school children using low cost supplementary food.		Alleviating mal nutrition	Alleviating mal nutrition	-

		<ul style="list-style-type: none"> <li>• Low income</li> <li>• Lack of awareness on value addition</li> </ul>		Popularization of value addition of fish	Value addition	Value addition	-
		<ul style="list-style-type: none"> <li>• Mal nutrition</li> </ul>		Popularization of Nutrition garden in rural households for nutritional security in women and children.	Nutrition garden	Nutrition garden	-
		<ul style="list-style-type: none"> <li>• Drudgery among farm women in manual operations</li> </ul>		Reducing drudgery of farm women in agricultural operations through the use of groundnut stripper.	Alleviating Occupational health hazards	Alleviating Occupational health hazards	-

**3. Details of technology assessment and refinement plan of on farm testing  
for 2008-09.**

**Assessment**

<b>Sl. No.</b>	<b>Problem identified</b>	<b>Technology for assessment</b>	<b>No. of On Farm Trials</b>
1.	Low yield due to soil salinity.	Assessment of performance of saline tolerant TRY-2 in salt affected areas of valangaiman taluk	10
2.	The <i>Sclerotia</i> stem / collar rot is a main problem in groundnut raised after rice resulting in poor yield.	Management of Sclerotia stem rot in rice fallow groundnut	5
3.	Water stress during flowering and pod formation.	Management of water stress in rice fallow pulses under low land irrigated eco-system.	5
4.	Dibbling of cotton seeds in rice stubbles results in poor establishment leading to uneven population.	Performance of alternative method of crop establishment in rice fallow cotton	5
5.	Among sucking pests in damaging Bt cotton, mealy bug causes yield reduction and affects the quality of kapas.	Efficacy of Phenthoate and Imidacloprid against mealy bug in rice fallow Bt cotton production	5
6.	Water logging and low yield of rice grown to clay soils results in low income.	Introduction of vasambu	5
7.	Low income from rice based cropping system.	Introduction of cole vegetables under garden land condition in Cauvery delta zone	5

## Refinement

Sl. No.	Problem identified	Technology for refinement	No. of On Farm Trials
1.	Difficulty in conoweeding in clay soil under SRI	Suitability of Rotary weeder in place of conoweeder for the system of rice intensification.	10
2.	Low yield under high density nursery and young seedlings.	Optimization of spacing under less density nursery for System of Rice Intensification'	5
3.	Less spacing in direct sown drum seeder leading to difficult in weeding.	Optimization of inter row spacing in lowland Direct Drum Seeder"	5
4.	Timely and Non availability of parasitoids for yellow stem borer	Phermone based management of yellow stem borer in Samba / Thaladi paddy.	5
5.	Heavy yield loss due to shoot and fruit borer.	Management of Brinjal shoot and fruit borer through ecofriendly methods	5
6.	Prevalence of mal nutrition among pre school children.	Alleviating mal nutrition in the rural poor pre school children using low cost supplementary food.	20 pre school children.



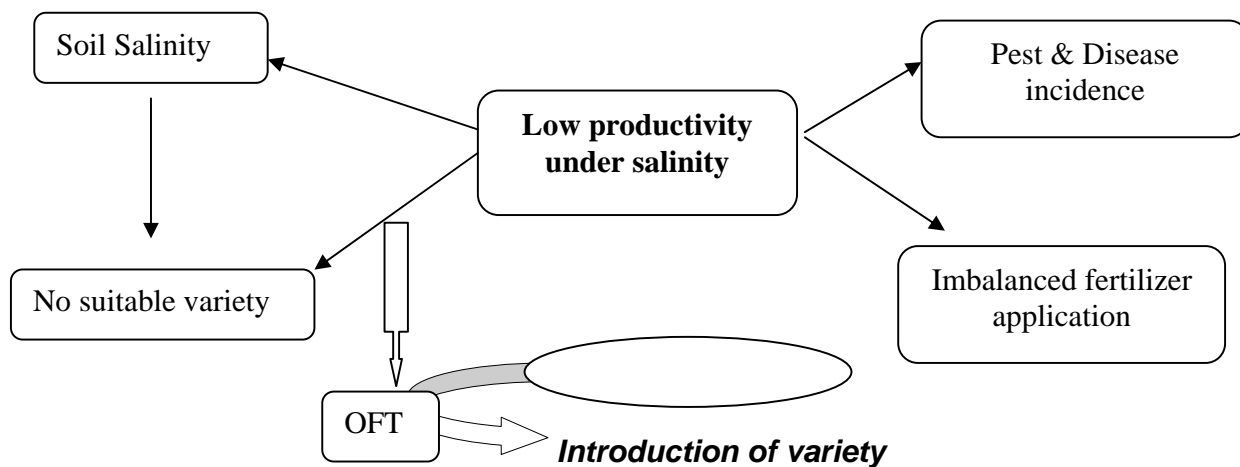
## **PLAN OF ON FARM TESTING IN CASE ASSESSMENT FOR 2008-09**

### **RICE**

#### **3.1**

<b>1.</b>	<b>Title of the technology to be assessed</b>	:	Assessment of performance of saline tolerant TRY-2 in salt affected areas of valangaiman taluk
<b>2.</b>	<b>Agro – ecological zone</b>	:	Cauvery Delta Zone (Irrigated low land system)
<b>3.</b>	<b>Production system</b>	:	Rice-rice-pulses
<b>4.</b>	<b>Problem definition</b>	:	Introduction of salt tolerant TRY-2 in salt affected areas

#### **5. Problem cause diagram**



#### **6. Number of farmers and area affected in the operation villages**

No. of farmers : 190  
 Area affected : 260 ha

## 7. Rationale for proposing the assessment

In valangaiman taluk more than 50% of areas was affected by salt. Though the existing varieties suitable for thaladi season, there is no best varieties available for kuruvai or short duration. For this season TRY-2 variety from ADAC&RI, Trichy suitable to salt affected soil is proposed to take up for assessment.

## 8. Technology options for assessment along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	ADT-43	TRRI, TNAU	-
2	Technology option 1	TRY-2	ADAC& RI, Trichy, TNAU	Salt tolerant variety suitable for short duration with high yield potential

## 9. Parameters to be measured in relation to the technology

- No. of productive tillers
- No. of panicles
- No. of grains/panicle
- Yield/ha

## 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Alangudi	Will be identified based on their interest and involvement	1.5 ha
2.	Tholur		1.5 ha

## 11. Budget for assessment

S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	TRY-2	225 kg/3 ha	Rs.15	3,375
<b>Total</b>				<b>3,375</b>

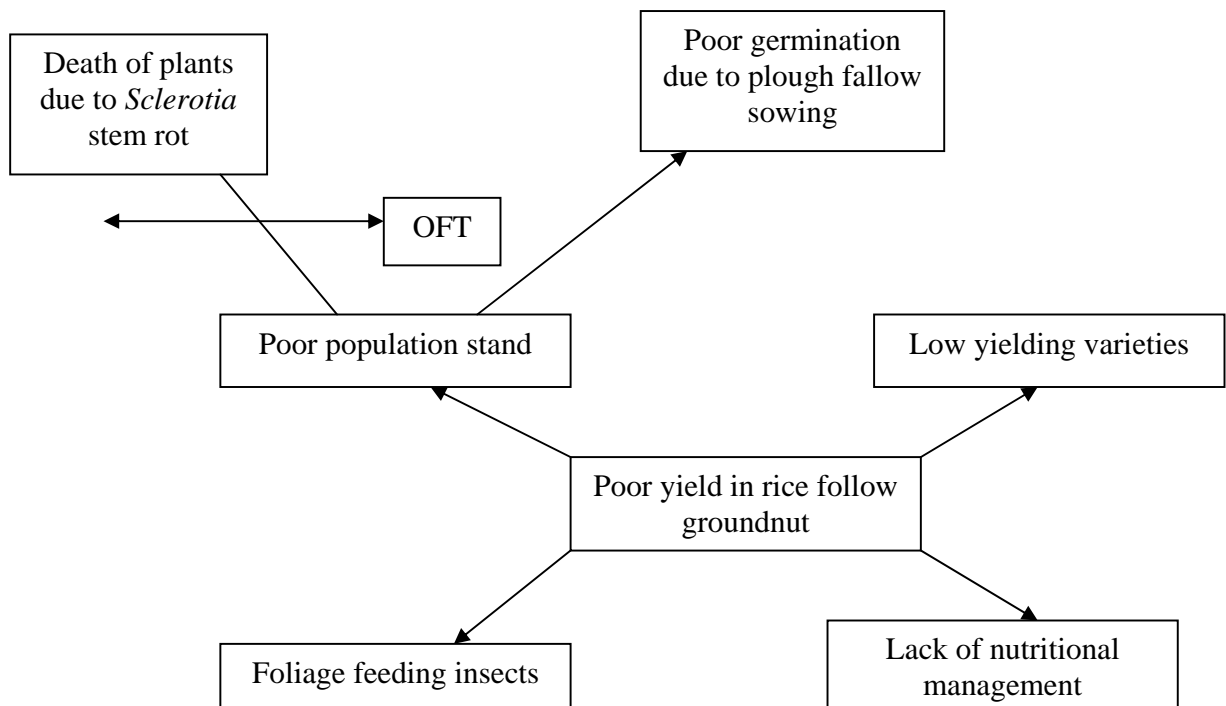
## GROUNDNUT

### 3.2

1.	<b>Title of the technology to be assessed</b>	:	Management of <i>Sclerotia</i> stem rot in rice follow groundnut
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (Irrigated upland system)
3.	<b>Production system</b>	:	Rice – groundnut / Rice – groundnut – pulses
4.	<b>Problem definition</b>	:	

The *Sclerotia* stem / collar rot is a main problem in groundnut raised after rice causing death of plants which leads to poor crop stand and thus reduction in yield.

### 5. Problem cause diagram



### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	75
Area affected	:	100 ha

## 7. Rationale for proposing the assessment

The condition of the soil after rice will be different from normal soil in which groundnut is grown. Thus it is proposed to assess these technological options under rice follow groundnut conditions.

## 8. Technology options for assessment along with justification

S. No	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	-	-	-
2	Technology option 1	Seed treatment with <i>Trichoderma viride</i> @ 4g/kg + soil application of <i>Pseudomonas</i> @ 2.5 kg/ha with 50 kg of FYM at 30 DAS	TNAU	These technologies have to be assessed in groundnut crop raised after rice, where in the soil condition will be different
3	Technology option 2	Seed treatment @ 2g/l + spot drenching @1g/2lit with Carbandazim		

## 9. Parameters to be measured in relation to the technology

Germination percentage, population stand, percent disease incidence, percent reduction in disease incidence and yield loss, yield and cost: benefit analysis

## 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Mela Nagai (Manargudi block)	Will be identified based on their interest and involvement	3 ha (0.6 x 5)

## 11. Budget for assessment

S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Groundnut seed (kg) (125 kg/ha)	375/3 ha	45/kg	16,875
2.	<i>Trichoderma viride</i> (kg)	2.0/2 ha	120/kg	240
3.	<i>Pseudomonas</i> (kg) (2.5 kg/ha)	5.0/2 ha	100/kg	500
4.	Carbandazim (kg)	4.0/2 ha	600/kg	2,400
<b>Total</b>				<b>20,015</b>

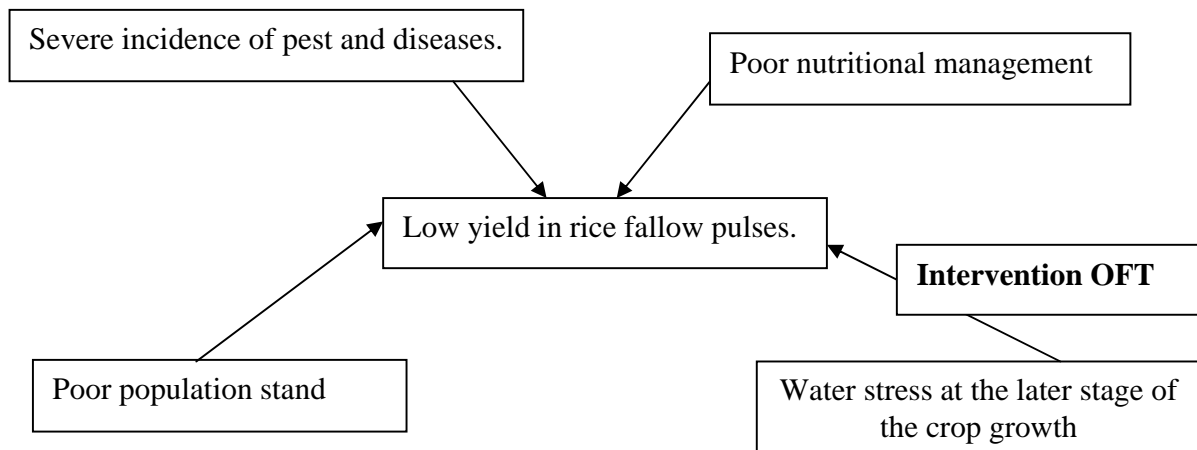
## PULSES

### 3.3

1.	<b>Title of the technology to be assessed</b>	:	Management of water stress in rice fallow pulses under low land irrigated eco-system.
2.	<b>Agro – ecological zone</b>	:	Cauvery old delta- irrigated low land eco-system
3.	<b>Production system</b>	:	Rice – Rice – Pulses Rice – Pulses.
4.	<b>Problem definition</b>	:	

The yield is low in rice fallow pulses due to so many reasons. One of the reasons is prevalence of water stress in the later stage of crop growth, especially during flowering and pod setting stage.

### 5. Problem cause diagram



### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	365
Area affected	:	250 ha

### 7. Rationale for proposing the assessment

Generally the farmer raises the pulses with residual moisture available in the soil. The residual moisture will be sufficient for the crop growth only up to 15-30 days depending upon the soil conditions and time of sowing.

Hence, the crops suffer due to water stress in the later stage of the plant growth. More over the crop can not be irrigated as the cracks are formed in the clay fields. Hence it is proposed to assess the mobile sprinkler and rain gun to solve the water stress problem in the later stage of rice fallow pulses.

### 8. Technology options for assessment along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's Practice	No irrigation and rainfed	ITKS	-
2	Technological option 1	mobile sprinkler	TNAU	Mobile sprinkler will solve the water stress problem as well as it can be suited for terrain undulated and limited water availability
3	Technological Option 2	Rain gun	TNAU	Rain gun will solve the water stress problem as well as it and be suited for terrain undulated and limited water availability

### 9. Parameters to be measured in relation to the technology

- Yield
- Cost analysis

### 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Nannilam	Will be identified based on their interest and involvement	0.4 ha.
2.	Thirunellikaval		0.6 ha.

### 11. Budget for Assessment

S. No	Critical inputs for technological options			
	Name	Qty.	Unit Cost	Total Cost
1	Seed	25 kg.	75	1,875
2	Mobile sprinkler	2 unit	4,500	9,000
3	Rain gun	2 unit	5,000	10,000
<b>Total</b>				<b>20,875</b>

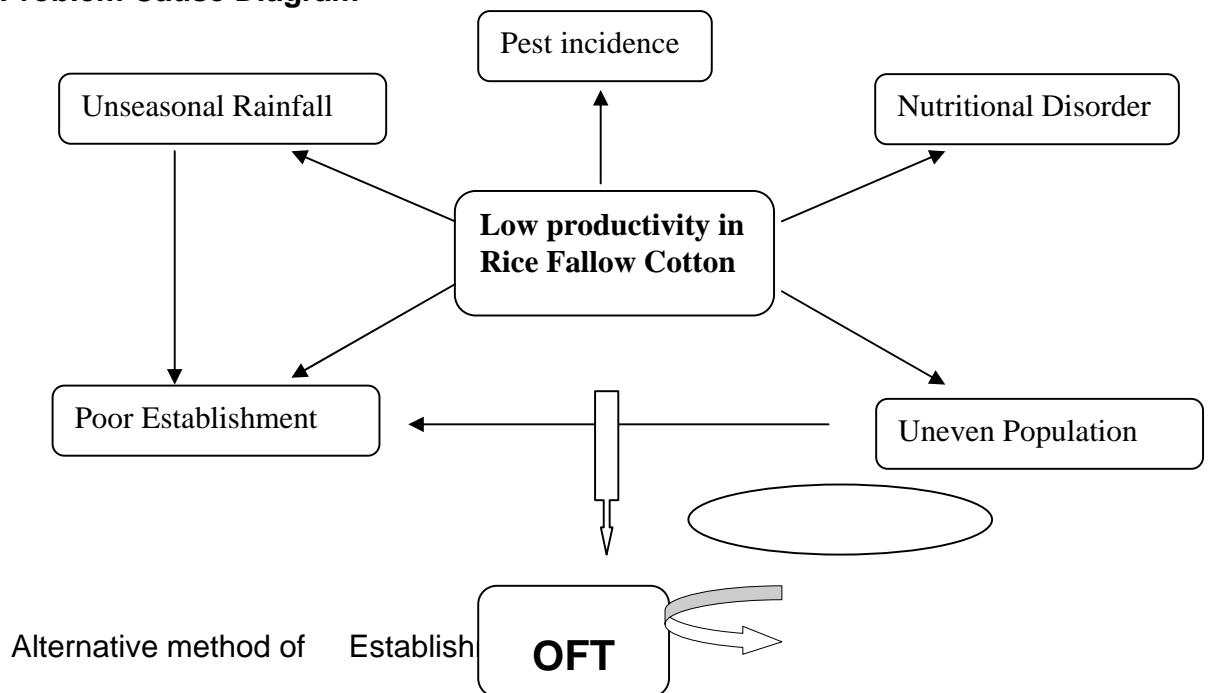
## COTTON

### 3.4

1. **Title of the technology to be assessed** : Performance of alternative method of crop establishment in rice fallow cotton
2. **Agro Ecological Zone** : Irrigated lowland ecosystem
- 3: **Production system** : Rice – Cotton
4. **Problem definition**

Rice followed by cotton cultivation is being practiced in Old Cauvery delta for long period by utilizing residual moisture for crop establishment. Of late, poor germination and establishment is witnessed in major area due to greater variability of soil moisture in general and unseasonal rainfall in particular. Hence, raising the cotton seedling in protray and poly bags and transplanting the same has to be assessed to address the above problem.

