



**GOVERNMENT OF KERALA**

**AREA, PRODUCTION AND PRODUCTIVITY  
TREND OF IMPORTANT CROPS  
IN KERALA**

**(From 1985-86 to 2004-05)**

**Department of Economics and Statistics  
Thiruvananthapuram  
December 2006**



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AREA, PRODUCTION AND PRODUCTIVITY  
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IN KERALA

(From 1955-56 to 2007-08)

## PREFACE

Kerala is a state where agriculture is not so predominant as in the neighbouring states. This is due to several factors like increased cultivation cost, shortage of farm labours and comparatively in-attractive price of agricultural produces. Still agriculture sector plays an important role in the state's economy. Agriculture is the main provider of employment to the people of the state even now. The farmer's interest in raising of cash crops rather than food crops is the main feature of agriculture.

In this situation an analysis of production, productivity and area under different crops is very much imperative. The EARAS division of the Directorate has made an attempt to study the trend of Agriculture in Kerala, considering the data for the last 20 years. Sri.T.P. Govindan Kutty, Assistant Director and Sri. A.P Shojan, Research Officer with the active support of all officials in the EARAS division under the guidance of Sri.S. Rajendran, Joint Director made this trend analysis. The analysis is made in simple manner with the support of diagram, graphs etc so that even a layman can get a clear picture of Kerala Agricultural scenario.

The efforts made by the team of officials of the EARAS division are definitely appreciable. I congratulate them in this occasion. I hope that this analytical report will be useful to all those who are interested to study the trend in Kerala agriculture and who require Agricultural Statistics for different purposes.

Thiruvananthapuram,

18/08/2006

M.R. BALAKRISHNAN

DIRECTOR



## TREND ANALYSIS

Kerala is one of the small states of the country (38,854.97 Sq.km) with high density of population (819 per Sq.Km.). The state is well known for its produces like Rubber, Coconut, Arecanut, Tapioca, Coffee, Cardamom and Tea. Kerala is the single largest producer of a number of other crops like Cashew, Ginger and Turmeric. Kerala's cropping pattern is characterised by a predominance of perennial crops.

### Shift area of important crops

#### (1) Paddy

Rice is life-reflects the importance of rice as a primary food source to the Keralites. During 1985-86 nearly 6.78 lakh hectares were under paddy and during 2004-05 it was only 2.90 lakhs ha. Thus within two decades, there is a decline of nearly 3.88 lakh hectares in Kerala. The gross area of paddy in Kerala comes to 7.46 percent of the total geographical area. There is a decline of 57% of area under paddy during this period in the State. The productivity trend of autumn paddy (Rice) during the last decade shows an increase of productivity from 1844 kg/ha to 2295 kg/ha. The same for winter is 2039 kg to 2253 kg and for summer 2519 kg to 2512 kg. The low profitability in paddy cultivation appears to have contributed to the shifting of paddy land to other crops. The future of the rice production in Kerala lies in improving productivity with reasonable cost of production through promotion of high yielding varieties of seeds and scientific management of cultivation to make rice production a remunerative enterprise for the farmers. The paddy fields have been converted for various other crops and for non-agricultural use.

#### (2) Coconut:-

In 1985-86 the area under coconut crop was 7.05 lakhs ha in Kerala. The area under coconut crop has increased to 9.0 lakhs ha in 2004-05. There is an increase of 28% under the area of coconut over a period of 20 years. The productivity of coconut/ha increased from 5638 nuts to 6673 nuts during the period of 10 years. The productivity trend of coconut is not encouraging when compared with other States.

#### (3) Sesamum:-

Other important oilseeds crops are ground nut and sesamum. There is a decrease in the area under groundnut (11010has to1346has) and sesamum (14285 has. to883 has). The decrease in area under sesamum crop is observed in all the districts. The percentage of decrease is 94%. The cultivation of sesamum may not be seen in the state within a few years.

#### (4) Arecanut:-

In 1985-86, the area under Arecanut was 59000 ha. It increased to 1.08 lakhs ha in 2004-05. But the productivity of Arecanut has been declined from 1213 kg/ha to 1026 kg/ha.

(5) **Spices and condiments:-**

The important spices and condiments cultivated are Black pepper, Ginger, Turmeric and Cardamom. In 1985-86, the area under ginger crop was 16000 ha. After 20 years, the cultivated area of ginger is only 10,000 ha. Similarly there is a decline trend in the case of turmeric. In the case of Pepper cultivation, there is a positive trend. But the productivity of pepper shows negative trend. i.e. In 1995-96, the productivity of Pepper was 358 kg/ha. In 2004-05 it has come down to 315 kg/ha. The productivity of Ginger was 3594 kg/ha in 1995-96 and it went up to 4535 kg/ha in 2004-05.

(6) **Plantation Crops :-**

The important plantation crops cultivated are cashew, tea, coffee and rubber. In Kerala, there is an increased percent of area under rubber crop. In 1984-85 the area under rubber was 3.3 lakhs ha. In 2004-05, the cultivated area of rubber is 4.8 lakhs ha. In Kerala, there is an increase of 45 percent of area under rubber plantation. Similarly in the case of Coffee, crop area increased by 29% during the last 20 years. The productivity of rubber was 1057 kg/ha in 1995-96. It is 1437 kg/ha in 2004-05. In 1985-86 the area under Cashew crop was 1.38 lakhs ha. The area under Cashew crop has decreased to 0.82 lakh ha in 2004-05. There is a decline of 41% of area under Cashew crop. The productivity trend declined from 801 kg/ha to 743 kg/ha. There is no negative or positive trend in the case of Tea crop area during the last 20 years. But it is to be noted that the productivity of Tea decreased from 1873 kg/ha to 1413 kg/ha.

(7) **Fruit Crops:-**

The important fruit crops cultivated are banana, pineapple and plantain. In 1985-86 the area under banana crop was 16500 ha and in 2004-05 the area under banana crop area has increased to 59000 ha which accounts 257% percent increase. But the productivity of banana has decreased from 13816 kg/ha in 1995-96 to 8075 kg/ha in 2004-05. In the case of plantain, during the last 20 years, the area has increased by 50%. The productivity of plantain has increased from 4925 kg/ha in 1995-96 to 7619 kg/ha in 2004-05.

(8) **Tapioca:-**

In 1984-85 tapioca was cultivated in 2.03 lakhs ha and its area has decreased to 0.88 lakhs ha in 2004-05. Thus within the span of twenty years there is a decline of nearly one lakh ha in area of tapioca in Kerala. (i.e., 56% of decrease). The productivity in 1995-96 was 22008 kg/ha. Now the productivity of tapioca is nearly 27123 kg/ha. In general, during the last two decades the area under paddy, cashew, tapioca, sesamum, ginger crops declined drastically. The area under rubber, coconut, arecanut, banana, plantain, pepper and coffee have increased. The [productivity of pepper, cashew, tea, arecanut, turmeric and banana are declined.

From the above facts, it is understood that there is a tremendous decline of the cultivation of paddy, tapioca and other cereal substitutes in Kerala. The production of Cash crops like ginger etc. has registered an increase. Rubber production and coconut production



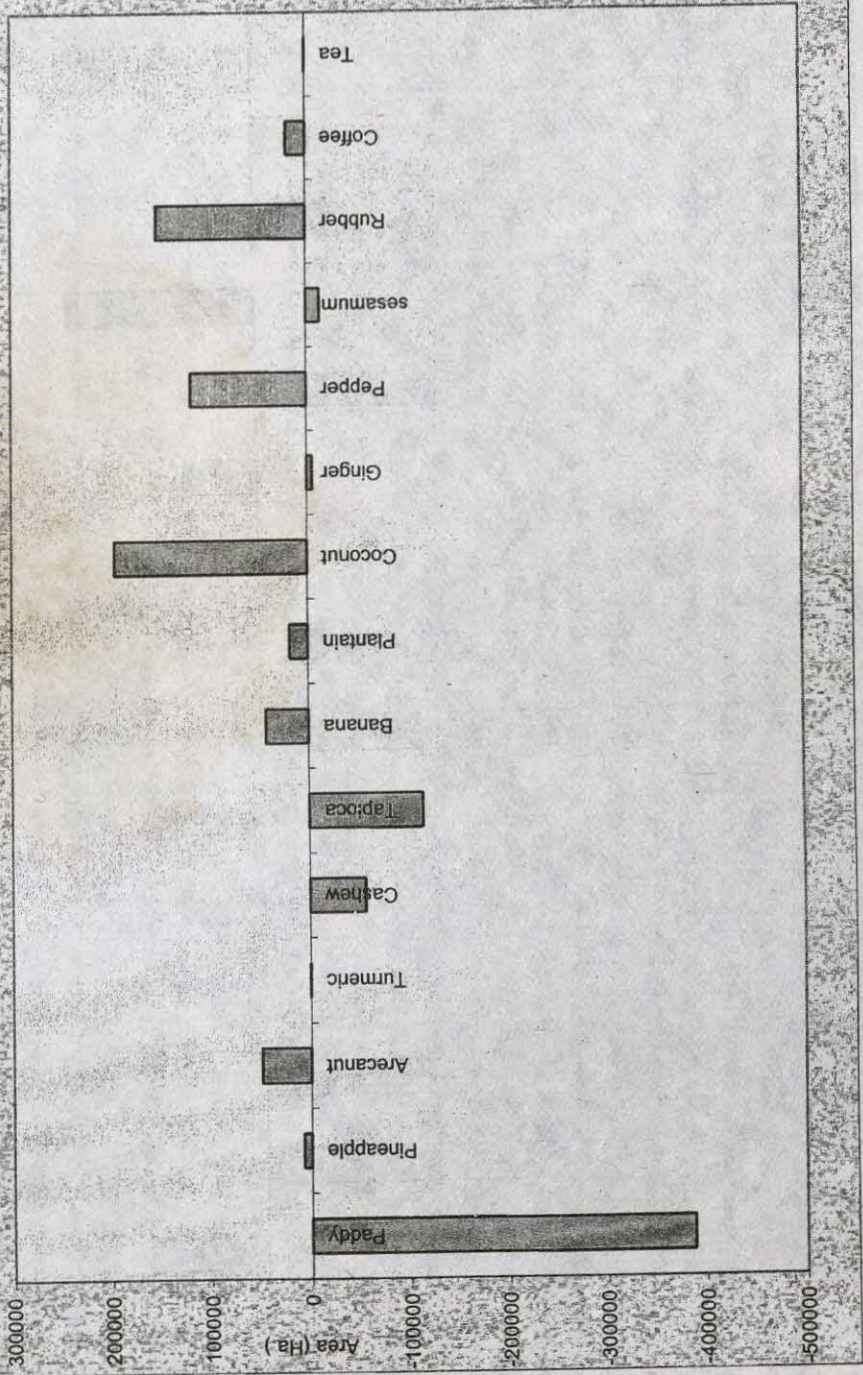
also increased. But the percentage contribution of these crops to the total production shows a downward trend. This is not because of the decline in the area of the cultivation of these crops has decreased but due to the fact that states like Tamil Nadu, Karnataka, Andra Pradesh have started large-scale cultivation of these crops. For example, the area under coconut and its production have registered an increasing trend here, but the percentage contribution of coconut production in Kerala is just 45% in contrast to 75% since twenty years back. Similar is the case with rubber though still now Kerala is the biggest production of rubber in India.

