

AWARENESS, PERCEPTIONS AND PROBLEMS OF CARDAMOM GROWERS IN INDIA

T.D.S.Kumar *

Cardamom (*Elettaria Cardamom Maton* - small) is the queen of spices, in the home land for spices. It was only a wild growth in the evergreen forests of western ghats in South India. Over a period of time people have realised the use and economic potential of Cardamom and systematic cultivation was initiated. Apart from being used in food preparation as a flavouring agent, it is also used in confectionary, beverages and liquors. It also has medicinal use in Allopathy and Ayurveda system.

Cardamom thrives well, over an altitude of 600 to 1200 mts above MSL (Mean Sea Level), rainfall between 1500 mm to 4000 mm and temperature ranging between 10°C to 35°C . It is mainly cultivated in southern states of Kerala, Karnataka and Tamilnadu. On an average Kerala constitutes around 70% of National Production of the spice followed by Karnataka 22% and Tamil Nadu 8%. The total estimated area under Cardamom is around 665100 Acres (CMIE 98-99) Cardamom production is about 96000 tonnes in the current year.

Indian Cardamom is exported to over 60 countries, the bulk going to the Middle East. The export earnings of the crop has been steadily increasing. Approximately 55% to 60% of the production is exported in a normal year.

Nearly 95% of the estates belong to small category, (following cardamom board norm of 8 ha or 20 acres), they operate only 55% of the area. Majority of Cardamom cultivators belong to the category of small growers, they often sell their produce to intermediaries for a lower price than prevailing at auction. The small growers face problems in marketing, credit and lack of knowledge of modern cultivation practices etc.

* Assistant Director, MANAGE, Rajendranagar, Hyderabad.

An attempt was made to find the awareness of grown scientific dosages of inputs and the source, about cardamom export price and international, demand, perception **about** profitable source of selling their produce and the reasons and also regarding problems with reference to inputs, finance, market and suggestions by them.

Sample :

A sample of 350 growers were selected randomly for this purpose, which was distributed over the states in the relative proportion of Cardamom growing areas in three states (60 : 30 :10). The distribution of sample is presented in the table (Table 1.1).

Table – 1 : Distribution of Cardamom Estates by Registration

State	Registered registered	Not	Total
Kerala (small)	197	18	215
Karnataka (small)	84	12	96
Tamil Nadu (small)	30	--	30
Kerala (large)	17	--	17
Karnataka (large)	10	2	12
Tamil Nadu (large)	3	2	3
Total	341	32	373

In total 341 small (215 Kerala, 96 Karnataka and 30 Tamil Nadu) and 32 large (17 Kerala, 12 Karnataka and 3 Tamil Nadu) were interviewed with pre-tested questionnaires.

Awareness of Input Dosages

Table 1.2: Frequency distribution of awareness about scientifically recommended dosages of inputs in cultivation

State	Total samples	Awareness about dosages		Source of awareness				
		Not aware	Aware	Cardamom board officials	Fertilizers / pesticides dealers	Agriculture department	Own experience	Neighbourers
Kerala (S)	215	28 (13.0)	181 (84.2)	122 (67.4)	6 (3.3)	3 (1.6)	28 (15.5)	9 (5.0)
Karnataka (S)	96	22 (22.9)	68 (70.8)	58 (85.3)	-	-	3 (4.4)	4 (5.9)
Tamil Nadu (S)	30	-	30 (100.0)	16 (53.3)	11 (36.7)	3 (10.0)	-	-
Kerala (L)	17	-	14 (82.3)	11 (78.6)	-	-	3	-
Karnataka (L)	12	1 (8.3)	9 (75.0)	9 (100.0)	-	-	-	-
Tamil Nadu(L)	3	1 (33.3)	2 (66.7)	1 (50.0)	1 (50.0)	-	-	-
Total	373	52 (13.9)	304 (81.5)	217 (71.4)	18 (5.9)	6 (2.0)	34 (11.2)	13 (4.3)

S = Small

L = Large

An all about 81% of the growers (Small and large) are aware of the input dosages of fertilizers and pesticides in the three states together. For small growers, this figure stands at 84% in Kerala, 71% in Karnataka and 100% in Tamil Nadu. For large growers also this percentage is above 75% in Kerala and Karnataka and around 67% in Tamilnadu. There is a high degree of awareness about scientific dosages of inputs in all the states along both small and large growers.

