

ANNUAL REPORT OF KVK- RAMANATHAPURAM
OCTOBER 2004 to SEPTEMBER 2005

1.	Name and address of the KVK with Pin code	:	Coastal Saline Research Centre Tamil Nadu Agricultural University Collectorate Complex Ramanathapuram - 623 503 Tamil Nadu		
	Telephone with STD Code	:		STD Code	Phone No.
			Office	04567	230250, 232639
			Residence	0452	2422144
			Email Address	csrcrmd@sancharnet.in profmahe@rediffmail.com	
			Web site	Nil	
			FAX Number	04567-230250	

Name & address of the Host Organisation: Tamil Nadu Agricultural University
Coimbatore - 641 003

Telegraphic Address : FARMVAR

2. Staff Position (as on 31st August 2005)

S. No	Sanctioned post	Name of the incumbent	Designation	Pay scale	Date of joining	Permanent/Temporary	Category (SC/ST/OBC/ Others)
1.	Training Organizer (Agronomy)	Dr. S. Mahendran	Training Organizer	16400-450-20900-500-22400	01.04.04	Permanent	OBC
2.	Training Associate (Ag. Ento.)	Dr. T. Abdul Razak	Associate Professor	12000-420-18300	16.08.04	Permanent	OBC
3.	Training Associate (Home Science)	Tmt. P. Parimalam	Assistant Professor	10000-325-15200	15.04.04	Permanent	OBC
4.	Training Associate (Ag. Extn)	Dr. A. Sakunthalai	Associate Professor	12000-420-18300	01.12.04	Permanent	SC
5.	Training Associate (Soil Science)	Dr. M. Baskar	Assistant Professor	8000-13500	10.12.04	Permanent	OBC
6.	Training Associate	Dr. M. Ananthan	Assistant Professor	10000-325-15200	11.05.05	Permanent	SC

	(Horticulture)						
7.	Training Associate (Seed Technology)	Tmt. N. Punithavathi	Assistant Professor	8000-13500	01.12.04	Permanent	SC
8.	Trg. Asst. – AAO	Th. A . Sundar	Training Assistant	5500 consol.	15.12.04	Temporary	OBC
9.	Computer Progam.	Ms.. R. Rajalakshmi	Computer Programmer	5500 consol.	20.12.04	Temporary	SC
10.	Farm Manager	Th. C. Venkateswaran	Farm Manager	5500 consol.	24.08.05	Temporary	OBC
11.	Supdt.-cum-Acct.	Th. K. Velu	Assistant	5700-9000	19.08.05	Permanent	OBC
12.	Jr. Steno-cum Computer operator – Assistant	Th. D. Senthilkumar	Junior Assistant	3200-4900	15.04.04	Permanent	OBC
13.	Driver	Th. U. Jayakrishnan	Driver	3300 consol.	-	Temporary	OBC
14.	Mechanic	-	Vacant	3050-4590	-		
15.	Watchman-PUSM	Th.M.C. Vijayamuthu Th. R. Muthukrishnan	PUSM PUSM	2550-3200 2550-3200	13.05.05 08.06.05	Permanent Permanent	SC SC

3. Total land with KVK (in ha)

Sl.No.	Item	Area (ha)
A.	Under Buildings	1.5
B.	Under Demonstration Units	1.0
C.	Under Crops	9.0
D.	Orchards/Agro-forestry	0.4
E.	Others	4.0
	CSRC Farm at ARS, Paramakudi	26.0
	Total	41.9

4. Infrastructural Development

(A) Buildings

Sl.	Name of building	Stage	Source of fund
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No.		Complete (Plinth area in sq. m.)	Incomplete (Plinth area in sq. m.)	
1.	Adm. Building	311.32	-	ICAR - KVK
2.	Farmers Hostel	220.00	-	
3.	Staff Quarters	-	-	
4.	Demonstration Units	850.00	-	
i.	Vermi compost unit	72.00	-	
ii.	Poly house	50.00	-	
iii.	Mushroom shed	20.00	-	
iv.	Shade house Nursery unit –I	200.00	-	
v.	Shade house Nursery unit –II	308.00	-	
vi.	Terrace garden	200.00	-	
5.	Any others	-	-	
	Total	2231.32		

(B) Vehicles, Equipments and AV aids

S. No.	Type of vehicle	Model	Actual cost in Rs.	Total kms run	Present status
1.	Jeep	Bolero-LX	4,96,711	20,726	Good

Equipments

S. No.	Name of the Equipment	Year of Purchase	Cost	Present condition
1.	Spectrophotometer	2005	75072.00	Good
2.	Flame photometer	2005	36720.00	Good
3.	pH meter	2005	7344.00	Good
4.	Conductivity Bridge	2005	7344.00	Good
5.	Physical balance	2005	28080.00	Good
6.	Chemical balance	2005	91520.00	Good
7.	Water distillation still	2005	26117.73	Good
8.	Kjeldahl Digestion & distillation	2005	24589.00	Good
9.	Shaker	2005	44076.60	Good

10.	Refrigerator	2005	19950.00	Good
11.	Oven	2005	8862.21	Good
12.	Hot plate	2005	1875.60	Good
13.	Grinder	2005	11582.00	Good
14.	Water Purifier	2005	7390.00	Good
15.	Pelicon Digestion & Distillation unit	2005	148086.00	Good
16.	Lab set up	2005	319650.00	Good
17.	Chemicals & Glasswares	2005	249990.00	Good
18.	Petty Items	2005	19913.00	Good
19.	Soil processing	2005	50000.00	

5. Description of Agro-climatic zones and farming situations of the district

Ramanathapuram district is situated on the south - eastern coast of the Indian peninsula between 11° & 12° N latitude and 77° 28' & 78° 50' E longitude. It has been named Ramanathapuram as it is believed that Lord Rama on his return from Sri Lanka after the rescue of Sita worshipped Lord Shiva at Rameswaram the renowned pilgrimage town of this district. This district is also popular for the Muslim shrine viz., Erwadi dargha. Wrapped in a religious background, in development this district is one of the most backward districts in Tamil Nadu.

Ramanathapuram occupies a total geographic area of 4,68,957 ha with eleven blocks in seven taluks. This district comprises a population of 2,60,365 and 8,75,522 of urban and rural population.

Taluks of Ramanathapuram

Taluk Name	Block Name
Kadaladi	Kadaladi
Kamuthi	Kamuthi
Muthukulathur	Muthukulathur
Paramakudi	Bogalur, Nainarkoil & Paramakudi
Ramanathapuram	Ramanathapuram & Thiruppullani
Rameshwaram	Mandapam
Thiruvadanaï	Thiruvadanaï & R.S. Mangalam

Weather

The district is by and large hot and dry with low rainfall. The average maximum temperature and minimum temperature is 34.6°C and 22.11°C respectively. The average rainfall is 827 mm with a relative humidity between 60 - 70 % in summer and 75 – 90% in winter. Droughts and floods are a regular feature of this district.

Rainfall

The mean annual rainfall of this district 827 mm with Summer, South West monsoon, North East monsoon and Winter contributing 14, 17, 60 and 9 per cent of the total rainfall respectively.

Land

The total geographic area is 4,68,957 ha of which 1,83,451 ha is the cultivated area and of these only 75,432 ha comes under irrigated condition

The soil type of this district is widely varying with soils containing more of clay (alluvial to clay) to sandy soils with a sandy layer to a depth of 30 to 50 cm over a hard clay pan. The depth of sandy layer recedes from sea coast to inland. Sub soil clay layer is lateritic in nature with lateritic parent material of clay which help in impeding rain water for rice cultivation. It also causes water logging (over 10 - 25 cm) for a prolonged period and this situation reduces tillering and resistance to lodging. Saline and alkaline condition is also found all over the district. The pH of soil ranges from 8.1 to 8.6 and the EC is more than 3.0 in most of the area.

Ramanathapuram district area affected by salinity and alkalinity.

Sl. No.	Block	Saline Soil (ha)	Alkaline Soil (ha)	Total (ha)
1.	Ramanathapuram	180	940	1120
2.	Thiruppullani	460	1390	1850
3.	Mandapam	580	1440	2020
4.	Paramakudi	-	760	760
5.	Bogalur	-	685	685
6.	Nainarkoil	-	970	970
7.	Thiruvadani	390	1690	2080
8.	R.S. Mangalam	270	1440	1710
9.	Kamuthi	-	1230	1230
10.	Mudukulathur	-	1795	1795

11.	Kadaladi	420	1560	1980
	Total	2300	13900.	16200

Lot of nutritional disorders were observed in all crops irrespective of species grown. Zn deficiency is a common phenomenon. Nitrogen deficiency is due to higher leaching of 'N' fertilizers resulted from the sandy nature of the soil and high intensity of rainfall and phosphorus deficiency resulted due to fixation. Micro nutrient deficiency owing to its lower organic matter content and low cationic exchange capacity is also very common. Micro organism load in these soils seems to be low and the decomposition of organic matter takes significantly longer period than normal soils. The problem of salinity / alkalinity when coupled with drought aggravated moisture stress and non-availability of nutrition resulting in failure of crops.

Irrigation

Out of the total net area sown, 66,730 ha are being irrigated only during a single season and it accounts to 33.1 per cent of the total net sown area. The main irrigation source of the district are tanks (1821 nos.) of which most of them depend on monsonic rains. Open wells (800 nos.) and tube wells (104 nos.) also contribute much for irrigation, though the quality of water is not up to the prescribed standards.

Irrigation sources of Ramanathapuram District

Particulars	Ramanathapuram	Thirupullani	Mandapam	Paramakudi	Bogalur	Nainarkoil	R.S. Mangalam	Thiruvadanai	Kamudhi	Kadaladi	Mudukuthur	Total
Tanks												
a. Numbers	80	79	2	141	87	100	364	297	256	241	194	1841
b. Area												
Irrigated (ha)	4373	2896	114	5935	2702	4971	12156	8279	4607	9536	5942	60541
Tube Wells												
a. Numbers	-	3	-	14	37	12	-	-	-	25	13	104

b. Irrigated (ha.)	-	4	-	59	185	150	-	-	-	20	120	538
Open Wells												
a. Numbers	603	2254	3059	434	142	325	64	60	450	456	153	8000
b. Irrigated (ha.)	142	1156	1891	511	432	513	7	25	998	168	132	6035

Flora and Fauna of Ramanathapuram

Flora - Trees

1. Prosopis *Prosopis juliflora*
2. Palmyrah *Borassus flabellifera*
3. Neem *Azadirachta indica*
4. Acacia *Acacia arabica*
5. Tamarind *Tamarindus indica*
6. Banyan *Ficus bengalensis*
7. Elanthai *Zizyphus jujuba*
8. Naval *Schizigium jhamblana*
9. Poovarasu *Thespesia populnea*
10. Water tree *Samania saman*

Shrubs

1. Kadal Palai *Ipomea sp.*
2. Kattamanakku *Jatropha*
3. Agave *Agave americana*
4. Erukku *Calotropis gigantea*
5. Mullukiluvai *Commiphora lurri*
6. Opuntia *Opuntia sp.*

Herbs

1. Nutgrass *Cyperus rotundus*
2. Arugam pillu *Cynodon dactylon*
3. Ahasathamara *Eichornia crassipes*
4. Neermulli *Hygrophila auriculata*
5. Kalluruvi *Ammania baceifera*
6. Elikattu *Meeremia gangetic*
7. Naimilagai *Crotons sparsiflorus*
8. Saranai *Trianthemna portulacastrum*
9. Naiuruvi *Achyranthus aspera*

10. Ponangani *Alternanthera*

Fauna - Fishes

1. Saw fish *Pritis sp.*
2. Silver fish *Equala sp.*
Gayya sp.
3. Mugil *Mugil sp.*
4. Prawn *Peenacus indicus*

Birds (Migratory birds)

1. Painted stork *Myctera leucocephala*
2. Cattle egret *Bubulcus ibis*
3. Spoon bill *Platalea leucordia*
4. Paddy bird *Andeola grayii*
5. Darter *Anhina ruga*
6. Black iluis *Preudibis papilosa*
7. While iluis *Threrkilrnio acthiopica*

Crops grown Paddy, cumbu, cholam, ragi, minor millets, sunflower, gingelly, Pulses, groundnut, chillies and coconut

Cropping system Rice - fallow
Rice - Cotton
Rice - Chillies
Rice - Rice fallow pulses
Rice - Groundnut
Rice – Vegetable

Constraints in crop production

1. Erratic distribution of monsoon with high intensity
2. Less number of cropping periods
3. High saline ground water
4. low fertility of soil
5. Non availability of suitable agro techniques for yield maximization
6. Ignorant of improved agro techniques
7. Mono cropping
8. Low literacy rate
9. Poor financial power of farmers

6. Thrust areas identified through PRA or any other method

Methodology followed to identify the training needs

- Direct interview method
- Group discussion method

- Case study analysis
- Feed back analysis
- Registration of trainees

For farmers

On Campus Training

- ‡ Increasing the training period from 1 week to 1 month
- ‡ Vocational training programmes in order to start self employment activities.
- ‡ Increasing training period for mushroom cultivation.
- ‡ Rice and millet based value added products preparation
- ‡ Vermi compost preparation
- ‡ Drip cum fertigation training
- ‡ Modern techniques on Animal husbandry
- ‡ Nutritional Gardening.
- ‡ Coir composting techniques
- ‡ Vocational training to unemployed rural youths and issuing of certificates for the training programmes

Off Campus

- ★ Package of practices for paddy, cotton and chilli
- ★ Training on high yielding varieties of pulses
- ★ Installation of demonstration units at each block for drip cum fertigation techniques
- ★ Training on uses of Bio- fertilizers
- ★ INM for coconut
- ★ INM for Jasmine
- ★ Integrated pest and disease management for betelvine cultivation
- ★ Training on cultivation of fruit crops
- ★ Training on self employment activities
- ★ Training to reduce water and fertilizer use
- ★ Waste land development
- ★ Vermi composting and marketing techniques
- ★ Integrated weed management

- ★ INM for groundnut
- ★ Drought management techniques
- ★ Soil sampling

For Extension functionaries

The following training programmes were identified by interview and group discussion method

- ⊕ Coconut cultivation
- ⊕ Wasteland management
- ⊕ IPM in chilli
- ⊕ Jatropha cultivation
- ⊕ Mechanized sowing by seed cum fertilizer drill
- ⊕ Medicinal plants suitable for wasteland
- ⊕ Nursery management
- ⊕ Chilli cultivation
- ⊕ Pressurised irrigation systems

7. Training Achievements

The following Methodologies were adopted to plan the training programme.

