FERTILIZERS' BRAND PREFERENCE OF FARMERS AND DEALERS IN POLLACHI TALUK-AN ANALYSIS

Thesis submitted in part-fulfilment of the requirements for the degree of Master of Business management to the Tamil Nadu Agricultural University Coimbatore.

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CERTIFICATE

This is to certify that the thesis entitled **FERTILIZERS' BRAND PREFERENCE OF FARMERS AND DEALERS IN POLLACHI TALUK-AN ANALYSIS** submitted in part fulfilment of the requirements for the degree of **MASTER OF BUSINESS MANAGEMENT** to the Tamil Nadu Agricultural University, Coimbatore is a record of bona fide research work carried out by Thiru **K. RAMALINGAM,** under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

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INTRODUCTION

CHAPTER I

INTRODUCTION

The history of growth of fertilizer industry in India is really a fascinating one. In 1960-61, domestic production of fertilisers was no more than 150,000 tonnes (in terms of nutrients). By 1988-89 , domestic production of fertilizers had risen to 8.964 million tonnes[1] . Thus during the last three decades, domestic production of fertilizer in terms of nutrients had multiplied nearly 60 times. In 1992-93, the total production of fertilizers in terms of nutrients ($N + P_2O_5$) was 9.75 million tonnes[2]. In 1960-61, imports were of the order of 419,000 tonnes. By 1988-89 imports were of the order of 1.608 million tonnes. The total availability of fertilizer was 10.572 million tonnes during 1988-89[3].

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1. Anonymous "Fertilizer Seeds of Prosperity-Market Survey", **FACTS FOR YOU**, 1 and 2(4): 18, 1990.

2. Anonymous, "Annual Review of Fertilizer Production and Consumption 1992-93", **Fertilizer News**, 2 (5): 62-67, 1993.

3. Anonymous, **Loc. cit.**, p-18.

The sharp increase in the production of food grains and other agricutural crops in the country has rightly attributed to the much increasing consumption of fertilizers over years. An indepth analysis of fertilizer industry reveals that it has an important link with the so called seed-fertilizer revolution or green revolution because fertilizer constitutes an essential ingredient of the input mix of the agricultural technology. The consumption of fertilizers during the last three decades have gone up tremendously. In 1960-61, consumption of all chemical fertilizers, in terms of nutrients, was as low as 292,000 tonnes. By 1988-89 , it had multiplied more than 37 times to reach the level of 11.036 million tonnes[4] . The total consumption of fertilizers in terms of nutrients during 1992-93 was 12.25 million tonnes.[5]

The food grain production during 1991-92 was 167.1 million tonnes and the anticipated food grain production

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4 Anonymous, **op.cit.**, p-18.

5 Anonymous, **op.cit.**, pp-62-67

during 1992-93 is 180.3 million tonnes6. Inspite of increased production of foodgrains, the continuously increasing population though at a decreasing rate is likely to cause enormous strain on the economy in future. The food grain requirement by 2000 A.D is likely to be around 225 million tonnes as the population is likely to cross one billion mark. The likely requirement of food grains at the end of the century would require 20 million tonnes of fertilizer.[7] Hence, the importance of fertilizer in crop production cannot be underestimated .

Fertilizer industry has the responsibility of supplying the much demanded fertilizers to the farmers at right time, right place and right price and by the right person. The farmers should also be additionally facilitated with credit facilities. Besides, the quality of fertilizers should also be accorded top priority. Keeping all these views in mind, fertilizer industry has been given recognition and they had gained importance in the successive five year plans by policy makers. It can be

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6 Anonymous, **op.cit.**, pp-62-67.

7 G.M. Rama Rao, "Fertilizer Demand and Supply in Eighth Plan", **Fertilizer News**, 3(6): 21-25, 1989.

rightly said that fertiliser industry was, is and will continue to be a vehicle to agricultural development. At present, there are 54 N plants and 94 $P_2 O_5$ plants in our country[8]. These plants are producing nitrogenous and phosphatic fertilizers only. The potassic fertilisers are imported and marketed in India. All these fertilisers are avai lable to farmers in different brand names.