The area under the crops paddy, sesamum, ragi etc., has been declining consistently here. The main factor is the in-attractive price of the produces. Another factor is the increased cost of cultivation in Kerala when compared to other States. The scarcity of labour is yet another factor that defers the cultivators from cultivation. If a fair price, price which is attractive to the cultivators, is assured the paddy production may be increased. Also steps should be initiated to control the conversion of paddy land to non-agricultural uses, which is a menace to the paddy production in the State.

Year	Area (in acres)	Production (in tons)	Percentage of total production
1950	100000	100000	100%
1951	95000	95000	95%
1952	90000	90000	90%
1953	85000	85000	85%
1954	80000	80000	80%
1955	75000	75000	75%
1956	70000	70000	70%
1957	65000	65000	65%
1958	60000	60000	60%
1959	55000	55000	55%
1960	50000	50000	50%

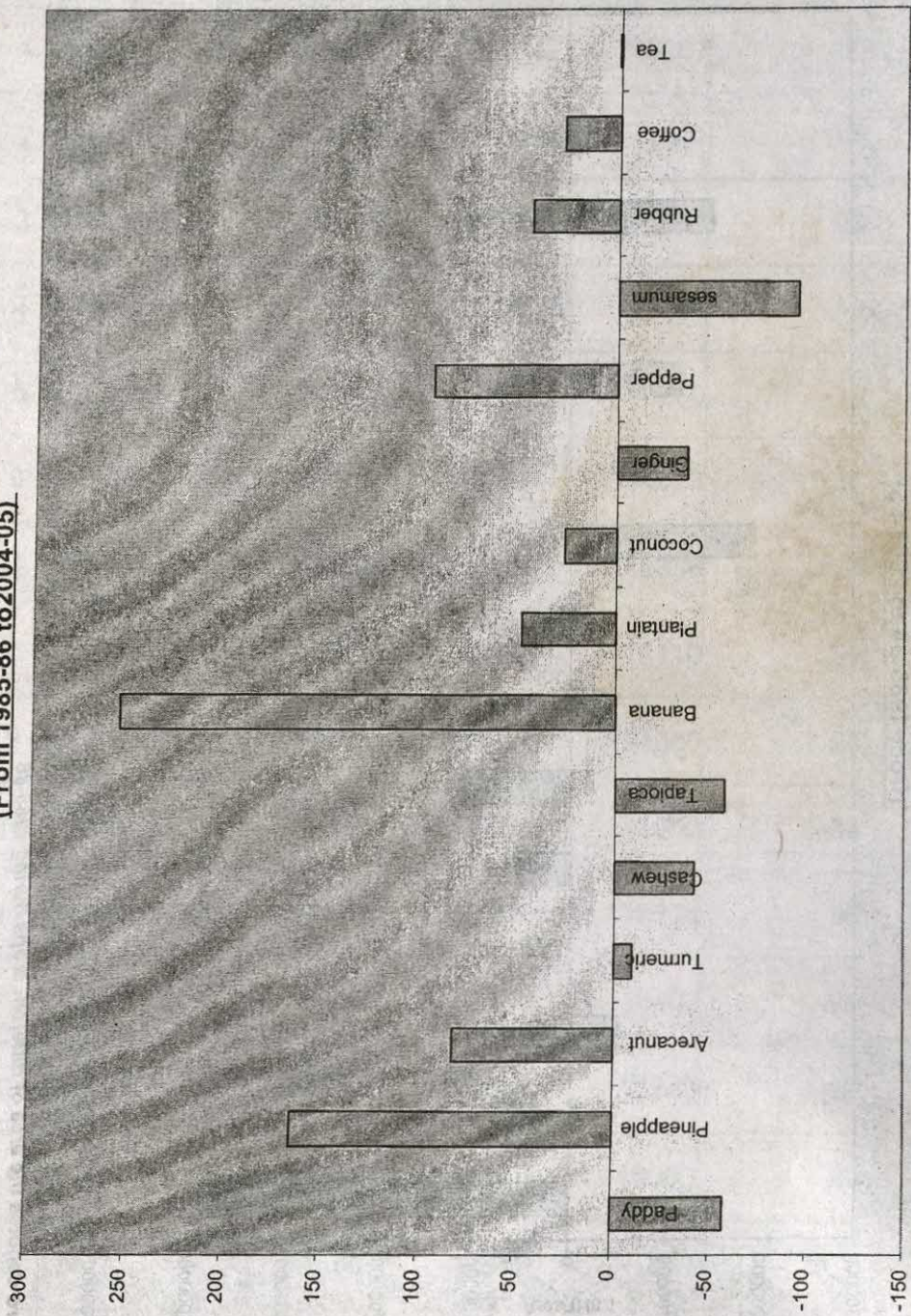
Shift of Area of Important Crops in Kerala from 1985-86 to 2004-05					
Sl. No.	Crop	Area (Ha.) 1985-86	Area (Ha.) 2004-05	Difference	% of Variation
1	Paddy	678281	289974	-388307	-57
2	Pineapple	4779	12680	7901	165
3	Arecanut	58691	107572	48881	83
4	Turmeric	3164	2881	-283	-9
5	Cashew	137747	81547	-56200	-41
6	Tapioca	202919	88486	-114433	-56
7	Banana	16500	58866	42366	257
8	Plantain	36502	54612	18110	50
9	Coconut	704682	899267	194585	28
10	Ginger	15671	9991	-5680	-36
11	Pepper	121565	237669	116104	96
12	sesamum	14285	883	-13402	-94
13	Rubber	330315	480661	150346	46
14	Coffee	65641	84644	19003	29
15	Tea	34760	35040	280	1

**Difference in Area of Important Crops in Kerala  
(from 1985-86 to 2004-05)**



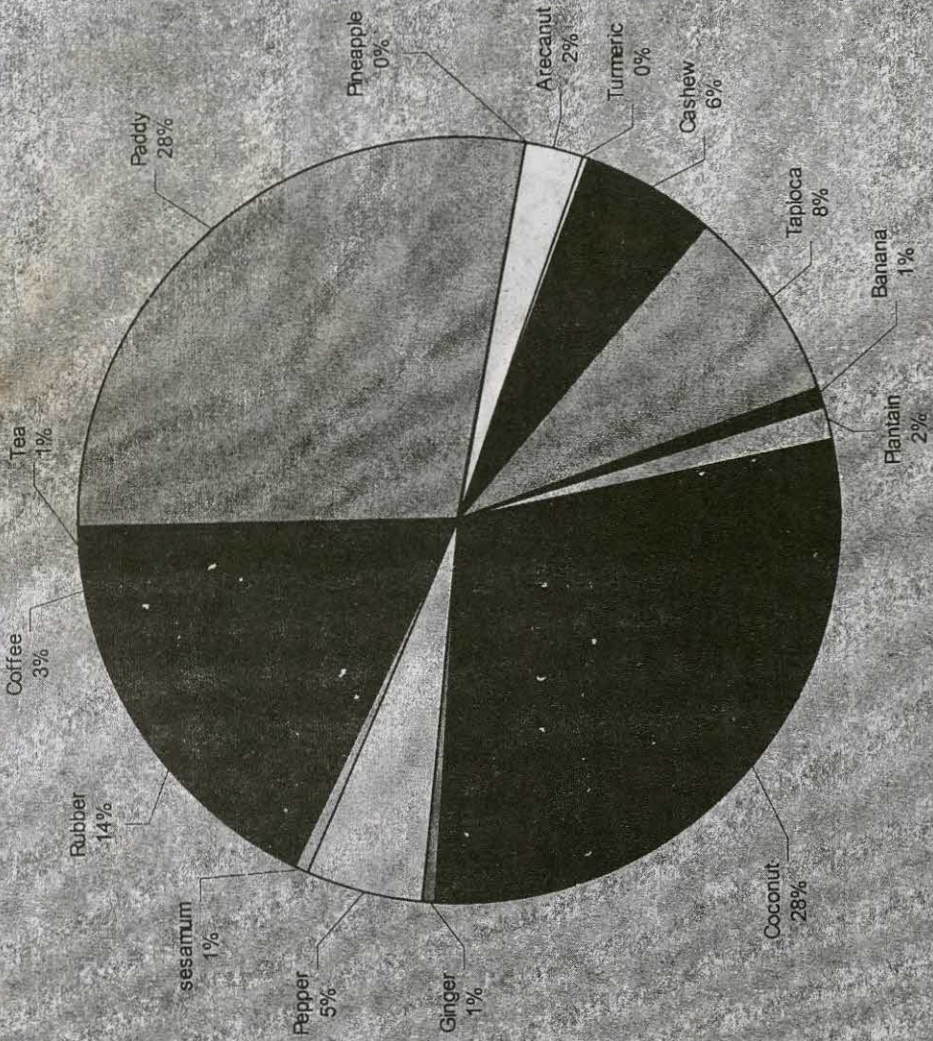
Zero denotes the area of different crops during 1985-86