#### 5. Problem Cause Diagram



#### 6. No. of farmers and area affected in the operational villages

**More than 500 farmers with > 325 hectares**

***Transplanting of cotton seedling in rice fallow condition is an option to address the poor establishment of direct dibbled cotton. Hence raising of cotton seedlings in poly bags and pro trays would pave way for the timely planting and optimal plant population maintenance, apart saving in seed which is being costly input in recent days.***

***8. Technology options for assessment with justification***

<b><i>Sl. No</i></b>	<b><i>Technological Options</i></b>	<b><i>Details of Technology</i></b>	<b><i>Source of Technology</i></b>	<b><i>Justification</i></b>
<b><i>1.</i></b>	<b><i>Farmers Practice</i></b>	<b><i>Direct dibbling immediately after rice harvest</i></b>	<b><i>ITKS</i></b>	<b><i>-</i></b>
<b><i>2.</i></b>	<b><i>Tech.Option 1</i></b>	<b><i>Raising seedling in pro tray with coir medium</i></b>	<b><i>TNAU</i></b>	<b><i>Brinjal is being grown in protray in precision farming project. So cotton can be grown in pro tray since both the crops are same family owing tap root system.</i></b>
<b><i>3.</i></b>	<b><i>Tech.Option 2</i></b>	<b><i>Raising seedling in polybags with soil as medium</i></b>	<b><i>TNAU</i></b>	<b><i>As like sugarcane, cotton seedling also grown and transplant with tap rooted seedling.</i></b>

***9. Parameters to be measured in relation to the Technology***

***Germination percentage, vigor index, root volume, seedling height, crop establishment percentage in the main field, seed cotton yield and cost benefit analysis.***



10. Details of Farmers

Sl. No.	Name of Village	Name of Farmer	Area (Ha)
1.	<b>Therkkupattam (Valangaiman Tk)</b>	<b>Will be identified based on their interest and involvement</b>	<b>0.4</b>
2.	<b>Perumpannaiyur (Kudavasal Tk)</b>		<b>0.4</b>
3.	<b>Poongulam (Nannilam Tk)</b>		<b>0.2</b>

11. Budget for Assessment

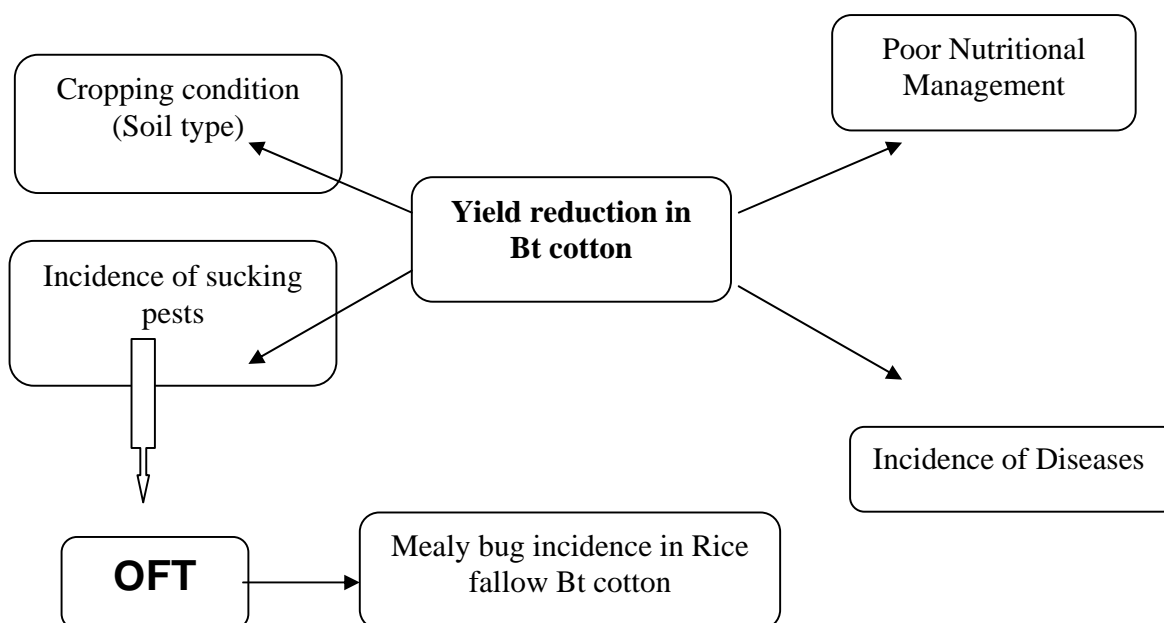
Sl. No.	Critical inputs for Technological options			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1.	<b>Hybrid Seed</b>	<b>5 kg</b>	<b>300</b>	<b>1,500</b>
2.	<b>Pro trays</b>	<b>100 Nos.</b>	<b>13/tray</b>	<b>1,300</b>
3.	<b>Poly bags</b>	<b>10,000 Nos.</b>	<b>25/1000 NO.</b>	<b>250</b>
4.	<b>Rose can</b>	<b>5 Nos.</b>	<b>200/No.</b>	<b>1,000</b>
4.	<b>Composted coir medium</b>	<b>200 kg</b>	<b>3/kg</b>	<b>600</b>
5.	<b>Micronutrient mixture</b>	<b>10 kg</b>	<b>50/kg</b>	<b>500</b>
<b>Total</b>				<b>5,150</b>

### 3.5

1.	<b>Title of the technology to be assessed</b>	:	Efficacy of Phenthoate and Imidacloprid against mealy bug in rice fallow Bt cotton production
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (Irrigated lowland system)
3.	<b>Production system</b>	:	Rice – Cotton
4.	<b>Problem definition</b>	:	

Among sucking pests in damaging Bt cotton, mealy bug causes yield reduction and affects the quality of kapas.

#### 5. Problem cause diagram



#### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	100
Area affected	:	40 ha

#### 7. Rationale for proposing the assessment

Bt cotton production in rice fallow system is being popularized through front line demonstration in Thiruvavur district. Mealybug is an emerging national problem in Bt cotton production. Incidence of mealybug was also observed in rice

fallow Bt cotton. Recommended chemical pesticides viz., Imidacloprid and Fish oil rosin soap showed their efficacy in variety / hybrid cotton production and they were not assessed in Bt cotton production system. Phenthoate is recommended for coccids in other ecosystem. Hence, it is proposed to assess the efficacy of these chemicals in rice fallow Bt cotton production system.

#### 8. Technology options for assessment along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Monocrotophos 2.5ml/litre	-	-
2	Technology option 1	Imidacloprid – 0.5 ml /lit	TNAU	Effective against mealy bugs.
3	Technology option 2	Phenthoate – 2.5 ml/lit	TNAU	

#### 9. Parameters to be measured in relation to the technology

Percent infestation, population load, yield and cost: benefit analysis

#### 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Pattam	Will be identified based on their interest and involvement	2

#### 11. Budget for assessment

S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Monocrotophos – 2 ml/litre	500 ml / acre	500 / lit.	2,500
2.	Imidacloprid – 0.5 ml /lit	50 ml/acre	200/lit	1,000
3.	Phenthoate – 2ml/lit	500 ml /acre	500/lit.	2,500
4	Bt cotton seed	5 pockets	750 / pocket	3,750
<b>Total</b>				<b>9,750</b>

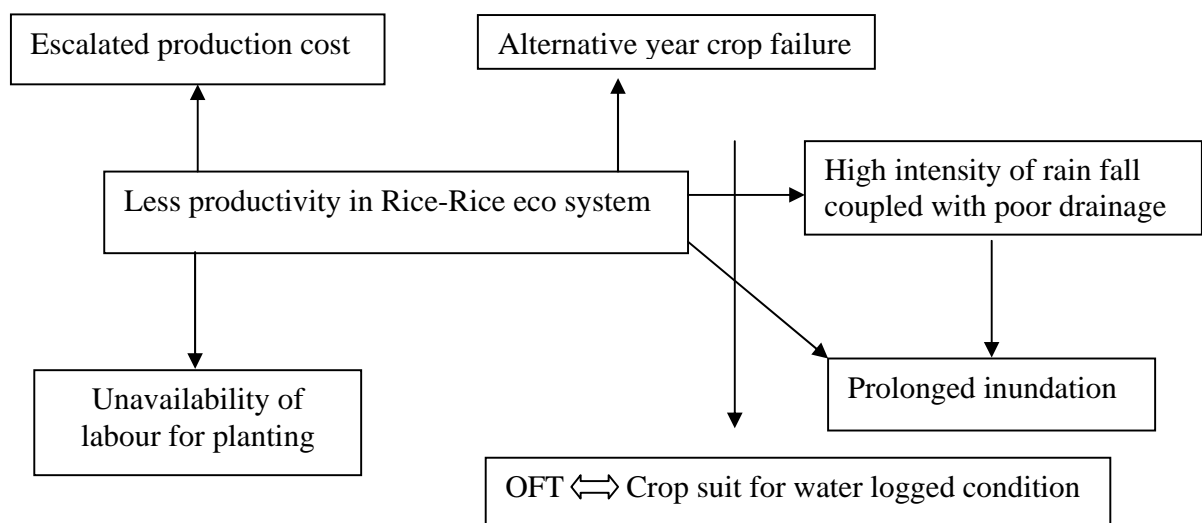
## HORTICULTURE

### 3.6

1.	<b>Title of the technology to be assessed</b>	:	Introduction of vasambu
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (Irrigated lowland ecosystem)
3.	<b>Production system</b>	:	Rice – rice-rice / Rice – rice-pulses
4.	<b>Problem definition</b>	:	

In Cauvery old delta, the farmers cultivate paddy in larger areas. In monsoon period high intensity of rain fall coupled with poor drainage leading to prolonged inundation of water causes poor yield of rice crop in alternative year. Hence vasambu suits very well under water logged condition, but it has to be assessed in comparison with existing crops.

### 5. Problem cause diagram



### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	150
Area affected	:	50 ha

## 7. Rationale for proposing the assessment

Less profitability of Rice-Rice system, due to several factors. Hence cultivation of Vasambu can be introduced instead of rice in the district for assured income to farmers.

## 8. Technology options for assessment along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Rice-Rice system	-	-
2	Technology option 1	Vasambu	TNAU	• Vasambu comes very well under water logged condition.

## 9. Parameters to be measured in relation to the technology

- Yield
- Cost benefit ratio

## 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Koradachery	Will be identified based on their interest and involvement	0.5
2.	Thirumahalam		0.5

## 11. Budget for Assessment

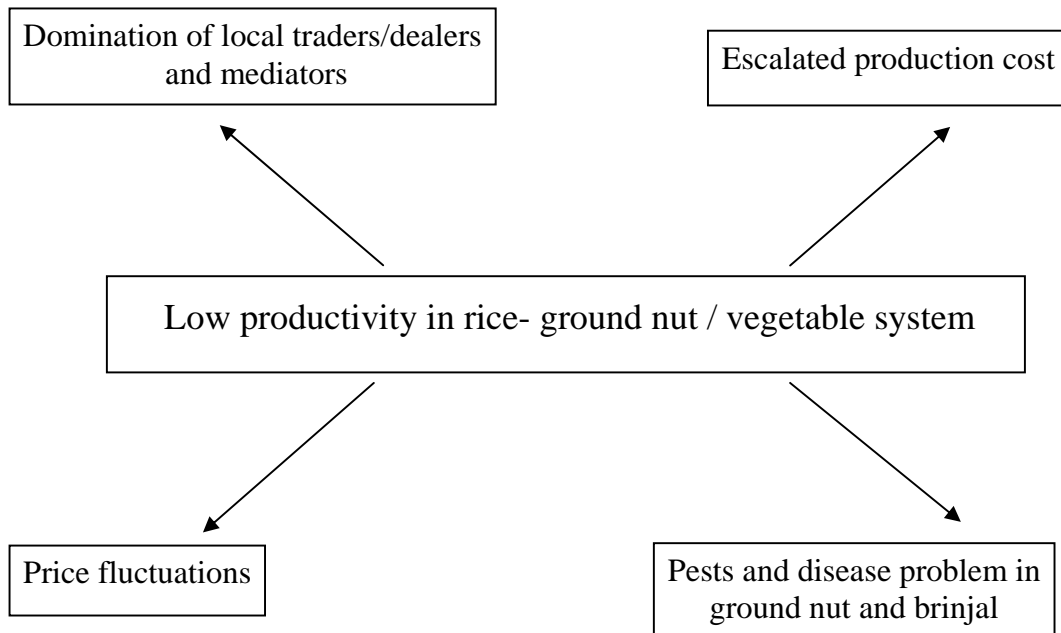
S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1.	Vasambu rhizomes	5tonnes/ha	30/kg	15,000
2.	Pseudomonas	10kg/ha	100/kg	1,000
<b>Total</b>				<b>16,000</b>

### 3.7

1.	<b>Title of the technology to be assessed</b>	:	Introduction of cole vegetables under garden land condition in Cauvery delta zone
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (irrigated upland system)
3.	<b>Production system</b>	:	Rice – Ground nut / Rice – Vegetables
4.	<b>Problem definition</b>	:	

In new Cauvery delta zone, the farmers cultivate groundnut in larger areas and vegetables like brinjal, bhendi and chillies in certain pockets during Dec-Jan after rice crop. The local needs of the cole vegetables are met by the supply from long distance and are sold at higher price. The knol khol and beet root come very well in winter season. Hence this can be introduced in to new Cauvery delta which will generate more income to farmers.

### 5. Problem cause diagram



### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	200
Area affected	:	150 ha

## 7. Rationale for proposing the assessment

Demand of cole vegetable is high. Hence cultivation of knol khol and beet root instead of ground nut and brinjal in the district for assured income to farmers.

## 8. Technology options for assessment along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice		-	-
2	Technology option 1	Knol khol	TNAU	Knol khol and beet root may fetch higher income to farmers
3	Technology option 2	Beet root		

## 9. Parameters to be measured in relation to the technology

- Yield
- Cost benefit ratio

## 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Melanagai	Will be identified based on their interest and involvement	1.0
2.	Neduavakkottai		1.0

## 11. Budget for Assessment

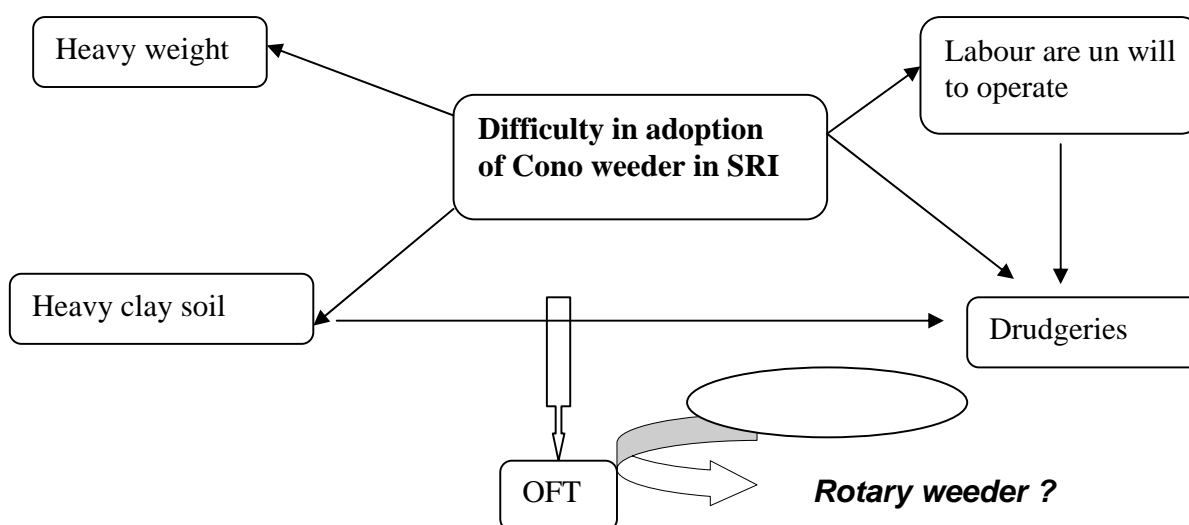
S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Knol khol	2.5Kg/ha	600/kg	3000
2.	Beet root	10Kg/ha	300/kg	6000
3.	Pseudomonas	10kg/ha	75/kg	1500
4.	Azospirillam	20kg/ha	40/kg	1600
<b>Total</b>				<b>12,100</b>

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

### 3.8

1.	<b>Title of the technology to be refined</b>	:	Suitability of Rotary weeder in place of conoweeder for the system of rice intensification.
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (irrigated lowland system)
3.	<b>Production system</b>	:	Rice – rice – rice
4.	<b>Problem definition</b>	:	Difficulty in conoweeding in clay soil under System of rice intensification

### 5. Problem cause diagram



### 6. Number of farmers and area affected in the operation villages

No. of farmers	:	250
Area affected	:	340 ha

### 7. Rationale for proposing the refinement

The farmers find difficulty in adopting System of rice intensification though this method of cultivation is well suited to this region because of cumbersome



process of conoweeding in heavy clay soils for which we proposed to use rotary weeder which is light weight and can be operated easily under clay soil

### 8. Technology options for refinement along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Hand weeding	-	-
2	Technology selected for refinement	Use of Conoweeder to incorporate weeds	IRRI	Incorporate weeds effectively but difficult in clay soil.
3	Technology option 1	Use of Rotary weeder to incorporate weeds	-	Light weight with single wheel and easy to operate

### 9. Parameters to be measured in relation to the technology

- No. of productive tillers
- No. of panicles
- No. of grains/panicle
- Yield/ha

### 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Keelapattu	Will be identified based on their interest and involvement	5
2.	Sonapettai		5