Marketing is the base for inception, development and growth of any organisation. Regarding relevance to organisation objectives and enterprise planning, in many cases marketing precedes manufacturing[9]. Marketing serves as a connecting link between producers and consumers. So, there are specific responsibility areas of marketing viz., pricing, marketing, finance, personnel, selling and distribution, promotion and advertising and marketing research that needs immediate and constant attention.

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8. Anonymous, **op.cit.**, pp-62-67.

9. K. Rajeshwar Rao and N. Kusuma "Marketing Information System in Rashtriya Chemicals and Fertilisers Limited-A case study", **Indian Journal of Marketing**, 17(7): 17-24, 1987.

Marketing of fertiliser, in general, involves buying, selling, providing incentives, off season rebates, financing, risk-sharing, extension, promotion, storage and transportation-all intended to facilitate smooth distribution of fertilisers produced[10]. Distribution is one of the components of marketing mix. It involves developing marketing channels and planning the movement of products to different market segments including the warehousing and inventory holding.

The distribution of fertilizers in India is done through dealers either private or cooperative. Co-operative societies are voluntary organisations of farmers to serve themselves with supply of agro-inputs. Besides, Co-operatives also give financial assistance to farmers for getting inputs.

A private dealer is a separate entity and he is an important link in the marketing channel. Manufacturers have to necessarily make use of these marketing intermediaries to reach their products to the consumer faster and to take

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10. B. Shyamala, " Perspective of Fertilizer Marketing", **Kissan World**, 9(10) : 23, 1982.

advantage of the consumers which the intermediaries possess[11].

In general, branding is a way for an organisation to identify its offering and distinguish them from competitors [12]. Manfacturers offer their products to consumers through dealers under different brand names. In the modern marketing management, the concept of brand image has gained tremendous attention. In the ferlitizer marketing also, brand development assumes importance. There are several brands in nitrogenous ferlitizers, complex and phosphatic ferlitizers. As awareness creeps in farmers, manufacturers engage themselves in a tough competition with their rivals in order to imbibe brand loyalty in the consumers. A good brand image has to be maintained to keep up brand loyalty. Thus, brand image becomes one of the important factors that determine the market share. It is

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11. A.B. Thomas Stephen, "**Marketing Channels, Dealer Network and Development,**" Text of lecture presented at the 29th Fertilizer Association of India-Seminar, Training programme for Fertilizer marketing representatives, Trivandrum, April 2-7, 1990.

12. Tauseef Ahmad and Inderjeet Singh, "Fertilizers Brand Preference: A case study of Meerut Divison (U.P)", **Indian Journal of Marketing,** 15 (10-12): 28-31. 1985.

therefore essential for the marketing personnel in distribution channel to have a sufficient knowledge on the behaviour of consumers. The focal point of any business activity is to locate the consumers with a view to serving them which helps in getting more and more business to the marketing organisations. In the fertilizer marketing also the availability of different brands in urea, DAP, Complex, etc calls for the preference on the part of dealers and farmers. Various factors influence them to choose their brands.

When the market is supplied with similar products with different brands, the promotional efforts play a dominant and significant role in developing or improving the brand image among consumers. Manufacturing and marketing organisations pursue various innovative promotional activities to create brand loyalty in the consumer's mind. So the importance of promotional activities cannot be ignored while studying brand preferences. To analyse and answer to the aforesaid issues, the present study had been undertaken with the following objectives in Pollachi Taluk of Coimbatore District.

OBJECTIVES :

The overall objective of the study is to make an insight in the brand preferences of the farmers. The specific objectives are:

1. to analyse the fertiliser brand preference of farmers and dealers;
2. to identify the factors influencing the preference for the use of particular brand and
3. to study the effectiveness of promotional activities followed by the manufacturers for different brands.

SCOPE OF THE STUDY:

The study will help to know the fertilizer brands available in the market and farmer's preference towards them. The study will also throw light on the causative factors influencing brand image. Besides the study will specify the influence of promotional activities in developing brand image and will generate information to formulate appropriate strategies for furthering brand development .

LIMITATION:

The sample respondents are very small in number as compared to total population of dealers and farmers. As the primary data was collected by survey method, the data collection was subjected to recall bias of farmers and dealers. Further the findings of study may not be generalised as they are subjected to prevailing conditions of study area.

ORGANISATION OF THESIS:

The organisation of the thesis is as under:

Chapter I : Introduction - the background, objectives, scope and limitations of the study are outlined.