According to Kelsey and Hearne (1949) an extension programme is a statement of situation, objectives, problems and solution.

According to the USDA (1956) an “extension programme” is arrival at Co-operatively by the local people and the extension staff and includes a statement of .

1. The situation in which the people are located
2. The problems that are a part of the local situation.
3. The objectives and goals of the local people in relation to these problems and
4. The recommendations or solution to reach these objectives on a long time basis (may be several years or less)

Leagons (1961) defined that an extension programme is a set of clearly defined, consciously conceived objectives or ends, derived from an adequate analysis of the situation, which are to be achieved through extension teaching activity.

Based on the inference derived from the above definitions the following steps were taken to know the training needs of the rural mass.

1. Field visits were conducted and discussed with the local community to know their local needs.
2. Publicity through mass media
3. Training activities were explained to the NGO's Sponsored Organizations & Linkage agencies.
4. In order to emphasize the Self employment nature Micro financing nodal agencies were discussed to provide access and to provide more loan to the needed clients.
5. The training activities were explained to the visitors.
6. Publicity given in the local notice board.
7. Publicity through village meetings / campaigns
8. The Self Help Groups were identified in the villages and explained them about training activities of KVK.

The identified trainees were registered their names and name of the training programmes, based on the registration the training programmes were organized and conducted. The details are given below:

A Consolidated table for On + Off Campus

Discipline	No. of Courses	No. of Participants						Grand Total
		Others		Total	SC/ST		Total	
		Male	Female		Male	Female		
(A) Practicing Farmers								
Crop Production	27	220	225	445	107	85	192	637
Horticulture	26	206	332	538	78	66	144	682
Live Stock Production and Management	2	-	36	36	-	-	-	36
Home Science	10	-	226	226	-	57	57	283
Agri. Engineering	-	-	-	-	-	-	-	-
Plant Protection	18	294	191	485	117	122	239	724

Fisheries	-	-	-	-	-	-	-	-
Ag. Extension	22	176	345	521	53	43	96	617
Agro-forestry	-	-	-	-	-	-	-	-
Others								
Mushroom production techniques	22	75	460	535	72	79	151	686
Vermi composting	9	19	164	183	12	5	17	200
Value added rice based products	1	-	16	16	-	-	-	16
Acid delinting in cotton	1	11	6	17	--	-	-	17
Total	138	1001	2001	3002	439	457	896	3898
(B) Rural Youth								
Crop Production	14	106	79	185	30	23	53	238
Horticulture	5	27	56	83	9	20	29	112
Live Stock Production and Management	-	-	-	-	-	-	-	-
Home Science	4	-	75	75	-	46	46	121
Agri. Engineering	-	-	-	-	-	-	-	-
Plant Protection	4	23	49	72	51	42	93	165
Fisheries	-	-	-	-	-	-	-	-
Ag. Extension	6	69	68	137	26	27	53	190
Agro-forestry	-	-	-	-	-	-	-	-

Discipline	No. of Courses	No. of Participants						Grand Total
		Others		Total	SC/ST		Total	
		Male	Female		Male	Female		
Others	-	-	-	-	-	-	-	
Mushroom production techniques	11	90	62	152	56	64	120	272
Vermi composting	2	15	26	41	-	-	-	41
Value added Ragi based products	2	-	44	44	-	12	12	56

Organic farming	2	17	48	65	30	15	45	110
Total	50	347	507	854	202	249	451	1305
(C) Extension functionaries								
Crop Production	7	24	3	27	6	-	6	33
Horticulture	16	206	2	208	12	-	12	220
Live Stock Production and Management	-	-	-	-	-	-	-	-
Home Science	-	-	-	-	-	-	-	-
Agri. Engineering	-	-	-	-	-	-	-	-
Plant Protection	13	108	2	110	15	-	15	125
Fisheries	-	-	-	-	-	-	-	-
Ag. Extension	3	21	2	23	-	3	3	26
Agro-forestry	-	-	-	-	-	-	-	-
Others								
Jatropha cultivation	1	20	1	21	-	-	-	21
Drip irrigation cum fertigation systems	4	83	5	88	3	-	3	91
Medicinal plants for wastelands	1	12	2	14	-	-	-	14
Cultivation package for coconut	1	12	1	13	-	-	-	13
SSNM	1	30	4	34	3	-	3	37
Total	47	516	22	538	39	3	42	580
Grand Total (A+B+C)	235	1864	2530	4394	680	709	1389	5783

C. Vocational training programmes conducted

Crop/ Enterprise	Identified Thrust area	Training title	No. of Trainings	Duration (days)	No. of participants			No. of participants adopted	No. of participants evaluated	% of adoption
					Male	Female	Total			
Crops Horticulture i) Nutritional Gardening ii) Nursery management iii) Propagation techniques and INM Enterprises i) Mushroom production ii) Composting techniques iii) Food processing	i) Lack of knowledge on Self employment	Mushroom Production Technology	9	5	-	19 5	19 5	10 9	14	55.9
		Vermicompost	8	5	-	17 6	17 6	20	-	1.4
	ii)) Lack of knowledge on Income generating activities	Animal Husbandry	3	5	-	60	60	15	-	25.0
		Home Science	1	5	-	20	20	19	-	95.0
	iii) Lack of knowledge on credit facilities	Nursery Management	2	5	-	46	46	0	-	-
		Propagation Techniques and INM	3	5	-	65	65	12	-	18.5
	iv) Low socio-economic condition	Nutritional Gardening	7	5	-	14 9	14 9	15	-	10.1
		Micro Financing activities	2	5	-	40	40	5	-	12.5
		Value added products (Mushroom)	9	5	-	19 5	19 5	10 9	-	55.9
		Commercial preparation of fruit squash & jam	4	5	-	88	88	20	15	22.7
		Commercial pickle preparation (Vegetable)	3	5	-	64	64	35	12	54.7
		Commercial production of organic manure (Coir pith composting)	1	5	-	19	19	2	-	10.5

Monthly vocational training			1month	3	42	45			
	Mushroom Production		5	-	-	-	45	22	49.0
	Composting techniques		5	-	-	-	15	-	-
	Food processing		5	-	-	-	38	12	31.6
	Horticulture		5	-	-	-	42	-	-
Total		53	80	3	11	11	36	41	
					59	62	1		

D. Sponsored Training Programmes

Discipline	Sponsoring Agency	Month	Duration (days)	No. of Courses	Total No. of Participants			SC/ST participants		
					Male	Femal	Total	Male	Femal	Total
(A) Practicing Farmers										
	Dept. of Agriculture, Ramnad		1							
Crop Production	i. ICDS	April 04	1	1	30	25	55	13	17	30
	ii. IPDS	May 04	1	1	32	45	77	18	11	29
	FTC, Paramakudi									
	i. INM	March 05	1	1	27	30	57	13	8	21
	ii. Rainfed rice cultivation	July 05	5	5	70	44	114	29	23	52
Horticulture	Dept. of Horticulture									
	i. Cashew nut	May 05	1	3	53	92	145	8	15	23
Live Stock Production & Management			-	-	-	-	-	-	-	-
Home Science			-	-	-	-	-	-	-	-
Agri. Engineering			-	-	-	-	-	-	-	-
Plant Protection	Dept. of Horticulture, Ramnad									
	i. Cashew nut	Feb 05	1	2	31	45	76	11	13	24
Fisheries										

Ag. Extension	Dept. of Agriculture, Ramnad	Mar 05	1	1	42	37	79	15	21	36
Agro-forestry										
Others										
Vermi compost	Dept. of Agriculture, Ramnad	Jan 05	1	2	1	44	45	13	6	19
Mushroom	1. Dept. of Horticulture, Ramnad	April 05	1	1	-	50	50	-	13	13
	2. Dept. of Agriculture, Watershed Development, Ilayankudi	July & Aug	2	2	31	23	64	7	5	12
Jatropha cultivation for Wasteland	SKECH + DPAP	Oct 05	5	6	35	22	57	6	9	15
	SIPPO, DPAP + NGO (SIPPO)									
Agave cultivation		Dec 05	1	3	15	20	35	9	11	20
Aloevera		Dec 05	1	3	15	20	35	15	8	23
Spirulina		Dec 05	1	3	15	20	35	17	5	22
	Panchayatraj, Uchipuli, Ramnad	Feb 05	1	2	32	10	42	-	-	-
i. Drip cum fertigation system in sugarcane	SWC (PFDC) College of AEC, TNAU, Coimbatore	Feb 05 March 05 April 05	2	4	60	60	120	15	8	23
	Mohamed Sathak Polytechnic & College	Jan 05	1	3	20	15	35	12	7	19
	Mohamed Sathak Science & Arts College	March 05	1	2	15	25	40	-	-	-

Credit facilities	IOB, LDM, Ramnad	March 05	1	1	32	18	50	10	7	17
	NABARD + NGO's	March 05	1	1	35	22	57	15	9	24
Total				47	59	66	1258	22	19	42
					1	7		6	6	2

Abstract

Sl.No.	Types of Trainings	No. of courses	Beneficiaries
1.	On + Off Campus and Extension Functionaries	235	5783
2.	Vocational training	53	1162
	Total	288	6945

8. Results of Front Line Demonstration (keep separate table for each season)

(A) Oilseeds

a) Details of Implementation

S. No.	Crop	Year	Season	Area (ha)		No. of farmers / demonstration			Remarks
				Proposed	Actual	SC/ST	Others	Total	
1.	Groundnut	2004	Rabi	5	5	-	11	11	

Out come of the Demonstration

As a result of the demonstration the FLD farmers harvested 14 – 16 q/ha, while the other farmers in the villages realized only 12 q/ha. This yield difference was only because of seed drill sowing and the variety TMV- 7 which resulted 26.25 percent yield increase over the traditional practice. During this season 50 acres were covered under drill sowing under the 100 farmers benefited directly in the village Manjakollai. In the coming years all the 200 groundnut growers in that village are expected to use seed drill and also the variety TMV – 7 variety instead of local races. Due to this demonstration the farmers gained an additional yield of 126 quintal with an additional revenue of Rs. 1,26,000 by the farmers of that village.

b) Details of farming situation

Crop	Season	Farming situation (RF / irrigated)	Soil type	Status of soil			Previous crop	Sowing Date	Harvest Date	Seasonal Rainfall (mm)	No. of rainy days
				(Low, Medium, High)							
				N	P	K					
Groundnut TMV – 7	Rabi 2004	Rainfed	Sandy loam	-	-	-	Groundnut	Dec 2004	March 2005	685	10

c) Crop performance

S No.	Crop	Variety	No. of farmers	Area (ha)	Demonstration yield (Q/ha)				Increase in yield (%)	Cost of cultivation	
					Highest	Lowest	Average	Local check		Dem o.	Local check
1.	Groundnut TMV – 7	TMV 7	11	5	16	14	15.15	12	26.25	12,500	10,175

B. Pulses

a) Details of Implementation

S. No.	Crop	Year	Season	Area (ha)		No. of farmers / demonstration			Remarks
				Proposed	Actual	SC/ST	Others	Total	
1.	Groundnut	2004	Rabi	5	5	-	10	10	