For majority of them (about 71% in all), the source of awareness was the spices Board Officials, interestingly about 11% of them learn about the dosage levels based on their own experience. This source is significant mainly in Kerala at 15% for small growers and 21% for large growers. In case of

Tamilnadu the fertilizer/pesticide dealers were an important source for more than a third of small and large growers. The State Agriculture Department was the source for about 10% of the small growers in Tamilnadu. About 5% of the small growers in Kerala and about 6% in Karnataka learnt about dosages from the neighbours. On the whole, spices board was the main source of information in all the states for both small and large growers.

Awareness of Export Price & Demand

Table:1.3: Frequency Distribution of Awareness of Growers about Cardamom Export Price and International Demand

State	Export Price		Total Samples	International Demand	
	Aware	Not Aware		Aware	Not Aware
Kerala(S)	5 (2.3)	208 (96.7)	215	5 (2.3)	208 (96.7)
Karanatak (S)	10 (10.4)	68 (70.8)	96	10 (10.4)	84 (87.5)
Tamil Nadu (S)	19 (63.3)	10 (33.3)	30	20 (66.7)	10 (33.3)
Kerala(L)	2 (11.8)	15 (88.2)	17	1 (5.9)	16 (94.1)
Karanatak (L)	3 (25.0)	9 (75.0)	12	4 (33.3)	8 (66.7)
Tamil Nadu (L)	1 (33.3)	1 (33.3)	3	1 (33.3)	1 (33.3)
Total	40 (10.7)	311 (83.4)	373	42 (11.3)	327 (87.7)

S: Small L: Large

Note:1) Figures in the parentheses are percentages against total samples.

2) The relevant row total may not add to 100 due to non-response.

Though Cardamom is an export commodity facing stiff competition in the international market, majority of the growers are not aware of the export price or the international demand position. On the whole only about 11% of the growers are aware of export price and international demand position of Cardamom.

Sale of Produce

Table:1.4-Frequency distribution of growers perceptions about profitable source of selling their produce

State	Total	Selling the produce at			Reasons for selling outside auction			
	Samples	Auction	Outside auction	Spot payment	Urgent need of money	No auction centre near by	Get good price	Small quantity to sell at auction
Kerala(S)	215	119 (55.0)	71 (33.0)	49 (69.0)	2 (2.8)	5 (7.0)	1 (1.4)	14 (19.7)
Karnatak (S)	96	33 (34.7)	53 (55.2)	13 (24.5)	23 (43.4)	12 (22.6)	6 (11.3)	-
Tamil Nadu (S)	30	16 (53.0)	13 (43.0)	3 (23.1)	2 (15.4)	1 (7.7)	1 (7.7)	-
Kerala(L)	17	14 (82.4)	3 (17.6)	2 (66.7)	-	1 (33.3)	-	-
Karnataka (L)	12	2 (16.7)	8 (66.7)	4 (50.0)	2 (25.0)	2 (25.0)	-	2 (25.0)
Tamil Nadu (L)	3	2 (66.7)	1 (33.3)	-	-	-	-	1 (100.0)
Total	373	186 (49.9)	149 (39.9)	71 (47.6)	29 (14.1)	21 (14.1)	8 (5.4)	17 (11.4)

S: Small L: Large

- 1) The percentages against the columns under 'selling the produce at' are against total samples (shown in parentheses).
- 3) The percentages against the columns under 'reasons for selling outside auction' are against those who sell outside (shown in parentheses).