Chapter II : Concepts and reviews used in the present study and a review of related to past studies are presented.

Chapter III : Design of the study covering sample design and tools of analysis used in the study are given.

Chapter IV : The agro economic and social features of the study area is presented.

Chapter V : Results and Discussion - findings of the study are presented, analysed and discussed.

Chapter VI : Summary of results are presented and conclusions are made and policy measures are suggested.

CONCEPTS AND REVIEW

CHAPTER II

CONCEPTS AND REVIEW

The present study has been taken up to know the farmer's and dealer's preference towards different brands of fertilizer available in the market. An attempt was also made in the study to delineate the factors affecting the brand preferences and effectiveness and influence of promotional activities on farmers and dealers. Various fundamental concepts like market, marketing, and market functionaries are relevant for this study. The concept of dealer, seller, wholesaler, wholesaler cum retailer and buying behaviour have also to be studied for this study. Brand, branding and promotion form the core concepts of study. A knowledge of these concepts would definitely help to have better clarity of the present study. In what follows, definitions of the concepts and a brief review of past studies in the related areas are presented.

Market

The word market is derived from latin word "marcatus" which referred merchandise (or) place where business is conducted.

Stanton defined market as a concentration of people with needs to be satisfied, money to spend and willingness to spend on it[1].

According to Larson, a market may be broadly described as the entire area within which the forces of demand and supply of given commodity or service interact in effective exchanges thereby establishing prices. Thus whenever and wherever buyers and sellers are brought together through whatever means of communication, market exists[2].

A market may refer to a place (or) the actual forces that results in the exchange of goods from one hand to other[3].

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[1]William J. Stanton, "**Fundamentals of Marketing**", (New Delhi: McGraw Hill Book Company, 1984) p-74.

[2]Adlowe L. Larson, "**Agricultural Marketing**", (New York : Prentice Hall Inc., 1953). pp.33-34.

[3]R.O. Tousley, E. Clark and E.E. Clark, "**Principles of Marketing**", (London : The Macmillan Company Inc., 1962), p.10.

A market consists of all the potential customers sharing a particular need or want and might be willing and able to engage in exchange to satisfy that need or want[4].

Bain referred market to a closely inter-related groups of sellers and buyers[5].

Lipsey defined market as an area in which buyers and sellers negotiate the exchange of a well-defined commodity[6].

Cundiff and Still defined market as the aggregates of forces or conditions within which buyers and sellers make decisions that resulted in the transfer of goods and services and determination of prices, namely, value in exchange[7].

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[4]Philip Kotler, "**Marketing Management - Analysis, Planning, Implementation and Control**", (New Delhi : Prentice Hall of India Private Ltd., 1988), p.9.

[5]Joe S. Bain,"**Industrial Organisation**" (New York: John Wiley and Sons Inc., 1967), p.4.

[6]Richard G. Lipsey, "**An Introduction to Positive Economics**", (Great Britain: English Language Book Society, 1971), p.69.

[7]E.N. Cundiff and R. Still, "**Basic Marketing Concepts, Environment and Decision**", (New Delhi : Prentice Hall of India Private Ltd., 1968), p.21.

Narain opined that the term market had no reference to a place where the goods were bought and sold; but to a single commodity and the buyers and sellers of that commodity who were in free competition with one another[8].

For the present study, market was considered as a place where farmers (buyers), dealers and representatives of manufacturing firms exist for the exchange of goods and services.

Marketing

According to American Marketing Association, marketing is referred to the performance of business activities that direct the flow of goods and services from the producer to the ultimate consumer or user[9].

Mamoria and Joshi referred marketing to the process of ascertaining, creating and satisfying the needs of the people and doing it with a profit. Further, in their view, marketing was the father of innovation and product

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[8]Brij Narain, "**Principles of Economics**", (Delhi : S.Chand and Co., 1941), p.26.

[9]R.P. Buzzel, J.B. Mathews, Jr., and T. Levitt Quoting American Marketing Association in "**Marketing - An Introductory Analysis**", (New York: McGraw Hill Book Company, 1974) p.13.

development, promoter of enterpreneurial talent, developer of economy, stimulation of consumption and higher standard of living and guardian of price system[10].

Kotler defined marketing as a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others[11].

