

HIGH RAINFALL ZONE

1. GEOGRAPHICAL DISTRIBUTION OF AREA OF EACH DIVISION

1. 1. Delineation and general description:

The high rainfall zone of Tamil Nadu consists of Kanyakumari district, located in the southern tip of the peninsular India, between 77.05° and 77.36° longitude and 8.03 and 8.35° N, latitude. It is bordered by Tirunelveli district of Tamil Nadu in the North and North-East, and Kerala State in the North-West, and sea in the West and the South.

The total area of the district is 1671 sq.km. It is a thickly populated district with a total population of 1.6 million (Census 1991) with a density of 957 per sq.m.

Kanyakumari district is divided into four taluks *viz.* Agasteeswaram, Thovalai, Kalkulam and Vilavancode, with Nagercoil town as the district headquarters. There are nine development blocks and four municipalities in the district.

1. 2. Physiography:

Kanyakumari district extends from the Arabian sea to the western ghats upto an elevation of 600m. Two distinct physiographic regions *viz.* (1) the hill and 'elas' region and (2) the plains are identifiable in this district.

The hill and 'ela' region starts from 20 to 35km away from the coast. This region has an elevation of 100 to 600 m above MSL and consists of hills, knolls, valleys and plateaus. The low lying lands between hillocks and knolls are referred to as 'elas'.

The 'elas' remain flooded during May-June to February - March and rice is the only crop cultivated there. The knolls around the 'elas' rise upto a height of about one to three metres and are planted with rubber, coconut, tapioca etc. The hills are cultivated with horticultural crops. The major part of the hills are covered with tropical rain tree forests. The hill and 'ela' region receives an annual rainfall of above 1500 mm.

The plains extend from the Arabian sea in the west to borders of Tirunelveli district in the North. The annual rainfall is below 1500mm. Rice, coconut, banana, mango, cashewnut and tapioca are the main crops cultivated in this area.

1. 3. Irrigation:

The rivers in this district are not perennial, the main rivers are Paralliyar and Kodayar both of which unite to form the Kuzhithurai or Thambaraparaniyar across which a dam at Pechiparai and another at Perunchani have been constructed and they form the major source of irrigation. Besides these two major reservoirs there are two small dams viz., Chittar - I and Chittar - II constructed across the river Chittar.

Table 1: Reservoirs in Kanyakumari District

Name of Reservoir	Period of construction	Full Reservoir level (Ft)	Gross capacity (In TMCFT)	Net capacity (In TMCFT)	Maximum surplus capacity (cusec.)
1. Pechiparai	1897 - 1906	48	5.300	4.450	39.000
2. Perunchani	1948 - 1953	47	2.890	2.890	31.00
3. Chittar - I	1964 - 1970	18	0.610	0.393	9.300
4. Chittar - II	1964 - 1970	18	1.009	0.600	9.350

Besides these dams, there are Pattanamkal system, Thirparappu weir system, Aruvikkarai weir system and Neyyar system. These systems also irrigate certain ayacuts. the Neyyar dam is situated in Kerala State and with an agreement this district is getting water for an ayacut of 1457 ha. The river Pazhayar, a small drainage river originating near Surulacode and finally outfalls into Arabian Sea near Manakudy after traversing a distance of 35 Kms. Similarly, the other small drainage river called Valliyar originating at Velimalai joins the Arabian sea at Kadiapattinam after traversing a distance of 16 Km.

2. RAINFALL

The annual average rainfall of the district is 1465 mm received in 64 rainy days. During the North-East monsoon, between October and December, a precipitation of 549 mm is received in 24 rainy days and during the South-West monsoon 537 mm is received from June to September in 27 rainy days. In summer, 332mm of rainfall is received in 11 rainy days between March and May. In winter 47mm is received between January and February in three rainy days. The rainfall more or less continuous from April to December. the monthwar rainfall based on 50 years average and the rainfall distribution are furnished in Table (2) The data also indicated that the peak period of South-west and North-east monsoons.

Table 2: Rainfall in Kanyakumari district (mm) (Average of 50 years)

Month	Rainfall (mm)
January	29.70
February	20.60
March	47.80
April	111.70
May	158.20
June	211.40
July	150.00
August	87.60
September	102.70
October	246.80
November	206.20
December	70.30
Total	1443.00

There is not much variation in the mean monthly air temperature which varies from 98°F (36.67°C) (max.) to 75°F (23.89°C) (min.)

The relative humidity ranges between 60 and 100 per cent. The hill slopes and adjacent plains on the North-western side have a high humidity, compared to the Northern plains.

