

## Area and Production of Cardamom in Kerala

V.Balakrishnan

Assistant Professor, PG and Research Department of Economics ,  
A.A.Government Arts College, Musiri, Tricity District, Tamil Nadu, India.

### Abstract

Cardamom is one of the most ancient and valuable spice crops of India. Cardamom is a native of evergreen forests of South India, growing wild in the western Ghats between 2500 and 5000 ft. Small cardamom botanically known as "Elettaria cardamom Maton" is cultivated in India in the hilly tracts of the three southern states of Kerala, Karnataka and Tamilnadu. Cardamom also occupies a prominent place in the matter of area and production. Kerala accounts for 51.76 per cent of the area and 66 per cent of the production of cardamom in the country. Kerala has the largest state in cardamom, as in the case of rubber. Cardamom (small) is grown in the three Southern States of Kerala, Karnataka and Tamil Nadu. Presently there are 40,530 growers and the total area under the crop is about 81,000 hectares." Small holdings up to 8 hectares account for 98 per cent of the holdings covering 62 per cent of the area. Kerala accounts for about 52 per cent of the area under small cardamom in India.<sup>23</sup> 4.12.2 Production Among the plantation crops, cardamom production is greatly influenced by climatic conditions and is also most susceptible to attack by pests and diseases. Kerala accounts for 66 per cent of the country's total production of cardamom, which is 4,185 tonnes in 1995-'96. Cardamom has showed a marked increase in productivity, i.e., 96 per cent during the same period.

**Key word :** Spices, cultivation, plantation, area

### Introduction

India is the homeland for spices and cardamom is popularly known as the "Queen of the Spices". Cardamom belongs to the ginger family (Zingiberacea). Cardamom is grown in the high ranges of Kerala. Most of the high ranges suitable for cardamom cultivation are located in Idukki district and hence the district lists the top right from the beginning.

### Methodology and data

The present study follows area and production of small cardamom in Kerala based on secondary data related to cardamom were collected for the period 14 years from 1992-93 to 2005-06. In Kerala three districts, viz., Idukki, Waynad and Palakkad, were selected for the study. Secondary data were collected from the Directorate of Economics and Statistics, Government of Kerala.

## Results and Discussion

### District-wise Area under Cardamom in Kerala

The district-wise area under cardamom production from 1992-93 to 2005-06 and the percentage share of each district to the total are presented in following Table-1.

Table-1

Year	District								Total	
	Idukki		Wayanad		Palakkad		Others			
	Area in ha.	%	Area in ha.	%	Area in ha.	%	Area in ha.	%	Area in ha.	%
1992-93	31824	73	4350	10	3685	9	3529	8	43388	100
1993-94	31895	73	5544	13	3685	9	2335	5	43459	100
1994-95	32536	74	4350	10	3685	8	3666	8	44237	100
1995-96	32547	74	4350	10	3685	8	3666	8	44248	100
1996-97	32069	78	4117	10	2949	7	2133	5	41268	100
1997-98	32077	79	4108	10	2949	7	1733	4	40867	100
1998-99	32686	79	4108	10	2928	7	1727	4	41449	100
1999-00	32667	79	4108	10	2919	7	1797	4	41491	100
2000-01	32671	79	4108	10	2701	7	1808	4	41288	100
2001-02	32668	79	4106	10	2754	7	1808	4	41336	100
2002-03	32743	79	4107	10	2754	7	1808	4	41412	100
2003-04	32815	79	4106	10	2754	7	1657	4	41332	100
2004-05	32856	79	4110	10	2756	7	1656	4	41378	100
2005-06	32940	77	4114	10	2784	7	1665	6	41503	100
Average	32499	79	4263	10	3071	7	2213	4	42046	100

Source: Agricultural Statistics, Department of Economics and Statistics, 2007, Cochin.

In the State of Kerala three districts are the potential place for cardamom plantation. Among the three districts and others are under cardamom plantation is analysed and the data is given in Table 1. From the table-1 it was inferred that the Idukki district enjoys top place compared to Palakkad, Wayanad and others. The district Wayanad is found to be the second place followed by Palakkad district in Kerala. The area under cardamom cultivation ranges from 73 to 79 per cent in Idukki, 10 to 13 per cent in Waynad, 7 to 9 per cent in Palakkad and 4 to 8 per cent with others. The table reveals that total area under cardamom cultivation tends to decline after 1996-97 onwards in the State of Kerala itself.

It is also clear from the analysis that the average area under cardamom cultivation in Idukki district was about 32499 hac., whereas in Palakkad district 3071 hac. and in Wayanad district it was 4263 hac. In other words Idukki district alone accounts for an average of 79 per cent, followed by Wayanad district 10 per cent and Palakkad district by seven per cent of area under cardamom cultivation in Kerala during the study period.

The compound growth rate and coefficient of variation of district-wise area under cardamom cultivation in Kerala are presented in Table 2.

Table -2

District	Log Linear		R2	Coefficient of Variation in percentage	Compound Growth Rate in Percentage per annum
	Constant	Reg. Co-efficient			
Idukki	10.373 (0.005)	0.0024** (0.002)	0.659	1.3	0.6
Wayanad	8.45 (0.042)	-0.0125* (0.006)	0.338	9.4	-2.9
Palakkad	8.238 (0.038)	-0.0299** (0.006)	0.789	13.7	-7.3

Source: Compiled from Table-2.