According to Bell, marketing is a management task of strategically planning, directing and controlling the application of enterpreneurial effort to profit making process that would provide consumer satisfaction-a task which involves integration of all business activities, including manufacturing, finance and sales in a fixed system of action[12].

Westing and Album defined marketing as the identification (or) creation of consumer needs and

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[10]C.B. Mamoria and R.L. Joshi, "**Principles and Practices of Marketing in India**", (Allahabad : Kitab Mahal, 1975) p.8.

[11]Philip Kotler, **op.cit.,.,** p.11

[12]Martin L. Bell, "**Marketing Concepts and Strategy**", (London : Macmillan and Company Ltd., 1966) p.7.

motivations and coordination of all functions within which a business would meet those needs which benefit both the buyer and seller[13].

In the present study, marketing was considered as the performance of all those activities that directed from the manufacturing firms towards the intermediaries and final user (i.e farmer) in order to satisfy the need of them at right time, at right place, at right quantity and with good quality.

Market Functionaries

Market functionaries are those who engaged in the process of marketing. Marketing functionaries are of different tyes based on the functions performed by them.

Dealer

According to Kotler, dealer is a firm that bought and resold merchandise at either retail or wholesale[14].

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[13]Howard Westing and Gerald Album, "**Modern Marketing Thought**" (London : The Macmillan Company, Collier-Macmillan Ltd., 1969), p.13.

[14]Philip Kotler, **op.cit.**,., P-555.

Fertilizer dealer was defined by Pandey and Sunita Vivek as a person or institution carrying on the business of selling fertilizers either wholesale (or) retail[15].

According to kulshreshtha, the term dealer included the wholesalers, retailers, distributors, stockists or any other designation by which a distribution intermediary was known[16].

Rameshbabu remarked that the term dealer included all the firms carrying on business of selling fertilzers, wholesaler cum retailer, private retailers and retail co-operative societies selling fertilizers to farmers[17].

In this study, dealer was considered as the one who carry on business of selling fertilizers. Dealers may be a wholesaler, retailer, wholesaler cum retailer, private retailers or retail co-operative societies.

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[15]S.N. Pandey and Sunita Vivek, "Efficiency in Fertilizer Marketing", **Fertilizer News**, 28(7): 22-26, 1983.

[16]Renu Kulshreshtha, "Sales Promotion Techniques", **Indian Journal of Marketing**, 16(10): 6, 1986.

[17]Rameshbabu, "Factors Influencing Dealers Purchase Decision Regarding Fertlizers in Tamil Nadu - A case study of Madras Fertilizers Limited", (Unpublished M.Sc (Ag) Thesis, Department of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore, 1990) p.17.

Wholesaler

According to vachharajani, a wholesaler is an institutional agency or private organisation. They may be one or more in a given area. They distribute principal products through a number of retailers and in some cases, they also retail themselves[18].

Wholesalers are those engaged in selling goods or services to those who buy for resale or business use[19].

In the current study, wholesalers are those engaged in selling fertilizers to those who buy for resale or business use.

Retailers

Cundiff and still defined retailer as a merchant or occasionally an agent whose main business is selling directly to ultimate consumers for non-business use[20].

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[18]N.M. Vachharajani, Establishing Distribution Network : Methods and Criteria in **"Hand book of Fertilizer Marketing"**, (New Delhi : Fertilizer Association of India, 1976) pp.135-137.

[19]Philip Kotler, **op.cit.,.,** p.569.

[20]E.N. Cundiff and R. Still, **Op. cit.**, p.75.

According to Kotler, retailers are those engaged in selling goods or services directly to final consumers for their personal and non-business use[21].

In the present study, retailers are those who engaged in purchasing fertilizer from manufacturers or distributors or wholesalers and in selling the purchased fertilizer to farmers or other final consumers.

Wholesaler cum retailer

Any person or insitution carrying the business of selling fertilizer to retailers and ultimate users and also doing business to assemble and distribute bulk quantities to other retailers is referred as wholesaler cum retailer[22].

In this study, wholesaler cum retailer was considered as the one who carried out the functions of wholesaler as well as retailer.

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[21]Philip Kotler, **Op. cit.**, p.554

[22]Ramesh Babu, **op. cit.**, p.16.