**% of Variation in Area of Important Crops in Kerala  
(From 1985-86 to 2004-05)**

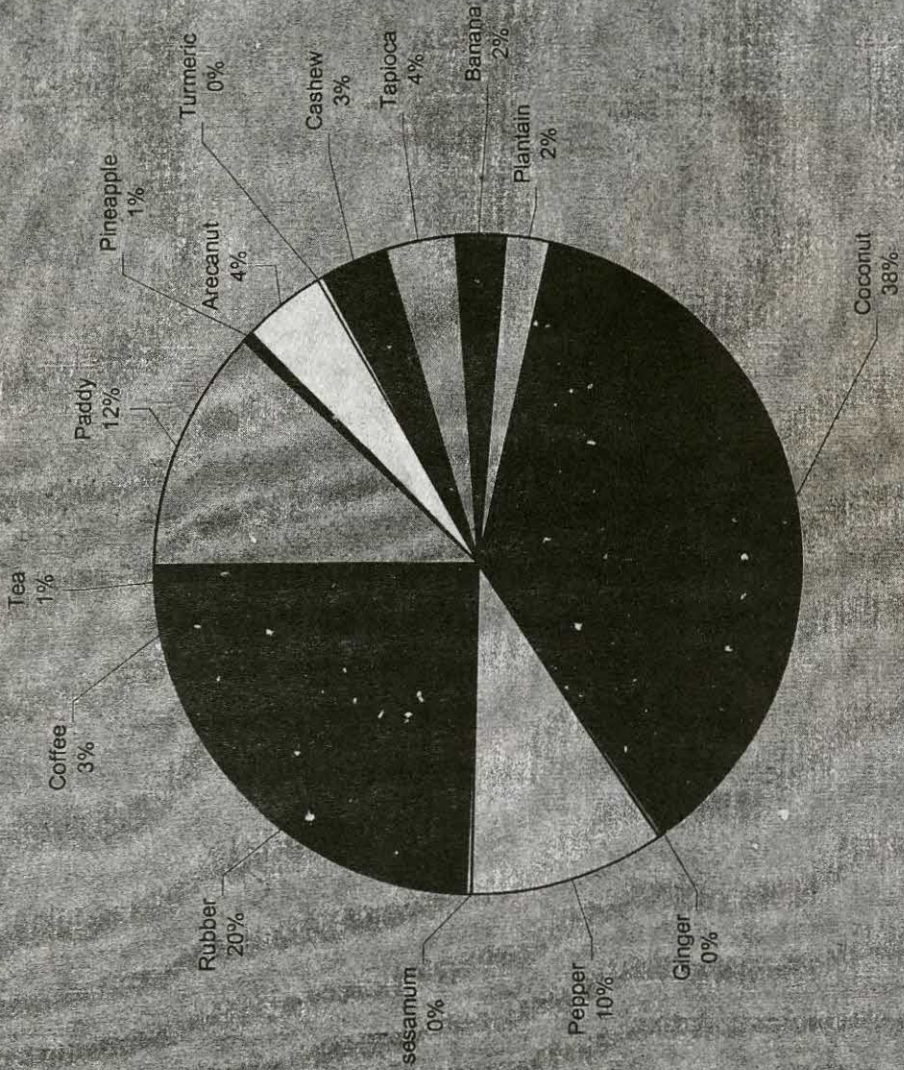


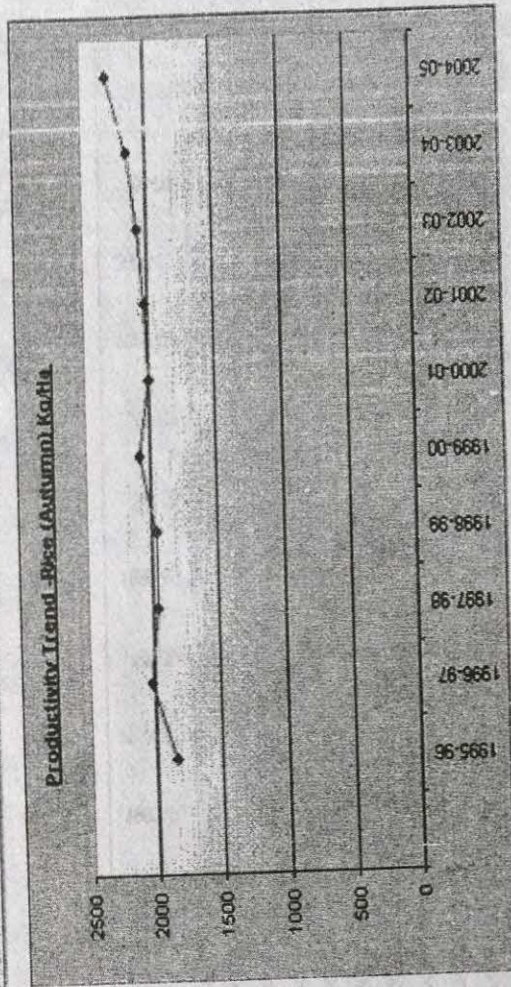
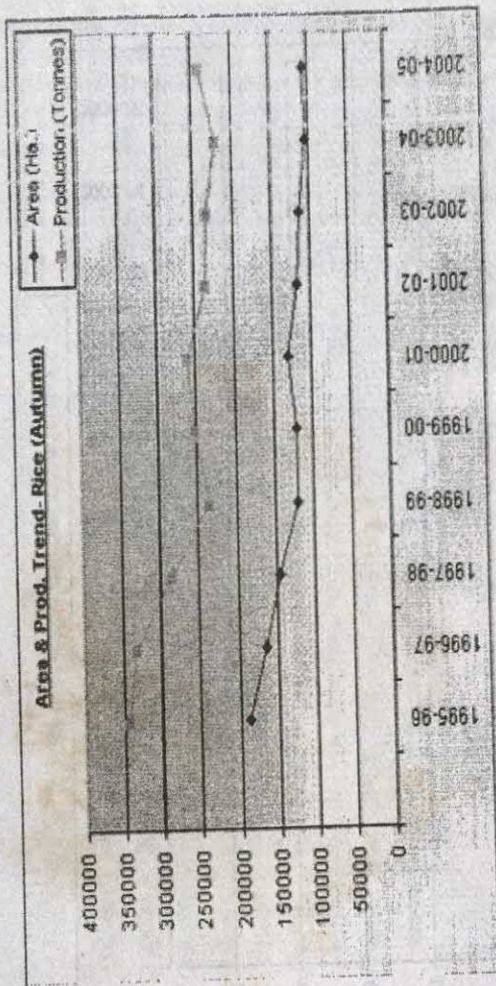
Zero denotes the area of different crops during 1985-86

**Area of important crops in Kerala (1985-86)**



Area of important crops in Kerala (2004-05)

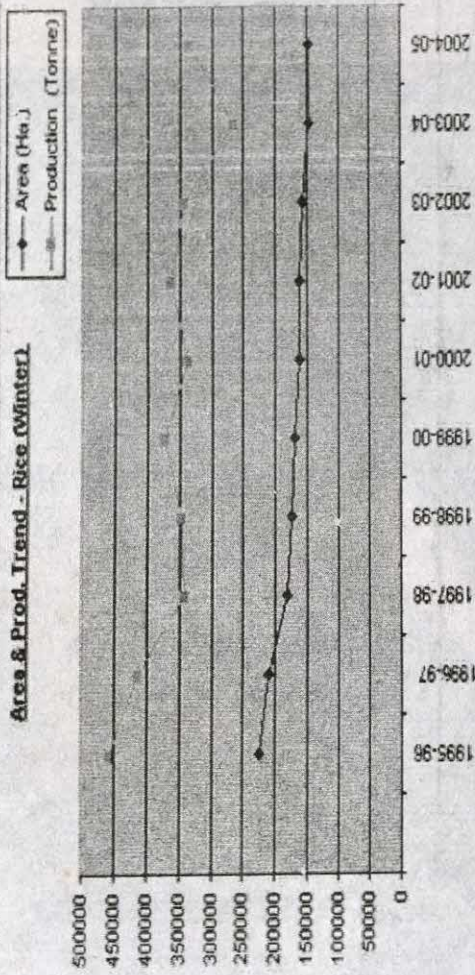




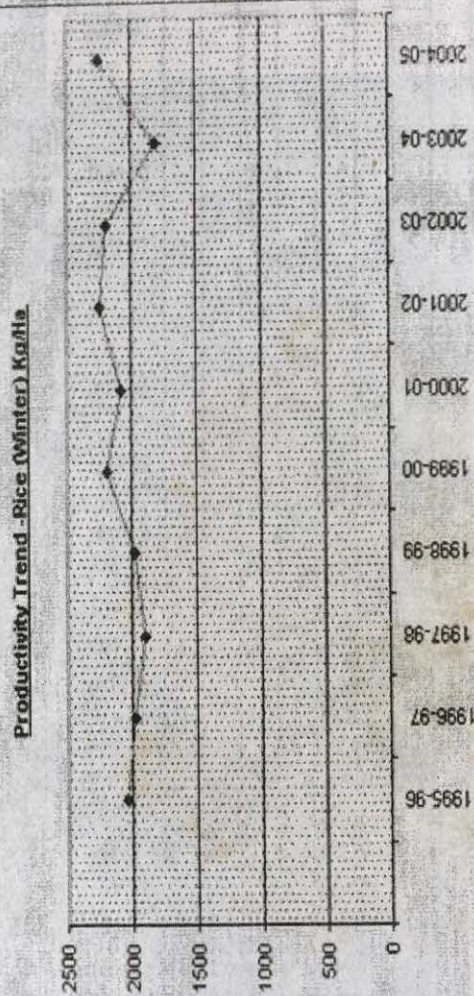
AREA, PRODUCTION AND PRODUCTIVITY OF RICE (AUTUMN) FROM 1995-96 TO 2004-05				
Sl.No	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ Ha)
1	1995-96	186676	344238	1844
2	1996-97	163893	332643	2030
3	1997-98	144743	285328	1971
4	1998-99	120217	235849	1962
5	1999-00	121525	252876	2081
6	2000-01	129752	260306	2006
7	2001-02	116540	235838	2024
8	2002-03	112438	233217	2074
9	2003-04	102770	220132	2142
10	2004-05	105349	241824	2295

AREA, PRODUCTION AND PRODUCTIVITY OF RICE (WINTER) FROM 1995-96 TO 2004-05				
Sl. No.	Year	Area (Ha.)	Production (Tonne)	Productivity (Kg. / Ha)
1	1995-96	224643	458058	2039
2	1996-97	210309	414338	1970
3	1997-98	180701	342353	1895
4	1998-99	174714	346022	1981
5	1999-00	170228	373259	2193
6	2000-01	162445	336416	2071
7	2001-02	161978	362634	2239
8	2002-03	157004	343792	2190
9	2003-04	147384	266674	1809
10	2004-05	148893	335529	2253

Area &amp; Prod. Trend - Rice (Winter)