3. SOIL TYPES

In Kanyakumari district three main soil groups are present. Laterite soil predominates in the blocks of Thiruvattar, Munchirai, Kurunthencode, Rajakamangalam, Killiyoor, Thuckalay and Melpuram. Mixed types of red and alluvial soil is predominant in Agasteeswaram and Thovalai Blocks. Along the coastal line there is a narrow belt of sandy coastal alluvial soil where coconut and rice are mainly cultivated. In the plains, deep red loam is observed. Along the hilly regions lateritic type of soil is present in which Tapioca, Rubber, Coconut and other spices are the main crops. The lateritic and red loam soils are poor to medium in fertility and coastal alluvial is high in fertility. The soils are sandy to sandy loam in texture. The soil pH generally ranges from 4.5 to 8.0. In very small pockets, alkaline soils are observed in the villages of Madhavalayam, Vellamadam, Shenbagaramanputhur, Vendanarikulam etc., There is no saline soil in this district. The high acidity prevalent in the district is mainly due to the heavy rainfall and heavy leaching of basic salts in the hilly areas.

The soils generally have freed drainage and exhibit a striking absence of horizon differentiation and also absence of salt or calcium carbonate accumulation. The soil nitrogen status is either low to medium while the soil phosphorus is medium and potassium is high.

4. CROPS CULTIVATED, AREA, VARIETIES, PERFORMANCE:

4. 1. Land use pattern

The total arable land in Kanyakumari district is 167184 ha of which 48.9 per cent under cultivation and 32.5 per cent under forests

The area under irrigation is 24,000 ha representing 63 per cent of the cultivated area. Rice is the predominant crop grown under irrigation, representing 42.6 per cent of the total area under irrigation.

In the irrigated areas, two crops of rice are raised under irrigation and a third crop of pulse during summer, usually in rice fallows, rubber, coconut, condiments and spices, mango, pulses and tapioca are the main crops grown under rainfed conditions. Horticultural crops are cultivated in 44.0 per cent of the area with the major area under rubber. Coconut is another major crop of this district cultivated in 21 per cent of the total cultivated area.

The land unsuited for cultivation forms 2.5 per cent and fallows suited for cultivation forms 0.08 per cent of the total available land.

4. 2. Cropping pattern, major crops and crop sequences:

The cropping pattern differs in the two identified physiographic regions.

In the hills, the major crops are rubber, clove, tapioca and banana. Generally, there is no crop rotation since majority of the crops are perennial in nature. In the plains, two crops of rice, the first from May - June to August - September and the second from September - October to February - March are cultivated. Occasionally a third crop of pulse is grown.

In the plains, the major area is under rice and two crops are raised in a year. During summer season, blackgram or greengram or gingelly is grown in some areas. Paddy - banana - paddy rotation is followed in about 10 per cent of the area. In addition to these crops, tapioca, cashew, mango, vegetables, flower crops, palmyrah, tamarind etc., also exist.

Table 3 : Area under different crops in the physiographic regions of Kanyakumari District (ha) - 2000 - 2001

Sl.No.	Crop	Hill and 'Ela'	Plains	Total
1.	Rice	9983	30017	40000
2.	Pulses	1090	1010	3000
3.	Coconut	6198	14802	21000
4.	Groundnut	11	89	100
5.	Tapioca	7002	5348	12350
6.	Banana	2151	2849	5000
7.	Jack	325	440	765
8.	Mango	462	1308	1770
9.	Pineapple	25	--	25
10.	Cashew	138	1862	2000
11.	Tamarind	205	1128	1333
12.	Palmyrah	192	1439	1631
13.	Tea	484	--	484
14.	Coffee	61	--	61
15.	Cocoa	32	--	32
16.	Arecanut	782	198	980
17.	Sapota	--	25	25
18.	Clove	518	--	518
19.	Pepper	360	--	360
20.	Nutmeg	55	--	55
21.	Ginger	22	--	22
22.	Cardamom	124	--	124
23.	Betelvine	23	18	41
24.	Vegetables	25	245	270
25.	Flowers	--	275	275
26.	Rubber	19478	--	19478

Eventhough poly cropping pattern is followed with annuals and seasonals in the hills, the following four major farming systems are identified in the plains.

