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TRENDS IN THE PRODUCTION AND TRADE OF PEPPER IN INDIA

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ABSTRACT

India's position in the world production and trade of pepper has slipped from the first rank during the period 1950 to 1955 to the fourth rank during the period 1976 to 1980. Although this country accounted for nearly 52 per cent of the world area under pepper it constituted about 15 per cent of the world production of this spice during the period 1976 to 1980. The compound growth rates of pepper production in India were 2.49 per cent in the fifties, (−) 0.82 per cent in the sixties and 0.16 per cent in the seventies. The average productivity of India's pepper was estimated as 254 kg/ha/year as against 4574 kg in the case of Malaysia, 2887 kg in Brazil, 2287 kg in Sri Lanka, 1158 kg in Indonesia and 508 kg in Madagascar in the late seventies. The compound growth rates of exports of pepper from India for the fifties, sixties and the seventies were 5.2 per cent, (−) 0.7 per cent and (−) 0.5 per cent respectively. For this country 1973-74 was the year of the highest attainment in the volume of export (31,648 tonnes) and 1977-78 was the year of the highest attainment in export earnings (Rs. 498 million) as well as unit value realisation (Rs. 20/kg). The Rupee-Trade Zone is now the biggest overseas buyer of Indian pepper. Considering the overall potential, a massive rejuvenation-cum-replanting programme in pepper for the traditional pepper growing areas and cultivation of this spice crop in the non-traditional south-eastern and north-eastern regions in India have been suggested.

INTRODUCTION

Pepper, a tropical spice crop originated in the Malabar region of Kerala in India and is an important item of trade in the world since time immemorial. Rosengarten (1969) in his work "The Book of Spices" has revealed that the kings sent expeditions, merchants risked lives, wars were fought and the globe was explored in search of oriental spices in general and pepper in particular. While in Europe, pepper was often used for the payment of custom duties, rents, taxes and even court fines, in China, a part of the salary of all civil and military officials was paid in the form of this commodity (T'ien, 1982). By the early part of the seventeenth century pepper had ceased to be a valuable spice available only to the wealthy, and with the growth of the world market there was a rise in its production and trade, and commerce in this article flourished. The recent trends in the production and trade of pepper in India in comparison with her competitors in these fields have been studied in this paper.

MATERIALS AND METHODS

The data used for the analysis in respect of area, production and yield of pepper in India are the estimates of the Directorate of Economics and Statistics (DE & S), Ministry of Agriculture and Co-operation, Government of India, and the corresponding figures for the other major pepper growing countries are the estimates of the respective countries available in the FAO Production Yearbooks and computer printout.

For constructing the index numbers for area, production and yield of pepper in India, the triennium ending 1969-70 has been used as the base period. This is in accordance with the selection of the base period by the DE & S and also the FAO.

The figures relating to India's exports, export earnings and unit values of pepper are the estimates of the Directorate General of Commercial Intelligence and Statistics (DG, CI & S), Government of India. The corresponding figures in respect of the other exporters are the estimates of the respective nations available in the FAO Trade Yearbooks and computer printout.

The statistics on the imports of pepper by major importing countries are the estimates of the respective nations available in the "Spices—a survey of the world markets", published by the International Trade Centre (ITC), UNCTAD/GATT; and in the title "Spices trends in world market" published by the FAO.

RESULTS AND DISCUSSION

Pepper area

As far as the area under pepper is concerned India occupies the first place accounting for around half of the total pepper area in the world. Indonesia, Malaysia, Sri Lanka, Brazil and Madagascar accounted for 23.2 per cent, 5.5 per cent, 4.5 per cent, 10.4 per cent and 2.8 per cent of the world pepper area, respectively during the period 1976 to 1980. While India's pepper area expansion between 1961 and 1980 was 2.5 per cent, the world area under this spice expanded by 22 per cent during the same period largely due to the expansion programmes of Brazil, Indonesia and Malaysia. Table 1 shows the country-wise quinquennium average area of pepper during the period 1961 to 1980.