Buying Behaviour

Walters defined buying behaviour as the process where in individuals decide on whether, what, when, where, how and from whom to purchase goods and services[23].

Buying behaviour is of immense significance and paramount importance to both the buyer and seller, for the former in satisfying his needs and for the latter in meeting the needs of his buyer and realising more profit[24].

Metha opined that buying behaviour involved those activities like search of alternatives, evaluation of alternatives, choice decision and post-purchase feelings and reactions[25].

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[23]C. Glenn Walters, "**Consumers Behaviour - Theory and Practice**", (Illinois : Richard D. Irwin Inc., 1974) p.7

[24]S.D. Sivakumar, "A Study on the Market Structure and Buying Behaviour of the Farmers with reference to Pesticides", (unpublished M.Sc (Ag) thesis, Department of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore, 1987) p.38.

[25]Subhash C. Metha, "**Indian consumers**" (New Delhi: Tata McGraw-Hill Publishing Company Ltd., 1974), p.8.

For the present study, buying behaviour was considered as the process wherein individuals resort to the decision of whether, what, when, where, how and from whom to purchase goods and services.

Branding

Branding is an intrinsic part of product strategy for successful brands that would provide better income to the concern[26].

Branding in general is a way for an organisation to identify its offerings and distinguish them from those of the competitors[27].

In this study, branding is defined as the path for an manufacturing firm to identify its fertilizer product and distinguish them from those of its competitors.

Brand

A name, term, sign, symbol, design (or) combinations of them which is intended to identify the goods or services

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[26]American Marketing Association, "**Marketing Definitions - A Glossary of Marketing Terms**", (Chicago : American Marketing Association, 1960) p.35.

[27]Tauseef Ahmad and Inderjeet singh, op. cit., pp. 28-31.

of one seller group (or) group of sellers and to differentiate them from another[28].

A brand name was defined as a brand or a part of a brand consisting of a word, letter, group of words or letters comprising a name intended to identify the goods or services of sellers and to differentiate them from those of the competitors[29].

Branson and Nowell remarked that a brand had both a name, by which it was called and often a mark, by which it was recognised visually. A brand could facilitate communication for buyers at other levels than consumers, such as food retailers who wanted to purchase in greater volumes. The brand name could communicate to retailers and consumers as what to expect from the product[30].

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[28]American Marketing Association, **op.cit.,.,** p.35.

[29] Anonymous, "Reports of Definitions Committee", **Journal of Marketing,** 13(2) : 205, 1948.

[30]Robert E. Branson and Douglas G. Nowell, **"Introduction to Agricultural Marketing"**, (New York : McGraw-Hill Book Company, 1983), p.351.

According to Padmaraj, any farmer who purchased a particular brand for more than one year reckoned to be brand loyal[31].

Reddy and Shankaraiah defined brand loyalty as the repeat purchase of same brand[32].

Brand loyalty is an integral part of the buying behaviour and through this the buying behaviour could be explained[33].

Kohls indicated that the location, brand, price, services and management were the factors considered to a certain extent by most farmers in selecting their dealers[34].

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[31]D. Padmaraj, "An Economic Analysis of Fertilizer use and Fertilizer Buying Behaviour in Paddy Farms of Andhra Pradesh", (Unpublished M.Sc (Ag) Thesis, Department of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore, 1983) p.17.

[32]A. Vidhyadhar Reddy and K. Shankaraiah, "Brand Switching Behaviour of Customers", **Indian Management**, 27(12) : 11-14, 1988.

[33]Philip Kotler, op.cit.,., P.143-144.

[34]R.C. Kohls, "Farmers Behaviour and Decisions in Purchasing Farm Supplies", reviewed by Thomas F. Funk in **'Farmer Buying Behaviour - An Integrated Review of Literature'**, (Guelph : School of Agricultural Economics and Extension Education, 1972), p.3.

Cunningham indicated that the manufacturers of branded goods expected their customers to be brand loyal and accept no substitute[35].

Day observed that the particular brand an individual would choose was neither wholly predetermined nor a matter of pure chance[36].

In this study, brand has been considered as the one consisting of a word, letter, groups of words or letters comprising a name intended to identify fertilizers of manufacturers and to identify them from those of the competitors.