Out come of the Demonstration

The green gram variety VRM (Gg-1) yield a maximum of 780 kg/ha which is 94.03% increase over the local check. Other farmers in the same village also learned the performance of the high yielding varieties such as VRM (Gg-1) and VBN (Gg-2) by seeing and they also the green gram variety VRM (Gg-1) yield a maximum of 780 kg/ha which is 94.03% increase over the local check. Other farmers in the same village also learned the performance of the high yielding varieties such as VRM (Gg-1) and VBN (Gg-2) by seeing and they also showed enthusiasm in replacing the local traditional varieties with the improved varieties in the coming season. By replacing the local cultivars with the improved varieties such as VRM (Gg-1), an additional yield of 37.80 quintal was recorded with an additional income of Rs. 56,700/- in a village Maiyanenthal. The area under green gram as well as with this high yielding variety is expected to expand by 30% in the coming year.

b) Details of farming situation

Crop	Season	Farming situation (RF/irrigated)	Soil type	Status of soil			Previous crop	Sowing Date	Harvest Date	Seasonal Rainfall (mm)	No. of rainy days
				(Low, Medium, High)							
				N	P	K					
Green gram	Rabi 2004	Rainfed	Clay loam y	-	-	-	Vegetables	Dec 2004	March 2005	685	10

c) Crop performance

S No.	Crop	Variety	No. of farmers	Area (ha)	Demonstration yield (Q/ha)				Increase in yield (%)	Cost of cultivation	
					Highest	Lowest	Average	Local check		Demo.	Local check
1.	Green gram	VBN (Gg) 2	10	5	6.30	4.63	5.57	4.02	38.56	5,750	5,600
		VRM(Gg) 1			8.02	7.00	7.80	-			

E. Analytical Review of component demonstrations

Crop	Season	Component	Farming Situation	Average yield (kg/ha)	Local check yield (kg/ha)	Percentage increase in productivity over local yield
i. Groundnut TMV - 7 ii. Greengram	Rabi	1. Seed /Variety	Rainfed			
		i. Groundnut TMV - 7	Rainfed	1,515	1,200	26.25%
a. Vamban – 2 b. VRM Gg-1		ii. Greengram	Rainfed			
		a. Vamban – 2		557	402	38.56%
		b. VRM Gg-1		780		94.03%
		2. Bio-fertilizer PBB + Culture	-	-	-	-
		3. Fertilizer management	-	-	-	-
		4. Plant Protection	-	-	-	-
		5. Combination of component (please specify)	-	-	-	-

F. Technical Feed back on the demonstrated technology

Groundnut

The following benefits were realized by the farmers who used the seed drill for sowing.

- Optimal depth of sowing

- b. Uniform germination
- c. Optimum plant population
- d. No undulations in the field and prefect leveling
- e. Saving of labour, time and money
- f. Better yields and monetary benefits

G) Farmer's reactions on specific technologies

i) Seed drill sowing in Groundnut

In this district, groundnut is raised under rainfed condition and sowing has to be completed within a few days in order to make use of the available soil moisture. The entire groundnut area can not be covered by using conventional country plough within a short period because of the non-availability of sufficient draught animals. Hence under this situation use of seed drill for sowing was highly appreciated by the farmers and they have realized the benefits listed earlier. In Manjakollai village, 50 acres were sown with seed drill and the farmers came forward to purchase two seed drills for their own village for use in coming years.

Yield Parameters

Front Line Demonstration (2004-2005)

Oil seeds – Groundnut

Sl.No.	Parameters	TNAU seed drill	Private firm seed drill	Country plough
1.	Plant population / m ²	22	25	22
2.	Pod weight / 5 plants			
	Fresh	110 g	70 g	70 g
3.	Yield / ha			
	Fresh pod weight	41.0 quintal	27.5 quintal	25.0 quintal
	Fresh Haulm weight	70.0 quintal	70.0 quintal	50.0 quintal
4.	Gross income Rs. / ha	22,500	15,850	14,375

ii) Introduction of high yielding varieties in greengram

Farmers were fully satisfied with the performance of the varieties Vamban-2 and VRM(Gg-1). Among these two varieties, farmers preferred VRM(Gg-1) due to the higher yield. In the forthcoming seasons, they are ready to use VRM(Gg-1) greengram seeds.

Pulses

- a) The varieties VBN-2 and VRM(Gg-1) showed good tolerance to drought
- b) Better yields compared with local check Co-1. Among the two introduced varieties VRM Gg-1 performed better than VBN (Bg)2

Pulses – Greengram

Sl.No.	Parameters	Local type	VBN – 2	VRM(Gg-1)
1.	Plant population / m ²	30	41	47
2.	Plant height	74.8 cm	50.4 cm	53.0 cm
3.	No. of pods/plant	34.25	54.4	68.0
4.	Pod length	5.96 cm	6.51 cm	5.58 cm
5.	No. of seeds/pod	7.4	7.8	8.3
6.	Pod weight / 5 plants	58.5 g	66.4 g	122.4 g
7.	Hull weight / 5 plants	26.5 g	30.9 g	43.5 g
8.	100 seed weight	2.64 g	3.08 g	3.52 g
9.	Yield kg / ha	402	557	780
10	Gross income (Rs. /ha)	6,030	22,280	23,400

3. Chilli

Previously the chilli growers do not spray any chemicals to control fruit borers or aphids. They feared that spraying of chemicals will cause heavy flower drop. Actually the spraying force in the power sprayers cause flower drop and chemicals. Hence we advised them to use high volume hand operated knapsack sprayer in which the spraying force will be minimum. We also showed the efficacy of NPV and botanicals by spraying through high volume hand operated knapsack sprayer. The farmers were got rid off their earlier fear of flower drop and fully convinced with our intervention

Crop : Chilli – Plant protection

Treatments given in the table itself

Treatments	% increase in fruit damage			
	Location I	Location II	Location III	Location IV
T ₁ Neem gold 3%	118.09	20.87	12.19	+ 2.89
T ₂ HaNPV + SINPV + Neem gold 3%	116.66	21.59	- 19.49%	- 24.66
T ₃ Untreated control	193.76	36.14	+ 8.40	+ 96.28

Sign indicates % decrease in fruit damage over pretreatment

Inference

In all the four locations, the combination of NPV and botanical insecticide rank first followed by neem gold 3% in the suppression of fruit borer damage when compared with untreated control.

In location I, the percent increase in fruit borer damage was estimated as 193.76% whereas it was less (116.67 – 118.09%) in the NPV and botanical sprayed plots. In location II, the per cent increase in fruit borer damage was 20.87 – 21.59% in the treated plots when compared with untreated control it was high as 36.14%. In the locations, II & IV there were reduction in fruit borer damage.

H. Extension and Training activities under FLD

S. No.	Activity	No. of activities organized	Date	No. of participants
1.	Field days	2	04.03.2005	80
2.	Farmers training	14	06.03.2005	500
3.	Media coverage	-	-	-

I. Results of Front Line Demonstrations, Horticultural crops and allied enterprises (separately)

Sl. No.	Season & Year	Crop/ Enterprise	Area (ha)		No. of farmers /demonstrations	Remarks
			Sanctioned	Implemented		
1.	Rabi 2004	Cotton	5	5	5	Good results were obtained
2.	Rabi 2004	Ragi	5	5	5	

J. Performance of FLD on cereals, horticultural crops and allied enterprises (separately)

S N O	Crop/ Enterprise	Variety	No. of farmers	Area (ha)	Yield (q/ha)				Increase in yield %	additional cost (Rs. / ha.)	
					Demonstration			Local Check		Demo	Local
					Highest	Lowest	Average				
1.	Cotton	SVPR-2	5	5 acres	13	12.5	12.45	11.05	11.1	10,000	12,500
2.	Ragi	TRY-1	5	5 acres	30	18	24	19	21.70	3,500	3,000

9. Results of On Farm Testing

Category of farmers	Name of crop / enterprise	Intervention identified	Critical input		Production per unit kg/ha		Percentage increase in yield with intervention
			Item	Cost (Rs.) / ha	Traditional practice	With intervention	

Small	Rice	Pre emergence herbicide ,	Rifit	1,400	3,000	3750	25.0
Small	Chilli	Bio pesticide and Botanical application	NPV & Neem gold	4,520	Crop yield was affected with unusual heavy rainfall		

a. Performance of OFTs

Crop/ Discipline	Production situation	Problem	Title of OFT	Treatments	Yield (kg/ha.)	B:C ratio
Rice	Rainfed condition	Lack of knowledge on latest pre emergence herbicide Rifit suited to rainfed rice	To test the efficacy of pre emergence herbicide Rifit under rainfed direct sown rice	T ₁ -Control	3000	1.30
				T ₂ - Rifit @ 300 ml/acre	3600	1.56
				T ₃ - Rifit @ 400 ml/acre	3750	1.63
Chilli	Rainfed condition	Lack of knowledge on the use of bio pesticides and botanical insecticides	To test the efficacy of NPV and neem gold against fruit borers	T ₁ -Control T ₂ - Neem gold 3% T ₃ - HaNPV + SINPV + Neem god 3%	The pest problem was controlled effectively in T3. But the crop yield was affected with the unusual heavy rainfall.	

b. Results of OFT - Rockefeller scheme

Participatory Varietal Selection

Six rice varieties viz., RM 96019, Ashoka 200F, Ashoka 228, MDU 5, Thandi and PMK 3 were evaluated under participatory varietal selection programme at 15 locations representing all types of soils covering entire Ramanathapuram district. Each variety was sown in 8 cents plot. The rice culture RM 96019 recorded higher grain yield of 5140 Kg/ha and excelled all other varieties. The RM 96019 gave 39 per cent higher yield than Thandi, 26 per cent higher yield than PMK 3 and 25 per cent over the Variety MDU 5.

S. No	Variety	Duration (days)	Grains/ panicle	Panicles/m ²	Grain yield Kg/ha	Per day productivity (Kg)
01	RM 96019	100	114.2	374.0	5140	51.40
02	Ashoka 200F	85	63.0	246.0	3235	38.05
03	Ashoka 228	85	78.5	259.0	3115	36.65
04	MDU 5	105	75.4	354.6	4090	38.95

05	Thandi	125	112.3	340.4	3985	31.88
06	PMK 3	115	107.8	318.6	4070	35.39
	SEd	0.721	0.148	4.793	2.291	0.654
	CD(05)	1.504	0.309	9.998	4.780	1.373

Culture identified for On Farm Trials

On Farm Trial 2004- 2005

The rice culture RM 96019 was test verified under target production environment in On Farm Trial representing all the three types of soils of Ramanathapuram district along with the check, PMK3 at 50 locations. The results were received from 40 locations. The RM 96019 culture has excelled the yield of PMK3 in 39 locations irrespective of soil types. In sandy soil RM 96019 had recorded the mean grain yield of 3000 Kg/ha as against 2375 Kg/ha recorded in PMK3. In clay loam also, the mean grain yield of RM 96019 was 4350 Kg/ha, where as 3183 Kg/ha was recorded in PMK3. The RM 96019 rice culture recorded the mean grain yield of 3624 kg/ha under clay soil whereas PMK 3 recorded 2882 kg/ha. The percent increase over PMK 3 was 26 % (sandy soil), 36% (clay loam) and 25% (clay soil). Moreover the RM 96019 culture had come to maturity 10 days earlier than PMK3 and thus the per day production also higher in RM 96019.

ON FARM TRIAL – 2004-2005

Variety	Total No. of location				Mean grain yield (Kg/ha)			Range		
	Sandy	Clay loam	Clay	Total	Sandy	Clay loam	Clay	Sandy	Clay loam	Clay
RM 96019	14	20	6	40	3000	4350	3624	1316-4340	4000-4800	2050-6100
PMK 3	14	15	6	35	2375	3183	2882	1312-4200	2600-3600	1850-3950
Mean difference over PMK 3					625	1167	742			
Percent increase over PMK 3					26%	36%	25%			

Rockefeller Scheme Participatory Plant Breeding

S. No	Cultures	Panicle length (cm)	Panicles/m ²	Grains/panicle	Panicle index (%)	Grain yield (Kg/ha)
01	RM 96019	22.54	410	119.62	90.36	4739

02	CB 17664	21.45	328	85.28	89.37	2740
03	CB 17837	21.74	406	71.14	85.33	3090
04	AD 99111	22.58	364	120.98	90.03	3644
05	AD 00119	22.76	365	119.43	90.96	4816
06	NILs 17	25.14	368	81.48	89.70	3891
	SEd	0.336	14.612	5.768	-	159.85
	CD (.05)	0.677	29.430	11.620	-	321.97

Six rice cultures viz., RM 96019, CB 17664, CB 17837, AD 99111, AD 00119 and NILS 17 were evaluated at 15 locations in farmers holding with a plot size of 8 cents/culture. Observations were made on days to 50% flowering, number of panicle / m², panicle length, number of grain / panicle, panicle weight, grain weight, panicle, index, grain yield. The rice culture RM 96019 recorded higher yield of 4816 kg/ha and excelled all other varieties. RM 96019 gave 32% higher yield than AD 99111 and 23% higher yield than NILs 17.