4. 3. Rice based farming system:

The rice based farming system is prevalent in hill and 'Ela' region and in plains. In hill and 'Ela' region rice is cultivated only in the 'Elas'. Two crops of rice are cultivated in both the situations. A third crop of pulse is cultivated depending upon the availability of moisture at the time of harvest of the second crop of rice. In areas where soil moisture is not adequate, the land will be kept fallow during summer or vegetables like cucumber, bhendi, gourds etc., are cultivated by engaging family labour for pot watering. Also in southern part of the district i.e. in Thovalai and Agasteeswaaram taluks where semi-dry rice is cultivated in April - May, the land will be kept fallow after the harvest of second crop of rice. In these areas summer ploughing will be done taking advantage of summer showers. In rice-based cropping system, crop rotation is followed in places where rice is cultivated continuously for number of years. Crops like banana and tapioca are cultivated in rice fields. After the harvest of banana or tapioca, rice is again grown during the second year, the cropping system followed is as follows.

I Year		II Year
Rice - Rice - Pulse - Banana	-	Rice
Rice - Rice - -- - Tapioca	-	Rice

4. 4. Coconut - based farming system

Coconut is cultivated as a rainfed crop in this district. In plains it is cultivated as a sole crop. In the hill and 'ela' region coconut is cultivated along the slopes. As intercrops arecanut, cocoa and clove are cultivated. In the newly planted coconut gardens and also in the young gardens annual crops like tapioca, pulses and banana are cultivated depending on the age of the coconut plants for maximum out turn from unit area.

4. 5. Tapioca-based farming system

Tapioca is cultivated purely as a rainfed crop in plains and in the lower slopes of the hills. It is planted in April - May and September - October synchronising with the south-west monsoon and north-east monsoon in different locations. Short duration pulses like blackgram and horsegram are cultivated as intercrops during the early stage of growth of the crop is being practised.

4. 6. Homestead farming system

Homestead farming is an operational farm unit in which crops, livestock, poultry and fisheries are carried out mainly for the purpose of satisfying the home needs of the farmers. This farming system is being practised by marginal and above marginal farmers by utilising the available backyard of their houses. The different perennial crops include jack, mango, guava etc., and the annuals include different varieties of banana. Mixed farming of crops and livestock including poultry is common. Fish production is taken up recently by the department of fisheries in the ponds available in the district. Farmers are yet to take up fish production in their own lands.

Table 4 : Popular varieties and their performance

Crop	Varieties	Performance
Paddy	TPS-3	50% adoption
	Ambai - 16	Partially adopted
	Ponmani	"
Pulses	T - 9, ADT-2, 3, 4 & 5	"
Coconut	Tall	100% adoption
	T & D hybrids	Partially adopted
Tapioca	Local varieties viz. Adukku Muttan, Noorumuttan, Kariyilaiporiyan, Lekshmi Vellai	100% adoption

Crop	Varieties	Performance
Minor tubers	Local types	100% adoption
Sweet Potato	Local types	100% adoption
Banana	Nendran, Red banana, Kathali and Matti	100% adoption
Jack	Local varieties viz. Velipala, Muttam varukkai, Thaen varukkai and PPI-1	100% adoption
Mango	Neelum, Bangalora, Kalepad, Rumani, Banganapalli and local Chengavarukkai	100% adoption
Pineapple	Mauritius, Kew varieties	100% adoption
Cashew	Local varieties	100% adoption
Tamarind	Local varieties viz., Karungal, Agasteeswaram red	100% adoption
Palmyrah	Local varieties	100% adoption
Tea	Karamani estate collection	100% adoption
Coffee	Local <i>C.Arabica</i>	Partially adopted
Cocoa	Local forestero types	Partially adopted
Arecanut	Mohit Nagar and Mangala	100% adoption
Sapota	PKM-1	100% adoption
Clove	Local types	100% adoption
Pepper	Panniyur-1, Karimunda, Kottanadan	100% adoption
Nutmeg	Local types	100% adoption
Ginger	Local type, Rieo-de-geneiro	100% adoption
Cardamom	Malabar type	100% adoption
Betelvine	Local type	100% adoption
Rubber	H.105	100% adoption
Bhendi	MDU-1 and local type	100% adoption
Brinjal	Local types like Vazhuthanankai, Andarkulam and Karungal	100% adoption
Chillies	Local types	100% adoption
Amaranthus	Local red and green	100% adoption
Cucumber, Pumpkin and Ashgourd	Local types	100% adoption
Jasmine	Thovalai Local	100% adoption
	Co.1 Jathimalli	Partially adopted
Crossandra	Local type	100% adoption