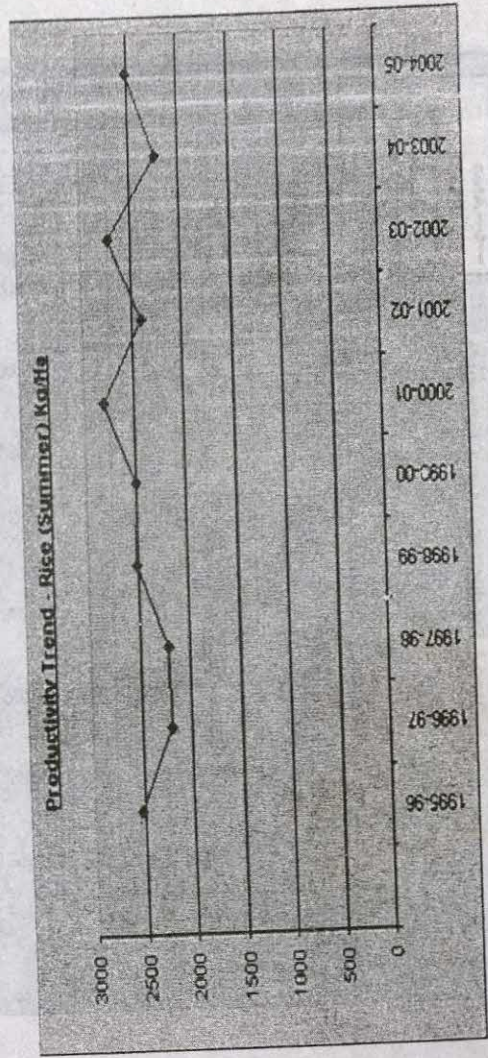
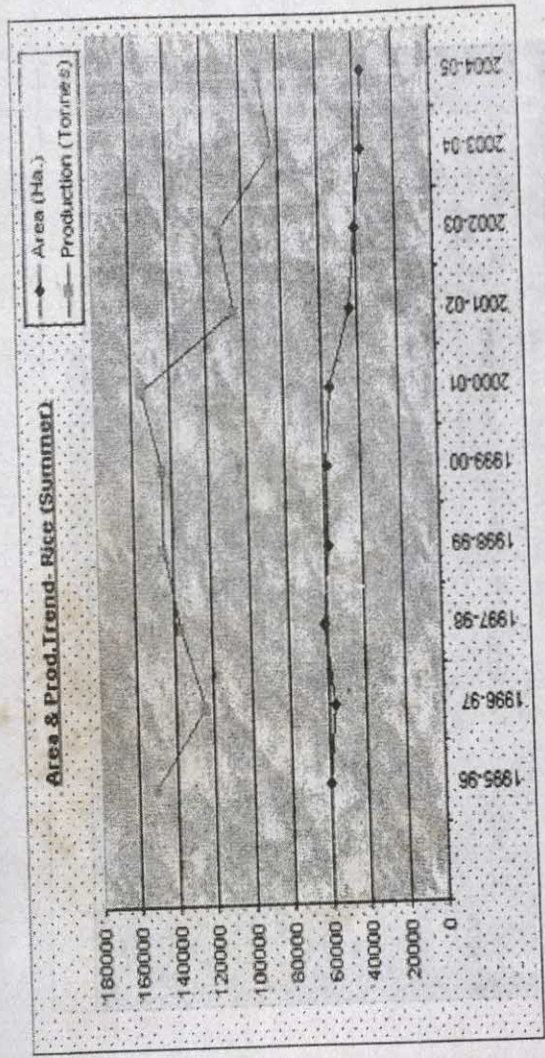
Productivity Trend - Rice (Winter) Kg/Ha



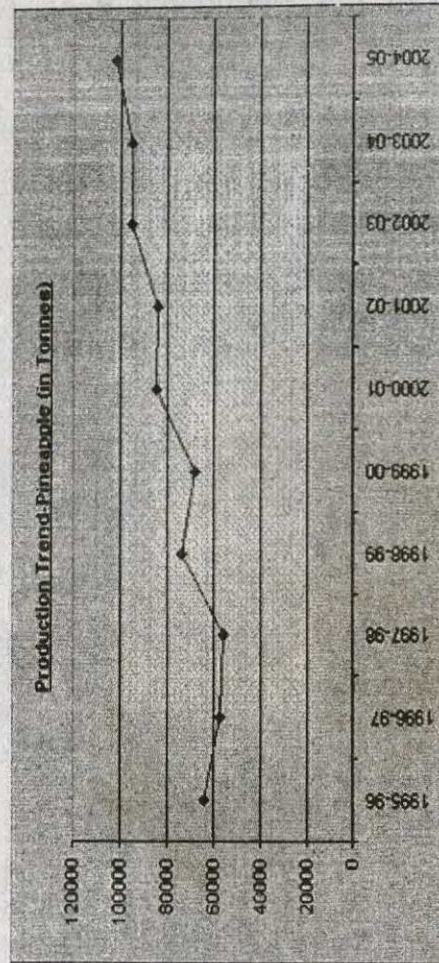
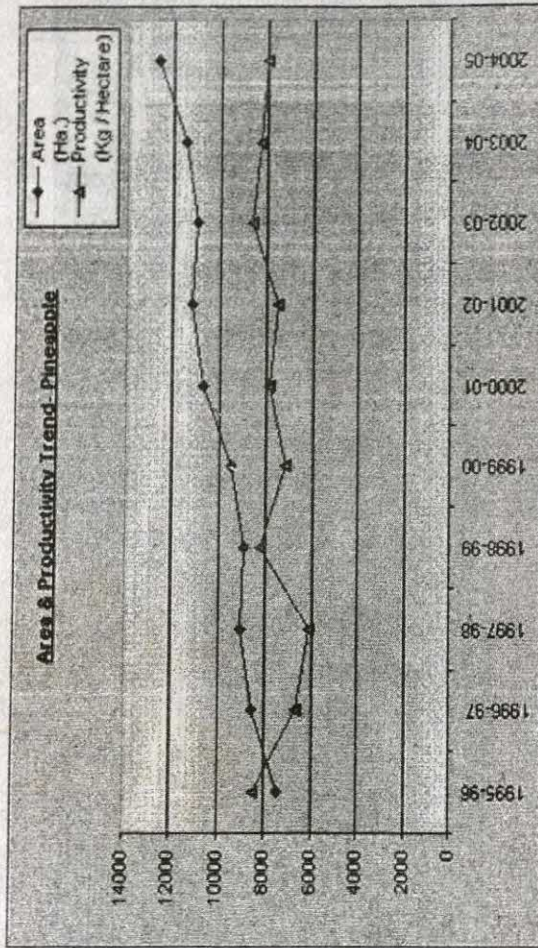


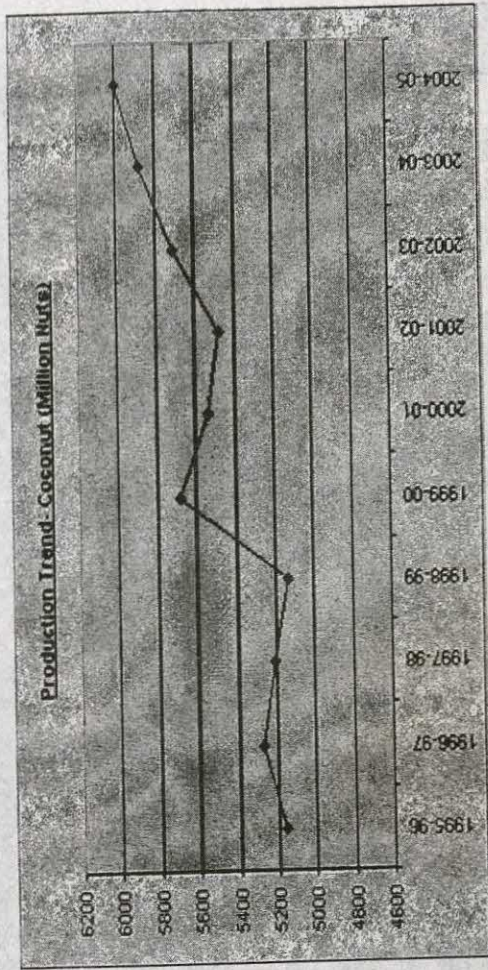
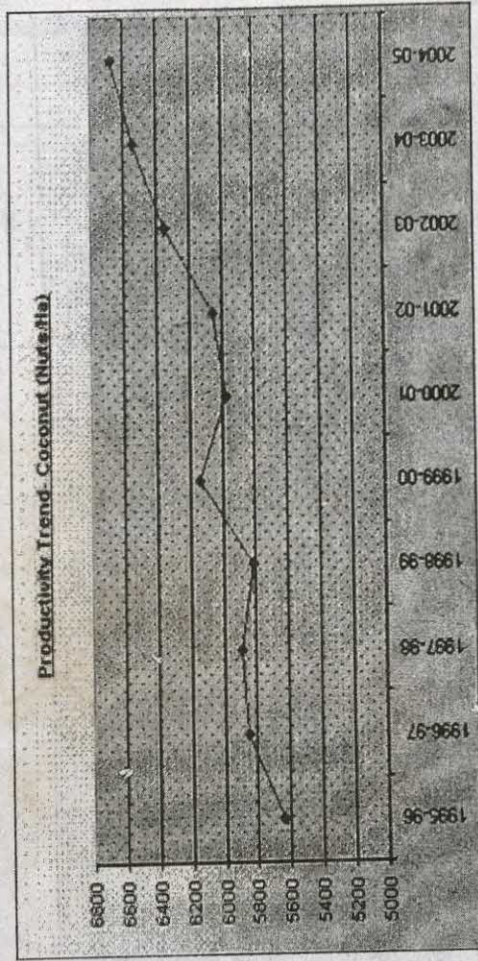
**AREA, PRODUCTION AND PRODUCTIVITY OF RICE (SUMMER) FROM 1995-96 TO 2004-05**

Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg. / Ha)
1	1995-96	59831	150730	2519
2	1996-97	56624	124380	2197
3	1997-98	61678	136929	2220
4	1998-99	57700	144872	2511
5	1999-00	58021	144551	2491
6	2000-01	55258	154606	2798
7	2001-02	43850	105032	2395
8	2002-03	41079	111850	2723
9	2003-04	37186	83239	2238
10	2004-05	35732	89752	2512