Area covered (2004 – 2005) : 12.5 acres

Number of locations tested : 50

Varieties tested : RM 96019 and the check PMK 3

Yield : RM 96019 : 3650 Kg/ha

: PMK 3 : 2810 Kg/ha

✳ The yield increase of RM 96019 culture over PMK 3 is 26%

✳ Area extended under OFT for this year : 2005 – 2006

This year the RM 96019 rice culture will be test verified at 100 location covering 100 acres

c. Results on OFT on seed cum fertilizer drill sowing

During the year 2004-2005 the area covered under seed cum fertilizer drill sowing was 12 acres that is 11 demonstrations in farmers field and 1 demonstration at Coastal Saline Research Centre.

Out come of the demonstration

A mean higher grain yield of 3830 kg ha⁻¹ have been registered in seed cum fertilizer drill sowing which was significantly higher compared to seed drill sowing and fertilizer broad casting

(3223 kg ha⁻¹) and farmer's method of sowing (2799 kg ha⁻¹) which works out to 36 and 15% higher grain yield respectively. Seed cum fertilizer drill sowing crop recorded the highest net return of Rs. 13,152/- compared to Rs. 7,772/- registered in farmer's method of sowing with higher B:C ratio of 2.35.

Area of Extent: 2005 – 2006

30 farmers at the rate of 5 farmers in each block will be identified with the help of Department of Agricultural Officials and one acre demonstrations will be carried out with full subsidy.

In addition to this a minimum of 50 acres for each block will be covered under seed drill sowing in the next season. So the total area to be covered 330 acres and the similar out come will be expected as that of previous year 2004 – 2005.

d. Results of Front Line Demonstrations on Cereals, Horticultural and allied enterprises (separately)

S. No.	Season & Year	Crop/ Enterprise	Area (acres)		No. of farmers / demo.	Remarks
			Sanctioned	Implemented		
1.	2004-2005	Watermelon	1	1	2	Moderate
2.	2004-2005	Ashgourd	1	1	6	Moderate
3.	2004-2005	Bottle gourd	1	1	6	Satisfactory
4.	2004-2005	Chilli	0.75	0.75	5	Good

Out come of the demonstration

In the FLD conducted village namely Pandiyur, Muthupetai, Kulathur, Sengapadai and Nedungulam are do not have the habit of cultivation of Watermelon, Ashgourd and Bottle gourd. After intervention of our FLD programme with these vegetables, the farmers should the confidence in cultivating vegetable in non-conventional areas and realized the potential of their climate and soil. In the coming years, the area under vegetable cultivation in these villages may go beyond 200 acres with an additional income of Rs. 1,60,000/- approximately. In the coming years, these technologies of vegetables cultivation will be spreading over to near by villages for potential of vegetable cultivation.

e. Performance of FLD on cereals, horticultural crops and allied enterprise

S N o	Crop	Variety	No. of farm ers	Area (acre)	Yield (q/ha)				incre ase in yield %	Additional cost (Rs./ha)	
					Demonstration			Local Check		Dem o	Local
					High est	Low est	Average				
1.	Water melon	Arka manic	2	1	-	-	6.6	-	-	9,150	-
2.	Ash gourd	Co-2	6	1	-	-	6.3	5.0	30	7,150	5,000
3.	Bottle gourd	Ankur hybrid	6	1	-	-	4.5	3.5	22	4,150	3,500
4.	Chilli	K-1	5	0.75	-	-	0.942	0.849	9.87	9,130	7,735

f. Performance of On Farm Testing

Crop/ Discipline	Production situation	Problem	Title of OFT	Treatments	Yield (ton/ha.)	B:C ratio
Chilli	Ramnad	Flower and fruit crop	Effect of NAA (Naphthoxy acetic acid) on controlling flower drop and fruit set of chilli	T ₁ - Control Farmers practice	T ₁ -2805	T ₁ -1.92
				T ₂ - NAA at 10ppm 60 and 90 days after planting	T ₂ -3139	T ₂ -2.35
				T ₃ - NAA at 20ppm 60 and 90 days after planting	T ₃ -3222	T ₃ -2.48

10. Literature developed / Published

A) KVK News letter (Date of start, Periodicity, number of copies distributed etc.)

Under printing, it will be published from the ensuing month onwards

B) Literature developed/Published

S. No.	Item & Title	Nos.
1.	Research papers Mahendran, S., Prabaharan, A.C., Stephen Arul, J. P. Raja Rathinam and R. Jeyasrinivas 2005. Effect of Nitrogen and Potassium levels, time and intervals of fertigation of growth, yield and economics of sugarcane.	
	Mahendran, S., Prabaharan, A.C., Stephen Arul, J. P. Raja Rathinam and R. Jeyasrinivas 2005. Effect of seed rate and paired row system of planting on growth, yield and economics of sugarcane crop under drip fertigation system	

	<p>Ramakrishnan, K. Ramachandra Reddy, D. and S. Mahendran. 2004. Factors associate with the attitude of trainees toward TANWA project. Published in the Journal of Research, Acharya N.G. Ranga Agricultural University, Rajendra Nagar, Hyderabad – 500 030. vol. 32 (4): pp 93-95.</p> <p>Mahendran, S., Stephen Arul, J., Prabakaran, A.C. and P. Raja Rathinam 2004. Drip fertigation - Potential technology for Sugarcane yield maximization.</p> <p>Mahendran, S., Thiyagarajan, T.M. and S. Ramanathan 2004. Drip fertigation- A viable technology for yield maximization in Sugarcane Crop.</p> <p>Ramakrishnan, K. and A. Sakunthalai 2004. Women and Rice culture. Research Paper presented in the National Seminar on "Scaling up of good extension practices in rice production systems" at Krishi Vigyan Kendra, Mele pattambi, Palakad – 679 306 from 30.9.2004 – 01.10.2004.</p>	9
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S. No.	Item & Title	Nos.
	Mahendran, S. Ramakrishnan, K. and A. Sakunthalai 2004. Interventions in technology transfer in rice . Research Paper presented in the National Seminar on "Scaling up of good extension practices in rice production systems" at Krishi Vigyan Kendra, Mele pattambi, Palakad – 679 306 from 30.9.2004 – 01.10.2004.	
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2.	<p>Technical reports</p> <ul style="list-style-type: none"> * KVK - Annual Report 2003-2004 * KVK - Action Plan Report 2004-2005 * CSRC- Annual Report 2004-2005 * ICAR – Drip Irrigation Annual Report 2003-2004 * Rockefeller Scheme – Annual Report 2003-2004 * Crop Scientist Meet Report 2003-2004 * Rice Scientist Meet Report 2003-2004 * TNSLUB – Annual Report * NATP-LUB – Annual Report 	7
3.	Technical Bulletin	

	Mahendran. S. Sakunthalai. A., Sundar. A and R. Rajalakshmi. Mushroom production. Technical information published in the part of the booklets on "Pattial Vakuppinnarrukkana Orunginaitha Velanmai Nila Mempattu Thittam" Costal Saline Research Centre, Ramanathapuram – 623 503 (sponsored by RDDA, District Collectorate, Ramanathapuram). pp.: 47-53.	
	Mahendran. S. Sakunthalai. A., Baskar. M and K. Ramakrishnan. 2005 preparation of Vermicompost. Technical information published in the part of the Technical Bulletin on "Pattial Vakuppinnarrukkana Orunginaitha Velanmai Nila Mempattu Thittam" Costal Saline Research Centre, Ramanathapuram – 623 503 (sponsored by RDDA, District Collectorate, Ramanathapuram). pp.: 39-46	
S. No.	Item & Title	Nos.
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	Ramasamy. M., Mahendran S and T. Abdul Razak 2005 Rainfed Paddy and Cotton Cultivation Technology. Technical information published in the part of the Technical Bulletin on "Pattial Vakuppinnarrukkana Orunginaitha Velanmai Nila Mempattu Thittam" Costal Saline Research Centre, Ramanathapuram – 623 503 (sponsored by RDDA, District Collectorate, Ramanathapuram). pp.: 1-9 Ananthan. M. and S. Mahendran. 2005 Vegetable Production Technology. Technical information published in the part of the Technical Bulletin on "Pattial Vakuppinnarrukkana Orunginaitha Velanmai Nila Mempattu Thittam" Costal Saline Research Centre, Ramanathapuram – 623 503 (sponsored by RDDA, District Collectorate, Ramanathapuram). pp.: 15-27	
4.	Popular Article Sakunthalai, A. et. al. 2005 Agricultural camp Published in the Thinamalar Daily News Paper dated 10.08.2005. Sakunthalai, A. et. al. 2005 Mushroom Production Technology Published in the Thinamalar Daily News Paper dated 23.07.2005 Sakunthalai, A. et. al. 2005 Training Technology Published in the Thinamalar Daily News Paper dated 22.07.2005 Sakunthalai, A. et. al. 2005 SAC Meeting Published in the Thinamalar Daily News Paper dated 20.07.2005 Ramakrishnan, K. et.al. 2005. Athiyuthu Village Karif Training Programme published in the Thinamalar Daily News paper dt. 10.07.2005. Ramasamy et. al, 2005, News on Drip cum Fertigation Training Thinamalar Daily News Paper dt. 09.04.2005,	
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S. No.	Item & Title	Nos.
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	Paruthiyil Orunginaintha Payir Pathukappu.	
	Paruthiyil Vidhai Nerthi.	10
	Milaghai Sakupadi Thozhil Nutpangal.	
	Sathunavu Kaikari Thottam.	
	Manavari Perunelli Chakupadi Kurippugal.	
	Dharpusani Chakupadi Thozhil Nutpangal.	
	Chippikkalan Valarppu	
	Thennai Nar Kalivu Uram Thayarithal	
6.	Others Nil	

11. SUCCESS STORIES

I. SUCCESS STORY ON DRIP-CUM FERTIGATION

In order to know the technological impact of the Drip cum fertigation, time series analysis have been conducted. The result shows that the following

Time series analysis

Sl.No	Year	Critical Innovative TOT approach	Area under drip irrigation	Yield / ha
1.	before 2000	• Conventional method of cultivation	-	-
2.	2000-2001	• Introduction of drip cum fertigation • Awareness campaign	7.20 ac	118.18
3.	2001-2002	• Skill demo on drip cum fertigation by 'Model farm approach'	52.00	105.78
4.	2002-2003	• Awareness campaign • Mass media • Model farm • Farmer to Farmer	77.17	111.40
5.	2003-2004	• Awareness campaign • Mass media • Model farm • Farmer to Farmer • Integrated Participatory Approach (Sugar factory drip mesh manufacturers, TNAU and cane growers)	337.12	101.58
6.	2004-2005	• Awareness campaign • Mass media • Model farm • Farmer to Farmer • Integrated Participatory Approach (Sugar factory drip mesh manufacturers, TNAU and cane growers) • Skill training and field visit • Linkage training program	475.20	118.00

Sl. No	Year	Area under drip (ac)	Yield tons/ac	Farmers' yield (Conventional method)	Farmers' Area(ac) (Conventional method)	Sugar factory average yield t/ha
1.	2000-2001	7.20	118.18	-	-	33.60
2.	2001-2002	52.00	105.78	-	-	32.50
3.	2002-2003	77.17	111.40	86.00	135.32	31.70
4.	2003-2004	337.12	101.58	87.63	129.55	27.50
5.	2004-2005	475.20	118.00	83.00	153.00	29.70
	Mean		110.99	85.54	-	31.00
Yield increase due to drip cum fertigation			23% / ha			

Sl. No.	Year	Area under drip (ac)	% of area increase under drip fertigation (ha) over years
1.	2000-2001	7.20	} 86.00 } 32.62
2.	2001-2002	52.00	
3.	2002-2003	77.17	

4.	2003-2004	337.12	} 77.09 29.05
5.	2004-2005	475.20	

It could be drawn from the Time Series Analysis that the area under sugarcane was cultivated using conventional methods before the year 2000. The modern technology on drip cum fertigation was introduced during the period 2000 to 2001 through awareness campaign then the area was only 7.20 ac but the yield was 118.18 t/ha. It is due to the drip cum fertigation system which increase the water and nutrient use efficiency since the application is very closer to the rhizosphere of the crop. During the year 2001-2002, the technology was popularized through 'model farm approach' the areas also mushrooming to 52.00 acres under this technology. Similarly, Farmer to farmer approach was followed in the year 2003 then the area under drip was increased to 77.17 acre. In addition to the afore mentioned approaches, the farmers were motivated with the support of the officials of the sugar factories by emphasizing the opportunities of the drip irrigation there by the area had been increased to 337.12 ac during the period 2003-2004. Further, the KVK took efforts intensively to increase the area under drip cum fertigation through Integrated Participatory Approach and by organizing awareness campaign, model farms, training programmes along with the line departments. In order to make them to learn first hand information field visits were organized for the trainees.