- 4) As both non-response as well as more than/one response are possible in the columns above, the relevant parts of the table may exceed or could be below 100.

About 50% of the growers find selling the produce at auction profitable, where as 40% find selling outside profitable, the remaining 10% being non-responsive. However this differs significantly over the states and the growers, while in Kerala Tarnilnadu about 55% of the small growers prefer to sell at auction, this is considerably higher at 2% and 67% for large growers in the two states respectively. Interestingly in Karnataka 55% of the small growers and 67% of the large growers prefer to sell outside auction. Thus surprisingly the fraction of large growers selling at the auction is smaller than that of small growers.

The main reason for selling outside auction is the spot payment by buyers which further help those in urgent need for money. These reasons account for about 67% of the growers selling outside. About 20% of such small growers in Kerala and 25% of the large growers in Karnataka sell outside as the quantum of this produce is too small to be taken to auction. About 23% of the small growers (selling outside) in Karnataka and 8% in Tamilnadu and 7% in Kerala sell outside as then are no auction centres nearby. Another 25% of large growers selling outside in Karnataka do so, due to lack of near by auction centre. Another 5% of growers (all small) on the whole claim to get £ good price in selling outside the auction. However, one presumes that this response is keeping in view the small quantity of their produce. Thus on the whole more than 40% of the growers sell outside auction.

The problems of growers could be classified under three broad heads viz, input/financial problems, other problems in cultivating and market related problems with a number of sub-heads under each. As a grower is free to give more than one response, the row total in this table would generally exceed the total samples in that category though non-responses would lower it down.

Problems in Cultivation

Table 1.5 : Frequency distribution of problems of growers

State	Input / financial problems				Other problems in cultivation			
	Credit non easily available or financial problems	Input not available or high cost or inputs	Labour problems	Uncertainty on tenure of leased in land	No irrigation facility	Climatic changes	Problem of wild animals	Diseases
Kerala(S)	60 (27.9)	32 (14.9)	24 (11.2)	10 (4.6)	10 (4.6)	12 (5.6)	16 (7.4)	7 (3.2)
Karnatak (S)	66 (68.7)	-	27 (28.1)	-	13 (13.7)	-	-	-
Tamil Nadu(S)	3 (10.0)	2 (6.7)	3 (10.0)	1 (3.3)	4 (13.3)	-	1 (3.3)	-
Kerala(L)	1 (5.9)	-	2 (11.8)	1 (5.9)	-	-	-	-
Karnataka (L)	4 (33.3)	-	-	-	2 (16.7)	-	-	-
Tamil Nadu (L)	-	-	-	-	-	-	-	-
Total	134 (35.9)	34 (9.1)	56 (15.0)	12 (3.2)	29 (7.8)	12 (3.2)	17 (4.6)	7 (1.9)

S: Small L: Large

Note:

- 1) The percentages in the above table are against respective total samples.
- 2) As both non-response as well as more than one response are possible in the columns above, the relevant parts of the total may exceed or could be below 100

Lack of easy availability of credit seems to be a major problems for the small growers of Kerala (28%), Karnataka (69%) and Tamilnadu (10%). Large growers of Karnataka (33%) also reported this problems. Difficulty in obtaining inputs and their high costs have also been reported by about 15% of small growers in Kerala and 7% in Tamilnadu. Further labour availability is also reported by the small growers o Kerala (11%), Karnataka (28%) and Tamilnadu (10%).

Among other problems in cultivation, the uncertainty on tenure of leased in land, seems to affect about 5% of the growers of Kerala (both small and

large) where fairly large acres of government land is given on lease to grow Cardamom. While the government lease is generally for a long period of 10 to 15 years, perhaps these growers expect the title for the land, before its further improvement is undertaken. As Cardamom is believed to respond to irrigation, about 5% small growers of Kerala, 13% of Karnataka and Tamilnadu and 17% of large growers of Karnataka have pointed out the need for it. About 6% of Kerala small growers have also pointed out the problems of erratic climatic changes, wild animals and diseases. Little can be done about the farmer except for some assured irrigation (which may not be possible every where). The problem of wild elephants can be controlled by digging trenches around the fields. Other wild animals can be controlled through modern pesticides, insecticides etc. through careful application.