### 11. Budget for refinement

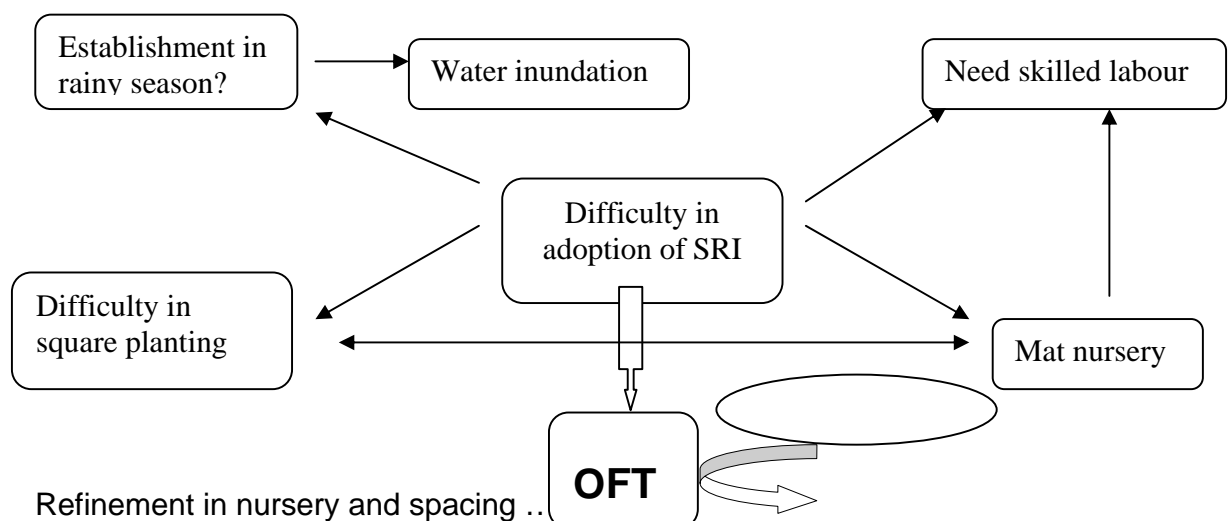
S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Cono weeder	10 nos	600	6000
2.	Rotary weeder	10 nos	300	3000
			Total	9000

### 3.9

1. **Title of the technology to be refined** : Optimization of spacing under less density nursery for System of Rice Intensification
2. **Agro Ecological Zone** : Irrigated lowland ecosystem
- 3: **Production system** : Rice - Rice – Pulses / cotton
4. **Problem definition**

Introduction of System of Rice Intensification in Cauvery delta Zone got overwhelming response among the stakeholders at beginners level. At later days, practicing of individual components has been sacrificed because of operational difficulty and resource availability despite of its establishment problem in Cauvery old delta due to heavy clay content and planting of young tender seedlings. Square planting of rice at 22.5 x 22.5 cm also incurs more labour. By keeping the above view an attempt was made by a farmer to widen the spacing further to 50 cm x 50 cm to reduce labour requirement. Transplanted 25 days old robust seedling with two primary tillers produced from the nursery where sparse sowing was made. Hence, System of Rice Intensification has to be refined by incorporating the framers innovation is proposed.

#### 5. Problem Cause Diagram



#### 6. No. of farmers and area affected in the operational villages

**More than 150 farmers with > 200 hectares**

**Spaced rice transplanting with 25 days old robust seedling produced from less density-sown nursery owes credibility to maximize the productivity and easy adoptability by the farmers. Transplanting of robust seedling with two primary tillers establish very well in heavy clayey soil. The above concept was originated from farmer's side. Hence, this can be incorporated in SRI to make it as simpler and adoptable one to the rice growers.**

**8. Technology options for refinement along with justification**

<b>Sl. No</b>	<b>Technological Options</b>	<b>Details of Technology</b>	<b>Source of Technology</b>	<b>Justification</b>
<b>1.</b>	<b>Farmers Practice</b>	<b>Conventional planting</b>	<b>-</b>	<b>-</b>
<b>2.</b>	<b>Technology selected for Refinement.</b>	<b>System Rice Intensification (YOSCI) 22.5 x 22.5 cm</b>	<b>Madagascar , IRRI &amp; TNAU</b>	<b>Raising seedling in mat nursery cumbersome Establishment of tiny young seedling is problem Planting incurs additional labors</b>
<b>3.</b>	<b>Tech. Option 1</b>	<b>Sparse sowing in nursery and planting 25 days old seedling at 40 x 40 cm + SCI</b>	<b>New attempt</b>	<b>Planting robust seedling with two primary tillers under wider spacing enhances tillering ability.</b>
<b>4.</b>	<b>Tech. Option 2</b>	<b>Sparse sowing in nursery and planting 25 days old seedling at 50 x 50 cm + SCI</b>	<b>Farmers Innovation</b>	<b>Planting robust seedling with two primary tillers under wider spacing enhances tillering ability.</b>

**9. Parameters to be measured in relation to the Technology**

**Vigor index of the seedling, root volume of the seedlings and plants, seedling height, crop establishment percentage in the main field, productive tillers. No of filled grains, grain yield and cost benefit analysis.**

10. Details of Framers

Sl. No.	Name of Village	Name of Farmer	Area (Ha)
1.	<b>Vadakkupattam (Valangaiman Tk)</b>	<b>Will be identified based on their interest and involvement</b>	<b>0.4</b>
2.	<b>Thattaikalpadugai (Needamangalam Tk)</b>		<b>0.4</b>
3.	<b>Thozhuvur (Valangaiman Tk)</b>		<b>0.2</b>

11. Budget for refinement

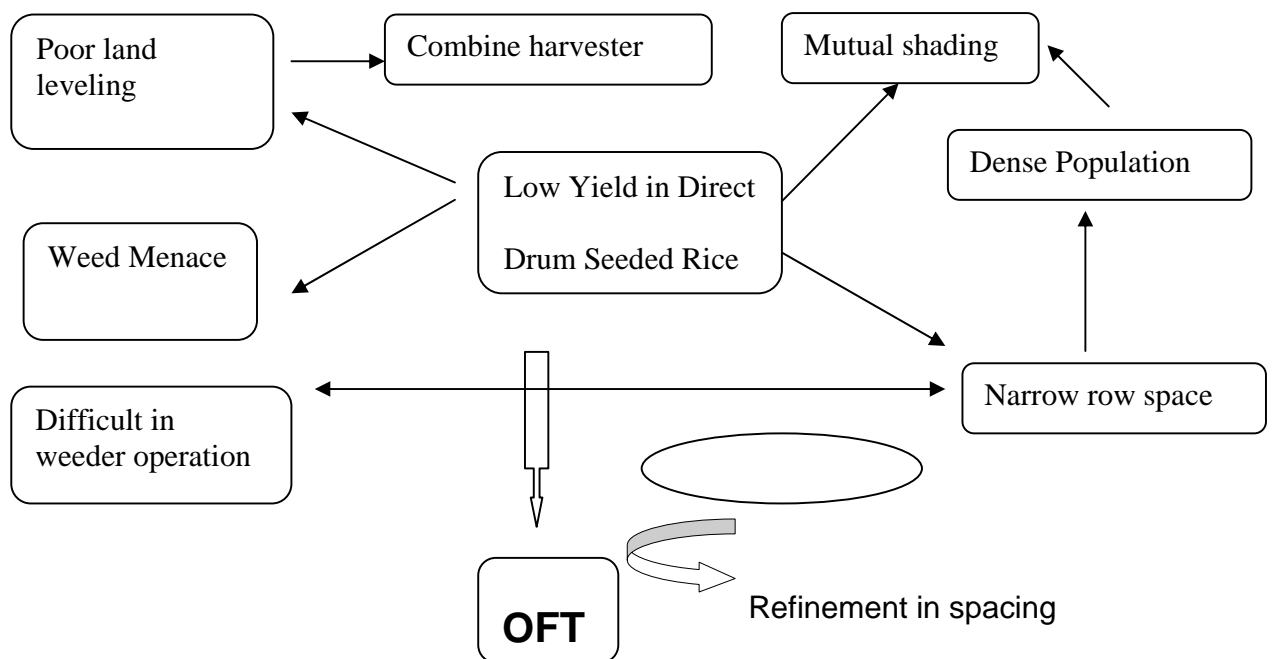
Sl. No.	Critical inputs for Technological options			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1.	<b>Cono weeder</b>	<b>10 Nos.</b>	<b>750</b>	<b>7500</b>
2.	<b>LCC</b>	<b>10 Nos.</b>	<b>40</b>	<b>400</b>
<i>Total</i>				<b>7,900</b>

### 3.10

1. **Title of the technology to be refined** : Optimization of inter row spacing in lowland Direct Drum Seeded Rice
2. **Agro Ecological Zone** : Irrigated lowland ecosystem
3. **Production system** : Rice - Rice- Pulses / Cotton
4. **Problem definition**

Direct drum seeder suitable to sow in puddled soil owes greater advantages to the farmers on labour saving and timely sowing particularly during peak season. The spacing between rows is 20 cm. This space is not enough to operate cono weeder and the vegetation is more that leads mutual shading. Hence refinement in the seeder to sow at 25 and 30 cm row spacing facilitate for the easy operation of the weeder and also to reap higher productivity. The above refinement is requested by the farmers through their feedback from the last year FLD (2007-08).

#### 5. Problem Cause Diagram



6. No. of farmers and area affected in the operational villages:

**More than 100 farmers with > 150 hectares**

**Refinement in the seeder to sow at 25 and 30 cm row spacing facilitate for the easy operation of the weeder and also to reap higher productivity by avoiding mutual shading. By incorporating the farmers feed back this refinement is proposed.**

*8. Technology options for refinement along with justification*

<i>Sl. No</i>	<i>Technological Options</i>	<i>Details of Technology</i>	<i>Source of Technology</i>	<i>Justification</i>
<b>1.</b>	<b>Farmers Practice</b>	<b>Conventional planting</b>	<b>-</b>	<b>-</b>
<b>2.</b>	<b>Technology selected for Refinement.</b>	<b>Direct drum seeded rice practiced in puddled soil. Row spacing 20 cm.</b>	<b>TNAU 2002</b>	<b>Narrow space leads to more canopies and mutual shading and weeder operation is difficult.</b>
<b>3.</b>	<b>Tech. Option 2</b>	<b>Direct drum seeded rice practiced in puddled soil. Row spacing 25 cm</b>	<b>Farmers feed back</b>	<b>Wider spacing minimizes shading and facilitates for easy weeder operation and enhances tillering ability.</b>
<b>4.</b>	<b>Tech. Option 1</b>	<b>Direct drum seeded rice practiced in puddled soil. Row spacing 30 cm</b>	<b>Farmers feed back</b>	<b>Wider spacing minimizes shading and facilitates for easy weeder operation and enhances tillering ability.</b>

*9. Parameters to be measured in relation to the Technology*

**Crop establishment percentage, seed rate, vigor index, root volume of the plants, productive tillers. No of filled grains, grain weight, grain yield, operational efficiency and cost benefit analysis.**

10. Details of Farmers

Sl. No.	Name of Village	Name of Farmer	Area (Ha)
1.	<b>Pulavarnatham (Valangaiman Tk)</b>	<b>Will be identified based on their interest and involvement</b>	<b>0.2</b>
2.	<b>Neduvasal ( Kudavasal Tk)</b>		<b>0.2</b>
3.	<b>Thozhuvur (Valangaiman Tk)</b>		<b>0.2</b>
4.	<b>Devangudi (Mannargudi Tk)</b>		<b>0.2</b>
5.	<b>Moonavalkottai (Needamangalam Tk)</b>		<b>0.2</b>

11. Budget for refinement

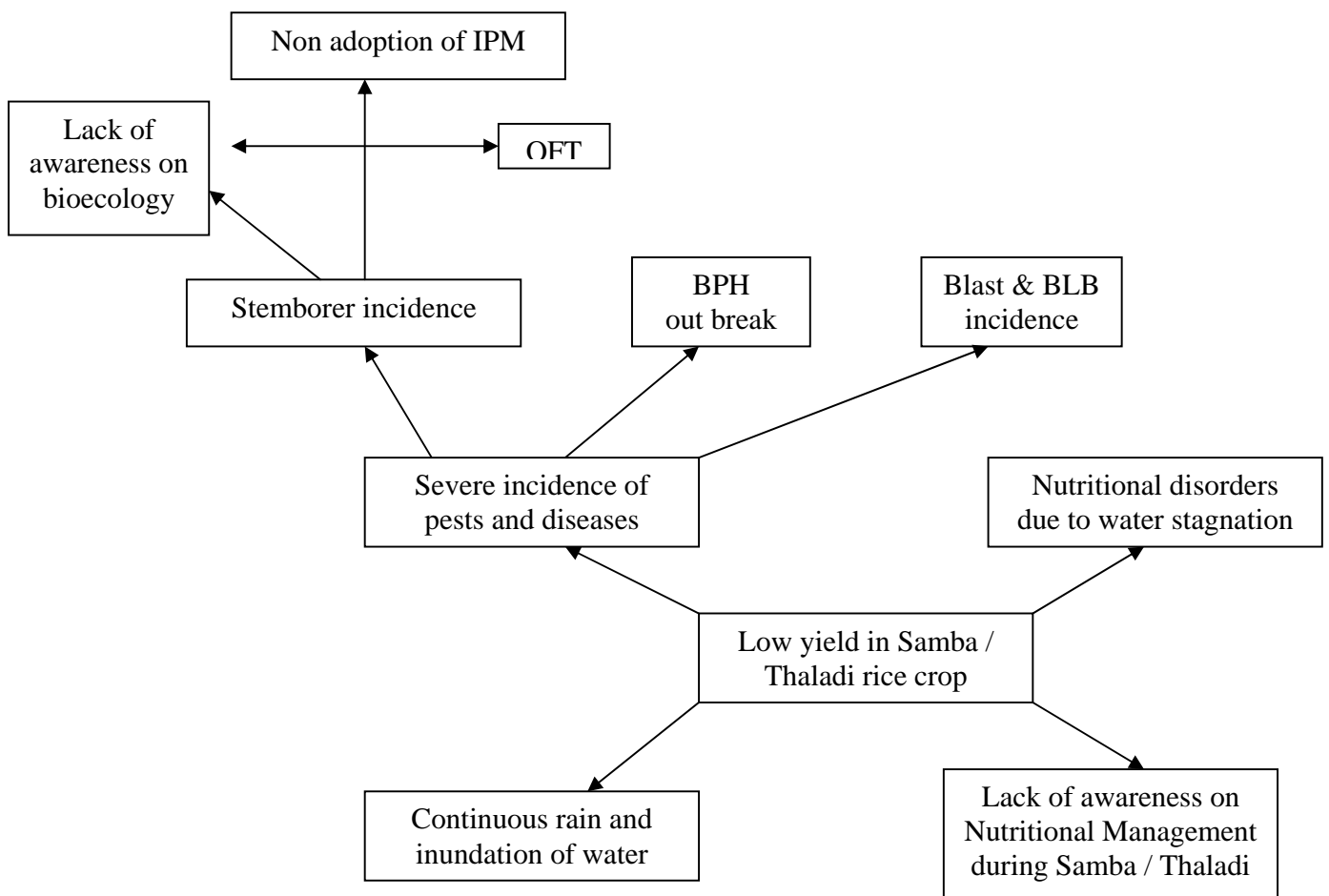
Sl. No.	Critical inputs for Technological options			
	Name	Qty.	Unit Cost (Rs.)	Total Cost (Rs.)
1.	<b>Drum seeder with alteration in spacing</b>	<b>2 Nos.</b>	<b>6,500</b>	<b>13,000</b>
2.	<b>Cono weeder</b>	<b>5 Nos.</b>	<b>750</b>	<b>3,50</b>
<b>Total</b>				<b>16,750</b>

### 3.11

1.	<b>Title of the technology to be refined</b>	:	Phermone based management of yellow stem borer in Samba / Thaladi paddy.
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (Irrigated lowland system)
3.	<b>Production system</b>	:	Rice – rice – rice / Rice – rice / Rice – rice – pulses
4.	<b>Problem definition</b>	:	

Yellow stem borer, *Scripophaga incestulas* causes heavy damage and yield loss in Samba / Thaladi rice than Kuruvai and summer crop. This is one of the problems causing yield reduction in rice crop during Samba / Thaladi season.

### 5. Problem cause diagram





## 6. Number of farmers and area affected in the operation villages

No. of farmers	:	250
Area affected	:	400 ha

## 7. Rationale for proposing the refinement

The farmers find difficult in getting egg parasitoids and timely releasing them to control stem borer and thus they go only for pesticides that too in the advanced stage of infestation. Hence the existing IPM module can be refined with pheromal attraction of adults as one of the components which they can make it available for use before planting.

## 8. Technology options for refinement along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Only insecticides	-	-
2	Technology selected for refinement	Removal of egg masses + release of <i>Trichogramma Japonicum</i> @ 6cc/ release on 30 & 37 DAT + ETL based application of insecticides from a week later	TNAU	-
3	Technology option 1	Removal of egg masses + Pheromone traps @ 12/ha + ETL based application of insecticides (Cartap)	DRR, Hyderabad	Farmers are finding difficult in timely using of egg parasitoids in the existing IPM. Hence it is replaced with pheromone traps.