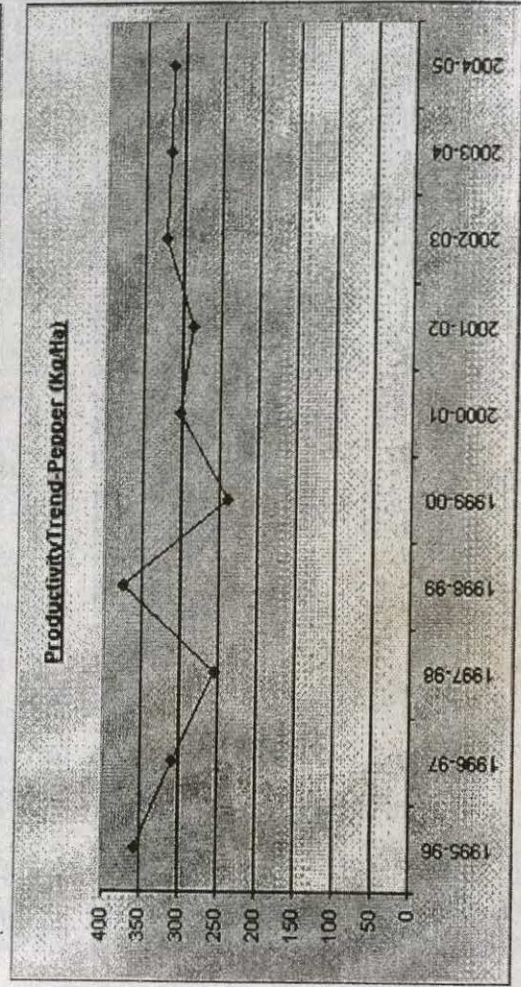
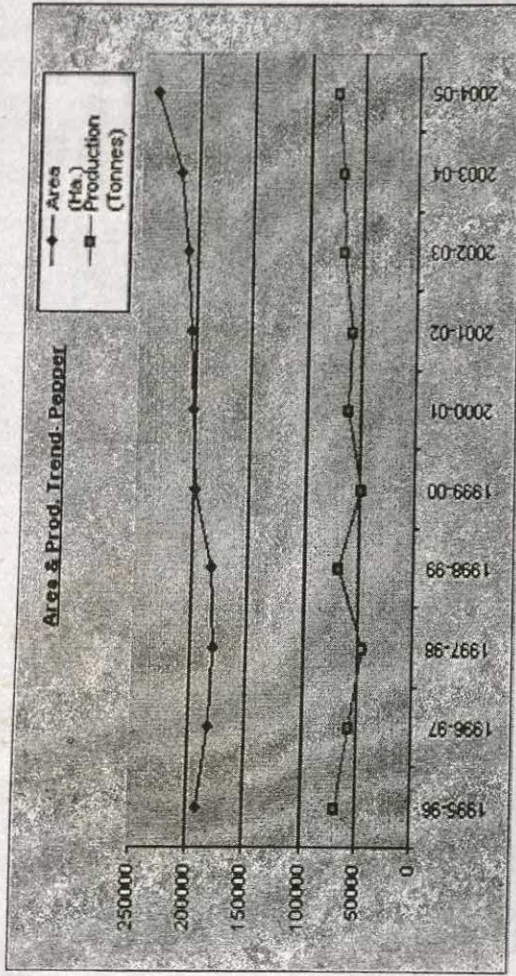


AREA, PRODUCTION AND PRODUCTIVITY OF PINEAPPLE FROM 1995-96 TO 2004-05				
Sl.No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Hectare)
1	1995-96	7490	63800	8518
2	1996-97	8580	57316	6680
3	1997-98	9080	55837	6149
4	1998-99	8963	73707	8223
5	1999-00	9484	68258	7197
6	2000-01	10692	84599	7912
7	2001-02	11159	83873	7516
8	2002-03	10943	94842	8667
9	2003-04	11484	95001	8272
10	2004-05	12680	101912	8037





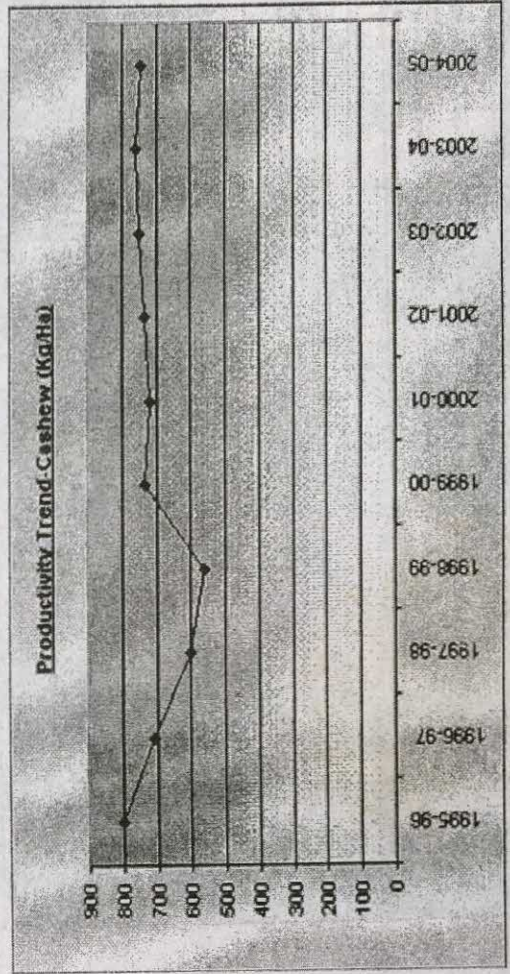
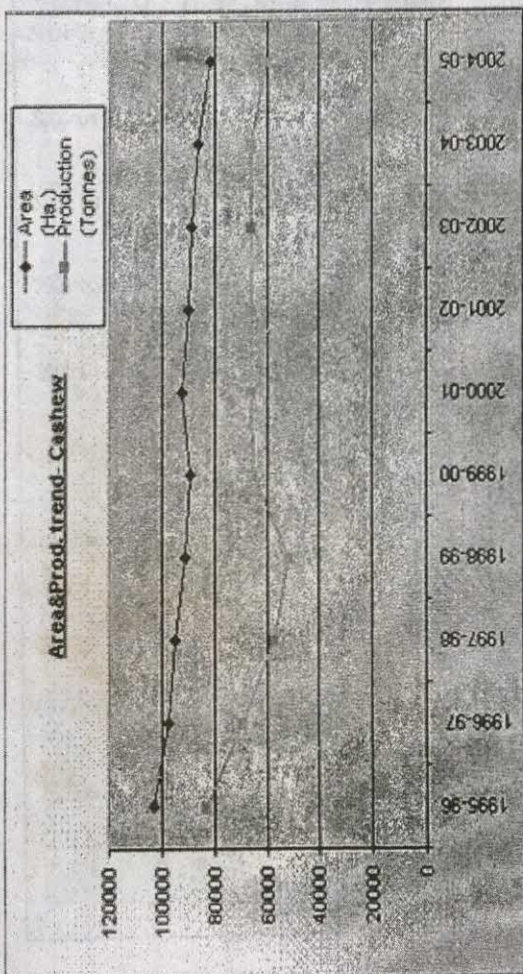
AREA, PRODUCTION AND PRODUCTIVITY OF COCONUT (1995-96 TO 2004-05)				
Sl.No.	Year	Area (Hectares)	Production (Million Nuts)	Productivity (Nuts / Ha.)
1	1995-96	914370	5155	5638
2	1996-97	902104	5276	5849
3	1997-98	884344	5210	5891
4	1998-99	882288	5132	5817
5	1999-00	925035	5680	6140
6	2000-01	925783	5536	5980
7	2001-02	905718	5479	6049
8	2002-03	899198	5709	6349
9	2003-04	898498	5876	6540
10	2004-05	899267	6001	6673



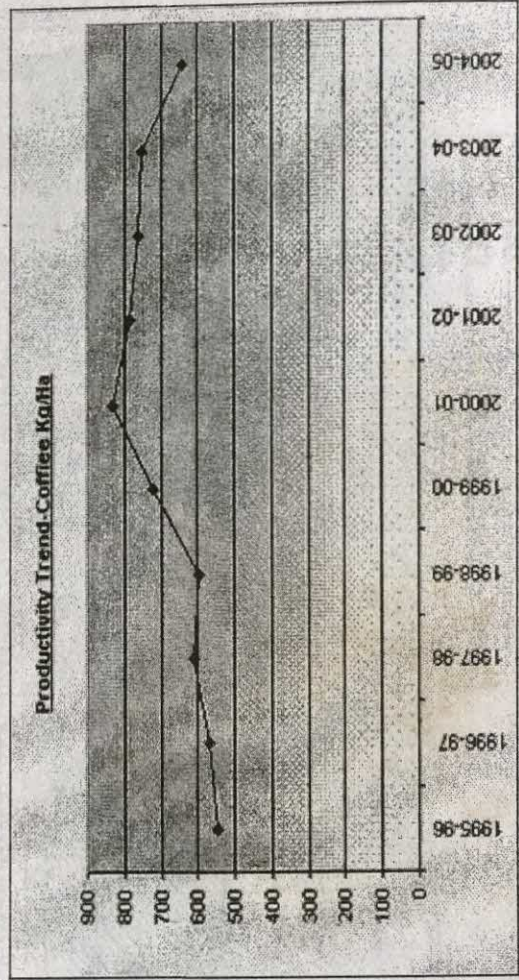
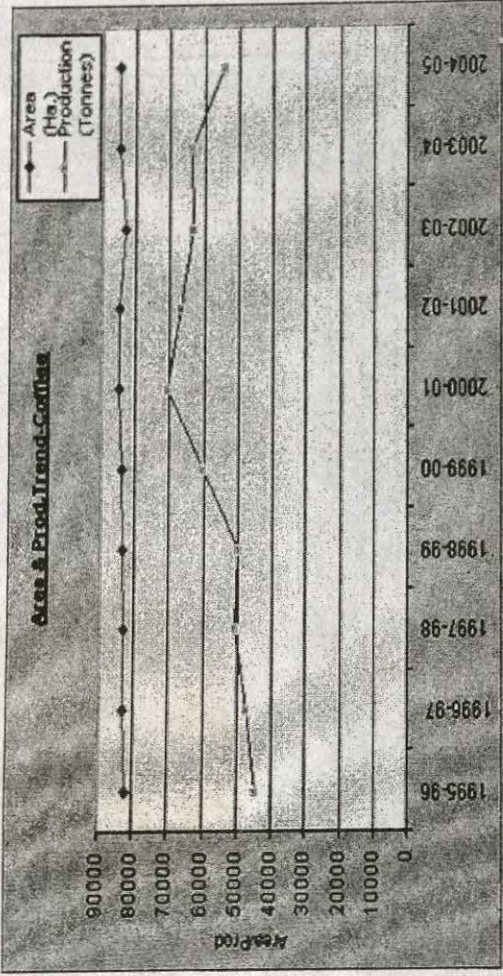
**AREA, PRODUCTION AND PRODUCTIVITY OF PEPPER  
(1995-96 TO 2004-05)**