The critical analysis on yield particulars inferred that the yield increase of drip cum fertigation over conventional method was 23% per hectare. The drought is the crucial factor often intervening the yield parameters and led to yield reduction. It could be effectively managed by the drip irrigation system. Unless this drip irrigation system, the production of sugarcane will face a critical issues.

Due to the technical feasibility, economical variability and social acceptability of the technology, the State Government of Tamil Nadu welcomed this technology and advised the scientists to popularize the technology in 2.00 lakhs hectare area in Tamil Nadu. However approval was already given to popularize the technology in 375 hectares in the districts viz., Sivagangai, Pudukkottai, Thanjavur, Kancheepuram and Coimbatore so as to increase the production and productivity of the sugarcane crop.

II. OUR SUCCESS

Problem	Intervention	Adoption
Rice Traditional low yielding varieties	Drought, water logging and saline tolerant varieties like	MDU 5 - > 30,000 acre PMK 2 - > 1,000 acre

	MDU 5& PMK 2	
Poor seed germination	Seed selection and Bio-fertilizer treatment	Through Department supply
Sowing method	Mechanized sowing - Tractor drawn seed drill	10 acre
Intensive weeds	Herbicide application Sofit and Rifit	> 50% area
Nutrient deficiency	Split and foliar application 2% DAP + 1% KCl on 45 and 60 DAS	> 20,000 acre
Coconut		
Oozing out of liquid on the trunk	Red palm weevil Pheromone trap	2,000 trees
Low yield	Split application of fertilizers	> 5000 trees
Uses of high saline water	Introduction of drip irrigation	30 acres
Chillies		
Fruit borers	Bio pesticides and botanical application Plant growth regulator application	10 acres
Sugarcane		
Low yield due to drought	Drip cum fertigation	> 1000 acres

III. SUCCESS STORY - FOOD PROCESSING

Name of the Village : Mudhunal
Block : Ramanathapuram
District : Ramanathapuram
SHG : Kubaran Mahalir Mandram
Name of the Leader : Mrs. Kanitha Akilan
Date of survey : 15.02.2005

Krishi Vigyan Kendra, Coastal Saline Research Centre, Ramanathapuram conducted On Campus, Off Campus and Vocational training programmes in order to impart the hands on skill activities. The KVK imposed trainings to farmers, farm women, unemployed rural youths, school dropouts and the SHG members. The vocational training programmes were designed to such a way to develop income generation activities and to start self employment. The vocational

trainings includes viz., mushroom production, composting technologies, Food processing (Value added products preparation) and preparation of horticulture seedlings.

There were 40 Nos. of vocational trainings offered by the KVK to 1117 beneficiaries. More than 150 Self Help Groups were trained during last year. Out of these, the SHGs members called Kuberan Mhalir Maundram belonged to Mudhunal village of Ramanathapuram district. The group was led by Mrs. Kavitha w/o Agilan aged 24b and studied upto DD. The members were decided to start income generating activities after attending the training at KVK, Coastal Saline Research Centre, Ramanathapuram with an interest to improved socio-economic status of their village. They have started commercial production of pickle. Before to prepare the products the requirement of the customers were assessed. Based on their requirements they have prepared the products. So they good market price. According to the type customer the packing techniques were changed prices were fixed.

To start the self employment the cost of production was worked out. The amount was collected equally from the members of the group. Then the benefits gained by sale of products were divided into equal and added to their common funds. This amount helps them to take a loan by the Group members. The following products were prepared by them and sold. For example Tomato pickle, onion pickle, Garlic pickle and Ginger etc.

The benefit cost ratio was worked out for the products are given here under.

S. No.	Things	Quantity	Amount
1.	Tomato	20 kg	160.00
2.	Onion	10 kg	120.00
3.	Tamarind	1 kg	48.00
4.	Asafetida	1	10.00
5.	Viniger	-	12.00
6.	Sodium benzoate	-	12.00
7.	Gingelly oil	5 litre	420.00
8.	Chilli powder	1/4 kg	31.25
9.	Turmeric	150	9.00
10.	Cumin	150	9.00
11.	Fewegreek	150	6.00
12.	Mustard	150	6.00
13.	Garlic	1/4 kg	9.00
14.	Plastic cover	1/2 kg	40.00
15.	Container	5 Dozen	200.00
16.	Salt	1/2 kg	6.00

17.	Candle	1 No.	3.00
18.	Kerosene	1 liter	40.00
	Total		1141.25

A. Tomato Pickle Preparation

Tomato	- 5 kg
Gingelly oil	- 1 ¹ / ₄ litre
Chilli powder	- 400 g
Turmeric powder	- 25 g
Salt	- 500 g
Fewegreek	- 25 g
Asafetida	- 25 g
Viniger	- 100 ml
Cost of Tomato pickle	
Rate / Bottle	= Rs.25/-
16 bottles	= 16x 25 = Rs.400/-
No. of sachet prepared	= 100 Nos.
100 packets	Price of one sachet is 50 paise
So for 100 Nos.	= 100 x 0.50 = Rs.50/-
31 packets	= Rs.15.50
Total (A)	= Rs.2000 + 50 = Rs. 2050.00

B. Onion pickle

Total No. of bottles prepared	= 80 Nos.
Cost of the pickle	= Rs.30/bottle (250 gm / bottle)
Rate / bottle (250 gm)	= Rs.30/-
@ 80 bottles	= 30 x 80 = Rs.2400/-
Total No. of sachets prepared	= 125 Nos.
Price of one sachet	= 0.50 paise
So for 125 Nos.	= 62.50
Total (B)	= 2462.50

Total expenditure towards the cost of production	= Rs.1141.25
Total Gross return	= A + B = Rs.2050 + Rs.2462.50 = Rs.4512.50
Net return	= Rs.4512.50 - Rs.1141.25 = Rs.3371.25
The BC ratio	= 1 : 3

So for one year

= Rs.40,455/-

Similarly, the other members of the Self Help Groups also attained the same benefit. Further, they stated that the remuneration gained from the business supported them to increase their home income. There by they can help their children's education in buying books, getting admission in better schools and paying fees etc. In addition to this, due to this training programme they have learnt to take nutritional food like mushroom, vegetables and value added products which will pave way for the increase of nutritional status. The groups are acting as a role model for other groups. Because of their economical development, the group was respected by the society. Now they have been involved in all decision making activities both in the family as well as in the society. The uniqueness of the success story is as follows.

- ◆ Self confidence
- ◆ Social respect
- ◆ Self employment
- ◆ Economic improvement
- ◆ Approaching the developmental organizations

IV. SUCCESS STORY ON MUSHROOM PRODUCTION

i. The Krishi Vigyan Kendra of Coastal Saline Research Centre, Ramanathapuram is conducting training programmes in various ways. That is On campus, Off campus and Vocational training programmes. The details of the training programmes are disseminated to the farming community through mass media and village meetings. The interested farmers will approach the centre and get benefit out of it. In such a way one farm Woman whose name is Inul Ariba. She lived in the Syed thahib tharga street of Ramnad. Shed is ling with her husband and children. She is 32 years old, studied upto +2.

The farm women approached the centre after listening the announcements through All India Radio. She had attended the vocational training programmes for about 5 days. Among the vocational trainings, Mushroom cultivation techniques was attracted by her. Soon after attending the training she had adopted the technology. Initially she practiced in limited number of beds and used for home purpose alone. But later she extended to large scale. Now she is supplying to the nearby villagers. Since she is a leader of the Self Help Group. She encouraged other members of her group and mobilized these to do the same activity so as to increase their home economy. She also advised her neighbors and relatives to cultivate the mushroom. Now she is the leading entrepreneur of her village. She also attended the training on value added

products of mushroom. It helps her to prepare newer receipt at home which was appreciated by her family members. She said initially the family members hesitated to eat and not knowing the nutritional value of the mushroom food. But later, her efforts totally change their mind towards the consumption of mushroom products. Par that she told that the mushroom production training paves the way for self employment and to earn money which supports for the educational activities of the children. She is selling 100 gm packet @ Rs. 10/-.

The unique qualities of the farm women gained in the training programmes are

1. Voluntary participation in the developmental activities
2. Self confidence

ii. Case study on Mushroom Production

Mrs. Shanthi W/o Ganeshan aged 40 years educated upto SSLC. She is living in the village Thangachimadam of Rameshwaram taluk. She is living with her husband and two children. She is cultivating coconut trees in 2 acres. The farm women desired to start a business in addition with Agriculture. After seeing the advertisements in the newspapers, she approached the KVK, Coastal Saline Research Centre, Ramanathapuram. She had attended the Vocational training on Mushroom production. Soon after completing the training she started mushroom production unit in an area of 2 cents. Since she was the progressive and risk oriented person she encouraged and advised the villagers to consume mushroom and explained the nutritive value of the food. She involved the villagers, Self Help Group members slowly to start mushroom production though they refused to do initially. Later with the support of the family and villagers she produced 1800 kgs / year. She cultivated both button and Oyster Mushroom. She had given publicity through tit bits and exported the products to Bangalore, Madurai and surrounding villages.

Further, she stated that she was interesting to expand the cultivation unit in such a way to offer job opportunity for her villagers. Now she has got total gross income of Rs. 90,000/ year. The economics worked out for the mushroom production is as follows.

Economics For Mushroom production

a.	Fixed cost			
1	Mushroom shed	:	Rs	30,000.00
	Sprayer, irrigation pipes, straw cutting machine, ultra lamp and Auto clave	:	Rs.	12,200.00
	Depreciation 2% and Interest at 12% for one year (Item No.1)	:	Rs.	1,400.00
	Depreciation at 5% and interest at 12% for one year (Item No.2)	:	Rs.	414.80
	Total for Item No. 1 and 2	:	Rs.	1814.80

b.	Variable cost			
1.	Spawn bottle @ of Rs. 15/bottle (1200 bottles / 8 cycle / one year	:	Rs.	18,000.00
2.	Straw 3600 kg for 1200 beds @ 3 kg/bed / Rs. 2 / kg	:	Rs.	7,200.00
3.	Polythene cover 25 kg @ Rs. 80/kg	:	Rs.	2,000.00
4.	Labour charges 60 man days (Rs. 60 / day)	:	Rs.	3,600.00
5.	Electricity charges	:	Rs.	600.00
6.	Marketing expenses Rs. 80 / kg	:	Rs.	1,440.00
7.	Total cost of production / year (32,840 + 1,814.80)	:	Rs.	34,654.80
c	Cost and returns			
1.	Variable cost Rs. / year	:	Rs.	32,840.00
2.	Fixed cost Rs. / year	:	Rs.	1,814.80
3.	Total cost Rs. / year	:	Rs.	34,654.80
4.	Yield kg / year	:	Rs.	1,800.00
5.	Cost of production / kg	:	Rs.	19.25
6.	Market price / kg	:	Rs.	50.00
7.	Gross income Rs. / year	:	Rs.	90,000.00
8.	Profit / year (Rs., 90,000 – 34,654.80)	:	Rs.	55,345.20
9.	Profit / kg	:	Rs.	30.74
10.	B:C ratio			1:1.60

V. SUCCESS STORY ON VERMI COMPOST

Village : Usilanakkottai
Block : Thondi
District : Ramanathapuram
Name of the Farmer : A. Ramu

Krishi Vigyan Kendra of Coastal Saline Research Centre, Ramanathapuram offering need based trainings to the farm women farmers and un employed Rural youths. The propaganda about the training programme is being given through Mass Media like All India Radio and News paper. After seeing the advertisement A farmer by name A. Ramu, aged 52 and educated upto SSLC approached the officials of the KVK. According to his requirement, the vocational training on vermi compost have been arranged to the farmer. The farmer was taught in such a way to start the self employment. The mental changes led to physical action of the activity

The farmer have been attracted by the organic farming and started to do vermicomposting. He also motivated the villagers, neighbours and relatives to do the same. He himself taken survey of his village to know the cultivable areas. He contacted the farmers

personally and explained about the pros and cons of organic farming. He promised to supply vermi compost at least for one acre for each farmer of his village. He motivated them to content soil sampling analysis. The farmer started the unit with a capacity of 18 tonnes / 6 cycle / one year. The economics worked out for the unit is given below:

Vermi compost preparation

Cost of Returns

Fixed cost

a.	Fixed cost			
1.	Vermi compost shed	:	Rs.	15,000.00
2.	Sprayer, Motor, Sieve, packing machine etc.	:	Rs.	13,600.00
	(Interest 12%, Depreciation 2% for one year for shed)	:	Rs.	700.00
	Depreciation 5%, IFC = 12% for 1 year for machineries	:	Rs.	462.40
	Total fixed cost	:	Rs.	1,162.40
b.	Variable cost			
1.	FYM & compost for 6 cycles (Rs. 600/ton for 36 tonnes	:	Rs.	21,600.00
2.	Earth worm for 6 cycles (18 kg/ 6 cycle) @ Rs. 400/kg	:	Rs.	7,200.00
3.	Packing cover for 18 tonnes (Rs. 10/bag) (360 bag)	:	Rs.	3,600.00
4.	Labour charges (A type – B – type – 80)	:	Rs.	12,000.00
	Total variable cost	:	Rs.	44,400.00
	Cost & return statement			
1.	Variable cost (Rs. / year)	:	Rs.	44,400.00
2.	Fixed cost (Rs. / year)	:	Rs.	1,162.40
3.	Total cost (Rs. / year)	:	Rs.	45,562.40
4.	Yield	:		18 tons
	Vermi compost (18 tons / 6 cycles / year)	:		
	Total production income @ Rs.7000/tons x 18	:	Rs.	1,26,000.00
	Profit / year (1,26,000 – 45,562.40)	:	Rs.	80,437.60
	Production cost / kg	:	Rs.	2.53
	Profit / kg	:	Rs.	4.47
	BC ratio	:	Rs.	1 : 2.77

VI. SUCCESS STORY ON GROUNDNUT SOWING BY SEED DRILL

The mean annual rainfall of Ramanathapuram district is 816 mm in which North East Monsoon contributes more than 60% of rainfall. Rainfall distribution is uneven and number of rainy days is also low. Under rainfed condition, the groundnut farmers have to utilize the soil moisture effectively for sowing. At that time the labour availability was low. Hence seed drill sowing was introduced through FLD programme in groundnut growing tracts of Ramnad like Manjakollai, Nainar Maraikan, Regunathapuram, Pottithattimadam, Kariyanenthal etc. Totally 50

ha were covered in this demonstration. Farmers were fully satisfied and convinced with this technology. They expressed their satisfaction during all our interactions from sowing to harvest. They listed out the following advantages of using seed drill over conventional method of country plough sowing during the "Field day" function.

- i) No undulation and hence even distribution of seeds was achieved
- ii) Uniform germination due to maintenance of proper depth of sowing
- iii) Optimal plant population was maintained
- iv) Labour saving and time saving.

They also obtained better yield than in conventional method. Now in two villages, the farmers are ready to purchase new seed drill for taking up sowing in their own field in the ensuing seasons.

VII. SUCCESS STORY (Seed cum fertilizer drill sowing Paddy)

Using zero tillage seed cum fertilizer seed drill three type of demonstration were organized in farmers holdings. The treatment effect of 1) seed drill sowing cum DAP fertilizer application 2) seed drill sowing with out fertilizer application by seed drill were compared with the farmers method of broadcasting. The results of these experiment clearly indicates, a mean higher grain yield of 3830 kg/ha have been registered in seed cum fertilizer drill sowing treatment which was significantly higher when compared seed drill sowing and fertilizer broad casting 3223 kg /ha and farmers method of sowing 2799 kg/ha, which works out to 36 and 15% higher yield respectively. Seed cum fertilizer drill sown crop registered the highest. Harvest index of 51% comparable to 46% registered in farmers methods of sowing with the higher B:C ratio of 2.35.

The results of these demonstration clearly indicates that seed cum fertilizer drill sowing is one of the best option to increase the productivity of rainfed direct seed rice crop in the coastal district of Ramanathapuram with less seed rate of 75 kg / ha and minimum cost of labour for weeding.

VIII. SUCCESS STORY ON PADDY - RM CULTURE

The RM 96019 rice culture has test verified under four experiments 1. Special OFT 2. Participatory Plant Breeding approach 3. Participatory Varietal Selection and 4. Seed cum fertilizer drill sowing under rainfed eco-system at 113 location. At all the location RM 96019 culture performed exceedingly well and out yield all the culture (AD 00119, AD 99911, CB 17664, CB 17837 and NILs 17) varieties (MDU 5, Ashoka 200 F, Ashoka 228, Thandi and PMK 3). The average grain yield of 5155 kg-1 was recorded in RM 96019 while in PMK 3 the mean grain yield is only 4085 which is 26.19% higher yield than PMK 3.

12. Constraints : Nil

A. Administrative

B. Financial

C. Technical

13. Functional linkage with different organization

S. No.	Name of organization	Nature of linkage
1.	State Department of Agriculture	Organization of different training programme at KVK, CSRC by the co-ordination with Agricultural departments in order to improved the capacity building and also for the welfare of the rural farming.
2.	State Department of Horticulture	Organization of different training programme at KVK, CSRC by the co-ordination with Horticulture departments in order to improved the capacity building and also for the welfare of the rural farming.
3.	State Department of Fisheries	For technical support
4.	State Department of Animal	For technical support
5.	Soil Testing Lab	Co-ordination of participants in training programme organized by KVK
6.	DHAN foundation	Co-ordination of participants in training programme organized by KVK
7.	Community Development Centre Mohammed Sathak Polytechnic	Co-ordination of participants in training programme organized by KVK
8.	World Vision India	Co-ordination of participants in training programme organized by KVK
9.	NABARD (AGM)	Co-ordination of participants in training programme organized by KVK

10.	SIPPO, NGO	Co-ordination of participants in training programme organized by KVK
11.	JSS, NGO	Co-ordination of participants in training programme organized by KVK
12.	TRRM, NGO	Co-ordination of participants in training programme organized by KVK
13.	AIRD, NGO	Co-ordination of participants in training programme organized by KVK
14.	Sakthi Sugar, Sivagangai	Co-ordination of research trials in sugarcane organized by KVK
15.	CMFRI	Co-ordination of participants in training programme organized by KVK
16.	State Department of Forest	Co-ordination of participants in training programme organized by KVK
17.	IOB (LDM)	Co-ordination of Newsletter prepared by KVK
18.	PANCHAYAT RAJ Institution	Co-ordination of participants (Self Help Group) in training programme organized by KVK
19.	DPAP – Collectorate	Co-ordination of participants (Self Help Group) in training programme organized by KVK

14. Performance of Demonstration Units (Other than crops)

Demonstration unit	Total production		
	Area	Cost of inputs (Rs.)	Gross income (in Rs.)
Vermi compost unit	72 m ²	21,590	
Poly house	50 m ²	7,500	Demo purpose
Mushroom shed	20 m ²	19,300	7,000
Shade house Nursery unit –I	200 m ²	29,280	2,07,415
Shade house Nursery unit –II	308 m ²	33,930	1,46,394
Terrace garden	200 m ²	29,280	Demo purpose

15. Performance of instructional farm (Crops) including seed production

S. No.	Name of the crop	Area covered (ha)	Variety	Date of sowing	Date of harvesting	Cost of inputs (Rs.)	Total production (No./Qtl.)	Gross income	Remarks
1.	Groundnut	1.44	VRI 2	03.01.05	04.04.05	17500	13.50	60750	Breeder seed
2.	Rice	1.40	RM 96019	14.09.05	12.08.05	Contract farming			
3.	Rice	0.40	RM 96019	24.10.04	16.01.05	3500	20.00	8250	-
4.	Ragi	1.00	TRY 1	02.02.0	05.07.0	700	7.30	3650	-

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16. Utilization of hostel facilities (give month-wise for whole of the year)

Month	Capacity of hostel (No. of beds available)	No. of trainees stayed	Trainee days (days stayed)
Nil			

17. Give a brief report on the innovative methodology of Transfer of Technology developed during the year :

Varieties / cultures

PADDY – RM 96019

a. Description of the variety / culture developed

1. Plant height – 80-90 cm
2. Panicle length 22 cm
3. Grain / Panicle – 160
4. Yield kg/ha – 4.8
5. 1000 grain weight 25.4 g
6. It is drought tolerant
7. Suitable for salinity condition
8. Moderately resistant to leaf folder
9. Moderately resistant to blast disease
10. High yielder 5140 kg/ha

b. Description of the technology generated

i. Seed cum fertilizer seed drill for rainfed rice

It was introduced under rainfed eco-system of paddy crop because of major problem such as broadcasting of high quantity of paddy seeds than normal recommendation and also due to uneven and poor plant stand and higher weed intensity. The introduction of mechanized seed cum fertilizer sowing facilitates placement of seeds at optimum depth besides improving fertilizer and weed management. An experiment conducted in 12 different farmer's field demonstrated the superiority of seed cum fertilizer seed drill sowing compared to farmer's method of broadcasting. A grain yield of 3830 kg/ha was obtained under seed cum fertilizer seed drill sowing compared to 2799 kg/ha farmer's broadcasting method. Thus, introduction of mechanized seed drill sowing offers scope to increase the production potential of rainfed rice production by uniform spacing between plants and there by reducing the intensity of weed.

ii. Drip irrigation cum fertigation:

Drip fertigation is one of the latest technologies in crop cultivation, which helps to increase fertilizers and water use efficiency. The following are the beneficial out come of this technology

- Water use efficiency increased from **60% to 80%**
- Facilitate to irrigate more area
- Water saving upto **24-40%**
- It offers to gain higher cane yield of **200 t/ha**
- Uniform discharge of water and fertilizer
- Full utilization of water and fertilizer

iii. Pit method of plantings

It is the need of the hour to develop a most viable system of planting which will be not only requires less water to irrigate the cane crop but also bringing new filed management strategies for cane crop maintenance and also to popularize the optimum pit spacing between rows and pits on higher cane and sugar productivity and Integrated Nutrient Management practices. This technology will help to quantify the quantum of additional area that can be bought under cane cultivation with the introduction of pit drip fertigation system with minimum soil management for higher cane productivity.

iv. Plant Protection measures

The efficacy of HaNPV is improved by combining it with neem based insecticide against Chilli fruit borer, *Helicoverpa armigera*. In our research trial when HaNPV was integrated with Neemgold (3%), there was a reduction of 24% in fruit borer damage when compared with untreated control.

V. Terrace gardening

- * It can be established in the open terrace of the building.
- * No need of Ground soil
- * It helps to recycle the home waste
- * No pesticide residual in soils
- * It is a source of additional income
- * It provides fresh vegetables for home.

- * It also provide hobbies to the family members.

18. Indicate any indigenous technology practiced by farmers in the KVK operational area which can be considered for technology development: Nil

19. Indicate the specific training need tools / methodology followed for

- Farmers / Farm women : PRA
- Rural youth : Need based
- In-service personnel : Season oriented

20. List special programmes undertaken by the KVK, which have been finance by State Govt./Other Agencies

Name of the scheme	Date/Month of initiation	Funding agency	Amount (Rs.)
ICAR - Fully financed Scheme – Establishment of KVK, Coastal Saline Research Centre, Ramanathapuram	April 2004	ICAR	76.59
Developing Drought Tolerant Varieties of Rice by Using Genetic Research and Participatory Plant Breeding Techniques	July 2003	RF	31.05
Drip Irrigation and Fertigation for yield maximization in Sugarcane Crop	Jan.2001	ICAR	16.50
Part II Plan scheme – Technology development and farmers participatory research for yield maximization in rainfed rice in the coastal district of Ramanathapuram.	July 2004	Govt.TN	8.0
Technology development for saline water irrigation to increase the crop production in the coastal saline soils of Ramanathapuram district.	Apr. 2002	SLUB	8.37
Technology development for pit method of cane cultivation under drip fertigation system	3 years	ICAR adhoc	22.98
"Introduction of Mini Mobile Sprinklers for Rainfed groundnut cultivation by utilizing the shallow springs in the coastal belts of Ramanathapuram district on farmers participatory mode"	2 years	Govt. TN	7.00

21. Indicate the seed / seedling produced and sold to the farmers
a. For cereals crops - Rice

S. No.	Crop	Variety	Quantity (in quintals)
1.	Rice	RM 96019	41.50 (Contract farming)

b. For Fruits / Vegetables/Plantation crops etc.