Promotion

Stanton defined promotion as an exercise in information, persuasion and communication. These three were related, because to inform was to persuade and conversely a person who was persuaded was also being informed and

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[35]Ross M. Cunningham, "**Brand loyalty - what, where and how much?**" (Boston : Harward Business Review, 1956), p.116.

[36]Ralph C. Day, "**Marketing Models Quantitative and Behavioural**", (Pennsylvannia : International text Book Company, 1972) p.52.

persuasion and information became effective through some form of communication[37].

Promotion described all the activities designed to induce intermediate and ultimate consumers to buy a product or service other than normal sales-calls, media advertising and publicity[38].

Kotler indicated that marketing communication mix could also be called the promotion mix to four major tools viz., advertising, sales promotion, publicity and personal selling[39].

Promotion is a generic term used in marketing to denote all methods adopted for persuasive communication. It would help to convert a potential buyer to actual buyer[40].

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[37]William J. Stanton, **op. cit.**, P-431.

[38]Seymour Banks, "Trend Affecting the Implementation of Advertising and promotion", **Journal of Marketing**, 37(1) : 20, 1973.

[39]Philip Kotler, **op.cit.,..**, pp.428-429.

[40]P.K. Vijaya Chandran, "**Fertilizer Promotion**", Text of lecture delivered at Fertilizer Association of India-Seminar Training Programme, Trivandrum, 12 Oct., 1981.

Davar mentioned that the advertising, sales promotion and personal selling would generally constitute the promotional mix within the marketing mix of the company[41].

Promotional activity or effort is an attempt to influence the choice behaviour of some market segments[42].

Sales promotion is a vital link between personal selling and advertising[43].

In the present study, promotional activities are defined as those activities which are undertaken by the firms to influence the purchase decision behaviour of farmers and dealers.

Fertilizer:

Fertilizers are inorganic materials of a concentrated nature, applied mainly to increase the supply

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[41]Rustom J. Davar, "**Modern Marketing Management in the Indian context**", (Madras: Progressive Corporation Pvt. Ltd.1979), p.447.

[42]I. Satya Sundaram, "Packaging Industry poised for Growth", **FACTS FOR YOU**, 11(8) : 16, 1990.

[43]Bishwambhar Jha, "Promotion mix for Carpet Industry", **Indian Journal of Marketing**, 12(5) : 31, 1989.

of one or more of the essential nutrients as nitrogen, phosphorous and potassium.[44].

Any substance that is added to soil, supply one or more plant materials and intended to increase plant growth is a fertilizer[45].

Fertilizers are materials of simple inorganic compounds capable of supplying one or more plant nutrient and available naturally or by synthetic process[46].

In the present study, Fertilizer was considered as products which contained either N or P or K or in combination of any two or all the three nutrients supplied to farmers as farm inputs.

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[44]Indian council of Agricultural Research, "**Hand Book of Agriculture**", (New Delhi : Thomson Press (India) Ltd., 1969), p.104.

[45]G.W. Cooke, "**Fertilizing for Maximum Yield**", (London: The English Language Book society and crossby hockwood staples, 1974), p.28.

[46]A. Mariakulandai and T.S. Manickam, "**Chemistry of Fertilizers and Manures**", (Bombay : Asia Publishing House, 1975), p.390.

Straight Fertilizer

Straight fertilizers are those which supply only one nutrient[47].

In this study also, straight fertilizer is considered as the one which supply only one plant nutrient.

Complex Fertilizer

Complex fertilizers are chemical mixtures of two or more nutrients[48].

In this study also, complex fertilzers are considered as those which contain two or more nutrients in chemical combination.

Mixture Fertilizer

Mixture fertilizers are physical mixtures of two or more plant nutrients[49].

In this study also, mixtures are considered as physical mixtures of two or more plant nutrients.

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[47]S.S. Singh, **"Hand Book of Agricultural Sciencies"**, (New Delhi : Kalyani Publications, 1993) p.44.

[48]**Ibid.**, p.44.

[49]**Ibid.**, p.44.

RELATED PAST STUDIES

Ahmad and Singh studied the brand preference in fertilizer in Meerut division and observed that 54 per cent of farmers preferred SRIRAM fertilizers due to their easy availability in market, good quality, good packaging and good effect on soil structure[50].