## 9. Parameters to be measured in relation to the technology

Percent pest damage, percent reduction in yield loss and pest incidence, yield parameters, cost: benefit analysis

#### 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Keelapattu (Needamangalam Block)	Will be identified based on their interest and involvement	6
2.	Sonapettai (Needamangalam Block)		4

#### 11. Budget for refinement

S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Egg parasitoid (cc)	60/5ha	40/cc	2,400
2.	Monocrotophos 36 wsc (lit) (1000 ml/ha)	10/10 ha	400/lit	4,000
3.	Phosphamidon 40 SL (lit) (1250 ml/ha)	10/10 ha	400/lit	4,000
4.	Pheromone traps (No.) (12/ha)	60/5ha	125/unit	7,500
5.	Cartap hydrochloride (kg) (1 kg a.i. /ha)	12/5ha	600/kg	7,200
<b>Total</b>				<b>25,100</b>

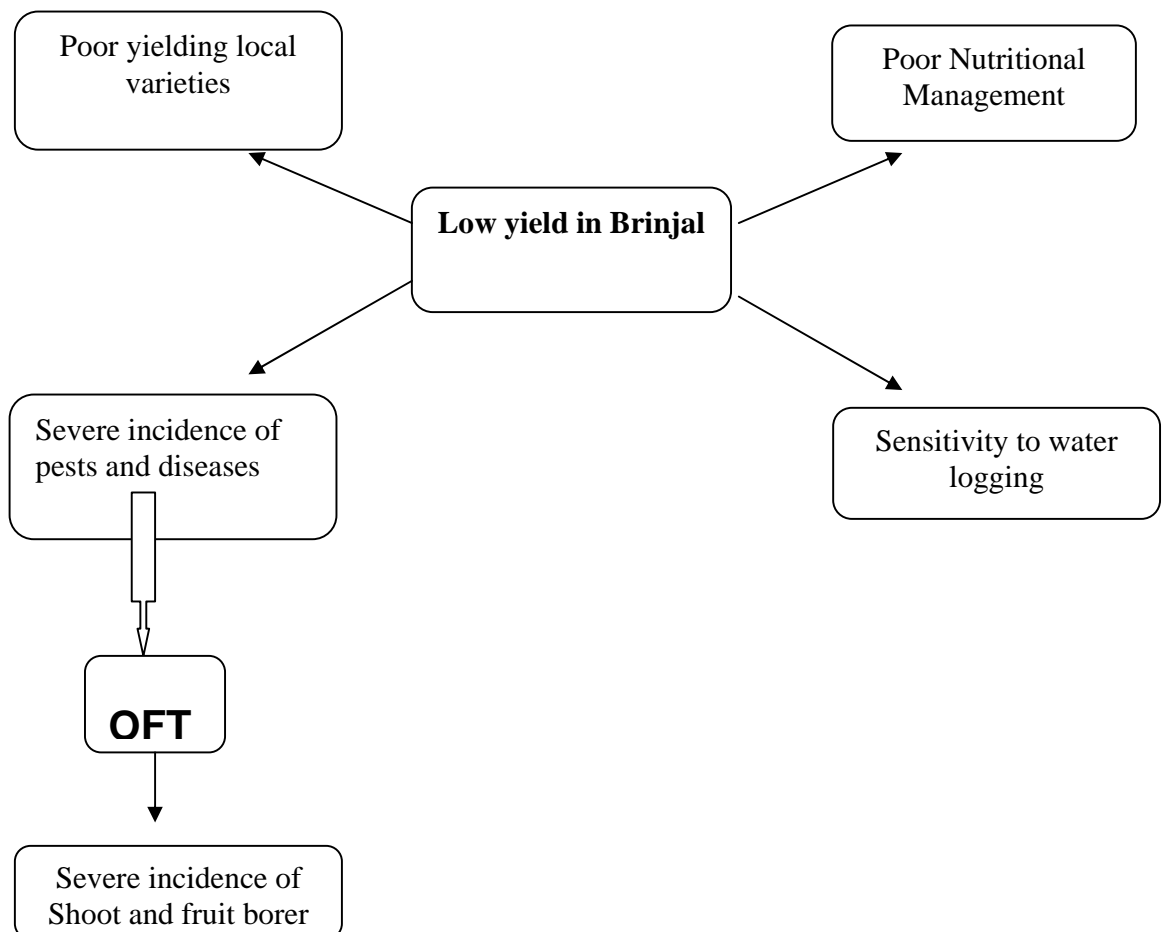
## HORTICULTURE

### 3.12

1.	<b>Title of the technology to be refined</b>	:	Management of Brinjal shoot and fruit borer through ecofriendly methods
2.	<b>Agro – ecological zone</b>	:	Cauvery delta zone (Irrigated lowland system)
3.	<b>Production system</b>	:	Rice – vegetables
4.	<b>Problem definition</b>	:	

Brinjal damage by way of bore holes filled with insect fecal pellets reduced the consumer preference towards the choice of that fruits. Maximum damage of 90 percent was observed in farm gate samples of brinjal.

#### 5. Problem Cause Diagram



## 6. Number of farmers and area affected in the operation villages

No. of farmers : 300  
Area affected : 40 ha

## 7. Rationale for proposing the refinement

Since the fruits are used for table purpose, management by chemical means is not advisable. Many of the farm gate samples showed residues more than the Maximum Residual Limit (MRL). Biological safety of compounds used for management is essential. Hence, it is proposed to exploit the use of Entomopathogenic Nematode (EPN) which is a potential candidate in ecologically and cost effective method of management.

## 8. Technology options for refinement along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Only insecticides	-	-
2	Technology selected for refinement	Clipping of terminal shoots + Pheromone monitoring + Insecticide + Neem	NCIPM	-
3	Technology option 1	Clipping of terminal shoots + Pheromone monitoring + <i>Steinernema carpocapsae</i> (EPN)	PDPC	EPN was reported to be more effective against shoot a fruit borer.

## 9. Parameters to be measured in relation to the technology

Percent pest damage, percent reduction in yield loss and pest incidence, yield parameters, cost: benefit analysis

#### 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Melanagai (Mannargudi block)	Will be identified based on their interest and involvement	1.0
2.	Neduvakottai (Mannargudi block)		1.0

#### 11. Budget for refinement

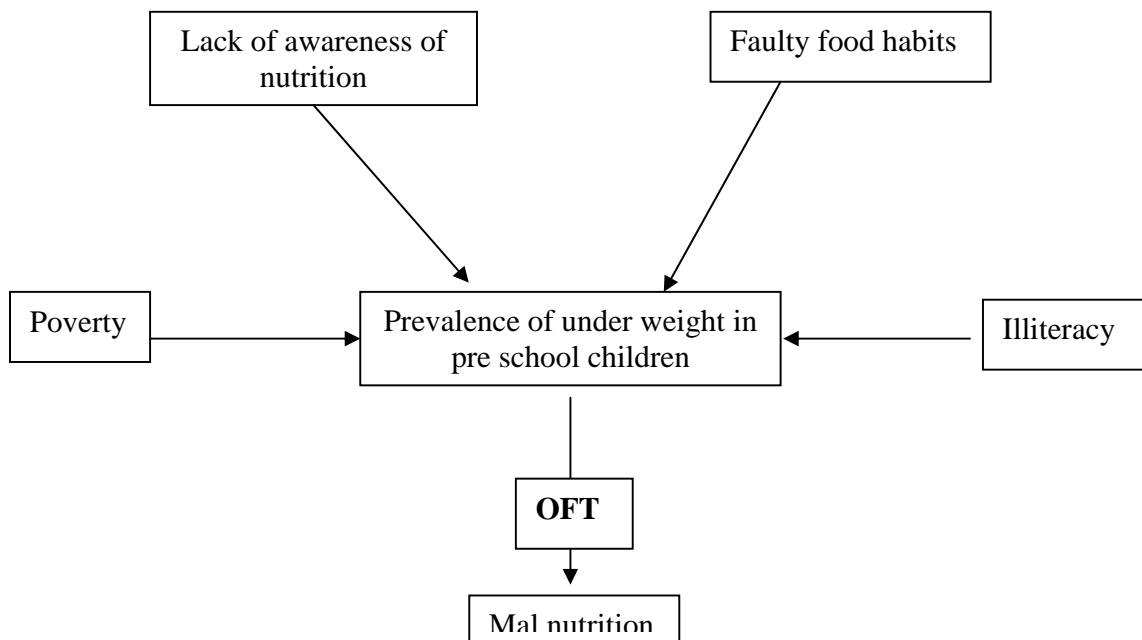
S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost (Rs.)
1	Carbaryl/	3kg	400 /kg	1,200
2	Endosulfan	3 lire	400/ litre	1,200
2.	Pheromone trap ad lures	24 nos	125/trap	3,000
3.	Entomopathogenic Nematode	4 kg	500/ kg	2,000
<b>Total</b>				<b>7,400</b>

**3.13**

- 1. Title of the technology to be refined** : Alleviating mal nutrition in the rural poor pre school children using low cost supplementary food.
- 2. Agro – ecological zone** : -
- 3. Production system** : -
- 4. Problem definition** : -

Rural pre school children of low income group agriculture labourers are fed with the food available for the adult members of the family. So their nutritional needs are not met with the recommended dietary allowances resulting in mal nutrition problem in the childhood.

**5. Problem cause diagram**



**6. Number of farmers and area affected in the operation villages**

- No. of Pre school children : 600 Nos
- Area affected : Needamangalam

## 7. Rationale for proposing the refinement

More than 50 % of pre school children are affected by mal nutrition. Hence it is proposed to supplement weaning food to the pre school children.

## 8. Technology options for refinement along with justification

S. No.	Technological options	Details of Technology	Source of Technology	Justification
1	Farmer's practice	Local	-	-
2	Technology option 1	Weaning food-I(Kuzhandai Amudhu- Roasted maize flour, green gram flour, roasted groundnut and jaggery- 30:20:10:20)	Avinashilingam Univeristy	Green leafy vegetables are rich sources of vitamins and minerals.
3	Technology option 2	Weaning food-II (Kuzhandai Amudhu)+ 6% dehydrated drumstick leaves powder		

## 9. Parameters to be measured in relation to the technology

Anthropometric measurements (Body height and body weight)

Presence of clinical symptoms of deficiency diseases.

## 10. Details of farmers

S. No.	Name of village	Name of farmer	Area (ha)
1.	Orathur	-	<ul style="list-style-type: none"> <li>• 20 pre school children.</li> <li>• Supplementation period is for 3 months</li> </ul>

## 11. Budget for refinement

S. No.	Critical inputs for technological options			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Weaning foods	20	500/No	10,000
<b>Total</b>				<b>10,000</b>

**4. PLAN OF FRONT LINE DEMONSTRATIONS FOR 2008-09 INCLUDING OIL SEEDS, PULSES, COTTON, CEREALS, HORTICULTURAL CROPS, PLANTATION CROPS, COMMERCIAL CROPS AND ENTERPRISES**

**RICE**

**4.1**

<b>1.</b>	<b>Title of the technology to be demonstrated</b>	<b>:</b>	Popularization of system of rice intensification
<b>2.</b>	<b>Production system</b>	<b>:</b>	Rice – rice – pulses
<b>3.</b>	<b>Season of the demonstration</b>	<b>:</b>	Kuruvai (June- Sep)
<b>4.</b>	<b>Problem definition</b>	<b>:</b>	

<b>Crop/ Enterprise</b>	<b>Yield gap (q/ha)</b>			<b>Reasons for yield gap</b>	<b>Prioritized problem</b>
	<b>District Avg. yield</b>	<b>Potential yield</b>	<b>Farmers yield</b>		
Rice	32	75	36	<ul style="list-style-type: none"> <li>• Poor population maintenance</li> <li>• Planting of age old seedlings</li> <li>• Heavy weed infestation</li> </ul>	<ul style="list-style-type: none"> <li>• Poor population maintenance</li> <li>• Planting of age old seedlings</li> <li>• Heavy weed infestation</li> </ul>

**5. Objective of the demonstration**

To demonstrate low cost method of cultivation called as system of rice intensification

**6. Rationale for selection of the technology**

This method of cultivation aims at reducing cost of cultivation including seed cost, nursery preparation and weed management in addition to increasing the yield.



### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
System of rice Intensification	IRRI		<ul style="list-style-type: none"> <li>• Seed rate 5 kg/ha</li> <li>• Square planting</li> <li>• Incorporation of weed through conoweeding</li> <li>• N management through LCC</li> </ul>

### 8. Parameters to be measured in relation to the technology

- No. of productive tillers
- No. of panicles
- No. of grains/panicle
- Yield/ha

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Edamelaiyur	5	5ha
2.	Munnaval kottai	5	5ha

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Polythene sheet	1000m <sup>2</sup> /10 ha	10	10,000
2	Nursery frame	10	200	2,000
3	Cono weeder	10	600	6,000
4	LCC	10	40	400
<b>Total</b>				<b>18,400</b>

#### 4.2

1.	<b>Title of the technology to be demonstrated</b>	:	Popularizing application of micronutrients mixture for yield enhancement in thaladi paddy
2.	<b>Production system</b>	:	Rice-rice-rice
3.	<b>Season of the demonstration</b>	:	Thaladi- (Sep-Nov)
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice (Samba / Thaladi)	24	66	22	<ul style="list-style-type: none"> <li>• Continuous rain &amp; inundation of water</li> <li>• Outbreak of pests &amp; diseases</li> <li>• Continuous cultivation of paddy throughout year leads to depletion of micro nutrients specific to paddy</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous rain &amp; inundation of water</li> <li>• Continuous cultivation of paddy throughout year leads to depletion of micro nutrients specific to paddy</li> <li>• Outbreak of pests &amp; diseases</li> </ul>

#### 5. Objective of the demonstration

To popularize the importance of micronutrients in rice based cropping system

#### 6. Rationale for selection of the technology

Application of only macronutrients in rice based cropping system leads to depletion of micronutrients thereby reducing yield potential. The ignorance of the farmers towards application of micronutrients can be avoided by demonstrating the yield increase through application of micronutrients

### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
• Application of Mico nutrients @ 25 kg/ ha	TNAU		Soil application

### 8. Parameters to be measured in relation to the technology

- No. of productive tillers
- No. of panicles
- No. of grains/panicle
- Yield/ha

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Rayapuram	Will be identified based on their interest and involvement	7
2.	Kelapattu		3

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1.	Micro nutrients mixture	250 kg/10 ha	25	6,250
<b>Total</b>				<b>6,250</b>

### 4.3

1.	<b>Title of the technology to be demonstrated</b>	:	Reclamation of sodic soils through application gypsum and organic manure
2.	<b>Production system</b>	:	Rice- rice-fallow
3.	<b>Season of the demonstration</b>	:	Kuruvai (June-Sep)
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice	22	66	23	<ul style="list-style-type: none"> <li>• Salt encrustation</li> <li>• Poor fertilizers management</li> <li>• No suitable variety available</li> </ul>	<ul style="list-style-type: none"> <li>• Salt encrustation</li> <li>• No suitable variety available</li> <li>• Poor fertilizers management</li> </ul>

### 5. Objective of the demonstration

To demonstrate the importance of gypsum as reclamation measures for sodic soils.

### 6. Rationale for selection of the technology

Gypsum as soil amendment along incorporation green manure particularly Daincha has been proved to be very effective against sodic soils.

### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Application of Gypsum based on the pH of the soil	TNAU	-	Soil application according to PH of soils.

### 8. Parameters to be measured in relation to the technology

- No. of productive tillers
- No. of panicles
- No. of grains/panicle
- Yield/ha

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1	Naval poondi	Will be identified based on their interest and involvement	3
2	Korukai		2
<b>Total</b>			<b>5</b>

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Gypsum	2500 kg	Rs.2/kg	5,000
2	Daincha	125 kg	Rs.25/kg	3,125
<b>Total</b>				<b>8,125</b>

#### 4.4

1. **Title of the technology to be demonstrated** : 'Popularization of Rice Transplanter '
2. **Production system** : Rice –Rice- Pulses/cotton
3. **Season of the demonstration** : Kuruvai/Samba
4. **Problem definition** :

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Rice (Kuruvai/ Samba)	24	66	22	<ul style="list-style-type: none"><li>• Delayed transplanting due to labor shortage</li><li>• Imbalanced nutrient management</li><li>• Poor water management</li><li>• Rat damage</li><li>• Pest and disease problem</li></ul>	<ul style="list-style-type: none"><li>• Delayed transplanting</li><li>• Rat damage</li><li>• Imbalanced nutrient management</li><li>• Poor water management</li></ul>

#### 5. Objective of the demonstration

- To promote mechanized rice transplanting to manage labor shortage
- Educate the need of farm mechanization for the timely operation to enhance the rice productivity.

#### 6. Rationale for selection of the technology

Farmers don't have interest to use transplanter since it requires mat type of nursery. Which is greater impediment in horizontal spread of the mechanized transplanting in rice despite its greater success and advantages. To break their mindset method demonstration of transplanter along with simple way of mat nursery preparation has to be popularized among the farmers is dire essential.

## 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Mat nursery preparation	IRRI	1987	<ul style="list-style-type: none"> <li>Necessary for transplanter for effective planting.</li> </ul>
Method demonstration on use of rice transplanter	Private Firm	1980	<ul style="list-style-type: none"> <li>Labor shortage during peak season can be managed effectively</li> <li>Timely planting of young (18 DAS) results profuse tillering</li> <li>Uniformity in plant stand and population.</li> </ul>

## 8. Parameters to be measured in relation to the technology

Seedling survival and establishment percentage, gap-filling percentage, working efficiency, productive tillers, grain yield and cost benefit analysis

## 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Pulavarnatham	Will be identified based on their interest and involvement	1
2.	Perumpannaiyur		1
3.	Devangudi		1
4.	Periyakottai		1
5.	Kadampur		1
6.	Poonthottam		1

## 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	200 gauge polythene sheet	30 kg	100/kg	3,000
2.	Transplanter hiring charges	6 Ha	2500/Ha	15,000
3.	Rose can	6 Nos.	200/No.	1,000
<b>Total</b>				<b>19,000</b>

#### 4.5

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of IPM with newer insecticides to control BPH causing yield loss in rice during Samba & thaladi seasons
2.	<b>Production system</b>	:	Rice – rice – rice / Rice – rice / Rice – rice – pulses
3.	<b>Season of the demonstration</b>	:	Samba / Thaladi
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice (Samba / Thaladi)	24	66	22	<ul style="list-style-type: none"> <li>• Continuous rain &amp; inundation of water</li> <li>• Outbreak of pests &amp; diseases</li> <li>• Nutritional disorders</li> <li>• Indiscriminate 'N' use</li> </ul>	<ul style="list-style-type: none"> <li>• Continuous rain &amp; inundation of water</li> <li>• Outbreak of pests &amp; diseases</li> <li>• Nutritional disorders</li> <li>• Indiscriminate 'N' use</li> </ul>

#### 5. Objective of the demonstration

To popularize the IPM with newer insecticides for the control of BPH in Samba / Thaladi.