Figures in parentheses are standard errors.

\*\* - Significant at one per cent level

\* - Significant at five per cent level.

It is observed from Table-2 that the growth rate of area under cardamom cultivation in Idukki district was positive and statistically significant at one per cent level. The compound growth rate indicates that the area under cardamom cultivation increased at the rate of 0.6 per cent per annum in Idukki district, whereas the growth rate was negative in Palakkad district (-7.3%) and in Wayanad district (-2.9%). The coefficient of variations indicates that the growth consistency in Idukki was comparatively uniform than that have Palakkad and Wayanad districts during the period under study.

#### Production of cardamom in Kerala

The production of cardamom from 1992-93 to 2005-06 and its percentage share of each district of Kerala are presented in the following Table -3.

Table-3

Year	District								Total	
	Idukki		Wayanad		Palakkad		Others		Production in m.t.	%
	Production in m.t.	%	Production in m.t..	%	Production in m.t.	%	Production in m.t..	%		
1992-93	2214	86	160	6	160	6	36	2	2570	100
1993-94	3932	89	232	5	210	5	56	1	4430	100
1994-95	4200	89	245	5	204	4	71	2	4720	100
1995-96	4861	90	248	5	200	4	71	1	5380	100
1996-97	4132	91	191	4	150	3	77	2	4550	100
1997-98	4828	91	215	4	190	4	57	1	5290	100
1998-99	4556	91	201	4	175	4	58	1	4990	100
1999-00	6077	92	245	4	180	3	83	1	6585	100
2000-01	7072	93	244	3	176	2	88	1	7580	100
2001-02	7788	93	300	4	190	2	102	1	8380	100
2002-03	8057	93	317	4	201	2	105	1	8680	100
2003-04	8224	93	329	4	213	2	109	1	8875	100
2004-05	7931	92	345	4	229	3	111	1	8616	100
2005-06	7946	92	352	4	304	3	114	1	8716	100
Average	5844	93	259	4	199	2	81	1	63.83	100

Source: Agricultural Statistics, Department of Economics and Statistics, 2007, Cochin.

Analysis of cardamom production in the State of Kerala is presented in Table- 3. The prominent district of Idukki has higher production from 1992-93 to 2003-04, whereas

production has reduced afterwards. But in the case of Palakkad, Wayanad and other districts significant rise in production of cardamom is noticed in the State. Overall production of cardamom is increased from 2570 m.t. to 8875 m.t. until 2003-04. After that production declined in the State of Kerala. It is also seen from the table that the average production of cardamom in Idukki district stood at 5844 m.t. per annum whereas, in Wayanad district it was 259 m.t. and in Palakkad district 199 m.t. per annum during the study period. The table clearly indicates that out of the total production of cardamom in Kerala, Idukki district accounts for an average of 93 per cent, followed by Wayanad district 4 per cent and Palakkad only 2 per cent during the study period.

The compound growth rate and coefficient of variation of district-wise production of cardamom in Kerala are presented in Table-4.

Table -4

District	Log Linear		R2	Coefficient of Variation in percentage	Compound Growth Rate in Percentage per annum
	Constant	Reg. Co-efficient			
Idukki	7.942 (0.09)	0.093** (0.012)	0.856	34.6	23.6
Wayanad	5.176 (0.082)	0.048** (0.010)	0.659	22.4	11.7
Palakkad	5.158 (0.069)	0.0014# (0.008)	0.169	11.8	2.9

Source: Compiled from Table-4.

Figures in parentheses are standard errors. \*\* - Significant at one per cent level # - Not Significant.

The Table-4 shows that growth rates of production in Idukki and Wayanad districts was positive and statistically significant at one per cent level whereas in Palakkad district the growth rate was positive but not statistically significant. The compound growth rates reveal that Idukki district had attained the highest 23.6 per cent per annum during the study period whereas Palakkad district had attained the lower of 2.9 per cent per annum. Similarly the coefficients of variation indicate that the growth rate of production of cardamom in Idukki was more consistent than that of other two districts.

#### References

1. Economics of cardomam, Indian Journal of Agricultural Economics, Vol.62, No.1, Jan-March 2007.
2. Government of India (2006), Spices Statistics, Ministry of Commerce and Industry, Cochin.
3. Shanmugavelu, K.G. and Madhava Rao, V.N., Spices and Plantation Crops, Popular Book Dept., Madras, 1 977, pp. 48-49.
4. Pruthi, J.S., Spices and Condiments, National Book Trust India, New Delhi, 1979, pp. 63-65.
5. Sundaram, B.G., "Cardamom Industry-A Year of Achievement", The Economic Times, September 11, 1978.
6. Varghese, P.K., Economics of Cardamom Cultivation in Kerala Indian Journal of Agricultural Economics, Vol.62, No.1, January-March 2007.
7. Subbarao, G. and Korikanthimathi, "The influence of Rainfall on the Yield of Cardamom in Coorg District," Journal of Plantation Crop, Vol.11, No.1, June 1983.