S.No.	Crop	Variety	Quantity (in quintals/Nos.)
1.	Jatropha seedlings	-	41,483
2.	Neem seedlings	-	29,828
3.	Pungam seedlings	-	648

22. Scientific Advisory Committee meeting(s)

Date of the meeting	Members	Salient recommendations	Action taken	Remarks
26.07.04	Thiru. Jeyachandran Joint Dir. of Agriculture i/c Ramanathapuram	Suitable varieties for drought and salinity in Rice	Short duration (105 days) drought and salinity RM 96019 rice variety	
	Dr. R. Vasudevan Regional Deputy Director Dept. of Animal Husbandry Ramanathapuram.	<ul style="list-style-type: none"> ➤ Modern management techniques on animal husbandry and ➤ Information of IFS 	Conducted training on Animal husbandry in Co-ordination with the Dept. of Animal husbandry. Encouraged the farmers to include suitable IFS through on and off campus training programme.	
	District Forest Official Ramanathapuram	<ul style="list-style-type: none"> ➤ Forest tree seedlings ➤ Waste Land Development 	Neem & Pungam seedlings were produced and sold Rs. 4/seedlings so far 30,200 seedlings were sold. Jatropha seedlings were produced and supplied at the cost of Rs. 5/seedlings for Waste Land development	

15.07.05	Dr. G. Doraisamy Director of Extension Education TNAU, Coimbatore –3.	1. Publicity for soil and water analysis 2. Importance for Organic farming 3. Motivating the farmers to use less amount of insecticides through training programme. 4. Conduct of more need based training programmes.		
	Dr. M.J. Chandra Gowda Zonal Co-ordinator Bangalore	Emphasised to conduct two SAC meeting in a year Training to involve line departments, volunteers, and NGO's in the training programmes. Suggested to do bench Mark Survey before conducting any research activities/FLD/OFT/ training programmes Emphasised to document the activities whichever is done through KVK. Further the following programme on FLD & OFT have been approved in SAC meeting by Dr. M. Chandra Gowda on 15.07.2005 Table Enclosed		

S. No	Technology to be demonstrated	As per approval		As per revised programme in SAC meeting				
		No. of demo	Total budget (Rs.)	Area/ demo (ha)	Critical inputs	Budget /demo	No. of demos.	Total budget (Rs.)
1.	Demonstration of drought tolerant varieties in paddy	10	6,000	0.40	Seeds	600	10	6,000
2.	Management of	10	6,500	5	IPM	2615	5	13,075*

	bollworm in cotton				components			
3.	Demonstration of IPM components against borers in chilli	10	3,500	4	IPM components	890	10	8,875
4.	Demonstration of PMK – 1 variety of chilli	10	3,125	5	Seeds	315	10	3125
5.	Demonstration of seed treatment to manage root rot/collar rot in groundnut	-	-	4	Bio-fungicides, Bavistin	140	10	1,400
6.	Demonstrations of hybrid watermelon (MH)	-	-	2	Seeds (MH)	1200	5	6,000
7.	Demonstration of Ashgourd variety Co-2	-	-	2	Seeds (Co-2)	1100	5	5,500
8.	Demonstration of Pumpkin variety Co-2	-	-	2	Seeds (Co-2)	1105	5	5,525
9.	Introduction of KKM – 1 Senna in wastelands	-	-	2	Seeds (KKM-1)	1100	5	5,500
10	Demonstration of mist Chamber for root cuttings	-	-	-	Polymer sheets, Bamboo polls etc.,	5000	1	5000
	Total	40	19,125				66	60,000

* Actually Rs. 8,125/- for 5 demonstrations was approved in SAC meeting. But a minimum of Rs. 13,075/- is required for that demonstration.

OFT – 2005-06

S.	Technology to be	As per approval	As per revised programme in SAC meeting
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No	tested /verified	No. of location	Total budget (Rs.)	Area/ location	Critical inputs	Budget/ locations (Rs.)	No. of locations	Total budget (Rs.)
1.	Introduction of mechanized sowing for rainfed direct seeding in rice	20	4,500	0.5 acre	Seeds & Fertilizer	604	20	12,075
2.	Introduction of drought and saline tolerant varieties	15	3,660	50 cents	Seeds & Chemicals	244	15	3,660
3.	Introduction of drought management techniques in paddy	7	3,270	30 cents	Seeds & Chemicals	467	7	3,270
4.	Introduction of effective herbicides in rainfed paddy	7	850	40 cents	Herbicides	121	7	850
5.	Pest management in cotton	6	2,900	40 cents	Neem & Insecticides	483	6	2,900
6.	INM for rainfed groundnut	6	2,230	30 cents	Fertilizers	372	6	2,230
7.	Seed treatment for management of root rot in groundnut	12	1,600	40 cents	Biofungicides & Chemicals	133	12	1,600
8.	Foliar nutrition of rainfed blackgram	12	1,500	20 cents	Chemicals	125	12	1,500
9.	Pest management in chilli	6	4,520	50 cents	Neem, Insecticides	753	6	4,520
10	INM in Jasmine	10	2,800	15 cents	Biofertilizer & inorganic fertilizer	280	10	2,800
11	Soil moisture conservation and nutrient management in coconut	-	-	30 trees	Coir pith, fertilizer	635	4	2,540
12	INM in Chilli	-	-	30 cents	Biofertilizers, Inorganic fertilizer	411	5	2,055
	Total	101	27,830				110	40,000

Date of the meeting	Members	Salient recommendations	Action taken
	Thiru. D. Jeyachandran, Joint Director of Agriculture Ramanathapuram.	<ul style="list-style-type: none"> ⊕ Suggested to increase the area under fertilizer cum seed drill sowing. ⊕ Suitable variety for cotton with the staple length of 25 mm ⊕ Suitable hybrid/high yielding variety for maize since it is a alternate crop for paddy 	TNAU Hybrid / variety will be introduced on need basis
	Thiru. Muthuramalingam Executive Engineer Dept of Agrl. Engineering Ramanathapuram	Use of transplanter, hand operated weeder, rotary weeder and star weeder along with the seed drill sowing for paddy	Transplantation could not be introduced the entire area comes under direct seeding, where as the weeders will be introduced during the current season.
	Dr. M. Rajamani Scientist, CMFRI Mandapam Ramanathapuram.	The Integrated Farming System paddy cum fish culture as followed in Northern Kerala and Karnataka can be practiced in Ramnad district also.	Paddy cum fish culture is not suitable for our area under Ramnad district because the top 30-35 cm soil is sand and below that clay loam soils is existing.

	<p>Dr. S. Sivaprakasm Veterinary surgeon</p>	<p>Generating research studies under cultivation of grass and other fodder crops. So as to transfer the results to big farmers who are interested.</p> <p>Involving Assistant Veterinary Surgeon while conducting training programmes</p> <p>Awareness campaign has to be organized to prevent blue tongue disease</p>	<p>1. The suggested work will be taken up during this year</p> <p>2. Fodder cultivation will be taken up at farmers field during this current year.</p> <p>Awareness compare involving Veterinary Surgeon will also be taken up during this year.</p>
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Date of the meeting	Members	Salient recommendations	Action taken
	<p>Thiru. T. Rajendran, Asst. Director of Horticulture, Ramanathapuram.</p>	<p>Area under vegetable cultivation is less since seeds of high yielding varieties are not available</p> <p>To over come water scarcity, soil and water conservation techniques are needed</p> <p>Seed production unit can be established in KVK</p> <p>Medicinal plant cultivation like thippili can be recommended as intercrop with coconut</p> <p>Research study can be conducted for raising steria crop</p> <p>Training for cultivation of chilli of Andra Gundu type</p>	<p>Seed supply will be arranged based on indent.</p> <p>The available technologies on soil and moisture conservation will be demonstrated to the farmers for adoption.</p> <p>Since coconut garden are being irrigated condition.</p> <p>Saline water introduction of medicinal crops as intercrops is not possible.</p> <p>Enough research studies are available but marketing tie up is need.</p> <p>Training will be arranged on need basis.</p>

	Th. P. Shanmugam Assistant Director of Fisheries Ramanathapuram.	Training programmes for Ornamental fisheries Fisheries based Handcrafts training like shell making etc.	Ornamental fish model unit will be started at KVK Experts will be involved in the training programme
	Thiru. D. Murali Mohan, Assistant General Manager, NABARD, Ramanathapuram.	Funding will be arranged for farm and non-farm activities (Seed drill purchase Rain water harvesting, plantation and Horticulture crops. Research activities, Ornamental shell making and polishing) Co-ordination is needed to conduct the model farm of the following Model unit at Paramakudi on RM 96019 – 1 lakh rupees will be allotted. Agave, Senna – Model farm at Paramakudi Fund will be allotted for training programmes (1 lakh)	Proposals will be submitted to get the funds from NABARD, for early implementation of the programme.

Date of the meeting	Members	Salient recommendations	Action taken
	Th T.Somadundram, Farmer S/o. Thangachamy 45/35, Ramasamy Kothanar East Street, Ramanathapuram	Paddy Seed-cum fertilizer drill sowing machine should be made available at every Panchayat Union Office for hiring purpose Subsidy for seed drill	Arrangements will be made based on fund availability. Subsidy for seed drill will be arranged from the Department of Agricultural Engineering.
	Tmt. V. Vasuki, Farmer W/o. Vijayakumar, Achunthanvayal (post) Ramanathapuram.	1. Training on seed drill sowing 2. Training on Animal husbandry aspects 3. Training on Food processing 4. Improved variety seed needed in an advance	Trainings will be given in an advance
	Tmt. K. Kanitha, W/o. E.C.K. Agilan, Mudhunal, Soorankottai (Post), Ramanathapuram dist.	1. Better marketing techniques 2. Training for Food processing	Training will be given on need basis

	Thiru. Joseph Das, Farmer Muthupet, Ramnad district.	Cultivation and Marketing Techniques for Agave and <i>Aloe vera</i> cultivation under dryland condition. Propagation methods for Jasmine cultivation to get high yield Package of practices for water melon	Aloe vera cultivation is already existing in 5 acres Proper training programmes will be given to get higher yields from Jasmine and Watermelon crops.
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23. Impact of training programme (Not to be restricted for reporting period)

Name of specific technologies transferred	No. of trainees	% of adoption	Change in income (Rs./unit)	
			Before training	After training
Mushroom Production	237	55.9	25,280	55,345
Vermi compost	357	14	-	* Production / year = 18 tonnes / 6 cycles / year * Gross income = 1,26,000/year
Food processing	366	31.6	-	Rs. 3371 Net Profit / month. For one year Rs.40,455/-

Another impact study revealed the following

Development of farmer is felt important now a days and increased attention is being paid for their welfare. Training is considered as one of the essential aspects for the betterment in the process of development. Therefore, it becomes essential that the economically weaker sections of the farming community viz., Small and marginal farmers are to be given with increased training in order to have better living standards.

“ Trained man power counts in the nation
More than anything else more than gold
And silver and money”

- Jawaharlal Nehru

In the process of probing, it was felt necessary to study some important aspects of training like knowledge gain in paddy cultivation, attitude of trainees towards KVK and level of sharing of information in terms of knowledge. The probe also aimed to study the profile characteristics of trainees and to study the relationship between profile characteristics of the trainees and their knowledge gain, attitude towards KVK. The problems and suggestions were also studied in detail.

The present study is the modest conscientious attempt investigate several important and interrelated aspects of the farmers with the following objectives.

Specific objectives of the study

- i. To study the profile characteristics of the KVK trainees.
- ii. To study the training needs of the trainees
- iii. To study the knowledge gained by the KVK trainees in paddy cultivation
- iv. To study the knowledge gained by the KVK trainees in mushroom cultivation
- v. To study the attitude of trainees towards KVK programme .
- vi. To study the adoption behaviour of trainees in mushroom cultivation
- vii. To identify the reasons for adoption and non adoption of mushroom cultivation and constraints faced by the trainees
- viii. To study the level of information shared with untrained farmers in terms of knowledge.
- ix. To identify the problems encountered by trainees and their suggestions to overcome the problems.

RESEARCH DESIGN

Ex-Post-Facto research design was used in the present investigation.

Sampling procedure

Ramanathapuram district was selected purposively because the KVK training programme is being implemented since 01.10.2000. Totally 29 villages were covered under this training programme. Out of that, only 6 villages were selected randomly for study purpose.

List of villages and trainees selected for the study

S. No.	Name of the villages	Training on paddy cultivation	Training on mushroom cultivation	No. of trainees
1.	Melaseethai	25.09.2002	04.04.2002	20
2.	Muthunal	18.10.2002	07.05.2002	20
3.	Therkutharavai	20.10.2002	09.07.2002	20
4.	Keelaseethai	25.10.2002	11.12.2002	20
5.	Uthiragosamangai	26.10.2002	19.03.2003	20

6.	Kulapatham	12.12.2002	29.03.2003	20
	Total			120

Selection of crop

Paddy crop was selected as technology referred for the study

Variables selected for the study

Dependent variables

Training need, Knowledge gain, attitude, adoption behaviour and level of sharing of information in terms of knowledge were chosen as the dependent variables. Paddy crop based recommend technologies and mushroom cultivation were taken up for studying the knowledge gained by the trainees.

Independent variables

The independent variables selected for the study were age, education, family size, mass media exposure, extension contact, economic motivation, achievement motivation, scientific orientation, innovativeness, training received and facilities provided. The above variables were measured by appropriate scales and schedules.

Data Collection Method

The data were collected by using a pre-tested interview schedule developed for the study. With the statistical tools like frequency, percentage, arithmetic mean standard deviation, correlation coefficient and regression analysis used for data analysis. The results were meaningfully interpreted and relevant conclusions were drawn accordingly.