#### 6. Rationale for selection of the technology

The outbreak of BPH has become a serious problem in recent years in Samba / Thaladi rice crop due to continuous rain and inundation of water and indiscriminate use of Synthetic pyrethroids unknowingly. The farmers spray whatever chemicals available with the local dealer to manage the BPH, but failed to save the crop, because of lack of awareness on IPM. Hence it is decided to



popularize the IPM with newer recommended insecticides against BPH in Samba / Thaladi rice crop.

### 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"> <li>• Rogue Spacing</li> <li>• Alternate wetting &amp; drying</li> <li>• Judicious use of 'N' (LCC based)</li> <li>• ETL based spraying of either Acephata 75SP or Imidacloprid 200 SL twice</li> </ul>	TNAU	2007	The newer insecticides are proven for their effectiveness against sucking pests of rice

### 8. Parameters to be measured in relation to the technology

Percent pest incidence, reduction in pest incidence, yield and income loss prevented, cost: benefit analysis

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Athichapuram (Mannargudi Block)	Will be identified based on their interest and involvement	10

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	CR 1009 seed (kg)	500/10ha	15/kg	7,500
2.	Leaf Colour Chart (No.)	20/10ha	40/no.	800
3.	Imidacloprid (lit)	1.250/10ha (1 spray)	2000/l	2,500
4.	Acephate (kg)	6.250/10ha (1 spray)	450/kg	3,000
<b>Total</b>				<b>13,800</b>

#### 4.6

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of super <i>Pseudomonas</i> for the management of leaf folder and sheath rot in rice.
2.	<b>Production system</b>	:	Rice – rice – rice
3.	<b>Season of the demonstration</b>	:	Samba / Thaladi
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice (Samba / Thaladi)	24	66	22	<ul style="list-style-type: none"> <li>• Indiscriminate use of chemical pesticides.</li> <li>• Lack of awareness on bioagents.</li> </ul>	<ul style="list-style-type: none"> <li>• Indiscriminate use of chemical pesticides.</li> <li>• Lack of awareness on bioagents.</li> </ul>

#### 5. Objective of the demonstration

To Popularize super *Pseudomonas* for the management of leaf folder and sheath rot in rice.

#### 6. Rationale for selection of the technology

The farmers are not aware of potential bioagent, *Pseudomonas* for pest and disease management in rice. They rely only on chemical pesticides that too cocktail application leads to many ecological problems viz., residue, resistance and resurgence. Hence, it is proposed to popularize ecofriendly, cost effective, qualitative method of pest and disease management in rice using super *Pseudomonas*.

## 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"> <li><i>Pseudomonas</i> application by seed treatment, seedling dip, soil application and foliar spray</li> </ul>	TNAU	2007	Super <i>Pseudomonas</i> formulation recorded 84.4 percent reduction in leaf folder incidence and 69 percent reduction in sheath rot severity and 40 increase in yield over untreated check with C:B ratio of 1:7.29
<ul style="list-style-type: none"> <li>LCC based Nitrogen application</li> </ul>	TNAU	2001	

## 8. Parameters to be measured in relation to the technology

Percent reduction in leaf folder incidence, Percent disease incidence and cost benefit analysis.

## 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Periyakottai	Will be identified based on their interest and involvement	5
2.	Munnavaikottai		5
3	Sonapettai		5
4	Paruthikottai		5

## 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost (Rs.)
1	Super <i>Pseudomonas</i>	200 kg	125/kg	25,000
2.	LCC card	50 No.	40/no	2,000
<b>Total</b>				<b>27,000</b>

#### 4.7

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of Azoxystrobin for the management of Rice blast and sheath blight.
2.	<b>Production system</b>	:	Rice – rice – rice
3.	<b>Season of the demonstration</b>	:	Samba / Thaladi
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice (Thaladi/ Samba)	24	66	22	<ul style="list-style-type: none"> <li>•Conducive climate for disease outbreak</li> <li>•Indiscriminate use of broad spectrum fungicide</li> </ul>	<ul style="list-style-type: none"> <li>•Conducive climate for disease outbreak</li> <li>•Indiscriminate use of broad spectrum fungicide</li> </ul>

#### 5. Objective of the demonstration

To popularize Azoxystrobin for the management of Rice blast and sheath blight.

#### 6. Rationale for selection of the technology

The outbreak of blast and sheath blight is common in Thaladi / Samba season rice crop in Cauvery delta and lead to yield reduction. Chemical fungicides recommended for these diseases control are broad spectrum in their action and are not giving satisfactory control. Azoxystrobin, a new biocide derived from mushroom is a selective fungicide recommended for adoption in rice scientist meet 2007. hence, it is proposed to popularize this chemical for the management of blast and sheath blight in rice.

### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Azoxystrobin	TNAU	2007	It reduced the severity of blast (64%) and sheath blight (57%) and increased the yield (43%) with a C:B ratio 1:5.50 when compared to control.

### 8. Parameters to be measured in relation to the technology

- Percent disease incidence
- yield
- cost: benefit analysis

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Royapuram	Will be identified based on their interest and involvement	4
2.	Pullavarayankudikadu		6

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	ADT 38 / ADT 43 seed	500 kg	15/kg	7,500
2.	Azoxystrobin	2.5 lit	5000/litre	12,500
<b>Total</b>				<b>20,000</b>

#### 4.8

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of rice organic farming in farmers holdings
2.	<b>Production system</b>	:	Rice based cropping system
3.	<b>Season of the demonstration</b>	:	Samba (August- January)
A	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Rice (Samba )	18	50	20	<ul style="list-style-type: none"> <li>• Non – integration of organic inputs</li> <li>• Disease &amp; pest incidence</li> <li>• Out sourcing of organic inputs.</li> <li>• Lack of awareness on farm waste recycling.</li> <li>• Low level of organic carbon</li> </ul>	<ul style="list-style-type: none"> <li>• Non – integration of organic inputs</li> <li>• Out sourcing of organic inputs.</li> <li>• Lack of awareness on farm waste recycling.</li> <li>• Disease &amp; pest incidence</li> <li>• Low level of organic carbon</li> </ul>

#### 5. Objective of the demonstration

To popularize the self reliance on organic inputs production and integration of different organic inputs to step up productivity in rice organic farming.

#### 6. Rationale for selection of the technology

Advent of green revolution coupled with inorganic application resulted in degradation of soil resources and invited micronutrient deficiency apart from hindering qualitative livelihood security. Hence, to eye open the importance of organic farming this FLD is proposed.

## 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"> <li>In situ green manuring</li> <li>Vermicompost</li> <li>Dual cropping of azolla</li> <li>Biofertilizer consortia</li> <li>Ecofriendly pest management</li> </ul>	TNAU	2004	Appropriate integration of organic inputs match the nutrient requirement. Ecofriendly pest management reduces the plant protection cost apart from ensuring sustainability

## 8. Parameters to be measured in relation to the technology

- Yield/ha
- Soil microbial dynamics
- Documentation and conservation of natural enemies
- Cost benefit analysis

## 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Kulikarai	Will be identified based on their interest and involvement	2
2.	Thattaikalpadugai		2
3	Therkkupattam		2

## 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Green manure seed	60 kg	25/kg	1,500
2	Earthworm	6 kg	300 / kg	1,800
3	Biofertilizer consortia	30 kg	30 /kg	900
4	Bund cropping- Blackgram (Farmer resource)	-	-	-
5	Super Pseudomonas	30 kg	125/kg	3,750
5	Pheromone traps and lure	60 No.	125/no	7,500
6	Trichogramma egg parasitoid	90 CC	40/cc	3,600
7	Panchakavya (farmer resource)	-	-	-
8	Neem Seed Kernel Extract (farmer resource)	-	-	-
<b>Total</b>				<b>19,050</b>

## PULSES

### 4.9

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of IPM for <i>Spodoptera</i> in rice fallow pulses
2.	<b>Production system</b>	:	Rice – rice – pulses / Rice – pulses
3.	<b>Season of the demonstration</b>	:	Dec – Feb (Rabi / Late rabi)
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Blackgram (Rice fallow)	3.1	7.0	2.0	<ul style="list-style-type: none"> <li>• Lack of nutritional management</li> <li>• Damage due to pests</li> <li>• Heavy weed population</li> <li>• Water stress in the later period of the crop growth</li> <li>• Poor crop stand</li> </ul>	<ul style="list-style-type: none"> <li>• Damage due to <i>Spodoptera</i></li> <li>• Lack of nutritional management</li> <li>• Heavy weed population</li> <li>• Water stress in the later period of the crop growth</li> <li>• Poor crop stand</li> </ul>

### 5. Objective of the demonstration

To get higher yield through integrated management of *Spodoptera*

### 6. Rationale for selection of the technology

The farmers do not know about the pest causing heavy defoliation and its bioecology. Besides they also don't know about the methods to control the pest (*Spodoptera*). Thus its is decided to popularize the adoptable IPM packages for the control of *Spodoptera* in rice fallow blackgram.



## 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Adoptable IPM for <i>Spodoptera</i> in rice fallow pulses * Hand collection and destruction of egg masses and early stage larvae ; * Poison bating ; * Pheromone trap ; * ETL based application of insecticides	TNAU	2007	Well suited for <i>Spodoptera</i> management in all crops

## 8. Parameters to be measured in relation to the technology

Percent pest incidence, reduction in pest incidence, yield and income loss prevented, cost: benefit analysis

## 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Vaiyakalathoor	Will be identified based on their interest and involvement	3
2.	Payathancherry		2

## 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty (5ha)	Unit cost (Rs.)	Total cost
1	Pheromone trap (No.)	60	75/unit	4,500
2.	Carbaryl (kg)	6.25	350/kg	2,200
3.	Jaggery (kg)	6.25	15/kg	100
4.	Dichlorvos (lit)	10	400/l	4,000
5.	Chlorpyriphos (lit)	12.5	350/l	4,375
<b>Total</b>				<b>15,175</b>

## GROUNDNUT

### 4.10

1. **Title of the technology to be demonstrated** : “Popularization of Bullock drawn seed drill in Groundnut cultivation”
2. **Production system** : Rice - Groundnut cropping system
3. **Season of the demonstration** : Rabi ( Dec-Jan)
4. **Problem definition** :

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Rice (Kuruvai/ Samba)	19	30	21	<ul style="list-style-type: none"><li>• Delayed transplanting due to labor shortage</li><li>• Imbalanced nutrient management</li><li>• Poor water management</li><li>• Rat damage</li><li>• Pest and disease problem</li></ul>	<ul style="list-style-type: none"><li>• Delayed transplanting</li><li>• Rat damage</li><li>• Imbalanced nutrient management</li><li>• Poor water management</li></ul>

### 5. Objective of the demonstration

- Drudgery reduction and timely sowing of groundnut to maximize the productivity
- Educate the need of farm mechanization to manage the labor shortage in the era modern agriculture.

### 6. Rationale for selection of the technology

Lack of knowledge about the bullock drawn seed drill since the farmers are practicing the manual sowing alone with the help of hand hoes. To sensitize the farmers and farm women's to get relief from the drudgeries work by method demonstration is dire essential and it is long felt need of them to manage the labor shortage and reduce drudgery to farm women.

### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Method demonstration on use of Bullock drawn seed drill	TNAU	1987	<ul style="list-style-type: none"> <li>• Labor saving</li> <li>• Drudgery reduction of farm women</li> <li>• Timely sowing</li> <li>• Uniformity in sowing depth and plant population.</li> </ul>

### 8. Parameters to be measured in relation to the technology

Seed rate, Time taken to cover one hectare, Operational difficulty, Depth of sowing, No. of seeds fall, Germination percentage Pod yield and cost benefit analysis.

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Painganadu	Will be identified based on their interest and involvement	2
2.	Ashesham		2
3.	Edamelaiur		2
4.	Periyakottai		2

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			Total cost
	Name	Qty	Unit cost (Rs.)	
1	Bullock drawn seed drill	2 Nos.	7000/No.	14,000
2.	Pseudomonas	20 kg	75/kg	1,500
3.	Bio fertilizers	40 kg	20/kg.	800
<b>Total</b>				<b>16,300</b>

## HORTICULTURE

### 4.11

1.	<b>Title of the technology to be demonstrated</b>	:	High density multi tier cropping system in Coconut garden.
2.	<b>Production system</b>	:	Coconut
3.	<b>Season of the demonstration</b>	:	Through out the year.
4.	<b>Problem definition</b>	:	Low price for coconut

Crop/Enterprise	Yield gap (nuts/tree/yr.)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Coconut	60	120	70	To increase profit per unit area	Low income per unit area.

### 5. Objective of the demonstration

To develop a suitable multistoried cropping system in established coconut garden.

### 6. Rationale for selection of the technology

Now a days the price of coconut is drastically reduced. Hence to generate farmers income through multi cropping in coconut plantation

### 7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Coconut alone (Farmers practice)	-	-	-
Multi tier cropping (Coconut, banana, pepper).	TNAU	2007	To increase profit per unit area

### 8. Parameters to be measured in relation to the technology

Coconut yield, banana yield, Pepper yield and cost benefit ratio.

### 9. Details of Farmers Proposed

Sl.No.	Name of Village	Name of Farmer	Area(ha)
1.	Muthupet	Will be identified based on their interest and involvement	5.0
2.	perugavazhnan		

### 10. Budget for Assessment

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost
1	Pepper cutting	1250 /5ha	5/each	6,250
2	Banana suckers	5000/5ha	4/suckers	20,000
<b>Total</b>				<b>26,250</b>

#### 4.12

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of Hi – tech nursery for Hybrid Vegetable seedlings.
2.	<b>Production system</b>	:	-
3.	<b>Season of the demonstration</b>	:	December to February
4.	<b>Problem definition</b>	:	High seed rate. Poor seedling establishment. Disease noticed such as damping off, wilting etc.

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	District average yield	Potential yield	Farmers yield		
Vegetables Brinjal	100	400	150	Local variety Non adoption	<ul style="list-style-type: none"> <li>• High seed rate.</li> <li>• Poor seedling establishment.</li> <li>• Disease noticed such as damping off, wilting etc.</li> </ul>

#### 5. Objective of the demonstration

To inculcate the newer method nursery technique to enhance the germination percentage, uniformity, vigour and root volume of the seedling.

#### 6. Rationale for selection of the technology

Farmers follow only traditional system of raised bed nursery for seedling production, that too with low yielding local varieties. Hence hybrid can be introduced to enhance the productivity. The hybrid cost of seeds are huge. So precision method of sowing in elite medium is obvious to avoid higher seed rate and save input cost, apart excellent survival in field condition.

## 7. Details of Technology to be demonstrated

Name of the technology	Source of Technology	Year of release	Attributes of Technology
Hi tech nursery for Hybrid vegetables (shade net and protray)	TNAU	2001	<ul style="list-style-type: none"> <li>• High yield hybrid</li> <li>• Hi tech nursery</li> <li>• Protray seedling</li> <li>• More root volume</li> <li>• Pest and disease free seedling</li> </ul>

## 8. Parameters to be measured in relation to the technology

Percentage of germination, Quantity of seed, Vigor of plant and survival of seedlings in main field.

## 9. Details of Farmers Proposed

Sl. No.	Name of Village	Name of Farmer	Area
1.	Melanagai	Will be identified based on their interest and involvement	30 x 20Sq feet
2.	Asham		30 x 20Sq feet
3.	Neduvakkottai		30 x 20Sq feet
4.	Painganadu		30 x 20Sq feet
5.	Ramapuram		30 x 20Sq feet

## 10. Budget for Assessment

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit Cost	Total Cost
1	Shade net	3000 sq feet	20/ sq feet	6,000
2	Protrays	500 nos	13/no	6,500
3	Hybrid seeds	250gram	85/10gram	2,125
4.	Cocopeat medium	250gram	3/kg	750
5.	Pseudomonas	5kg	75/kg	375
<b>Total</b>				<b>15,750</b>

#### 4.13

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of Integrated nutrient management in coconut ecosystem
2.	<b>Production system</b>	:	Garden land
3.	<b>Season of the demonstration</b>	:	June- November
4.	<b>Problem definition</b>	:	

Crop/ Enterprise	Yield gap (nuts/tree/yr.)			Reasons for yield gap	Prioritized problem
	District Avg. yield	Potential yield	Farmers yield		
Coconut	60	120	70	<ul style="list-style-type: none"> <li>• Non-Adoption of manure and fertilizers application</li> <li>• Heredity characters</li> <li>• Pest and diseases</li> </ul>	Non-Adoption of manure and fertilizers application

#### 5. Objective of the demonstration

To demonstrate the importance of integrated nutrient management in coconut ecosystem

#### 6. Rationale for selection of the technology

Maintenance of coconut garden is completely ignored because of which yield has been decreasing year by year. Integrated Nutrient management including Coconut tonic developed by department of Crop physiology, TNAU has been proved to successful in many places. Hence it is decided to popularize the technology

#### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Root feeding of TNAU coconut tonic Soil application of neem cake	Dept. of Crop Physiology, TNAU	2001	<ul style="list-style-type: none"> <li>• Boost general health of trees.</li> <li>• Increases resistance of pest and diseases.</li> </ul>



### 8. Parameters to be measured in relation to the technology

- No. of nuts/tree/year
- % of pest and disease incidence
- Thickness of the copra

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	No. of trees
1	Thambikottai	Will be identified based on their interest and involvement	125
2	Muthu pettai		125
<b>Total</b>			<b>250</b>

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Coconut tonic	150 lit 600ml/tree 200ml x 3 times	Rs. 30/ lit	4500
2	Neem cake	500 2 kg/ tree	Rs. 10/kg	5000
<b>Total</b>				<b>9,500</b>

## AGRO FORESTRY AND FORAGE

### 4.14

1. **Title of the technology to be demonstrated** : Introduction and Popularization of Thornless Bamboo
2. **Production system** : Rice based cropping system
3. **Season of the demonstration** : Rabi ( Dec-Jan)
4. **Problem definition** :