5. CONSTRAINTS AND PROBLEMS OF THE AREA IN EACH DIVISION

- The area under Paddy is declining because of urbanisation in plains and high labour cost. The average size of the holding is less than 50 cents and this is the main constraint in the use of mechanised implements for cultivation.
- There is no special post-harvest practice followed in the case of rice except sun drying of the produce and parboiling of paddy.
- Due to the reduction in the price of rubber in the world market and unhealthy competition from synthetic rubber, the rubber planters are under stress and their profit margin has become nil.
- The uncertainty in the pepper market due to the import policy of the Government, pepper from Vietnam and Indonesia are being dumped in Indian market for less price. The price of dried pepper per Kg. has now come down from Rs.200/- to Rs.100/-.
- The yield of clove is very much reduced due to lack of high yielding varieties, its shy bearing habit, irregularity in bearing. High cost of labour for harvesting clove is also a major constraint for the considerable reduction of area under clove.
- The area under cardamom has declined because of high cost of labour and katte disease.
- The area and production of Coconut is declined due to high price fluctuation.
- Cold storage and processing industries are not available in this district and this is one of the major constraint in the production of tapioca, vegetables and fruits like pineapple, mango, guava and sapota and flower crops.
- The milk production of this district is highly inadequate due to the genital infections of the dairy cattles.

6. TECHNOLOGIES SO FAR DEVELOPED

AGRICULTURAL RESEARCH STATION, THIRUPATHISARAM.

Varieties

a) TPS.1

Parentage	:	I.R. 8/Kattisamba
Duration	:	100 -115 days
Season	:	Kannipoo (Kar)
Grain yield	:	5000 kg/ha
Year of release	:	1985

b) TPS.2

Parentage	:	I.R. 26/CO.40
Duration	:	130 to 135 days
Season	:	Kumbapoo (Pishanam)
Grain yield	:	5000 kg/ha
Year of release	:	1987

c) TPS.3

Parentage	:	RP 31-49/LMN
Duration	:	135 to 140 days
Season	:	Kumbapoo (Pishanam)
Grain yield	:	6100 kg/ha
Year of release	:	1993

6. 2. Management

a) Plain

- A seed rate of 100 kg/ha and a fertilizer dose of 75 N : 45 P₂O₅ : 20 K₂O Kg/ha was found optimum for rice TPS.1
- Butachlor at 2 kg/ai/ha applied on 8th day after sowing when sufficient soil moisture was available, controlled all germinating weeds.

- A plant population of 50 plants/m² by adopting a spacing of 20 x 10 cm and a fertilizer dose of 100 N : 25 P₂O₅ : K₂O Kg/ha was found optimum for rice TPS.2.
- A plant population of 33 plants/m² by adopting a spacing of 20 x 15 cm was found optimum for rice CR.1009 (Ponmani)
- Application of nitrogen at 100 kg/ha in four equal splits at basal, tillering, panicle initiation and heading stages recorded highest grain yield in rice CR.1009 (Ponmani).
- Application of farm yard manure at 12.5 t/ha + Azospirillum + soil test recommendation of fertilizers registered highest grain yield in rice.
- Application of 50% of N as inorganic + 25% of N as Farm Yard Manure or green manure + Azospirillum registered highest grain yield in rice TPS.3 which was on par with 100% N as inorganic. This has resulted in a saving of 50% of inorganic nitrogen.
- Application of 75% of STL based P₂O₅ as superphosphate + green manure at 6.25 t/ha + phosphobacteria registered highest grain yield in rice ASD.16 and CR.1009 resulting in a saving of 25% of STL based P₂O₅.
- Butachlor at 1 Kg ai/ha applied within 3 to 5 days after transplanting controlled the weeds and registered highest grain yield.
- Application of FYM (12.5 t. ha⁻¹) + Azospirillum (soil) + Zinc sulphate (25 kg ha⁻¹) as basal and top dressing 25% N on 25, 45 and 60th DAT and 50% K and 35th and 55th DAT is found to be optimum for higher grain yield.

b) 'Ela' condition

- A plant population of 50 plants/m² by adopting a spacing of 20 x 10 cm and application of nitrogen in three equal splits at 10, 30 and 45 days after transplanting and application of phosphorus in the form of rock phosphate can be adopted under "Ela" situation for getting highest grain yield in rice ASD.16.