Distribution of trainees based on their profile characteristics

Majority of the trainees were middle aged (65.83 per cent) with medium education (57.50 per cent), had medium family size (46.67 per cent), mass media exposure (63.33 per cent), extension contact (54.17 per cent), economic motivation (70.00 per cent), achievement motivation (59.17 per cent), scientific orientation (60.00 per cent), innovativeness (45.83 per cent), training received (65.00 per cent) and belong to moderate category (65.00 per cent) of facilities provided.

Training need

Training need of the six subject matter areas identified for the study of training needs the trainees expressed less training needs towards weed management, water management and

marketing and higher training need towards seeds and sowing and manure and fertilizers, since they gained adequate knowledge.

Nearly 80.00 per cent of the trainees considered aiming on selection of quality seed as the most preferred under major head seeds and sowing.

Nearly 73.00 per cent of the trainees considered training on fertilizer saving technique as the most preferred under major training head manures and fertilizers.

About 64.00 per cent of the trainees considered identification and control of pests and nearly 60.00 per cent of the trainees considered integrated pest management as the most preferred under major head plant protection.

Nearly 50.00 per cent of the trainees considered water requirement of crops under major head water management and 53.00 per cent of the trainees preferred method and application of weedicide under weed management and trainees just below 35.00 per cent had opted training on processing and marketing.

Knowledge gain by the trainees in paddy cultivation

Majority of the trainees had medium level (57.50 per cent) of knowledge gain.

Knowledge gain by the trainees in mushroom cultivation

Almost half (48.64 per cent) of the respondents were found to have high knowledge followed by low (36.48 per cent) and medium (14.86 per cent) knowledge with respect to mushroom cultivation.

Attitude of trainees towards KVK

Majority of the trainees had favourable attitude (65.00 per cent) towards KVK

Adoption behaviour of trainees

About sixty per cent (56.76 per cent) of the respondents were continued adopters and 12.16 per cent were continued rejecters. While 20.27 per cent were later adopters and the remaining 10.81 per cent were found to discontinuers.

Level of sharing of information in terms of knowledge in paddy cultivation

Majority of the trainees had medium level (68.33 per cent) (83.33 per cent) of sharing of information in terms of knowledge and operational skills respectively

Relationship between the profile characteristics of the trainees and their knowledge gain

There was a positive and significant relationship between education, family size, mass media exposure, extension contact, Economic motivation achievement motivation, scientific orientation innovativeness, training received and facilities provided of trainees and their knowledge gain. Age was negatively significant with the knowledge gain of trainees.

Relationship between the profile characteristics of trainees and their attitude towards KVK

Education, family size, mass media exposure, extension contact, economic motivation, achievement motivation, scientific orientation, innovativeness, training received and facilities provided had a positive and significant relationship while age had a negative and significant relationship with the attitude of trainees towards KVK .

Combined effect of all selected independent variables on the knowledge gain of trainees

All the selected 11 independent variables put together explained about 60.00 per cent variation in the knowledge gain of trainees. Education, family size, mass media exposure, extension contact, innovativeness, and training received had positively and significantly contributed to most of the variation in knowledge gain of trainees.

Combined effect of all selected independent variables in attitude of trainees towards KVK

All the selected 11 independent variables put together explained about 75.00 per cent variation in the attitude of trainees towards KVK. Age, mass media exposure, economic motivation, scientific orientation, training received and facilities provided had positively and significantly contributed to most of the variation in attitude of trainees towards KVK

Problems encountered by the trainees and their suggestions to overcome the problems

Problems encountered by the trainees

Majority of the trainees stated that the duration of the training programme is inadequate, frequency of organizing such programme is less, place is inconvenient to attend the training programme, inadequate use of audio-visual aids, and inadequate boarding and lodging facilities. They have also expressed that there was no uniform coverage of programme content, untimely season for conducting the training programme, limited time and scope to clarify doubts and no follow up action.

Suggestions given by the trainees to overcome the problems

Majority of the trainees felt the training programme should organised frequently, duration of the training programme may be enhanced to a minimum of 5 days, use of audio-visual aids may be accelerated, training programme should preferably conducted in their own village or taluk head quarters and boarding and lodging facilities may be improved. The trainees also felt

that season for conducting the training programme should be timely, sufficient time and scope should be given to clarify their doubts, programme content should be uniformly covered and proper follow-up action is required.

Profile characteristics of the KVK trainees

S. No.	Variables	Category	Percentage
1.	Age	Middle	65.83
2.	Education	Medium	57.50
3.	Family Size	Medium	46.67
4.	Mass media exposure	Medium	63.33
5.	Extension contact	Medium	54.17
6.	Economic motivation	Medium	70.00
7.	Achievement motivation	Medium	59.17
8.	Scientific orientation	Medium	60.00
9.	Innovativeness	Medium	45.83
10.	Training received	Medium	65.00
11.	Facilities provided	Moderate	65.00
12.	Knowledge gain in paddy cultivation	Medium	57.50
13.	Knowledge gain in mushroom cultivation	High	48.64
14.	Attitude towards the KVK	Favourable	65.00
15.	Adoption behaviour	Continued adoption	56.27
16.	Level of information shared	Medium	68.33

24. Field activities

- i. Number of villages adopted : 20
- ii. Number of farm families selected : 210
- iii. Number of Survey / PRA conducted : 20

25. Extension Activities

Activities	Dates	No. of beneficiaries (Farmers / Rural youth)			No. of Extension Functionaries		
		Male	Female	Total	Male	Female	Total
Kisan melas	03.02.2004	64	28	92	22	5	27
Field days	07.01.2004	54	34	88	36	13	49
Farmers seminars	-	-	-	-	-	-	-
Film / Video show	-	-	-	-	-	-	-
Exhibition	04.09.04	115	36	151	18	2	20
Extension literatures	04.09.04 (3 Nos.)	115	36	151	18	2	20
Advisory services * in person * phone calls * Diagnostic field visit * village meetings	October 2004 to August 2005	1050	277	1327	530	85	615
Ex-trainees meetings	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-
Mass media activities	Total No. of activities / programmes conducted						
Radio and TV talk	10 (AIR, Madurai & Tuticorin)						
Newspaper coverage	34 (Local daily Tamil- Thinamalar, Thinathandhi, Thinakaran, Thinaboomi, Thinamani English - The Hindu, Indian Express)						
Popular articles	1 (TNAU Newsletter)						

26. Details of KVK Bank Accounts

	Name of the Bank	Location	Account No.
a. With the host institute	State Bank of India	CSRC, Ramnad	

b. With the KVK	State Bank of India	Ramanathapuram	01100075135
c. KVK – RF	State Bank of India	Ramanathapuram	01100075741

27. Utilization of funds under FLD on Oil seeds (Rs.)

Item	Sanctioned by ZC		Released by ZC		Expenditure		Unspent balance as on 1 st April 2005
	Kharif 2004	Rabi 2004-05	Kharif 2004	Rabi 2004-05	Kharif 2004	Rabi 2004-05	
Inputs	-	12,250	-	-	-	12,250	-
Extension activities	-	1,750	-	-	-	1,750	-
TA/da/POL etc.	-	1,750	-	-	-	1,750	-
DEE charges	-	875	-	-	-	850	25
Total	-	16,625	-	-	-	16,600	25

28. Utilization of funds under FLD on pulses (Rs.)

Item	Sanctioned by ZC		Released by ZC		Expenditure		Unspent balance as on 1 st April 2005
	Kharif 2004	Rabi 2004-05	Kharif 2004	Rabi 2004-05	Kharif 2004	Rabi 2004-05	
Inputs	-	7,000	-	-	-	7,000	-
Extension activities	-	1,000	-	-	-	1,000	-
TA/da/POL etc.	-	1,500	-	-	-	1,500	-
Total	-	9,500	-	-	-	9,500	25

29. Utilization of KVK funds during the year 2004-2005

Expenditure statement for the period from 1.04.2004 to 31-03-2005

Sl. No.	Particulars	Sanctioned	Released	Expenditure
1.	Pay and Allowances	15,00,000		12,36,408
2.	Traveling allowances	1,00,000		1,00,000
3.	Contingencies	6,20,000		

a.	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	60,000			60,000
b.	POL, repair of Vehicle, Tractor and Equipment	60,000			59,953
c.	Meals / refreshment for trainees (ceiling upto Rs. 40/day/trainee be maintained)Farmers training	80,000			80,000
d.	Training materials (posters, charts, demonstration materials including chemicals etc. required for conducting the training)	30,000			30,000
e.	Front line demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	20,000			20,000
f.	On Farm testing (on need based, location specific and newly generated information in the major production systems of the area)	20,000			20,000
g.	Training of extension functionaries	20,000			15,485
h.	Maintenance of building	10,000			9,947
i.	Establishment of Soil, Plant & Water Testing Laboratory (as approved in the annexure)	3,20,000			3,19,903
Total (A)			22,20,000		19,51,696
B. Non-Recurring					
1.	Works			-	
2.	Equipment and Furniture		8,60,000		
3.	Establishment of Soil, Plant & Water Testing laboratory (as approved in the annexure)	8,60,000			8,58,259
4.	Vehicle (New Jeep)		5,00,000		4,96,711
5.	Library (Purchase of assets like books & Journals)		10,000		10,000
Total (B)			13,70,000		13,64,970
C. Revolving Fund			1,00,000		3,11,753
Grand Total (A+B+C)			36,90,000	36,90,000	36,28,419

29. Utilization of KVK funds during the year 2005-2006 (upto August 2005)

Expenditure statement for the period from 1.04.2005 to 31-08-2005

Sl. No.	Particulars	Sanctioned	Released	Expenditure
1.	Pay and Allowances	20,00,000		10,33,746
2.	Traveling allowances	1,00,000		39,566
3.	Contingencies	6,00,000		

a.	Stationery, telephone, postage and other expenditure on office running, publication of Newsletter and library maintenance (Purchase of News Paper & Magazines)	2,00,000		94,803
b.	POL, repair of Vehicle, Tractor and Equipment	1,00,000		10,573
c.	Meals / refreshment for trainees (ceiling upto Rs. 40/day/trainee be maintained)Farmers training	90,000		33,840
d.	Training materials (posters, charts, demonstration materials including chemicals etc. required for conducting the training)	50,000		7,552
e.	Front line demonstration except oilseeds and pulses (minimum of 30 demonstration in a year)	60,000		-
f.	On Farm testing (on need based, location specific and newly generated information in the major production systems of the area)	40,000		-
g.	Training of extension functionaries	25,000		-
h.	Maintenance of building	25,000		-
i.	Establishment of Soil, Plant & Water Testing Laboratory (as approved in the annexure)	10,000		660
Total (A)			27,00,000	12,20,740
B. Non-Recurring				
1.	Works		-	-
2.	Equipment -Camera		20,000	-
3.	Establishment of Soil, Plant & Water Testing laboratory (as approved in the annexure)			-
4.	Vehicle (New Jeep)			-
5.	Library (Purchase of assets like books & Journals)		10,000	-
Total (B)			30,000	-
C.	Revolving Fund		-	1,34,054
Grand Total (A+B+C)			27,30,000	10,60,666
				13,54,794

30. Status of Revolving Fund (Rs.) for the three years

Year	Opening balance as on 1 st April	Expected income		Net balance in hand as on 1 st April of each year
		Fixed deposit	Farm income	
April 2002 to March 2003	-	-	-	-
April 2003 to	-	-	-	-

March 2004				
April 2004 to March 2005	-	1,00,000	4,74,260	2,66,296

31. Activities of Soil, Water and Plant Testing Laboratory

Status of establishment of Lab : Yes

If yes

1. Date of establishment : 15.09.2005

2. List of equipments purchased with amount

S. No.	Name of the Equipment	Quantity	Cost
20.	Spectrophotometer	1	75072.00
21.	Flame photometer	1	36720.00
22.	pH meter	1	7344.00
23.	Conductivity Bridge	1	7344.00
24.	Physical balance	1	28080.00
25.	Chemical balance	1	91520.00
26.	Water distillation still	1	26117.73
27.	Kjeldahl Digestion & distillation	1	24589.00
28.	Shaker	2	44076.60
29.	Refrigerator	1	19950.00
30.	Oven	1	8862.21
31.	Hot plate	1	1875.60
32.	Grinder	1	11582.00
33.	Water Purifier	1	7390.00
34.	Pelicon Digestion & Distillation unit	1	148086.00
35.	Non-recurring – Lab set up		319650.00
36.	Recurring – Chemicals & Glasswares		249990.00
37.	Recurring – Petty Items		19913.00
38.	Recurring- Soil processing		50000.00

3. Details of samples analysed so far

Details	No. of samples	No. of farmers	No. of villages	Amount realised
Soil samples	NIL			
Water samples				
Plant samples				
Total				

If No

1. Status of purchase of equipments :

2. Targeted date for establishment :

32. Please include information which has not been reflected above (write in detail)

The KVK of CSRC, Ramanathapuram in linkage with National Bank NABARD, form the farmers club called VVV's to enhance the TOT activities at various villages of Ramanathapuram district. Under this programme 10 clubs were formed so far.