MARKETING OF TURMERIC IN SANGLI DISTRICT

A THESIS
SUBMITTED TO THE UNIVERSITY OF POONA
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

P. G. GADGIL

FERGUSSON COLLEGE,
POONA 4

APRIL 1975

PREFACE

This study is the outcome of three and a half years of research carried out at the Fergusson College, Poons 4.

My stay at Sangli for a period of ten years and interest in the field of marketing led me to the present subject.

The training in Social Science Research Methods that I had when I was a Junior Research Fellow in the Gokhale Institute of Politics and Economics during 1960-61 stood me in good stead in the formulation of the plan of the present thesis.

This work presents an overall picture of the development and the present functioning of the turmeric marketing system in Sangli district. As such, it is descriptive-analytical in nature. I have drawn upon several sources—Reports and publications of the Government of India and other bodies—for information and statistical data. However the emphasis, all through, has been on collecting data from the primary sources and on interviews-in-depth of the functionaries in the market and the officials of the market committee. In this connection I must make a special mention of Mr. Kolse, Assistant Secretary and Statistical Officer of the Agricultural Produce Market Committee, Sangli, and Mr. Rasiklal Balchand, a leading merchant in turmeric. I profited, in no small

measure, from discussions with them. I thank them for their cordiality and co-operation.

My thanks are due to Mr. D. P. Apte, Registrar,
Gokhale Institute of Politics and Economics, Poona, for
allowing me to process my data in the Institute. I must
acknowledge my debt to Mr. D. B. Sardesai and Mr. S.N. Gadem
of the Institute for making me conversant with the intricacies of the statistical analysis.

I owe much of this work to the patient and able guidance of Dr. A. S. Nadkarni, under whom I had the privilege of doing this research. The pleasing mannerism that characterised his criticism and suggestions kept me in good spirits. I owe him more than what my acknowledgement may seem to convey here.

I thank Mr. V. N. Inamdar for typing the manuscript diligently in a short time and Master Vijay Kelkar for the neat diagrams.

P. G. Gadgil

Fergusson College, Poona 4.

28th April, 1975.

CONTENTS

	Page
PREFACE	(<u>1</u>)
LIST OF TABLES	(vi)
LIST OF MAPS, GRAPHS AND DIAGRAMS	(x111)
Chapter	
I INTRODUCTION	1
1.1 The Subject Matter	1
1.2 Methodology and Limitations	6
1.3 Commodity - Turmeric	7
1.4 Turmeric Exports	15
II PRODUCTION AND COST OF CULTIVATION OF TURMERIC	31
2.1 The State and the District vis-a-vis Turmeric Cultivation	31
2.2 Sangli District - A General Description	42
2.3 Turmeric Culture	46
2.4 Preparation for the Market	60
2.5 Review of Literature	64
2.6 Methodology	72
2.7 Cost of Production of Turmeric	83
APPENDIX I: A SHORT NOTE ON THE TURMERIC RESEARCH SCHEME, TASGAON, DISTRICT SANGLI	94
APPENDIX II : TURMERIC - COST OF CULTIVATION SURVEY - 1968-69 - SANGLI DISTRICT (TASGAON TALUKA)	96
III MARKETING—ASSEMBLING	98
3.1 The Act in Operation	100
3.2 Arrivals and Sales	113
3.3 Co-operative Marketing	123

Chapter		Page
	3.4 Sangli Market	132
	3.5 Nature and Extent of Concentration in the Turmeric Trade	136
	3.6 Resume	148
	APPENDIX I : SCOPE OF MARKET LEGISLATION	150
	APPENDIX II : STATEMENT SHOWING THE GRADE SPECIFICATIONS OF TURMERIC FINGER (RAJAPURI)	158
	APPENDIX III: THE STATEMENT SHOWING THE ARRIVALS AND SALES OF REGULATED AGRICULTURAL COMMODITIES IN MARKET YARD AND THROUGH CO-OPERATIVE SOCIETIES	159
IA	MARKETING-DISTRIBUTION : THE ROLE OF BUSINESS	162
	4.1 The Development of Sangli Market	163
	4.2 Agency Structure in the Sangli Turmeric Wholesale (Central) Market	173
	4.3 Storage and Warehousing	179
	4.4 Transport and Despatches	193
	4.5 Communication and Risk	200
	APPENDIX I : DETAILS OF EXPENSES TO BE INCURRED BY A BUYER AT SANGLI A.P.M.C.	207
	APPENDIX II : STOCK POSITION : PITS AT SANGLIWADI AND HARIPUR AND BAGS IN CENTRAL WAREHOUSE, SANGLI	208
	APPENDIX III : INFORMATION FLOWS—MARKET REPORTS	209
V	MARKETING COSTS AND MARKETING MARGINS	215
	5.1 Objectives and Method of Calculating Marketing Costs and Margins in the Present Study	217
	5.2 Marketing Costs	219
	5.3 Margins of Intermediaries	221
	5.4 Total Marketing Margins	223