Pepper production

While India's pepper production during the period 1961 to 1980 came down by 6.9 per cent, the world production increased by 52.4 per cent. Barring India, in all other major pepper growing countries the rise in production was substantial. Under these circumstances, India lost her prime position as pepper producer during the sixties, the second position during the early seventies and the third position during the late seventies. Brazil which made a beginning in the pepper production during the twenties, now stands as the largest producer of pepper in the world followed by Indonesia and Malaysia (Table 1).

Production estimates by trade circle

On the basis of the market arrivals of pepper, the concerned trade circle of India estimates yearly prodution of this commodity and those estimated figures are always higher than the official estimates. According to the Trade Circle estimates, the average production of pepper in India for the seventies was 37,000 t/annum as against 28,000 t/annum estimated by the DE & S. If such is the case, India's position among the pepper producers

Table 1. Trends in area, production and exports of pepper (Average per annum)

Country	Area ('000 ha)				Production ('000 t)				Export ('000 t)			
	1961-65	1966-70	1971-75	1976-80	1961-65	1966-70	1971-75	1976-80	1961-65	1966-70	1971-75	1976-80
India	102.6	117.2	107.6	105.2	26.0	25.4	24.6	24.2	19.2	22.9	23.0	21.2
	(61.7)	(63.6)	(58.8)	(51.9)	(24.1)	(23.8)	(19.6)	(14.8)	(33.6)	(28.7)	(24.8)	(18.0)
Indonesia	29.0	32.8	38.9	48.6	36.9	26.8	27.3	39.0	18.0	20.5	21.5	31.4
	(17.5)	(17.8)	(21.3)	(24.0)	(34.3)	(25.1)	(21.8)	(23.7)	(31.5)	(25.7)	(23.2)	(31.4)
Malaysia	5.5	5.8	7.5	11.6	25.3	25.6	32.1	34.9	14.5	23.5	28.7	35.6
	(3.3)	(3.2)	(4.1)	(5.7)	(23.5)	(24.0)	(25.6)	(21.3)	(25.4)	(29.5)	(30.9)	(30.4)
Brazil	3.6	5.1	7.7	16.5	6.1	12.5	22.4	45.4	3.9	9.9	15.8	25.0
	(2.2)	(2.8)	(4.2)	(8.1)	(5.7)	(11.7)	(17.8)	(27.7)	(6.8)	(12.4)	(17.0)	(21.4)
Sri Lanka	5.6	5.4	5.9	7.6	9.8	12.1	13.6	15.5	0.3	0.6	0.5	0.8
	(3.4)	(2.9)	(3.2)	(3.8)	(9.0)	(11.3)	(10.9)	(9.5)	(0.5)	(0.8)	(0.5)	(0.7)
Madagaskar	10.2	10.6	8.3	6.0	1.9	2.6	3.4	3.1	1.3	2.3	3.3	3.1
	(6.1)	(5.8)	(4.5)	(3.0)	(1.8)	(2.4)	(2.7)	(1.8)	(2.2)	(2.9)	(3.6)	(2.7)
Other Countries	9.7	7.4	7.1	7.2	1.7	1.9	2.0	2.0	—	—	—	—
	(5.8)	(3.9)	(3.9)	(3.6)	(1.6)	(1.7)	(1.6)	(1.2)	—	—	—	—
World	166.2	184.3	183.0	202.7	107.7	106.9	125.4	164.1	57.2	79.7	92.8	117.1
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Figures in the parentheses express the percentage of the world figures.

would become third instead of fourth.

Pepper yield

The average productivity of pepper for the period 1976 to 1980 was worked out as 254 kg/ha/year in the case of India, while the corresponding figures for Indonesia, Malaysia, Sri Lanka, Brazil and Madagascar were 1,158 kg, 4,574 kg, 2,287 kg, 2,887 kg and 508 kg, respectively. Productivity-wise, India's position is miserable.