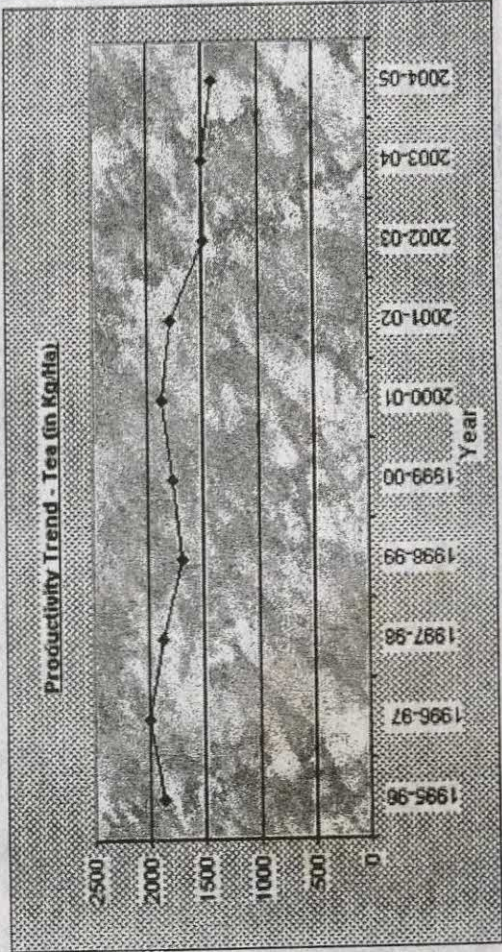
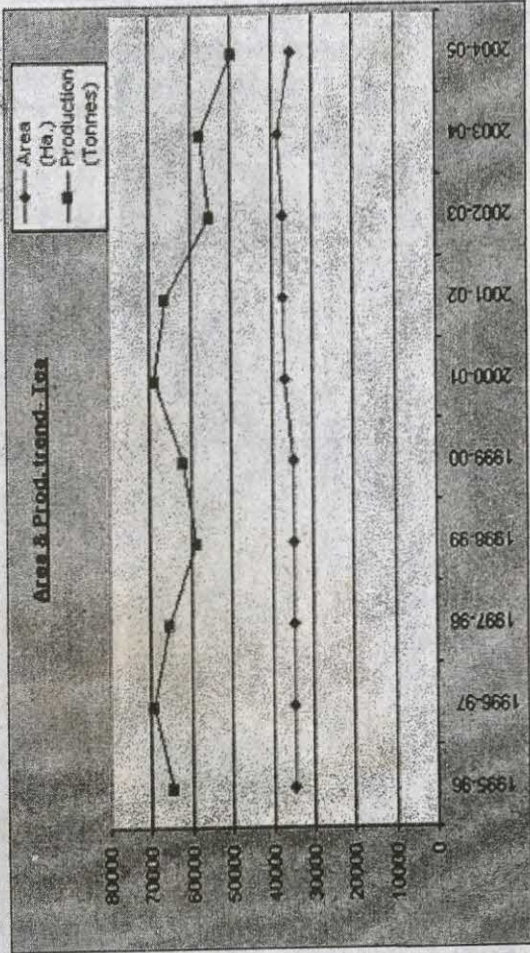
Sl.No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Hectare)
1	1995-96	191596	68568	358
2	1996-97	182887	56546	309
3	1997-98	180370	46040	255
4	1998-99	182384	68510	376
5	1999-00	198406	47543	240
6	2000-01	202133	60929	301
7	2001-02	203956	58240	286
8	2002-03	208607	67358	323
9	2003-04	216440	69015	319
10	2004-05	237669	74980	315

AREA, PRODUCTION AND PRODUCTIVITY OF CASHEW (1995-96 TO 2004-05)				
Sl.No	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	103284	82760	801
2	1996-97	97089	68963	710
3	1997-98	94689	56885	601
4	1998-99	91268	51336	562
5	1999-00	89403	65547	733
6	2000-01	92122	66178	718
7	2001-02	89718	65867	734
8	2002-03	88548	66087	746
9	2003-04	86376	65655	760
10	2004-05	81547	60584	743



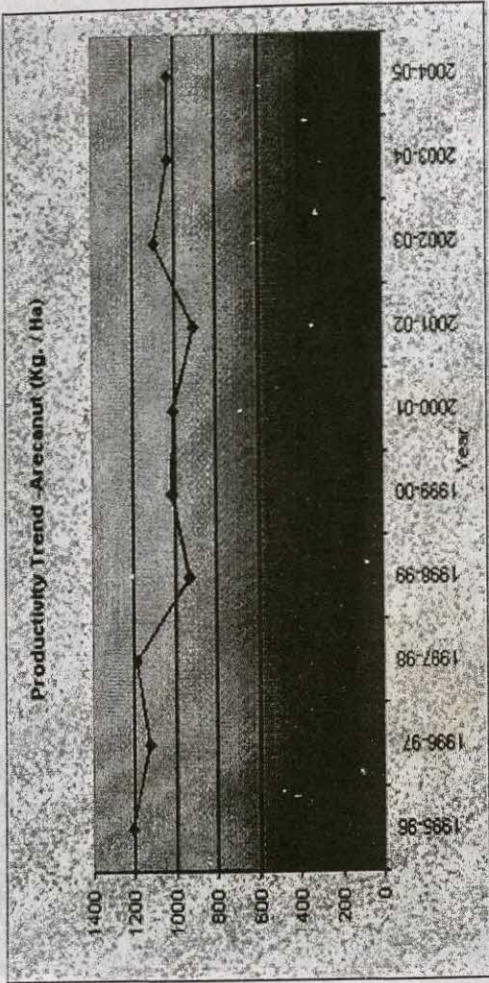
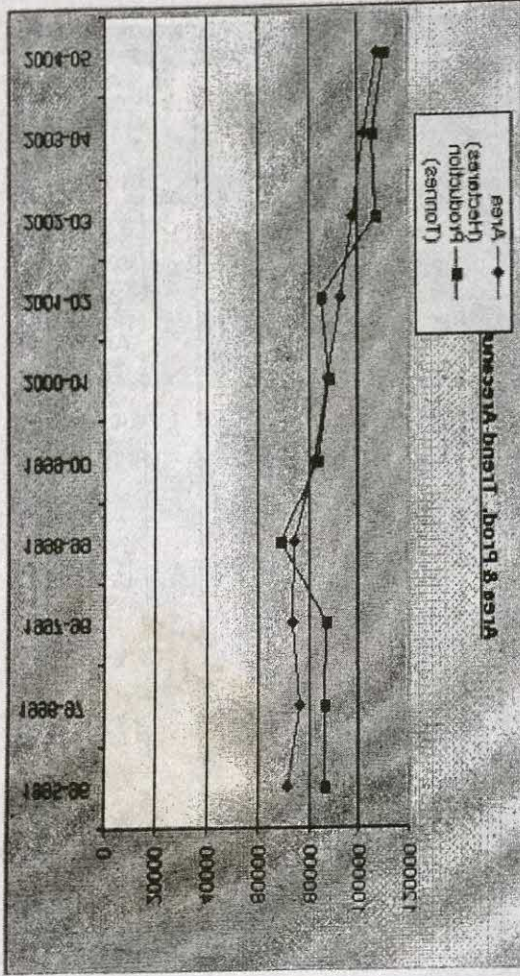
AREA, PRODUCTION AND PRODUCTIVITY OF COFFEE (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	82348	45000	546
2	1996-97	83014	47320	570
3	1997-98	83014	50659	610
4	1998-99	83699	49886	596
5	1999-00	84139	60470	719
6	2000-01	84735	70550	833
7	2001-02	84795	66690	786
8	2002-03	83113	63322	762
9	2003-04	84684	63850	754
10	2004-05	84644	54300	642



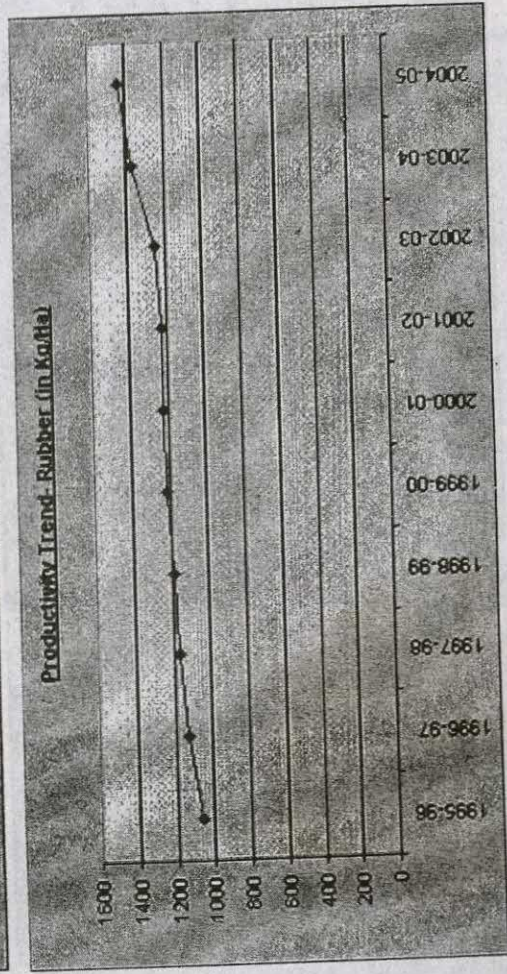
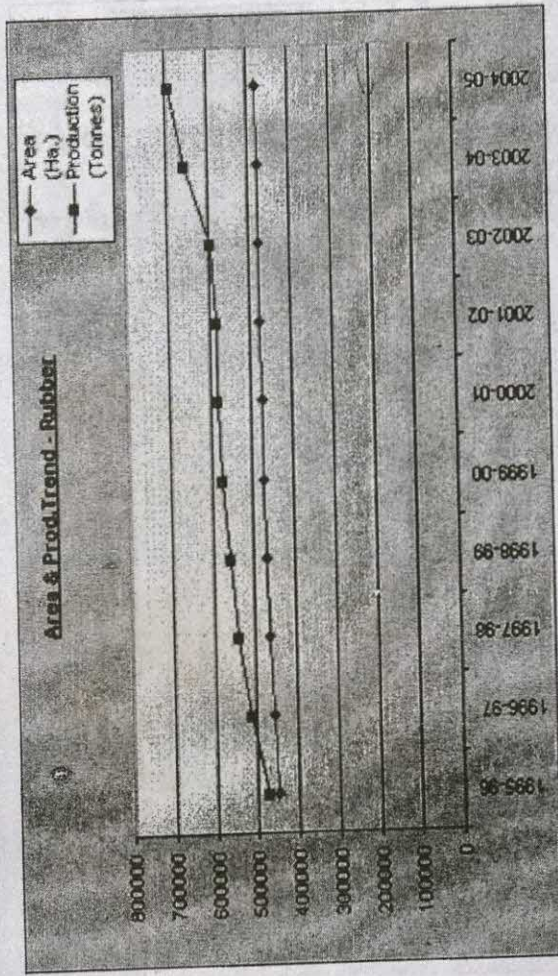