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Thornless Bamboo	Low	High	Low	<ul style="list-style-type: none"> <li>• Growing of local cultivars</li> <li>• No intercultural operations.</li> <li>• Less importance to bamboo cultivation</li> <li>• Thorns are greater hurdles for extension of its area under cultivation</li> <li>• Lack of awareness on thornless bamboo</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of awareness on thornless bamboo</li> <li>• Growing of local cultivars</li> <li>• Thorns is greater hurdles for extension of its area under cultivation</li> <li>• Poor intercultural operations</li> <li>• Less importance to bamboo cultivation</li> </ul>

### 5. Objective of the demonstration

- To popularize the tissue cultured thornless bamboo as alternative to rice cultivation

## 6. Rationale for selection of the technology

Easy maintenance and suitable to this region owes credibility to bring more area under the thornless bamboo cultivation since farmers are searching for alternate enterprise to rice like Fisheries and Agro forestry. Lack of knowledge about the tissue cultured thornless bamboo and its features among the farmers. Hence this FLD is proposed

## 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
• High yielding new species introduction	State Department of Forest	1997	<ul style="list-style-type: none"><li>• Faster growth</li><li>• Thrives in waterlogged condition for some extend</li><li>• Amenable for intercropping</li><li>• Easy for intercultural operations</li><li>• Withstand moisture stress.</li></ul>

## 8. Parameters to be measured in relation to the technology

Time taken to first harvest, Establishment percentage, intercrops and its yield, pole yield , cost benefit analysis and market access

## 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Engun	Will be identified based on their interest and involvement	0.4
2.	Perumpannaiyur		0.4
3.	Vettaitidal		0.4
4.	Vidiyalkaruppur		0.4
5.	Pandaravadaimangalam		0.4

## 10. Budget for assessment

S. No	Critical inputs for demonstration			
	Name	Qty	Unit cost (Rs.)	Total cost
1	TC Thornless saplings	760 Nos.	20/No.	15,200
<b>Total</b>				<b>16,300</b>

#### 4.15

1. **Title of the technology to be demonstrated** : Popularization high yielding Fodder crop Cumbu Napier Hybrid grass Co 3
2. **Production system** : Rice based cropping system
3. **Season of the demonstration** : Rabi (Dec-Jan)
4. **Problem definition** :

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Thornless Bamboo	310	500	356	<ul style="list-style-type: none"> <li>• Growing of local grass</li> <li>• No fertilizer application.</li> <li>• Less importance to fodder cultivation</li> <li>• Improper ratoon management</li> <li>• Lack of awareness on hybrid fodder crop</li> </ul>	<ul style="list-style-type: none"> <li>• Growing of local grass</li> <li>• Lack of awareness on hybrid fodder crop</li> <li>• No fertilizer application</li> <li>• Less importance to fodder cultivation</li> <li>• Improper ratoon management</li> </ul>

#### 5. Objective of the demonstration

To popularize the high yielding fodder crop to step up the quality fodder productivity to address the green fodder availability in this district.

#### 6. Rationale for selection of the technology

Constraints in availability of green fodder for the cattle growers in predominantly rice grown area due to less importance for the livestock's and lack knowledge about the hybrid fodder cultivation particularly fertilizer application and ratoon management Hence this FLD is proposed.

### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
• High yielding hybrid fodder introduction	TNAU	1997	<ul style="list-style-type: none"> <li>• Faster growth and suitable for multiple harvest</li> <li>• Enhances the milk yield</li> <li>• Amenable for ratooning</li> <li>• Palatable for the cattle's</li> </ul>

### 8. Parameters to be measured in relation to the technology

Time taken to first harvest, Establishment percentage, green fodder yield and cost benefit analysis.

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Kurichi	Will be identified based on their interest and involvement	0.2
2.	Neduvasal		0.2
3.	Mangudi		0.2
4.	Pulavarayankuikadu		0.2
5.	Ayyampettai		0.2

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Slips	28,000 setts.	0.4/sett.	11,200
<b>Total</b>				<b>11,200</b>

#### 4.16

1.	<b>Title of the technology to be demonstrated</b>	:	Popularization of Phillipsera in cauvery old delta.
2.	<b>Production system</b>	:	Rice – Rice – Pulses/ Rice – Pulses
3.	<b>Season of the demonstration</b>	:	December – April
4.	<b>Problem definition</b>	:	

Earlier, the delta farmers were maintained cows and buffaloes for producing milk for both family consumption and earning some extra income. Now a days milch animals population has drastically reduced due to many obvious reasons. Reduction of pasture lands for grazing is one of the reasons for declining the milch animals population.

#### 5. Objective of the demonstration

To popularize phillipesera as forage and green manurial crop under irrigated low land eco-system.

#### 6. Rationale for selection of the technology

In old delta area, earlier farmers were grown Phillipsera as rice fallow pulse crops for cattle feed and family consumption. Because, the biomass of phillipsera is good feed material for milch animal. Besides the residues can enrich organic content in the soil and sustain the soil fertility status.

#### 7. Details of Technology to be demonstrated

Name of the Technology	Source of Technology	Year of release	Attributes of technology
Phillipsera	ITKS	-	It is a good feeding material for cattle population. It can grow as perennial. The grain can also be used as pulse for home consumption. The residues can increase and improve the soil fertility status. It will help for sustaining the soil fertility status.

### 8. Parameters to be measured in relation to the technology

Bio mass production, grain yield and milk yield and cost analysis

### 9. Details of farmers proposed

S. No.	Name of village	Name of farmer	Area (ha)
1.	Devankudi	Will be identified based on their interest and involvement	1
2.	Therkupattam		1
3.	Nannilam		1
4.	Korukkai		1
5.	Olimathi		1

### 10. Budget for assessment

S. No.	Critical inputs for demonstrations			
	Name	Qty	Unit cost (Rs.)	Total cost
1	Seed	250 kg	Rs. 75/kg	18750
<b>Total</b>				<b>18,750</b>

## HOME SCIENCE

### 4.17

1. **Title of the technology to be demonstrated** : Popularization of value addition of fish
2. **Production system** : The district has a coastal line of 40 kms. Marine fishing is Practiced in six coastal villages in the district. The district has good fishing potential in view of its rich coastal area
3. **Season of the demonstration** : June,08 to Mar,09
4. **Problem definition** :

Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Fish Processing	-	-	-	-	Fisher women fetch low income by selling fresh fish than the processed.

### 5. Objective of the demonstration

To increase the revenue of the fisher women through value addition of fish and ensuring nutritional security.

### 6. Rationale for selection of the technology

If the fish is sold as such the fisher women may get low price as the fish is perishable and cannot be stored for long time. If the fish is processed, the shelf life increased and the value added products will get more price in the market. Hence it is proposed to popularize the value addition of fish to enhance the economic status of the fisher women.

### 7. Details of the technology to be demonstrated

Preparation of prawn pickle, fish pickle, dried prawn, dried fish, prawn wafers, fish wafers and prawn cutlet and fish cutlet.



## 8. Parameters to be measured in relation to the technology

- Shelf life of the value added products
- Change in income
- Profit: Cost analysis

## 9. Details of farmers proposed

S.No.	Name of Village	Name of farmer	Area(ha)
1.	Muthupettai	Will be identified based on their interest and involvement	Fisher women- 20 Nos

## 10. Budget for assessment

S.No	Critical inputs for demonstrations			
	Name	Qty.	Unit cost(Rs)	Total cost
1.	Fish	-	250.00/No	5,000
2.	Prawn	-	400.00/No	8,000
3.	Preservatives and Groceries	-	100.00/No	2,000
4.	Packaging materials	-	100.00/No	2,000
<b>Total</b>				<b>17,000</b>

#### 4.18

1. **Title of the technology to be demonstrated** : Popularization of Nutrition garden in rural households for nutritional security in women and children.
2. **Production system** : -
3. **Season of the demonstration** : Rabi season (Masi pattam)
4. **Problem definition** :

Under nutrition leads to deficiency and infectious diseases in the vulnerable group such as rural poor women and children which results in the lowering of their working capacity and poor performance in education respectively. Establishment of nutrition garden in their households will solve the under nutrition problem.

<b>Crop/Enterprise</b>	<b>Prioritized problem</b>
Nutrition garden	More than 50% of the women and children are affected by micro nutrient deficiency diseases.

#### 5. Objective of the demonstration

Popularizing the nutrition garden as an approach to health and nutrition security in the rural poor women and children.

#### 6. Rationale for selection of the technology

The rural poor people take only the rice and rice based foods daily in their diet and they consume only limited amount of fruits and vegetables, which supply more of micro nutrients. Thus the rural women and children who are the vulnerable groups suffer more due to deficiency and infectious diseases because of mal nutrition. If they grow nutrition garden in their households they can meet out their demands of micro nutrients through fruits (papaya and banana) and vegetables (brinjal, bhendi, clusterbeans, leafy vegetables, tomato and chillies). Hence it is proposed to popularize nutrition garden in rural households.

## 7. Details of the technology to be demonstrated

Popularization of nutrition gardening for alleviating mal nutrition among rural women and children by rowing fruits (papaya and banana) and vegetables (brinjal, bhendi, clusterbeans, leafy vegetables, tomato and chillies) which are rich sources of micro nutrients.

## 8. Parameters to be measured in relation to the technology

Presence of clinical symptoms of deficiency diseases.

## 9. Details of farmers proposed

S. No.	Name of Village	Name of farmer	Area(ha)
1.	Melanagai Neduvakottai	Will be identified based on their interest and involvement	10 Farm women. 10 cents/No

## 10. Budget for assessment

S. No	Critical inputs for demonstrations			
	Name	Qty.	Unit cost(Rs)	Total cost(Rs)
1.	TC banana sucker	100 Nos	15.00/ sucker	1,500
2.	Papaya seeds (5g each)	50g	-	100
3.	Vegetable seeds (5g each)	5 packets	400.00/ packet	4,000
4.	Vermicompost	100 kg	5.00/kg	500
5.	Micro nutrient mixture	10 kg	100.00/kg	1,000
6.	Rose can	5 Nos	200.00/No	1,000
<b>Total</b>				<b>8,100</b>

#### 4.19

1.	<b>Title of the technology to be demonstrated</b>	:	Reducing drudgery of farm women in agricultural operations through the use of groundnut stripper.		
2.	<b>Production system</b>	:	-		
3.	<b>Season of the demonstration</b>	:	Rabi		
4.	<b>Problem definition</b>	:			
Crop/ Enterprise	Yield gap (q/ha)			Reasons for yield gap	Prioritized problem
	Dist. Avg. yield	Potential yield	Farmers yield		
Farm machinery	-	-	-	-	<ul style="list-style-type: none"> <li>• Farm women when they do manual farm operations suffer more due to musculo skeletal disorders.</li> <li>• Thus they lose their working capacity due to ill health.</li> </ul>

#### 5. Objective of the demonstration

To reduce the drudgery of the farm women due to hard manual operations.

#### 6. Rationale for selection of the technology

The drudgery of the farm women can be reduced through the use of improved farm implements and tools. Hence it is proposed to popularize groundnut stripper.

#### 7. Details of the technology to be demonstrated

Popularization of groundnut stripper to reduce drudgeries faced by the farm women.

#### 8. Parameters to be measured in relation to the technology

- Musculo skeletal disorders.
- Postural stress
- Muscular stress

### 9. Details of farmers proposed

Sl. No.	Name of Village	Name of farmer	Area(ha)
1.	Painganadu Melanagai	Will be identified based on their interest and involvement	20 Farm women

### 10. Budget for assessment

Sl. No.	Critical inputs for demonstrations			
	Name	Qty.	Unit cost	Total cost
1.	Groundnut stripper	5 Nos	3000.00/No	15,000
<b>Total</b>				<b>15,000</b>

## 5. Details of Training activities 2008 -09

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

S. No	Crop / Enterprise	Major problem	Objective of training	Training title	Skill component involved	Duration	No. of courses	No. of participants	Specify FLD / OFT in relation
1.	Rice	<ul style="list-style-type: none"> <li>• High input cost</li> <li>• Poor population maintenance</li> <li>• Weed menace</li> </ul>	Train the farmers on recent method of cultivation including system of rice cultivation	• Modified mat nursery	Preparation of mat nursery	1 day	3	75	FLD on SRI
				• Efficient water management in SRI	Water measurement	1 day	2	50	
				• Mechanical weeding in SRI	Aerating the soil & drudgery reduction in weed management.	1 day	2	50	
				• LCC based N management	Measurement & spraying techniques	1 day	2	50	
	Non availability of labour for timely planting	Educate and create awareness on farm mechanization	• Role of direct drum seeder in rice cultivation	Operational techniques	1 day	4	100	OFT on drum seeder	
			• Different weed management approaches for drum seeded rice	Time and quantity of weedicide	1 day	2	50	Refinement FLD on Rice Transplanter	

				<ul style="list-style-type: none"> <li>• Mechanized rice planting</li> </ul>	Operational procedure	1 day	2	50	
				<ul style="list-style-type: none"> <li>• Mat nursery for tranplanter</li> </ul>	Operational procedure	1 day	2	50	
		Continuous cultivation of paddy and application of only macro nutrients leads to depletion of micro nutrients	Train the farmers on the importance of micronutrients and foliar nutrition in paddy	<ul style="list-style-type: none"> <li>• Application of micro nutrients in rice</li> </ul>	Time and quantity of micro nutrients	1 day	2	50	Application of micronutrients in paddy
				<ul style="list-style-type: none"> <li>• Foliar nutrition for semi dry rice</li> </ul>	Operational procedure	1 day	2	50	
		Poor yield due to severe incidence of pests & diseases in Samba / Thaladi	To educate the farmers on the importance of pest management methods	<ul style="list-style-type: none"> <li>• Use of pheromone traps for stem borer control</li> </ul>	Field erection	1 day	2	50	OFT on management of stem borer
				<ul style="list-style-type: none"> <li>• Assessment of insect and disease damage</li> </ul>	Insitu count	1 day	2	50	
				<ul style="list-style-type: none"> <li>• Method &amp; use of insecticides</li> </ul>	Measurement & spraying techniques	1 day	2	50	FLD on IPM of BPH
				<ul style="list-style-type: none"> <li>• Cultural practices in the management of rice pests</li> </ul>	Use of Leaf Colour Chart	1 day	2	50	
				<ul style="list-style-type: none"> <li>• Seed treatment with <i>Pseudomonas</i></li> </ul>	Seed treatment	1 day	5	125	FLD on super <i>Pseudomonas</i> for management of pests and diseases
				<ul style="list-style-type: none"> <li>• Seedling dip of</li> </ul>	Seedling treatment	1day	5	125	

				<i>Pseudomonas</i>					
				• Pest & Disease Surveillance	In situ count	1 day	5	125	
				• Operation & maintenance of sprayers	Measurement & spraying techniques	1 day	2	50	FLD on management of blast and sheath blight with Azoxystrobin
				• Disease scouting	In situ count	1 day	2	50	
		Soil degradation	To inculcate scientific approach in organic farming	• Importance of green manuring	Time and quantity	1 day	3	75	FLD on Organic farming
				• Dual culturing of Azolla	Time and quantity	1 day	2	50	
				• Trichogramma egg card tying	Species, time and quantity	1 day	2	50	
				• Pheromone monitoring	Installation height, lure change	1 day	3	75	
				• Panchakavya preparation and application	Ingredients addition and preparation procedure	1 day	2	50	
2.	Rice fallow Black gram	Low yield	To educate the improved technology to maximize the yield	• Foliar nutrition	Time and quantity	1day	3	75	-
				Bio-fertilizer seed treatment	methodology	1day	2	50	
		Low yield in rice fallow pulses due to severe defoliation of <i>Spodoptera</i>	To educate the farmers on bioecology of <i>Spodoptera</i> & its control methods	• Preparation and use of poison baits	Preparation of poison baits	1 day	2	50	FLD on management of <i>Spodoptera</i> in rice fallow pulses
				• Use of Pheromone traps & light traps for	Field erection	1 day	2	5	



				<i>Spodoptera</i> control					
				• Methods & use of insecticides	Measurement & method of spraying	1 day	2	50	
3.	Rice fallow cotton	Low yield due to poor establishment	To educate the recent techniques and alternative method of establishment	• Nursery techniques for cotton seedling production	Operational procedure	1 day	3	75	OFT of Alternative method of cotton establishment
				• Seed treatment	Operational procedure	1 day	2	50	
				• Micronutrient deficiency and management	Observation & method of spraying	1 day	2	50	
				• Need of growth regulator	Time and Quantity	1 day	2	50	
		Low yield in Bt cotton due to sucking pests	To educate the farmers on the management of sucking pests	IPM for sucking pests in rice fallow Bt cotton	Crop diversity- Intercrop, bund crop Measurement & method of spraying	1 day	2	50	OFT on management of sucking pests in rice fallow Bt cotton
4.	Groundnut	Low productivity	To train the farmers on improved package of practices	• Seed treatment with biofertilizer in Groundnut	Operational procedure	1 day	2	50	FLD on Bullock drawn seed drill
				• Foliar nutrition to enhance groundnut yield	Observation & method of spraying	1 day	2	50	
				• Farm mechanization in Groundnut cultivation	Knowledge on scientific approaches	1 day	3	75	
				• Micronutrient	Diagnosis	1 day	2	50	

				diagnosis and remedies	and application				
		Poor yield due to <i>Sclerotia</i> stem rot in rice follow groundnut	To educate the farmers on the importance of seed treatment etc.	<ul style="list-style-type: none"> <li>Seed treatment for disease control in groundnut</li> </ul>	Seed treatment	1 day	2	50	OFT on management of stem rot in groundnut
				<ul style="list-style-type: none"> <li>Spot drenching for rot &amp; wilt control in groundnut</li> </ul>	Spot drenching	1 day	2	50	
5.	Cole crops	Low productivity in rice – groundnut / vegetables system	Generate more income to farmers	<ul style="list-style-type: none"> <li>Package of practices for knoll khol</li> </ul>	Nursery raising and earthing up	1day	1	25	OFT on introduction of cole vegetables
				<ul style="list-style-type: none"> <li>Package of practices for beet root</li> </ul>	Nursery raising and earthing up	1day	1	25	
				<ul style="list-style-type: none"> <li>Harvest, handling and marketing of knoll khol &amp; beet root</li> </ul>	Processing	1day	1	25	
6	Vasambu	Low production in rice-rice ecosy stem	To assess the suitability of vasambu for water logged condition.	<ul style="list-style-type: none"> <li>Packages of practice for vasambu cultivation</li> </ul>	Rhizome treatment and weedicide application	1day	2	50	OFT on introduction of vasambu
				<ul style="list-style-type: none"> <li>Harvest and processing of vasambu</li> </ul>	Processing	1day	2	50	
7	coconut	Low price in coconut nuts Improper fertilizer management	To generate high income / unit area  To train the farmers on recent	<ul style="list-style-type: none"> <li>Multitier system of coconut for higher income</li> </ul>	Planting methods and processing of pepper	1day	2	50	FLD in multitier production of coconut FLD on
				<ul style="list-style-type: none"> <li>Root feeding</li> </ul>	Selection of	1 day	5	125	