Index numbers

The index numbers of area, production and yield of pepper in India for the period 1960-61 to 1980-81 have been presented in Table 2.

Compound growth rates

The estimated compound growth rates of India's pepper area, production, yield, export and export value for different periods are shown in Table 3.

Pepper exports

India's Malabar—the home of pepper was the only supplier of this spice to the world market till the turn of the nineteenth century. Since then slowly she lost her grip to the region representing present Indonesia and Malaysia. During the post second world war period this country regained her monopoly in pepper production as well as trade, consequent to the war effect in the south-east Asia region, but that situation was short-lived. India's share in the world exports of pepper continues to decline since the fifties. On the other hand, the shares of the competing countries continue to rise at the cost of this country as evident in Table 1.

Export earnings

Table 2 indicates the yearly export earnings and unit value realisation in respect of Indian pepper for the period 1950-51 to 1982-83. While 1973-74 was the year of the highest attainment in the volume of exports (31,648 tonnes), 1977-78 was the year of the highest attainment in the export earnings as well as the unit value realisation for India.

Table 2-A. Index numbers of area, production and yield of Black pepper in India (Base: Triennium ending 1969-70=100)
B. Trends in export earnings of unit value realisation from Black pepper in India

A. Index Numbers				B. Trends in	
Year	Area	Production	Yield	Export value (Rs. million)	Unit value (Rs./kg.)
1960-61	101.6	132.3	130.3	85	5.00
61-62	101.6	132.3	130.2	81	3.72
62-63	101.1	121.3	120.1	66	3.16
63-64	101.1	111.6	110.4	59	3.56
64-65	101.6	112.5	110.7	68	3.92
65-66	101.2	107.3	106.1	111	4.22
66-67	101.3	106.8	105.5	118	5.22
67-68	100.8	102.2	101.4	130	5.23
68-69	100.0	99.3	99.3	97	5.14
69-70	99.2	98.5	99.3	161	7.26
70-71	99.0	101.3	102.3	153	8.49
71-72	97.8	101.3	103.5	148	7.70
72-73	98.8	101.3	102.5	143	7.17
73-74	100.4	111.0	110.6	295	9.33
74-75	100.6	109.0	108.4	345	13.09
75-76	99.9	110.6	110.7	339	13.99
76-77	102.1	136.5	133.7	382	18.63
77-78	100.0	110.6	110.6	495	20.06
78-79	75.6	92.9	122.9	281	18.39
79-80	75.8	95.0	125.3	335	16.04

Direction of exports

The main destination for Indian pepper in the forties and the fifties was the U.S.A. followed by West European countries (Purseglove et al., 1981). From the sixties the volume of exports to these countries tended to decline due to a major change in the export policy of India in favour of the Rupee-Trade with the U.S.S.R and the other centrally administered East European countries. As could be seen from Table 4, the East European Zone constituted 69.8 per cent of the total exports from India, while the American Zone and West European Zone constituted

Table 3. Compound growth rates of area, production, yield, exports, export earnings and unit value of pepper in India

%/annum

Period	Area	Production	Yield	Export	Export earnings	Unit value
1951-52 to 1960-61	2.30**	2.49**	(−) 0.36	5.20*	(−) 14.16	(−) 18.50*
1961-62 to 1970-71	1.48*	(−) 0.82	(−) 2.23**	(−) 0.75	10.04**	10.97**
1971-72 to 1980-81	(−) 1.10**	0.16	1.27	(−) 0.80	9.55*	10.09**
1951-52 to 1980-81	1.24**	0.31	(−) 0.92**	1.96**	6.80	4.73**

*Significant at 0.05 level. **Significant at 0.01 level.

14.2 per cent and 6.3 per cent, respectively during the period 1976 to 1980.