Problems in Marketing

Table 1.6 :Frequency distribution of problems of growers

State	Marketing related problems							Total samples
	Declining prices	Tax problems (harassment etc.)/	Exploitation cheating by cardamom dealers	Delayed payment	poor in frestructure facilities (roads, etc)	Transport problem in marketing the output	No auction center nearby	
Kerala(S)	48 (22.3)	21 (9.8)	17 (9.9)	1 (0.50)	10 (4.6)	14 (6.5)	5 (2.3)	215
Karanatak (S)	9 (9.4)	-	8 (8.3)	-	31 (32.3)	17 (17.7)	12 (12.5)	96
Tamil Nadu (S)18	4 (60.0)	- (13.3)	-	4	- (13.3)	1	- (3.3)	
Kerala(L)	3 (17.6)	1 (5.9)	-	2 (11.8)	-	-	1 (5.9)	17
Karnataka (L)	4 (33.3)	-	-	-	2 (16.7)	2 (16.7)	-	-
Tamil Nadu (L)-		-	-	-	1 (33.3)	-	-	-
Total	82 (22.0)	26 (7.0)	25 (6.7)	3 (0.8)	46 (12.3)	33 (8.8)	21 (5.6)	373

S: Small L: Large

Note:

1)The percentages in the above table are against respective total samples.

- 2) As both non-response as well as more than one response are possible in the columns above, the relevant parts of the total may exceed or could be below 100

Declining prices of Cardamom is pointed out to be a major problem. of growers (both small and large) in all the states, the percentage varying between 9% and 60% over states and categories. Indeed, it is the price which will decide growth or decay of this plantation crop. The other problem pointed out is, that of harassment in tax assessment of small growers in Kerala and Tamilnadu. Small growers in Karnataka also face problems of cheating and exploitation by the middle men to whom they sell their produce. However only about 8% of the small growers in the two states have raised this issue. The other problems faced by about 5% of the small growers in Kerala. 20% to 30% in Karnataka and 13% in Tamilnadu is the lack of good infrastructure and transport facilities particularly in interior parts. In some places, even if this is not an issue, there are no auction centres in nearby areas. This is particularly so in Karnataka, reported by 12 to 15% of the growers, as against 6% growers reporting on the whole. In general, while marketing is not a major problem in Kerala. In Karnataka as the auction centres are fewer situated at far off places and convenient transport facilities are not always available.

The need for financial help in the form of loans and subsidies is felt by about 30% of the small growers of Kerala and around 17% of the small growers of Karnataka and Tamil Nadu, through about 18% of the large growers of Karala also feel the need for it. The need for inputs supply at concessional rates is expressed by about 10% to 25% of the small and large growers in Kerala and Karnataka. Around 57% of small growers and 67% of the large growers of the Tamil Nadu express the need for it. The problems of input availability seems to be actute in Tamilnadu. To overcome this problem, some of them suggested inputs supply by spices board or government agencies. However the correct solution to the problem may lie in arranging timely local availability of inputs which need not be through the board or government agencies.

Table 1.7 :Frequency distribution of problems of growers

State	Financial assistance to purchase inputs (loans and/or subsidy)	Inputs at concessional rates	Supply of inputs by cardamom board / govt. agency	Inputs supply in time	Local availability of inputs	Total samples
Kerala(S)	63 (29.3)	22 (10.2)	20 (9.3)	9 (4.2)	1 (0.4)	215
Karnatak (S)	15 (15.6)	16 (16.7)	-	3 (3.1)	2 (2.1)	96
Tamil Nadu (S)	5 (16.7)	17 (56.7)	1 (3.3)	-	-	30
Kerala(L)	3 (17.6)	4 (23.5)	-	-	-	17
Karnataka (L)	-	2 (16.7)	-	-	2 (16.7)	12
Tamil Nadu (L)	-	2 (66.7)	-	-	-	3
Total	86 (23.1)	63 (16.9)	21 (5.6)	12 (3.2)	5 (1.3)	373

S: Small L: Large

Note: 1) The percentages in the above table are against respective total samples.