Srinivasan studied the impact of promotional efforts of pesticides and fertilizer marketing firms on the farmers with the help of multiple regression model. He constructed a promotional index to evaluate the effectiveness of different promotional efforts. The scores of the promotional techniques which convinced the farmers to use that particular brand were summed. The per centage of this summed score to the total score was taken as promotional index. He observed that the promotional efforts had no significant impact on the farmers but the price of the product and area in which it was used were found to be significant[51].

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[50]Tauseef Ahmad and Inderjeet Singh, op. cit., pp. 28-30.

[51]A.Srinivasan, "Economic Evaluation of Promotional Efforts of Fertilizer and Pestiticide Marketing Firms", (Unpublished M.Sc (Ag) Thesis, Department of Agricultural Economics, Tamil Nadu Agricultural University, Coimbatore, 1986) pp.61-62.

Ramesh Babu in his study on factors influencing dealer's purchase decision-making regarding fertilizers in Tamilnadu used Garett's scoring technique to rank the factors influencing the dealer's purchase decision making. He found that consumer's preference, quality of the product, easy availability, special rebates offerred by the manufacturers and credit facilities were the major factors that influenced the dealer's purchase decision making[52].

Sivakumar analysed the factors influencing the farmers to purchase a particular brand by scoring each factor in a four point continous scale. He found that the quality of the preferred brand, advertisement and price of the brand had significant contribution in influencing the farmer to purchase a particular brand[53].

Vijayaraghavan in his study observed that the village level workers, neighbours and relatives of the farmers were the first source of information for the farmers[54].

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[52]Ramesh Babu, **op. cit.**, pp.78-80

[53]S.D. Sivakumar, **op. cit.**, pp.109-114.

[54]K. Vijayaraghavan, "A Study of the Communication Behaviour of Garden and Dryland Farmers, "Unpublished M.Sc (Ag) Thesis, Department of Agricultural Extension, Coimbatore, Tamil Nadu Agricultural University, Coimbatore, 1978) pp.88-89.

Namasivayam observed that the socio-economic factors such as age, education and income influenced consumer preferences. The study also indicated that uneducated persons preferred the media Television and Cinema for soap advertisement. Similarly, the influence of income on advertisement media was studied and it was found that low income group people (below Rs.1000 per month) preferred cinema as a medium[55].

Khara and Singh found in their study that neighbours, result demonstration, relatives and friends and farm and home visits in that order influenced the adoption of improved seeds. The least effective methods are posters, leaflets and training meetings. Methods under the category of indirect influence obtained highest scores where as the least was of group contact methods[56].

Kueln in his study on consumer brand choice on a learning process found that brand loyalty was higher for heavy purchasers than for light purchasers. The probability of consumers buying the same brand on two consecutive

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[55] M. Namasivayam, "Advertising Media Preference", **Indian Journal of Marketing** 18(5-7) : 23-28, 1988.

[56] J.S.Khara and Ranjith Singh, "Influence of Extension methods upon Adoption of Improved seeds, **Rural India**, 32(1) : 19, 1970.

purchases decreased with increase in time between the purchases[57].

Velappan in his research on Fertilizer Dealer motivation, idenified that of the 15 factors only the following five were found to be predominantly influential viz., consumers preference (22.95 per cent), credit facility (21.76 per cent), dealer margin (20.68 per cent), easy availability (8.22 per cent) and delivery facility (6.22 per cent). The remaining ten other factors were found to fade away insignificantly with negligible percentage of weightage[58].

Reddy and Shankaraiah in their study on brand switching behaviuor of customers used markov model to predict the brand switching behaviour of customers. Markov analysis is concerned with the patronage decisions of consumers, showing thereby how many customers are buying and which news paper. In this, a basic assumption is that consumers do not shift loyalty from one news paper to

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[57]Alfred A.Kueln, "Consumers Brand choice on a learning process", **Journal of Advertising Research**, 2(12), 10-17, 1982.

[58]S.Velappan, "Fertilizer Dealer Motivation - A Research", **Fertilizer Marketing News**, 13(2): 1-3, 1982.

another at random. A first order markov process is based on the assumption that the probability of next event depends on the outcome of the last event[59].

Therson employed multiple regression model to estimate the elasticity of advertisement for food and tobacco products. He observed that concentration change and advertisement influenced the growth of the sales positively[60].