6 3. Plant Protection

- Burning of rice stubbles and crop residues in the fields to destroy the inoculum present.
- Sun drying of seeds for 12 hours over two days between 10 A.M. and 4.00 P.M. for seed disinfestation.
- If high humidity and wet condition prevails at tillering stage, prophylactic spraying with Chlorpyrifos 20 EC at 1.25 l/ha or Monocrotophos 36 EC at 500 ml/ha or Quinalphos 25 at 1 l/ha.
- The per cent damage of grain discolouration in different rice varieties was assessed and found to vary from the minimum 5.15 in Ponni to the maximum 30.92 in CR.1009.
- The highest weight loss of 42.8% due to grain discolouration was recorded in the disease grade 9. The percentage of weight loss in grades 7 and 5 was 22.60 and 10.46 respectively. Only very small percentage of weight loss was noticed in grade 3 (1.79) and 1(0.29).
- The highest percentage of discoloured grains was noticed in the plants inoculated during flowering stage. While this was 44 per cent, the percentage of discoloured grains in other two stages of inoculation viz. milky stage and dough stage were 42.9 and 12.9 respectively. The control plants showed very small percentage of discoloured grains viz. 1.8, 1.3 and 0.4 for the flowering, milky and dough stage respectively.
- Two rounds of spraying, one at booting and another at flowering stage either with Mancozeb 0.2% or Neem oil 60 EC(A) 3% or *P.fluorescens* 1 kg/ha was found effective for the control of grain, discolouration in rice.

6. 4. Fisheries and Animal Science

- Integrated farming system involving goats, pigs, poultry, duck and fish in association with crop component indicated that duck with fish integration recorded the highest net income of Rs.31217 per ha.
- Studies on stocking density of fish fingerlings in composite fish culture indicated that 7500 fingerlings/ ha is the optimum.
- Of all the cultivable carps stocked, silver carp attained good growth of 1.3 kg each compared to other carps in eleven months.

HORTICULTURAL RESEARCH STATION, PECHIPARAI.

Varieties: PPI-1

Parentage	:	Clonal Selection from Mulagumoodu local
Season	:	Main season (April - May) Off season (September - October)
Yield	:	107 fruits/tree/year (1819 kg)
Adoption	:	50%

A high yielding Cinnamon, brinjal, amaranthus, bread fruit is identified and it is under evaluation.

Management

- Pepper : Application of 100g of Azospirillum + 100g N+ 400g P + 140g K + 10kg FYM per vine per year has given higher yield (1.95 kg dried grain yield/vine).
- Pineapple: 60 x 30 cm spacing recorded higher yield and TSS. Application of 25t of FYM, 800:40:650kg of NPK/ha recorded higher yield and TSS.
- Tapioca: Application of NPK 50:65:125kg/ha recorded maximum tuber yield.
- Nendran Banana: Application of 150g N, 25g P as Mussoriphosphate and 600g of K as muriate of Potash with N & K split into 3 doses 3,5 and 7th month of the crop gave higher bunch yield.
- Red Banana: 25kg of FYM, 25g of Znso4, 500g of Neem cake per plant may correct zinc deficiency.

- Allspice: Dipping hardwood cuttings of Allspice in 1000ppm of IBA/IAA before planting in polybags gave maximum rooting.
- Jasmine: Spraying 1% ferrous sulphate on Jasmine corrected the yellowing of chlorosis.
- Soil survey was done in Kanyakumari district and the fertility status, viz., macro and micronutrients content were analysed.

Nursery activities:

- Production of elite Pineapple suckers and selling to farmers.
- Production of elite pepper cuttings in Panniyur-1, Kuttanadan, Karimunda and Bush pepper cuttings and supplying to farmers.
- Production of Nutmeg grafts, Cinnamon, Clove and Allspice seedlings.
- Production of PPI-1 Jack budded plants and medicinal plants.
- Production of valuable medicinal plants and supplying to farmers.

Plant Protection

- **Coconut**: Root feeding of monocrotophos (5ml) + Dichlorvos (5ml) for the management of repalm weevil.
- **Brinjal**: Soil application of Carbofuran @ 1g/plant on planting and 45 days after planting and drenching the soil with 0.1% Carbendazim (100ml/plant) on 45th and 60th day after planting reduced brinjal will incidence.
- **Pepper**: Premonsoon soil and foliar application of metalaxyl (0.1%) with *Pseudomonas fluorescens* 10g/plant reduced foot rot incidence.
- **Ginger**: Soil drenching of Metalaxyl (0.2%) or Bordeaux mixture (1%) reduced the rhizome rot in Ginger.