2) As both non-response as well as more than one response are possible in the columns above, the relevant parts of the total may exceed or could be below 100

On the marketing side, the most important suggestion coming from nearly half of the growers (small & large) across the states is for fixation of price and ensuring price stability. This seems particularly important as there have been wide fluctuations in Cardamom price in the past few years. The next important suggestion from about 30% of the growers across all states and categories, is for a pooling system in Cardamom sale (similar to that prevailing in coffee) through a government agency. A small portion of growers in Kerala suggested spot payment at auction and elimination of commission at auction. Nearly 38% of the small growers and 50% of the large growers of Karnataka asked for improvement in marketing facilities. A small fraction of the growers suggested the need for publicity for the use of Cardamom.

Table 1.8: Frequency distribution of suggestions for improvements in marketing facilities

State	Fix floor price and ensure price stability	Pooling system like in coffee trade (i.e. purchase by Govt. Agency)	Improve marketing facilities	Quick / spot payment at auction	No commission at auction	Eliminate middlemen	Total samples
Kerala(S)	74 (934.4)	56 (26.0)	3 (1.4)	5 (2.3)	5 (2.3)	-	215
Karnataka (S)	25 (26.0)	32 (33.3)	37 (38.5)	-	-	4 (4.2)	96
Tamil Nadu (S)	15 (50.0)	10 (33.3)	-	-	-	-	30
Kerala(L)	4 (23.5)	2 (4.8)	-	-	1 (5.9)	1 (5.9)	17
Karnataka (L)	5 (41.7)	4 (33.3)	6 (50.0)	-	-	-	12
Tamil Nadu (L)	3 (100.0)	-	-	-	-	-	3
Total	126 (33.8)	104 (27.9)	46 (12.3)	5 (1.3)	5 (1.6)	5 (1.3)	373

S: Small L: Large

Note: 1) The percentages in the above table are against respective total samples.

2) As both non-response as well as more than one response are possible in the columns above, the relevant parts of the total may exceed or could be below 100

Issues for Consideration

The spices board extension service personnel should be more practical in educating and bringing awareness among growers regarding the scientific dosages and farm management practices. Market information system should be improved so that grower could be aware of the auction price, export price and international demand through the spices board field office staff. To overcome the problems of distress sales, they can establish auction centres and also link up with credit at this stage may help them overcome the exploitation by the middlemen.

It is high time the government or the spices board should look into fixation of floor price and ensuring price stability (through an understanding with

other major producers) and also establish pooling system as in the case of coffee. It is bound to be very beneficial to small growers. They should develop an assured segment in the international market for ourselves. Another should be to develop new markets (Consumer), a prelude for which is, developing new Cardamom based products, if necessary in collaborating with some leading manufacturers of food and other related products. Cardamom cola and Cardamom flavoured 'ready to drink, soft drinks are to be introduced in the market by spices board and CFTRI (Mysore). Efforts should be made to popularize and expand the internal consumption.

To attain success in the international market, it is very essential that research activity is taken up on flavour perseverance, colour retention and packaging etc.

The more basic issues of massive deforestation and degradation. of ecological balance in the Cardamom hills is a threat. It is important to evolve schemes like soil conservation, land development etc. and also after estate schemes should be promoted in these areas.

It is necessary to ensure some kind of stability in price, particularly for the small growers, who otherwise seem to have very little incentive for cultivating the crop. Efforts should be made in improving the productivity, and production and thereby attaining a lower unit cost of production together with implementation of appropriate market development strategies will keep Cardamom industry in the direction for overall growth in the years to come.