India's share in the total imports of pepper from her by the individual importing countries is shown in Table 4. The table reveals that during the peirod 1976 to 1980 nearly 91 per cent of the import demand from the U.S.S.R was met by this country while India supplied only 8 per cent of the total imports into the U.S.A., 2 per cent each to West Germany and the U.K and 3.6 per cent to Japan. This country's supplies to the major as well as traditional pepper buyers namely the U.S.A., West Germany and the U.K have been minimised partly due to lack of exportable surplus left over after meeting the obligatory trade demand from the U.S.S.R and the other East-European countries, and partly due to the stiff competition from Brazil, Indonesia and Malaysia in the international markets (Das, 1980).

OUTLOOK

India's pepper industry stands at the cross-road point facing stiff competition from the major producers each trying to raise its export market share and an economic recession faced by the major pepper buying markets, where each country is attempting to regulate its imports. Frequent and violent fluctuations in the unit value realisation are the offshoot of this crisis. The economic compulsions coupled with political equations must have prompted the Indian policy makers to choose the soft option of expanding the Rupee-Trade with the U.S.S.R. and East European Countries. Despite recession in the capitalist markets the demand for pepper is not going to be effected considerably as long as the food industry in those countries are expanding. The International Trade Centre has estimated a growth rate of the world demand for pepper as 4 per cent per annum. In view of this there is an obvious need for India to increase her pepper production and exports.

The strategy for increasing the production of pepper in India calls for a massive replanting/rejuvenation programme as a significant portion of pepper plantations in Kerala, (which accounts for 96 per cent of pepper production in this country) is either senile or severely affected by wilt diseases. Genetically poor yielders need to be replanted by the high yielding types such as

Table 4-A. Exports of pepper from India to major importing countries and zones
B. India's share in total imports of pepper by major importing countries

	(A) Export as percentage to India's Total		(B) Total import Countrywise t/year		India's share in per cent	
Country/Zone	1961-65	1976-80	1961-65	1976-80	1961-65	1976-80
United Kingdom	0.4	0.4	3157.0	3816.0	2.4	2.3
Italy	8.5	4.9	2243.6	3387.8	79.8	31.3
West Germany	0.8	0.9	4374.4	10345.2	3.9	2.0
U.S.S.R.	23.2	46.3	5365.2	11060.4	91.0	90.5
U.S.A.	24.6	10.6	19191.6	28342.0	26.9	8.1
Canada	5.6	3.7	1627.0	2318.6	72.4	34.0
Japan	0.1	0.7	1019.2	4508.4	0.9	3.6
European Zone	10.2	6.3				
East European Countries	43.4	69.8				
Other European Countries	1.7	0.3				
American Zone	30.5	14.2				
Middle East Zone	6.2	5.5				
East Asia Zone	5.2	1.9				
Africa Zone	2.3	1.3				
Australia & Oceanic Zone	0.1	0.3				
Total	100.0	100.0				

Panniyur I. There is evidence that the farmers by adopting the recommended package of practices in Panniyur I variety with proper manuring and plant protection measures have realised on an average 1 kg yield/vine as against 0.25 kg average yield of pepper in India. Thus, the rejuvenation programme should be given top priority to put this historically important export oriented crop in its old honoured place. In addition to revamping the pepper production sector in Kerala, Tamil Nadu and Karnataka, serious efforts ought to be made to introduce this crop on a commercial basis in non-traditional areas, such as, Andhra Pradesh; Orissa; West Bengal; the North-Eastern regions, and, Andaman and Nicobar Islands, in order to meet the domestic and the overseas demand of this spice.

ACKNOWLEDGEMENT

The author wishes to thank Dr. K.V. Ahamed Bavappa, Director, CPCRI, Kasaragod for permitting him to undertake this study.

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DISCUSSION

Q : The production of pepper in India declined gradually from the sixties. What is the reason?

Ans: Competition from other pepper-producing countries like Brazil, Indonesia and Malayasia resulted in a fall in price. Naturally, the production of pepper in India declined.

Q : Cultivation of the crop in non-traditional areas like the southeastern and northeastern regions in India has been suggested. Do we have any data on the performance of this crop in these regions?

Ans: Yes, the performance of pepper in these regions is encouraging.