8.			aspects of fertilizer management	of coconut tonic	root & time of application				coconut INM
				• Fertilizer application	Space and time of fertilizer	1 day	5	125	
9.	Brinjal	Low yield in brinjal due to severe incidence of shoot and fruit borer	To educate the farmers on bioecology of <i>shoot fruit borer</i> & its control methods	• Installation of pheromone traps	Field erection	1 day	2	50	OFT on management of shoot & fruit borer
				• Clipping of terminal shoot & pest scouting	Mechanical control	1 day	2	50	
				• Neem Seed Kernel Extract Preparation	Preparation & method of spraying	1 day	2	50	
	Nutrition garden	Nutrition insecurity	Improving the nutritional status of women and children	• Awareness creation and promotion of kitchen garden	Kitchen garden	1day	2	50	FLD on Nutrition garden
• Awareness creation on balanced diet.				Preparation of balanced diet.	1day	2	50		
• Ways to combat deficiency diseases				Preparation of iron and calcium rich foods	1day	2	50		
• Nutritional importance of fruits and vegetables				Preparation of nutritious foods from fruits and vegetables	1day	2	50		
10.	Forage	Traditional grass feeding and low yield of local cultivar	To train the farmers to increase green fodder yield	• Suitable forage crops for cauvery delta	Preparation skill on feed	1 day	3	75	FLD on Fodder crops

				<ul style="list-style-type: none"> <li>Balanced nutrition for cattles</li> </ul>	Knowledge on scientific approaches	1 day	2	50	
				<ul style="list-style-type: none"> <li>Silage making</li> </ul>	Operational procedure	1 day	2	50	
				<ul style="list-style-type: none"> <li>Fodder cultivation in farm ponds</li> </ul>	Knowledge on scientific approaches	1 day	2	50	
11.	Agro forestry	Less profitability in rice farming	To train the farmers about the importance of agro forestry in delta region	<ul style="list-style-type: none"> <li>Suitable trees for water logged soils</li> </ul>	Knowledge and awareness	1 day	2	50	FLD on Thornless bamboo
				<ul style="list-style-type: none"> <li>Thornless bamboo cultivation</li> </ul>	Knowledge and awareness	1 day	2	50	
				<ul style="list-style-type: none"> <li>Intercropping in Agro forestry system</li> </ul>	Knowledge and awareness	1 day	1	25	
12.	Farm machinery	Muscular disorder	Drudgery reduction	<ul style="list-style-type: none"> <li>Drudgery reduction in farm women by using farm implements</li> </ul>	Occupational health hazards faced by farm women	1 day	2	25	FLD on Drudgery reduction
13.	Food Science & Nutrition	Fisher women fetch low income by selling fresh fish.	Increase the revenue of the fisher women through value addition of fish.	<ul style="list-style-type: none"> <li>Value addition of fish.</li> </ul>	Preparation of value added products from fish.	1day	2	30	FLD-Fish processing
		Prevalence of mal nutrition among pre school children	Enhancing the nutritional status of pre school children	<ul style="list-style-type: none"> <li>Preparation of weaning foods</li> </ul>	Preparation of weaning foods developed by different institutions	1day	2	20	OFT- Alleviating the nutritional status of pre school children

14.	Others	Loss of grains due to stored pests	To train the farmers on identification of stored pests & their control measures	• Identification of storage pests.	Insitu count & observation	1 day	2	50		
				• Use of plant products in stored pests control.	Mixing & proportion of mixing	1 day	2	50		
				• Traps in stored pests management	Storage erection & observation	1 day	2	50		
			Yield loss due to rat damage in rice	To train the farmers on bio ecology and management of rats	• Bioecology & behaviour of rat	-	1 day	2	50	
					• Poison baiting	Preparation f poison bait	1 day	2	50	
					• Traps in rat management	Erection & catching	1 day	2	50	
					• Fumigation in rat management	Fumigation	1 day	2	50	

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

S. No	Crop / Enterprise	Major problem	Objective of training	Training title	Skill component involved	Duration	No. of courses	No. of participants	Specify FLD / OFT in relation
1.	Apiculture	-	To train the rural youth to start their own entrepreneurship	<ul style="list-style-type: none"> <li>• Bee keeping for self sustenance</li> <li>• Bee species</li> <li>• Biology &amp; behaviour of bees</li> <li>• Bee keeping equipments</li> <li>• Pests &amp; disease of honey bees</li> <li>• Safe handling of bees</li> <li>• Honey &amp; wax extraction</li> </ul>	Identification of bee castes Installation of bee colonies Identification of bee enemies Honey extraction Waxextraction Safe handling	4 days	2	50	-
2.	Biocontrol agents	-	To train the youths to produce & sell the biocontrol agents	<ul style="list-style-type: none"> <li>• Production and use of biocontrol agents (<i>Trichogramma</i> spp, <i>Trichoderma viride</i>, <i>Pseudomonas</i> etc)</li> </ul>	Culturing & handling	4 days	1	25	-
3.	Mushroom cultivation	-	To train the rural youth for farm income generation to empower them in entrepreneurship	<ul style="list-style-type: none"> <li>• Oyster and milky mushroom cultivation aspects</li> <li>• Paddy straw preparation\</li> <li>• Spawn preparation</li> <li>• Bed preparation</li> </ul>	-	1 day	6	250	-
4.	Vermicompost production		To train the rural youth for farm income generation and to empower them in entrepreneurship	<ul style="list-style-type: none"> <li>• Farm waste recycling, production of vermicastings and vermiwash</li> </ul>	Organic manure production	1 day	4	100	

**5 c. Plan of training programmes for Extension functionaries during 2008-09**

<b>S. No</b>	<b>Crop / Enter-prise</b>	<b>Major problem</b>	<b>Objective of training</b>	<b>Training title</b>	<b>Skill component involved</b>	<b>Duration</b>	<b>No. of courses</b>	<b>No. of participants</b>	<b>Specify FLD / OFT in relation</b>
1.	Rice	Low yield in rice due poor adoption of technology	To refresh the Extension Functionaries on recent development	<ul style="list-style-type: none"> <li>• Farm mechanization in rice cultivation</li> </ul>	-	1 day	1	25	OFT on SRI Refinement OFT on drum seeder Refinement\ FLD on Rice Transplanter
		Low yield in rice due to pests & disease	To refresh the Extn. Functionaries on recent development in pests & diseases control	<ul style="list-style-type: none"> <li>• Recent advances in the integrated pests &amp; disease management in rice</li> </ul>	-	1 day	2	50	-
2.	Integrated Farming system	Less profitability in rice based cropping.	<ul style="list-style-type: none"> <li>• To refresh the Extension officials on recent development in IFS</li> </ul>	<ul style="list-style-type: none"> <li>• IFS for lowland ecosystem</li> </ul>	-	1 day	1	25	-
3.	Agroforestry	Less profitability in rice based cropping system	<ul style="list-style-type: none"> <li>• To refresh the Extension Functionaries on suitable agro forestry system to Cauvery delta zone</li> </ul>	<ul style="list-style-type: none"> <li>• Agro forestry system to Cauvery delta zone</li> </ul>	-	1	1	25	FLD on Thornless bamboo
4.	Precision Farming	Less profitability on farming	<ul style="list-style-type: none"> <li>• To inculcate the hitech cultivation for profitable cultivation</li> </ul>	<ul style="list-style-type: none"> <li>• Precision farming</li> </ul>	-	1day	1	25	

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

<b>Crop / Enterprise</b>	<b>Major problem</b>	<b>Objective of training programme</b>	<b>Training Title</b>	<b>Skill component involved</b>	<b>Duration</b>	<b>No. of Courses</b>	<b>Number of participants</b>
Fruits and vegetables	Low income	Entrepreneurship Development	• Value addition of fruits and vegetables	Preparation	12	2	40
Fish			• Value addition of fish	Preparation	6	2	40
Milk			• Value addition of milk	Preparation	6	2	40
Mushroom			• Value addition of mushroom	Preparation	6	2	40
Bakery products			• Value added products from cereals	Preparation	6	2	40
Biological control	Non availability	Entrepreneurship Development	• Bio control agent production for self employment	Procedure and method	7	1	20
Bee keeping	Low profitability	Entrepreneurship Development	• Bee keeping for self employment	Method	6	1	20



**5e. Plan of sponsored training programme during 2008-09**

<b>Crop / Enterprise</b>	<b>Major problem</b>	<b>Objective of programme</b>	<b>Training Title</b>	<b>Skill component involved</b>	<b>Duration</b>	<b>No. of Courses</b>	<b>Number of participants</b>	<b>Sponsoring Agency</b>
Fruits and vegetables	Low income	Entrepreneurship Development	• Value addition of fruits and vegetables	Preparation	12	1	20	SDH
Fish			• Value addition of fish	Preparation	6	1	20	NABARD
Milk			• Value addition of milk	Preparation	3	1	20	NABARD
Mushroom			• Value addition of mushroom	Preparation	6	1	20	SDA
Bakery products			• Value added products from cereals	Preparation	3	1	20	NGO
Horticulture	Less profitability in rice farming	Entrepreneurship Development	• Nursery technique to produce grafted saplings	Method and operation	5	2	40	NHM
Fisheries	Less profitability in rice farming	Entrepreneurship Development	• Inland aquaculture	Types and operations	5	2	40	NFDB
Precision Farming	Less profitability in rice farming	Entrepreneurship Development	• Precision farming techniques	Method and operation	3	2	40	Ministry of water resources
Farm mechanization	Non availability of labour	Entrepreneurship Development	• Role of Farm mechanization in agriculture	Method and operation	2	2	40	Agricultural Engineering

## 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
June -Sep	Needamangalam, Edamalaiyur, Munnavalkottai	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	Popularization of system of rice intensification	250	42	292
June - Sep	Needamangalam-Rayapuram, kelapatu	<ul style="list-style-type: none"> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	Popularizing application of micronutrients mixture for yield enhancement in thaladi paddy	200	35	235
June -Sep	Needamangalam-Navapoondi Thiruthuraipoondi-Korukkai	<ul style="list-style-type: none"> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	Reclamation of sodic soils through application gypsum and organic manure	150	35	185
July-Nov	Needamangalam-Kadampur, periakottai, Mannaugudi-Devangudi Kudavasal-perupannaiyur	<ul style="list-style-type: none"> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	'Popularization of Rice Transplanter '	400	45	445
July-Nov	Mannargudi-Athichapuram	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	Popularization of IPM with newer insecticides to control BPH causing yield loss in rice during Samba & thaladi seasons	150	45	195

July-Nov	Needamangalam-periakottai, munnavaikottai, sonapettai	<ul style="list-style-type: none"> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of super <i>Pseudomonas</i> for the management of leaf folder and sheath rot in rice.	220	35	255
July-Nov		<ul style="list-style-type: none"> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of Azoxystrobin for the management of Rice blast and sheath blight.	150	20	170
Aug-Jan	Needamangalam-Thattaikalpudikai Valangaiman-thekkupattam	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Field visits</li> <li>• Campaigns</li> <li>• Exhibitions</li> </ul>	Popularization of rice organic farming in farmers holdings	120	20	140
Dec-Feb	Needamangalam-Vaiyakulathur, paithencherry	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Field days</li> </ul>	Popularization of IPM for <i>Spodoptera</i> in rice fallow pulses	200	45	265
Dec-Feb	Needamangalam-Paiganadu, Edamelaiyur	<ul style="list-style-type: none"> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of Bullock drawn seed drill in Groundnut cultivation	150	50	200
Dec-Feb	Mannargudi-Melanagi, Neduvakoggtai, ashesham	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of Hi – tech nursery for Hybrid Vegetable seedlings.	125	15	140
July-Nov	Thithuraipoonandi-Thambikoot	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> </ul>	High density multi tier cropping system in Coconut	150	15	

	ai,Muthupettai	<ul style="list-style-type: none"> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	garden.			165
July-Nov	Thithuraipoon-di-Thambikootai,Muthupettai	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of Integrated nutrient management in coconut ecosystem	300	15	315
Dec-Jan	Needamangalam-Vidiakarupoor, manargudi and vettaithidal	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Introduction and Popularization of Thornless Bamboo	300	20	320
Dec-Jan	Needamangalam-pulavarayan kudikadu, Mannargudi-Kurichi,Kudavasaland Neduvasal	<ul style="list-style-type: none"> <li>• Group meetings</li> <li>• Field visits</li> <li>• Off campus trainings</li> <li>• Campaigns</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization high yielding Fodder crop Cumbu Napier Hybrid grass Co 3	150	15	165
June - March	Thiruthuraipoon-di-Muthupettai	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Off campus trainings</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of value addition of fish	250	45	295
Dec-Feb	Mannargudi-Melanagai Neduvakottai	<ul style="list-style-type: none"> <li>• Farmers conventions</li> <li>• Group meetings</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Popularization of Nutrition garden in rural households for nutritional security in women and children.	300	5	105

Dec-Feb	Mannargudi-Painganadu Melanagai	<ul style="list-style-type: none"> <li>• Group meetings</li> <li>• Method demonstrations</li> <li>• Field visits</li> <li>• Exhibitions</li> <li>• Advisory services</li> <li>• Field days</li> </ul>	Reducing drudgery of farm women in agricultural operations through the use of groundnut stripper.	250	35	285
---------	---------------------------------	---	---	-----	----	-----

#### 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	<b>Production and supply of seed materials</b>			
	Cereals	Paddy	ADT -43 CR-1009 ADT-38	3000 1000 1000
	Oilseeds			
	Pulses			
	Vegetables			
	Flower crops			
	Others (Specify)			
2	<b>Production and supply of Planting materials</b>			
	Fruits			
	Spices			
	Vegetables			
	Forest species			
	Ornamental crops			
	Plantation crops	Coconut seedlings	East cost Tall	1000
	Others (Specify)	Teak	-	2000
3	<b>Production and supply of bio-products</b>			
	Bio agents			
	Bio fertilizers			
	Bio pesticides			
4	<b>Production and supply of livestock material</b>			
	Cattle			
	Sheep			
	Goat			
	Fisheries			
	Others (Specify)			

#### 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
-	-	250/year	100/year	50/year	-

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

Sl. No.	Title of document	Expected date of submission
1.	Spread and acceptance of SRI method among Cauvery delta farmers	20.3.09
2.	Effectiveness of KVK programmes on farming and farming community in Thiruvarur district.	19.12.08
3.	Prospects and problems in use of combined harvester under low land irrigated eco-system	17.2.09
4.	Farming system changes in Thiruvarur district- A case analysis	25.10.08

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

Sl. No.	Nature of literature/publications and no. of copies	Proposed title of the publication
1.	Leaflet: (each 500 copies)	<ul style="list-style-type: none"> <li>• Semmai nelsagupadi</li> <li>• Pai natrangal Thayariththal</li> <li>• Nel tharisu ulunthu matrum pachaipayaru sugupadi</li> <li>• Nel tharisu paruthi sagupadi</li> <li>• Nel tharisu ell sagupadi</li> <li>• Vasambu sagupadi</li> <li>• Kaththari sagupadi</li> <li>• Milagai sagupedi</li> </ul>
2.	Pamphlets: (Each 500 copies)	<ul style="list-style-type: none"> <li>• Nel sagupadiyil enthirangalin pangu</li> <li>• Nel vithai urpathi thozil nutpangal</li> <li>• Nerpayirai thakkum poochikalum thadukkum muraikalum.</li> <li>• Nerpayirai thakkum noikalum thadukkum muraikalum.</li> <li>• Thiruvarur mavattathiketra malar sagupadi Kurippukal</li> <li>• Thiruvarur mavattathirketra marunthu payirgal sagupadi kurippukal.</li> </ul>
3.	Folder: (Each 500 copies)	KVK at a glance Velanmai ariviyal nilayam oru parvai
4.	News letter: (500 copies per Quarter)	Nerkalangium
5.	Books (Each 200 copies ) :	<ul style="list-style-type: none"> <li>• The farmer</li> <li>• Vivasayee</li> <li>• Iyarkaivelanmai</li> <li>• Sustainable agriculture</li> <li>• Farming system</li> </ul>
6.	Booklets	<ul style="list-style-type: none"> <li>• Nel sagubadi</li> <li>• Paruthi sagubadi</li> <li>• Karumbu sagubadi</li> <li>• Thennai sagubadi</li> <li>• Kaykari payirkal sagubadi</li> </ul>