AREA, PRODUCTION AND PRODUCTIVITY OF TEA (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	34605	64802	1873
2	1996-97	34602	69319	2003
3	1997-98	34665	65225	1882
4	1998-99	34690	58726	1693
5	1999-00	34793	61955	1781
6	2000-01	36847	69132	1876
7	2001-02	36899	66090	1791
8	2002-03	37068	55348	1493
9	2003-04	38327	57553	1502
10	2004-05	35040	49508	1413

AREA, PRODUCTION AND PRODUCTIVITY OF ARECANUT (1995-96 TO 2004-05)				
Sl.No.	Year	Area (Hectares)	Production (Tonnes)	Productivity (Kg./Ha)
1	1995-96	70899	86032	1213
2	1996-97	76066	85829	1128
3	1997-98	73351	87038	1187
4	1998-99	73639	68479	930
5	1999-00	81941	83337	1017
6	2000-01	87360	87947	1007
7	2001-02	93193	84681	909
8	2002-03	97485	107279	1100
9	2003-04	102504	105490	1029
10	2004-05	107572	110340	1026

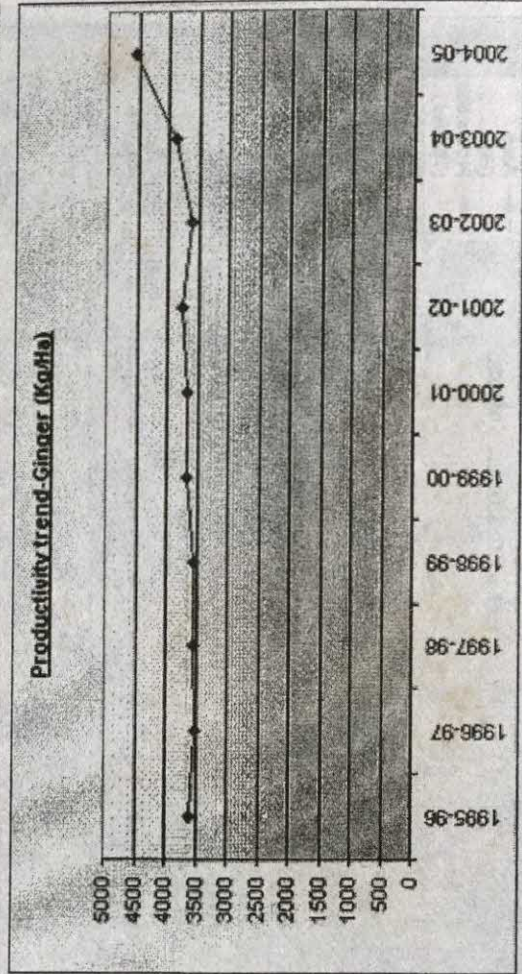
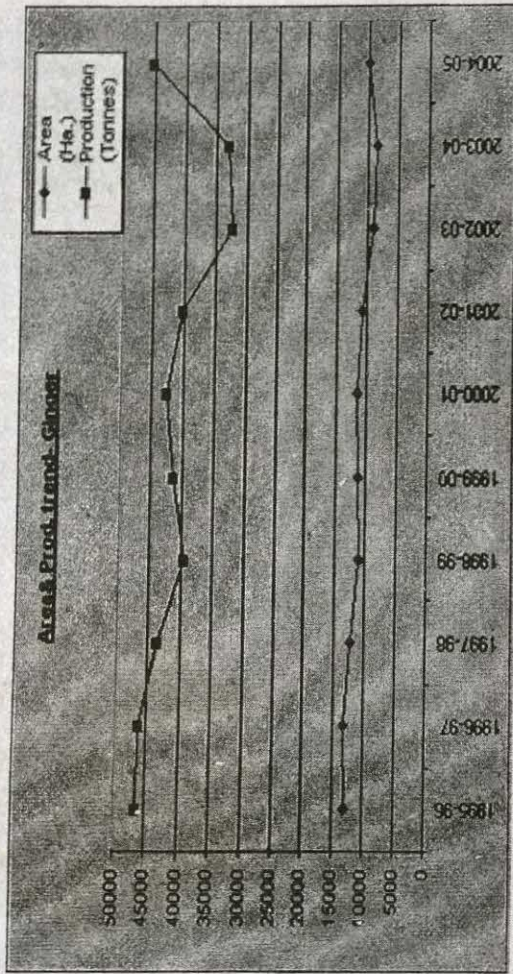




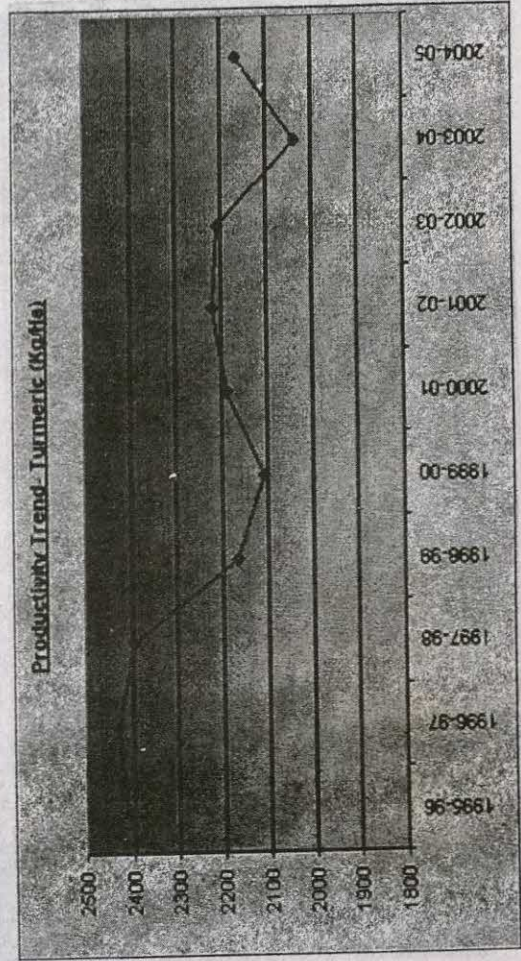
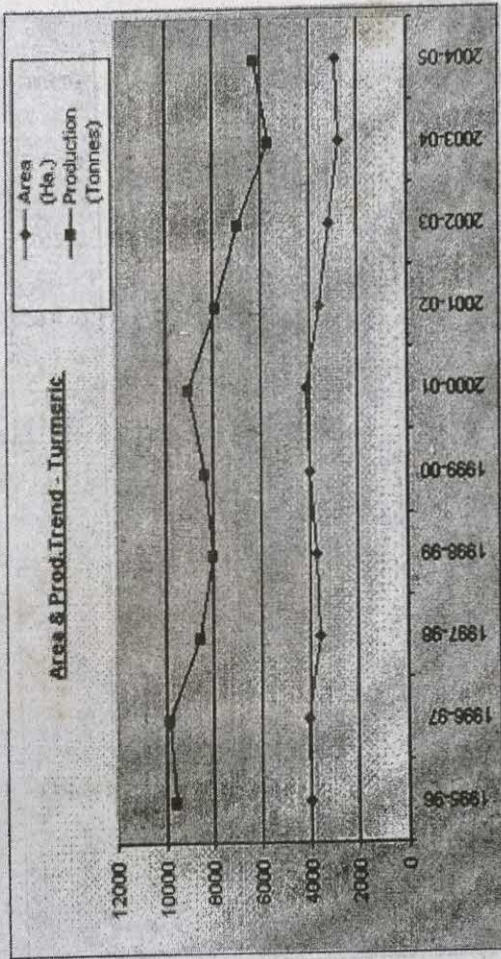


AREA, PRODUCTION AND PRODUCTIVITY OF RUBBER (1995-96 TO 2004-05)				
Sl.No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	448988	474555	1057
2	1996-97	455566	512756	1126
3	1997-98	465282	541935	1165
4	1998-99	469924	559099	1190
5	1999-00	472900	572820	1211
6	2000-01	474364	579866	1222
7	2001-02	475039	580350	1222
8	2002-03	476047	594917	1250
9	2003-04	478402	655134	1369
10	2004-05	480661	690778	1437

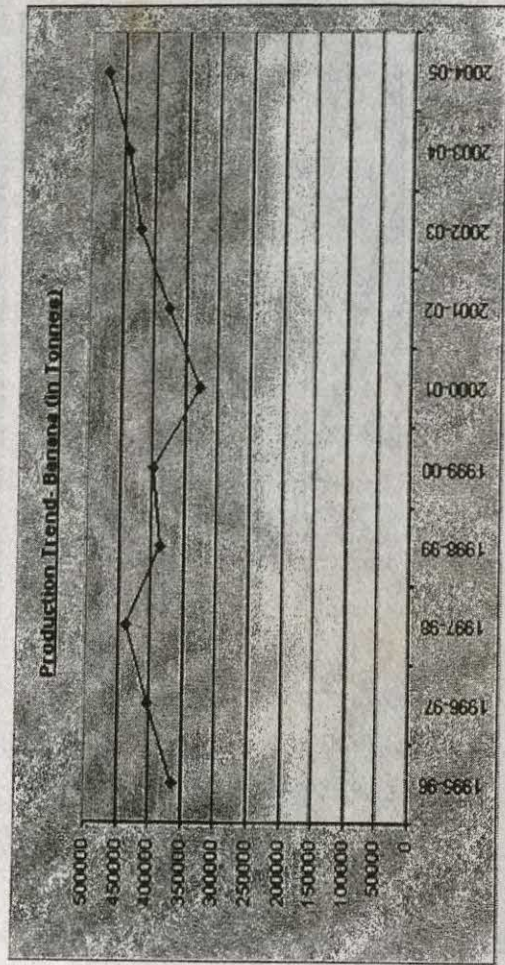
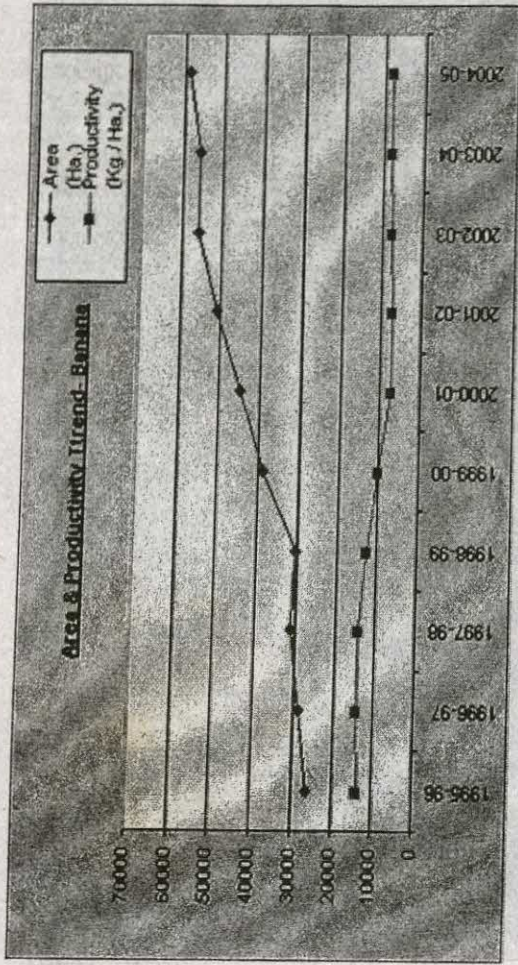
AREA, PRODUCTION AND PRODUCTIVITY OF GINGER (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	12925	46455	3594
2	1996-97	13199	46371	3513
3	1997-98	12352	43617	3531
4	1998-99	11107	39362	3544
5	1999-00	11264	41344	3670
6	2000-01	11612	42699	3677
7	2001-02	10706	40181	3753
8	2002-03	8998	32412	3602
9	2003-04	8516	32972	3872
10	2004-05	9991	45305	4535