7. PROSPECTS OF AGROBASED INDUSTRIES

- Kanyakumari district has got high potentialities on varied crops right from paddy, pulses, oilseeds, fruit crops, vegetables, flower crops, spices and plantation crops. However no major or minor agrobased industries has been set up for processing the above products.
- Eventhough Kanyakumari district is the major source for rubber production only two rubber processing factories have been established.
- Since Kerala is adjacent to Kanyakumari district all produces are being exported to Kerala for higher price. But the fluctuation due to the slump in the world market and import policy of the Govt. the price for the spices like pepper, cardamom and clove become uncertain and hereby 50% reduction in the price of pepper has been observed during 2000-2001. The setting up of a processing industry for the extraction of Oleoresin and production of white pepper will be a boost to farming community to overcome the marketing problem.
- Nendran, Red banana, Kathali and Matti are the major banana types grown in Kanyakumari District. The market depends highly on Kerala and the profit margin of the farmers/ producers is lesser than 60% of the total cost. No cold storage facilities are available for keeping the fruits like mango, pineapple, banana and vegetables during the glut season.
- Improved packing technologies were not observed from the field level for export. The percentage of damage during transport is considerably high.
- Coconut based coir industries are only available in some places of Kanyakumari district and coir wastes are dumped without any use. So setting up of industries for biomanure production, activated charcoal and desiccated coconut will be highly beneficial.
- Tapioca based industry has to be set up since it occupies major area in Kanyakumari district.

- Flower market is highly fluctuating and the establishment of perfume industry will alleviate the marketing problem of the farmers.
- Rice parboiling and processing units has to be set up.
- Dairy based processing industries have also better scope in Kanyakumari District.

8. SUGGESTIONS TO ALLEVIATE THE PROBLEMS AND CONSTRAINTS AND IMPROVEMENT OF AGRICULTURAL PRODUCTIVITY

- The agronomic requirements of rice such as nursery management, stand establishment plant density, weed management, micronutrient deficiency, fertilizer schedule and efficient use of fertilizers in waterlogged 'Ela' conditions are to be standardised.
- Varieties suited for waterlogged conditions with resistance to pest and diseases are to be identified. Varieties identified should have red, thin grain, with high grain and straw yield.
- Suitable mosaic resistant variety of black gram for the rice fallows is to be identified.
- A high yielding variety of clove is needed. The causes and remedies for the periodicity/irregularity in flowering have to be investigated. Manuring and management practices have to be evolved.
- In the hill and 'ela' region, intercropping and multitier cropping system should be adopted since the arable land has been fully exploited.
- Manuring schedules for Nendran, Red banana, Matti and Kathali have to be developed for high rainfall zone and the coastal plains. Suitable intercrops have to be identified for banana.
- A high yielding pest and disease resistant variety of tapioca is required.
- The phenomenon of off-season bearing in mango needs to be manipulated for stability of yield.
- A high yielding variety of cashew suited for the district is required.
- Improved varieties of brinjal, bhendi, gourds, pumpkin, melons and chillies suited for rice fallows have to be identified. Cole crops suited for high rainfall zone are also required.
- High yielding fragrant jasmines and tuberose are required.
- Awareness should be created among the farming community regarding cut flower production since it is gaining importance.
- Better feeding and management practices of dairy animals are essential to increase the milk yield.

- Marketing of farm produces should be done only through regulated markets and Uzhavar Chanthai instead of selling through trade merchants.

9. FUTURE THRUST AREAS OF RESEARCH

- Evaluation of short thin red rice variety suitable for the Kumba poo season (IInd Season) of Kanyakumari District.
- Evaluation of a hybrid variety suitable to Kanyakumari District.
- To develop suitable technologies to combat iron toxicity in rice.
- Identification of rice varieties resistant/tolerant to blast disease under 'Ela' situations.
- Studies on the varietal suitability of crops like pepper, cinnamon, nutmeg and allspice to this region.
- Evaluation of high yielding regular bearing clove types.
- Techniques to standardise the quality of rubber.
- Research on vermi composting of coir waste on large scale basis.
- Nutrient management studies for red banana.
- Evaluation of high yielding brinjal, chillies, amaranthus, bread fruit and minor tubers.
- Studies on the suitability of cut flowers like rose, gerbera, dahlia, tuberose, orchids and anthurium.
- Screening of medicinal plants with promising medicinal principles for large scale production.
- IPM for coconut and banana.
- IDM for pepper, tree spices and ginger.
- Suitable companion crops for multitier cropping in hill regions have to be studied.
- Studies for rectifying gynecological problems of the dairy cattles.
- Possibilities of large scale fish rearing in irrigation ponds and the suitability of different breeds is to be studied.