Chapter			Page
	5.5	Producer's Share in Consumer's Rupee	223
	5.6	Returns to Turmeric Merchants— Lagged Margins	226
	APPENI	DIX I	234
VI	CREDIT	F FOR CULTIVATION AND MARKETING	240
	6.1	Credit for Cultivation	241
	6.2	Co-operative Credit	243
	6.3	Credit for Marketing	253
VII	FUTUR	ES TRADING IN TURMERIC	263
	7.1	The Need for Futures Trading	263
	7.2	Futures Trading and Prices : Theoretical Construct	266
	7.3	Futures Trading at Sangli	269
	7.4	The Spices and Oilseeds Exchange Ltd., Sangli	275
	7.5	Ready and Futures Prices	279
	7.6	Regulatory Measures	285
	7.7	Overall Position	291
VIII	PRICE	ANALYSIS	305
	8.1	Source and Nature of the Price Data	306
	8.2	Commodity Price Behaviour during 1960-61 to 1969-70	307
	8.3	Trend in Turmeric Prices	311
	8.4	Market Integration	314
	8.5	Turmeric Prices at Sangli Agricultural Produce Market - Time-Series Analysis (Most Common Prices of Rajapuri Variety during 1952 to 1971)	318
IX	CONCL	UDING OBSERVATIONS	328
SELECT I	BIBLIOG	RAPHY	341

LIST OF TABLES

No.	<u>Title</u>	Page
1.1	Indian Turmeric - An Inter-State Comparison: 1967-68	12
1.2	Average Area, Production and Yield Per Hectare of Turmeric	13
1.3	Area, Production and Average Yield of Turmeric and Indices of Production and Prices, All India (1949 to 1971-72)	14
1.4	Turmeric : Some Important Magnitudes	16
1.5	Exports of Turmeric from India during 1947-48 to 1971-1972	20
1.6	Quantity Exported and Unit Value	22
1.7	Turmeric Imports in Iran	26
1.8	Imports into Japan - Quantity and Value	28
2.1	Cropping Pattern - Maharashtra State	34
2.2	Production Pattern in respect of Major Crops in Maharashtra	35
2.3	Turmeric in Maharashtra - An Inter- district Comparison, 1967-68	37
2.3-A	Relative Position of Sangli in the State and Sangli, Satara, Kolhapur Region	38
2.4	Area under Turmeric in Turmeric Growing Districts of Maharashtra	39
2.5	Turmeric Hectarage in Sangli, Satara, Kolhapur Region 1955 to 1961-62.	40
2.6	Area under Turmeric in Sangli District	41

(vii)

No.	Title	Page
2.7	Land Utilization Statistics - Sangli District - 1967-68	47
2.8	Area under Different Crops in Each Taluka of Sangli District in 1967-68	48
2.9	Rainfall in Selected Centres (in mm) for the Years 1969, 1970 and 1971	50
2.10	Turmeric Seasons	52
2.11	Yield of Dry Polished Turmeric in kg. Per Acre for Types of Setts, Planting Dates and Spacings	53
2.12	Average Yield of Green Turmeric	56
2.13	Yield in kg. and Its Economics in rupees Per Acre	57
2.14	Details of Expenses for Curing and Polishing Turmeric	63
2.15	Average Cultivation Expenses Per Acre and Cost of Production Per Maund of Cured Turmeric in Major Producing States in India	70
2.16	Estimated Cost of Cultivation Per Acre and Cost of Production Per Maund of Turmeric in Major States in India	71
2.17	Land Utilization Pattern in Tasgaon Taluka 1965-66	79
2.18	Cropping Pattern in Tasgaon Taluka	80
2.19	Value of Capital Assets (Rs.)	83
2.20	Distribution of Human and Bullock Labour Per Acre (Operationwise)	84

(viii)

No.	<u>Title</u>	Page
2.21	Size-Groupwise Distribution of Human and Bullock Labour Per Acre (Operationwise)	85
2.22	Itemwise Per Acre Cost of Cultivation of Turmeric	87
2.23	Cost of Cultivation (Per Acre)	90
2.24	Per Acre Yield and Cost Per Quintal of Turmeric in Two Size-groups	91
2.25	Size-Groupwise Gross and Net Income	92
3.1	Information about Business Done in the Market Area, 1968-69	102
3.2	Market Fee (Cess) (All Commodities)	107
3.3	Statement Showing Rates of Market Charges and Market Cess Prescribed by the Market Committee under Bye-law Nos. 12, 14 and 23 in Connection with the Purchase and Sale of Regulated Commodities in the Market Yard	108
3.4	Number of Licenses and Licenses Fee for the Years 1969-70 to 1971-72	109
3.5	Monthly Arrivals of Turmeric in Agricultural Produce Market, Sangli	115
3.6	Monthly Arrivals of Turmeric as Percentage of Annual Total - Sangli A.P.M.C., 1956-57 to 1970-71	117
3.7	Monthly Sales of Turmeric in Sangli Agri- cultural Produce Market, 1961-62 to 1970-71	120
3.8	Monthly Sales of Turmeric as Percentage of Annual Total - Sangli A.P.M.C., 1961-62 to 1970-71	121