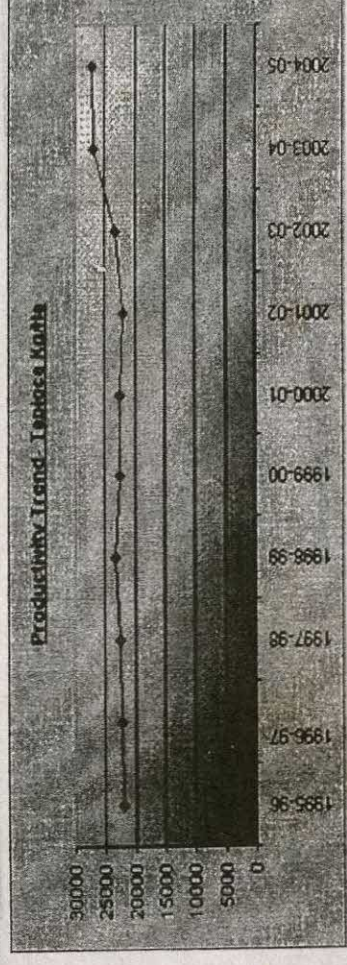
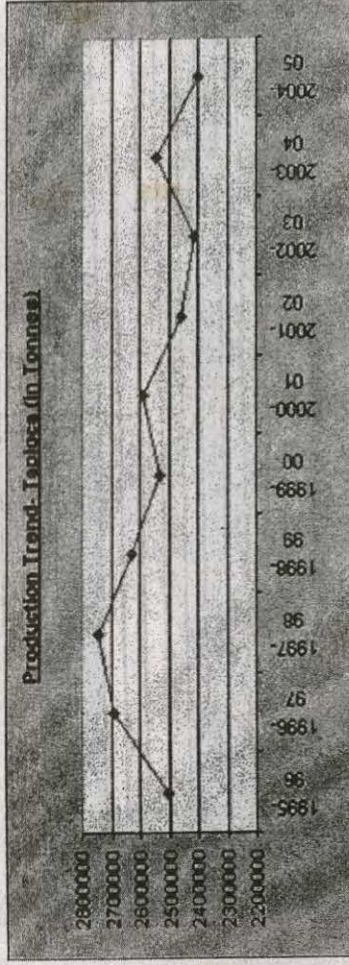
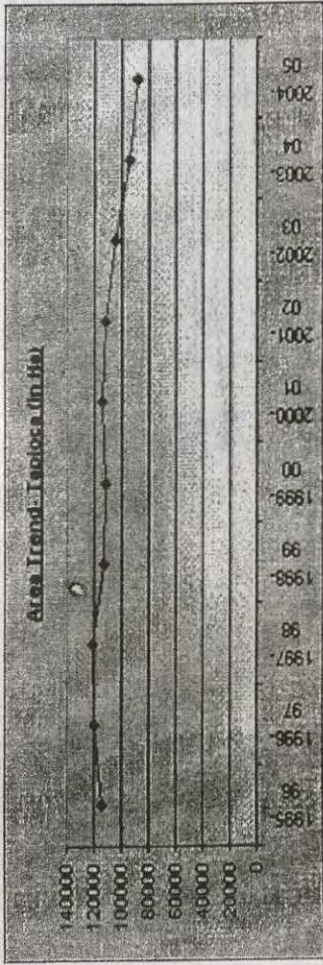
AREA, PRODUCTION AND PRODUCTIVITY OF TURMERIC (1995-96 TO 2004-05)				
Sl.No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	3968	9559	2409
2	1996-97	4053	9840	2428
3	1997-98	3586	8585	2394
4	1998-99	3706	8034	2168
5	1999-00	3971	8362	2106
6	2000-01	4127	9037	2190
7	2001-02	3558	7895	2219
8	2002-03	3140	6938	2210
9	2003-04	2774	5652	2037
10	2004-05	2881	6244	2167



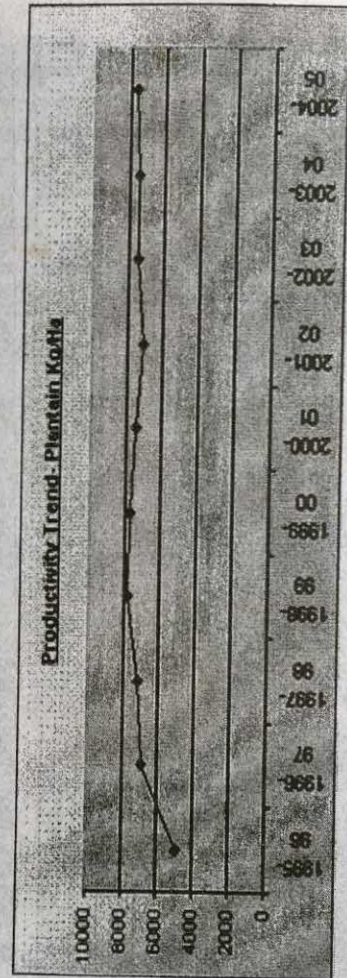
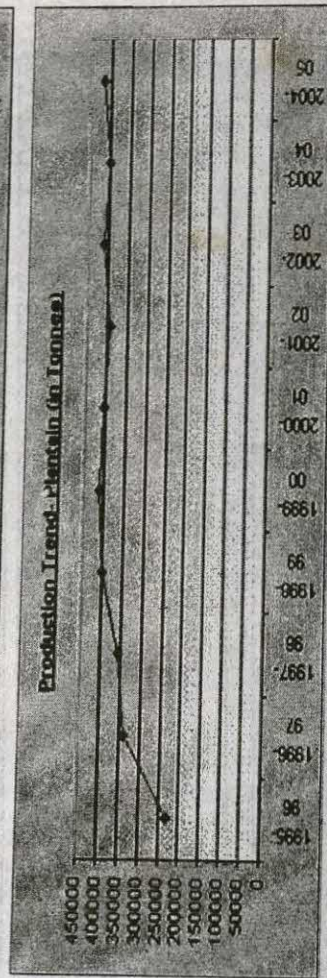
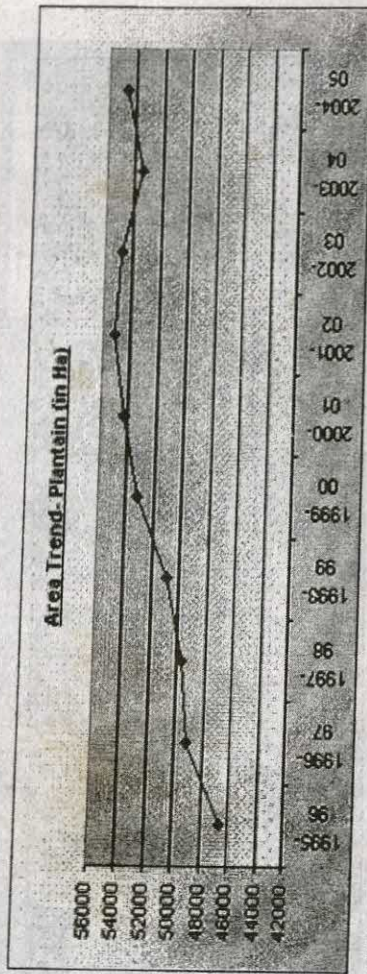
AREA, PRODUCTION AND PRODUCTIVITY OF BANANA (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	26267	362917	13816
2	1996-97	28855	403673	13990
3	1997-98	31001	436717	14087
4	1998-99	30521	386588	12666
5	1999-00	39046	398145	10197
6	2000-01	45059	327955	7278
7	2001-02	50871	375903	7389
8	2002-03	55668	421809	7577
9	2003-04	55906	442220	7910
10	2004-05	58866	475371	8075



AREA, PRODUCTION AND PRODUCTIVITY OF TAPIOCA (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	113601	2500113	22008
2	1996-97	120387	2691118	22354
3	1997-98	121389	2741696	22586
4	1998-99	112774	2630155	23322
5	1999-00	111922	2531752	22621
6	2000-01	114609	2586903	22572
7	2001-02	111189	2455880	22087
8	2002-03	104179	2413217	23164
9	2003-04	94297	2540790	26945
10	2004-05	88486	2400043	27123



AREA, PRODUCTION AND PRODUCTIVITY OF OTHER PLANTAINS (1995-96 TO 2004-05)				
Sl. No.	Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg / Ha.)
1	1995-96	46594	229493	4925
2	1996-97	49224	338871	6884
3	1997-98	49639	356622	7184
4	1998-99	50947	397986	7812
5	1999-00	53252	410566	7710
6	2000-01	54353	403695	7427
7	2001-02	55183	393182	7125
8	2002-03	54811	409282	7467
9	2003-04	53496	399717	7472
10	2004-05	54612	416115	7619



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