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

Sl. No.	Nature of media coverage	Proposed title of the programme to be telecasted/ broadcast
1.	AIR Trichy / Karaikkal Radio talk	<ul style="list-style-type: none"> <li>• Nel sagupadiyil enthirangalin pangu</li> <li>• Nel vithai urpathi thozil nutpangal</li> <li>• Nel sagubadi</li> <li>• Paruthi sagubadi</li> <li>• Karumbu sagubadi</li> <li>• Thennai sagubadi</li> <li>• Kaykari payirkal sagubadi</li> </ul>
2.	Live programme on AIR	<ul style="list-style-type: none"> <li>• Nerpayirai thakkum poochikalum thadukkum muraikalum.</li> <li>• Nerpayirai thakkum noikalum thadukkum muraikalum.</li> <li>• Thiruvarur mavattathikettra malar sagupadi Kurippukal</li> <li>• Thiruvarur mavattathirketra marunthu payirgal sagupadi kurippukal</li> </ul>
3.	Messages	<ul style="list-style-type: none"> <li>• Semmai nelsagupadi</li> <li>• Pai natrangal Thayariththal</li> <li>• Nel tharisu ulunthu matrum pachaipayaru sugupadi</li> <li>• Nel tharisu paruthi sagupadi</li> <li>• Nel tharisu ell sagupadi</li> <li>• Vasambu sagupadi</li> <li>• Kaththari sagupadi</li> <li>• Milagai sagupedi</li> </ul>
4.	Doordarshan programmes	<ul style="list-style-type: none"> <li>• Paddy transplanter</li> <li>• Direct sown rice by drum seeder</li> <li>• Precision farming in Thiruvarur district</li> <li>• IPM in rice</li> <li>• Organic pest control</li> <li>• Rats and their management</li> </ul>
5.	Press coverage	
	Article	<ul style="list-style-type: none"> <li>• Semmai nelsagupadi</li> <li>• Pai natrangal Thayariththal</li> <li>• Nel tharisu ulunthu matrum pachaipayaru sugupadi</li> <li>• Nel tharisu paruthi sagupadi</li> <li>• Nel tharisu ell sagupadi</li> <li>• Vasambu sagupadi</li> <li>• Kaththari sagupadi</li> <li>• Milagai sagupedi</li> </ul>
	Message	<ul style="list-style-type: none"> <li>• Nel sagupadiyil enthirangalin pangu</li> <li>• Nel vithai urpathi thozil nutpangal</li> <li>• Nerpayirai thakkum poochikalum thadukkum muraikalum.</li> <li>• Nerpayirai thakkum noikalum thadukkum muraikalum.</li> <li>• Thiruvarur mavattathikettra malar sagupadi Kurippukal</li> <li>• Thiruvarur mavattathirketra marunthu payirgal sagupadi kurippukal.</li> </ul>

	Announcements	<ul style="list-style-type: none"> <li>• Semmai nelsagupadi</li> <li>• Pai natrangal Thayariththal</li> <li>• Nel tharisu ulunthu matrum pachaipayaru sugupadi Nel tharisu aruthi sagupadi</li> <li>• Nel tharisu ell sagupadi</li> <li>• Vasambu sagupadi</li> <li>• Kaththari sagupadi</li> <li>• Milagai sagupedi</li> <li>• Nel sagupadiyil enthirangalin pangu</li> <li>• Nel vithai urpathi thozil nutpangal</li> <li>• Nerpayirai thakkum poochikalum thadukkum muraikalum.</li> <li>• Nerpayirai thakkum noikalum thadukkum muraikalum.</li> <li>• Thiruvarur mavattathikettra malar sagupadi Kurippukal</li> <li>• Thiruvarur mavattathirketra marunthu payirgal sagupadi kurippukal.</li> <li>• Iyarkaivelanmai</li> <li>• Sustainable agriculture</li> <li>• Farming system</li> <li>• Nel sagubadi</li> <li>• Paruthi sagubadi</li> <li>• Karumbu sagubadi</li> <li>• Thennai sagubadi</li> <li>• Kaykari payirkal sagubadi</li> </ul>
--	---------------	--

## 12. Nature of collaborative activities planned for 2008-09

Thrust area	Collaborative Organizations	Nature of activities*	No. of Activities
Refreshing the knowledge level of extension functionaries	State Department of Agriculture	• Training	5
Alternate cropping	State Department of Agriculture	<ul style="list-style-type: none"> <li>• Training</li> <li>• Demonstration</li> <li>• Seminar</li> <li>• Campaign field day</li> </ul>	3 3 1 2 2
Promotion of green manuarial crop cultivation	Department of Animal Husbandry	<ul style="list-style-type: none"> <li>• Trainings</li> <li>• Seminar</li> </ul>	2 1
Introduction of medicinal plants	State Department of Agriculture	<ul style="list-style-type: none"> <li>• Training</li> <li>• Seminar</li> </ul>	2 1
Promotion of self employment for rural youth	DRDA/ NGOs	<ul style="list-style-type: none"> <li>• Trainings</li> <li>• Demonstration</li> <li>• Exposure visits</li> </ul>	10 10 10
Introduction of Cole vegetables	State Dept. f Agriculture	<ul style="list-style-type: none"> <li>• Training</li> <li>• Seminar</li> </ul>	2 1
Farm mechanization	Agricultural Engineering Department	<ul style="list-style-type: none"> <li>• Trainings</li> <li>• Demonstration</li> </ul>	2 3
Increasing the yield level in rice fallow crops	State Department of Agriculture	<ul style="list-style-type: none"> <li>• Training</li> <li>• Demonstration</li> </ul>	2 4



Popularization of agro forestry	Forest Department	<ul style="list-style-type: none"> <li>• Training</li> <li>• Seminar</li> </ul>	1 1
Problem soils and reclamation	Department of Agriculture	<ul style="list-style-type: none"> <li>• Training</li> <li>• Seminar</li> </ul>	1 1
Organic farming	State Department of Agriculture NGOs	<ul style="list-style-type: none"> <li>• Seminar</li> <li>• Training</li> </ul>	1 2
Promotion of in land fish culture	State Department of Fishery	<ul style="list-style-type: none"> <li>• Seminar</li> <li>• Training</li> </ul>	1 1

### 13. Activities proposed under Farmers Field School (FFS)

#### 13.1 IPM DEMONSTRATION AND TRAINING IN RICE

<b>Title of the Farmers Field School (FFS)</b>	:	Integrated Pest Management in Rice
<b>Problem definition</b>	:	Pest and diseases cause yield loss to the tune of 25 percent in rice especially during Samba and Thaladi season in Thiruvarur district wherein the rice is grown in 90 percent of the total cropped area.
<b>Main objectives of FFS</b>	:	<ul style="list-style-type: none"> <li>• To educate the farmers on IPM in rice and adverse effects of excess use of insecticides.</li> <li>• To motivate the farmers to adopt IPM for the control of pest and diseases in rice to reduce the yield loss and maximize the crop production with minimum input cost.</li> <li>• To conserve ecosystem and maintain the ecological equilibrium</li> </ul>
<b>Scientific rationale of FFS</b>	:	Indiscriminate and excess use of pesticides resulted into several adverse effects viz., pest resistance to pesticides, pesticide hazards, destruction of natural biocontrol fauna, ecological imbalance and environmental pollution besides increase in the cost of production. Adoption of IPM solves all these problems and reduces the pesticide usage in rice ecosystem. The FFS aims at inculcating the habit of visiting and observing the field condition at weekly intervals by farmers. These regular field observation and studies enable the farmers to grow healthy crops, to conserve natural enemies and to take suitable decision on timely adoption of ecofriendly approaches.
<b>Learning process involved FFS</b>	:	<ul style="list-style-type: none"> <li>• Field observation on insect pests and natural biocontrol agents at weekly intervals for 14 times.</li> <li>• Discussing on observation and related topics.</li> <li>• Preparation of tentative IPM packages/practices.</li> <li>• Documentation and records.</li> <li>• Conducting farmers field day after 14 weeks.</li> </ul>

<b>Priorities of FFS</b>	:	<ul style="list-style-type: none"> <li>• Maximizing crop production with minimum input cost.</li> <li>• Minimizing environmental pollution in soil, water and air due to pesticides.</li> <li>• Minimizing occupational health hazards due to chemical pesticides.</li> <li>• Preserving ecosystem and maintain ecological equilibrium</li> <li>• No or less use of chemical pesticides for minimum pesticide residues.</li> </ul>
--------------------------	---	--

### Budget details

	<b>Particulars</b>	<b>Quantity</b>	<b>Amount (Rs)</b>
1	IPM kit	Rs.150/farmer for 100 farmers and 5 AEOs / NGOs/ lead farmer etc (105x 150)	15,750
2	Working tea /refreshment	Rs. 10 / participant/ day For 14 days (108 x10x14)	15,120
3	Contingent expenditure, POL etc		10,000
4	Distribution of IPM literature to participants	Rs. 30 /head (105 x 30)	3,150
5	Cost of pheromones, seed treatment, parasitoids, LCC and emergent pesticides etc.		10,000
6	Organizing IPM field day (Working tea /refreshment) and other contingency		20,000
	<b>Total</b>		<b>74,020</b>

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

<b>S. No</b>	<b>Name of Database</b>	<b>Content of Database</b>	<b>Expected date of Completion</b>
01	<i>Resource inventory of the District</i>	<ol style="list-style-type: none"> <li>1. Nine fold classification of land</li> <li>2. Number and size of operational holdings</li> <li>3. Weather parameters of the district. (for a minimum period of ten years)</li> <li>4. Details of soil profile</li> <li>5. Detailed cropping pattern (for a minimum period of ten years)</li> <li>6. Area, production and productivity of major crops</li> <li>7. Details of livestock wealth in the district</li> </ol>	July, 2008

		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	
--	--	---	--

**Data required since inception of the KVK**

1.	Farmers Database	Details of farmers	July, 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)
	-	-	-

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.

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

17. 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 2008-09 : -

18. Whether ATMA is functioning in your district?

ATMA is functioning in our district. KVK is an active partner to operationalize the ATMA in Thiruvarur district. KVK is one of the member in Thiruvarur ATMA Governing Board (GB) which is a policy making body and provide guidance as well as review the progress and a functioning of the ATMA. Also KVK is one of the member in ATMA management committee (MC). This committee would be responsible for planning and executing the day to day activities of ATMA.

**Type of co-ordination and collaboration does our KVK is proposed to have during 2008-09**

- Carryout the participatory Rural Appraisal (PRA) to identify the problems and constraints faced by different socio-economic groups and farmer within the district.
- Preparation of strategic Research Extension plan (SREP) for the district
- Preparation of annual action plan.
- Co-ordination with line departments for execution of annual action plan.
- Co-ordination with line departments for executions of annual action plan.
- Establishing co-ordinating mechanism at block level for integrating extension and transfer of technologies.

**19. What type of scientist - Farmer linkage are proposed by your KVK for 2008-09?**

- Farm advisory service
- Diagnostic visits
- Village meetings
- Seminars
- Field days
- Trainings
- Demonstration
- Farm science club
- Campaigns
- OFT
- FLD
- Media coverage
- Communication through letters, phone and email

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

- Formation of farmers interest group / commodity groups
- Establishing model demonstration units.
- Permanent exhibition
- Extension publications

### 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
98,133	93,756	31,234	35,611	80,000	1,50,000

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

Opening stock position of materials* as on 01.04.2007	Quantity produced during 2007-08	Quantity sold during 2007-08	Closing stock position as on 31.03.2008	Expected production during 2008-09	Expected number of beneficiaries
Coconut seedlings	546	546	Nil	1,000	25
Teak seedlings	665	665	Nil	2,000	40
Paddy	5,770	Nil	5,770	5,000	400

\* Product may include seeds, planting material, bio agents/fertilizer, livestock and samples analysed.

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

Amount to be invested (Rs.)	Purpose	Expected production	Approximate value of the produce
80,000	Seed planting material	Paddy seed - 5 tonnes coconut seedlings - 1,000 Nos. Teak seedlings - 2,000 Nos.	1,00,000

#### 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
	2 ha	Canal irrigation	Karif, Rabi	Organic farming	One	5 tonnes	75,000
	2 ha	Bore well	Summer	Precision farming	One	40 tonnes banana, 50 tonnes sugar cane	50,000 1,00,000
	0.4 ha	Bore well	Kuruvai & summer	Drum seeded rice	One	2.5 tonnes	20,000
	0.4 ha	Canal	Kuruvai & summer	SRI	One	2.5 tonnes	20,000
	40 sq.ft	-	August – March	Mushroom	One	50 kg	3,000
	40 sq. ft	-	June – May	Vermicompost	One	1 tonne	3,000
	800 sq.ft	-	December – January & June-July	Hi-tech nursery unit (shade nut)	One	25,000 seedlings	10,000

**IV. PLAN FOR FINANCIAL MANAGEMENT**

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

Sl. No.	Particulars	2007-08			2008-09
		Sanctioned	Released	Expenditure	Budget Proposed
<b><i>A. Recurring Contingencies</i></b>					
1	Pay & Allowances	30,00,000	-	33,29,274	35,00,000
2	Traveling allowances	1,00,000	-	99,752	2,00,000
<b>3</b>	<b>Contingencies</b>	<b>6,00,000</b>		<b>5,98,614</b>	<b>14,69,645</b>
A	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	1,86,000	Rs. 39,70,796	1,86,000	2,00,000
B	POL, repair of vehicles, tractor and equipments	96,000		95,996	2,00,000
C	Meals/refreshment for trainees (ceiling upto Rs.40/day/trainee be maintained)	78,000		77,728	2,00,000
D	Training material (posters, charts, demonstration material including chemicals etc. required for conducting the training)	72,000		71,979	1,00,000
E	Frontline demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	75,000		74,958	2,63,250
F	On farm testing (on need based, location specific and newly generated information in the major production systems of the area)	36,000		35,993	1,31,395
G	Training of extension functionaries	24,000		23,953	75,000
H	Maintenance of buildings	24,000		23,921	75,000
I	Establishment of Soil, Plant & Water Testing Laboratory	-		-	2,00,000
J	Library	9,000		8,086	25,000
<b>TOTAL (A)</b>		<b>37,00,000</b>		<b>40,27,640</b>	<b>51,69,645</b>

**Table 26. (Continued)**

Sl. No.	Particulars	2007-08			2008-09
		Sanctioned	Released	Expenditure	Budget Proposed
<b>B. Non-Recurring Contingencies</b>					
1	Works (Please Specify)				
	i) KVK farm fencing	-	-	-	1,50,000
	ii) Biocontrol agent production unit	-	-	-	4,00,000
2	Equipments including SWTL & Furniture (Please Specify)	5,00,000		5,00,000	
	i) LCD, Laptop, screen (AV lab) projection trolley, wall mounted screen and public addressing system.	-	-	-	2,00,000
	ii) Digital camera / Handy cam (AV lab)	-	-	-	25,000
	iii) Lab equipments (List enclosed) (SWTL)*	-	-	-	20,00,000
	iv) Laminar flow, Autoclave, refrigerator (bio control lab)	-	-	-	1,00,000
	v) Digital platform balance, moisture meter (seed lab), Electric oven, work table & gas stove (Home Science lab)	-	-	-	75,000
3	Vehicle (Four wheeler/Two wheeler, please specify)				
	i) Swaraj mazda 20 Seated Van	-	-	-	8,00,000
4	Library (Purchase of assets like books & journals)				20,000
<b>TOTAL (B)</b>					
<b>C. REVOLVING FUND</b>		-	-	-	1,00,000
<b>D. RAIN WATER HARVESTING UNIT</b>		-	-	-	2,00,000
<b>GRAND TOTAL (A+B+C+D)</b>		<b>42,00,000</b>		<b>45,27,640</b>	<b>92,39,645</b>



### List of equipments proposed for SWTL

<b>S. No</b>	<b>Items</b>	<b>Amount (Rs.)</b>
1.	Work table with granite top	1,50,000
2.	Digestion and distillation unit	1,50,000
3.	Soil sample rack	75,000
4.	Chemicals rack	75,000
5.	Water still	35,000
6.	Anamed balances (3 Nos) (0.1, 0.01, 0.001)	1,20,000
7.	Shaking machine	30,000
8.	pH meter	7,000
9.	Ec meter	10,000
10.	Spectrophoto meter with accessories	75,000
11.	Flame photo meter with data logger	60,000
12.	Refrigerator	12,000
13.	Hot plate	5,000
14.	Water bath	5,000
15.	Centrifuge	25,000
16.	Soxhelet apparatus with heating mantle	20,000
17.	Atomic absorption spectro photometer	12,00,000
18.	Hot air oven	40,000
<b>Total</b>		<b>20,94,000</b>

**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	<b>Technologies to be assessed</b>	7	40
		6	32
02	<b>Technologies to be refined</b>		
03	<b>Front Line Demonstration</b>	<b>Area(ha)</b>	<b>Number of Demonstrations</b>
	Oilseeds- Ground nut	8	8
	Pulses- Black gram	5	5
	Cereal Crops- Rice	82	82
	Horticultural Crops- Vegetables	0.6	15
	Plantation Crops - Coconut	7	10
	Commercial Crops- Bamboo	2	5
	Enterprises-Fish	20Nos	20
	Others (Fodder)	6	5
	04	<b>Training Programmes</b>	<b>Number of Courses</b>
Farmers and farm women		166	4150
Rural Youth		13	425
Extension personnel		6	150
Vocational programmes		12	240
Sponsored programmes		13	260
05	<b>Extension Programmes</b>	<b>Number of Programmes</b>	<b>Number of Participants</b>
	Farmers conventions, Group meetings Method Demonstrations, Field visits Off campus trainings, Exhibitions Campaigns, Advisory services Field days	118	4172

S. No	Particulars of intervention	Target	
		Quantity (kg) / Number	Number of Farmers
<b>06</b>	<b>Production and supply of seed materials</b>		
	Cereals (Paddy)	5000	200
	Oilseeds		
	Pulses		
	Vegetables		
	Flower crops		
	Others (Specify)		
<b>07</b>	<b><i>Production and supply of planting materials</i></b>		
	Fruits		
	Spices		
	Vegetables		
	Forest species		
	Ornamental crops		
	Plantation crops (Coconut)	1000	50
	Others (Specify) (Teak)	2000	40
<b>08</b>	<b>Production and supply of bio-products</b>		
	Bio agents		
	Bio fertilizers		
	Bio pesticides		
<b>09</b>	<b>Production and supply of livestock material</b>		
	Cattle		
	Sheep		
	Goat		
	Fisheries		
	Others (Specify)		
		<b>Number</b>	<b>Number of Farmers</b>
<b>07</b>	<b>Number of soil samples to be analyzed</b>	250 / year	250
<b>08</b>	<b>Number of water samples to be analyzed</b>	100 / year	100
<b>09</b>	<b>Number of plant samples to be analyzed</b>	50 / year	50