Table No.	Title	Page
3.9	Total Arrivals and the Share of Co- operatives (Quantity and Value)	126
3.10	The Ganapati Zilla Co-operative Purchase and Sale Union Ltd., Financial Position in the Quinquennium 1964 to 1969	130
3.11	The Ganapati Zilla Co-operative Purchase and Sale Union, Arrivals of Agricultural Produce	131
3.12	Quantity of Turmeric Sold Through the Commission Agents - Sangli A.P.M.C. 1969-70	138
3.13	Percentage Share of Each Group of Commission Agents (including Co-operative Societies) in the Total Sales of Turmeric - Sangli Market, 1969-70	140
3.14	Share of the Different Buyers in Total Purchase of Turmeric - Sangli A.P.M.C., 1969-70	143
3.15	Percentage Share of Each Group of Purchasers in the Total Sales of Turmeric - Sangli Market	145
4.1	Sangli Area and Outside Arrivals in Sangli A.P.M.C.	171
4.2	Estimated Storage Capacity Available for Storing Turmeric in Pits in Important Assembling Centres in India, 1960-61	181
4.3	Quantities of Turmeric Stored in Different Warehouses (1960-61)	182
4.4	Statement Showing Stock Position of Turmeric (in Pits in Haripur and Sangliwadi)	188

No.	<u>Title</u>	Page
4.5	Monthly Despatches of Turmeric (by Rail) from Sangli to Other States in 1964-65 and 1965-66	195
4.6	Despatches of Turmeric from Sangli	199
5.1	Percentage Distribution of Total Market- ing Margins into Its Components	223
5.2	Average Prices of Turmeric (Rajapuri Variety) at Sangli, 1965 to 1973	227
5.3	Estimated Average Returns from Storage of Turmeric for Different Months, 1965-66 to 1972-73	231
6.1	Primary Agricultural Credit Societies in Each Tehsil of Sangli District during 1971-72	244
6.2	Agricultural Credit	245
6.3	Targets and Actuals	247
6.4	Short-term Loans (Crop Loans)	249
6.5	Short-term Loans (Sanctioned Limits and Actuals)	250
6.6	Loan Operations of 27 Agricultural Credit Societies in Sangli District, 1968-69 and 1969-70	251
6.7	Turmeric Advances (The Sangli Bank Ltd.)	255
A ₆ .1	Sangli District: Primary Agricultural Credit Societies - Number, Membership and Coverage - for the Year 1972-73	258

(xii)

Table No.	Title	Page
8.4	Wholesale Prices of Turmeric in Sangli (Cuddappa Variety) and Bombay (Cuddappa Variety) for the Period 1964 to 1972	317
8.5	Correlation between the Prices of Turmeric in Sangli and Bombay Markets for the Rajapuri and Cuddapah Varieties	318
8.6	Basic Monthly Most Common Prices of Rajapuri Turmeric in Sangli Agricultural Produce Market for the Period 1952 to 1971 and Yearly Trend Values	319
8.7	Indices of Seasonal Variation for Different Months of Year	321
8.8	Cyclical + Irregular Variations in Most Common Prices of Rajapuri Turmeric in Sangli Agricultural Produce Market	323

LIST OF MAPS, GRAPHS AND DIAGRAMS

MAPS

Map No.	<u>Title</u>	Page	
	Map of the Sangli Collectorate	Frontice- piece	
2.1	Cropping Pattern - Maharashtra	33	
2.2	Tasgaon Taluka - Area under Turmeric	74	
	GRAPHS		
Graph No.	<u>Title</u>	Page	
1.1	Trend of Exports of Turmeric 1947-48 to 1972-73	19	
3.1	Arrivals of Turmeric in Agricultural Produce Market, Sangli (1956-57 to 1970-71)	119	
3.2	Percentage Monthly Arrivals and Sales of Turmeric in Agricultural Produce Market, Sangli (1961-62 to 1970-71)	122	
8.1	Most Common Price of Rajapuri Turmeric A.P.M., Sangli - 1952 to 1971 Annual Averages and Trend Values	320	
8.2	Seasonal Index (Adjusted) of Most Common Prices (Rajapuri Variety)	322	
8.3	Turmeric (Rajapuri Variety) Prices - Cyclical and Irregular Fluctuations 1952 to 1971	326	
DIAGRAMS			
Diagram No.	<u>Title</u>	Page	
3.1	Channels of Marketing - Sangli Market	134	
4.1	Turmeric Pit	185	