A Heuristic model was employed to measure the effectiveness of advertising. It was found that every advertisement campaign would repay the company in terms of retaining the brand loyal customers[61].

Carman and Figueora in their study on factors associated with weekly food store sales variation found that retail food sales tend to decrease systematically with the

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[59]A.Vidhyadhar Reddy and K.Shankaraiah, **op. cit.**, pp.11-14.

[60]Roger Richar Therson, "Advertising and concentration change in United States: Food and Tobacco products 1954-1972", (Unpublished Ph.D Thesis, The University of Wisconsin, Madison, 1982), P.260

[61]Anonymous, "A Heuristic Model for Evaluating Advertising Effectiveness", **Indian Journal of Marketing**, 15(4), 21-23, 1984.

passage of time since the payday. It was found that the percentage variation of sales from the first to the last week of the month is greater for stores with low income customers than for similar stores with high income customers[62].

Yadav found that among three media classes viz., printed, audio/audio visual and hoardings, audio/audio visual media was very popular among the audience[63].

Ford concluded that the primary sources of information for farmers for buying fertilizer were co-operative firm (40per cent), private firm (28per cent) and other farmers (25per cent). Farm magazines (18per cent) and extension service (10per cent) were found to be the secondary sources. Written (printed) form (20per cent) and personal (80per cent) form were the important forms of information received by farmers[64].

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[62]Hoy F. Carman and Enrique E. Figueora "An Analysis of Factors Associated with Weekly Food Store Sales Variation", **Agribusiness**, 2(3): 375-390, 1986.

[63]Pradeep Kumar Yadav, "Advertising in Perspective - A case study", **Marketology**, 16 (3): 31-33, 1984.

[64]Stephen A. Ford, "Farmers sources and uses of Information", **Agribusiness**, 5(5) : 465-476, 1989.

Goyal in his study on buyer behaviour of tractor owners in Bathinda District remarked that eight brands of tractor viz. Eicher, Escorts, Swraj, Ford, International Kirloskar, Zetor and Hindustan were known to the average respondent. Familiarity level with respect to almost all the brands was almost equal but the most popular and purchased brand found was Eicher. It was found that friends played a major role as informants and advertising and dealers promotion were the secondary sources of information to farmers[65].

In a study on factors influencing consumer decision making process towards biscuits, it was found that quality and taste were considered as prime reasons for buying a particular brand of biscuit. Low price and easy availability were the other reasons considered for buying a particular brand[66].

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[65]B.B. Goyal, "Buyer Behaviour of Tractor Owners - A case study of farmers of Bathinda District", **Indian Journal of Marketing**, 26(10) : 29-30, 1986.

[66]H. Venkateshwarlu, M. Kishore Kumar and M. Rajanath, "Factors Influencing Consumer Decision Making Process Towards Biscuits - A Behavioural Analysis", **Indian Journal of Marketing**, 17(9-10) : 3-7, 1987.

Yadav in his study on consumer behaviour with respect to pharmaceuticals observed that physician was the major source of information to people on different brand of tonics. The study revealed that sources like newspapers, magazines, friends, radio and television also exerted influence on the respondents. It was also found that taste of tonics was considered to be the most important attribute by the consumers for preferring different brand[67].

Mathur in his study on tooth-paste advertising and consumer relation observed that 36 per cent of users were tooth-paste conscious on account of advertising and 20 per cent were conscious about tooth-paste because of advice of doctors. The rest of the respondents were conscious because of other reasons such as health, social group, etc. However, most of the users opined that salesman's persuasiveness and appealing package did not make them conscious about tooth-paste[68].

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[67]Pradeep Kumar Yadav, "Consumers Behaviour with Respect to Pharmaceuticals the case of Tonics - A Marketing Perspective", **Indian Journal of Marketing**, 19(5) : 9-10, 1989.

[68]Navin Mathur, "Tooth-paste Advertising and Consumer Relation", **Indian Journal of Marketing**, 14(5) : 31-32, 1984.

Gupta and Singh found that durability and brand image were the two major reasons for preferring a particular brand of television by the consumers. These were followed by family liking, after sale service, price and better guarantee or warranty. The other reasons for brand preference were attractiveness, advertisement and size of the screen[69].

Hundal and Sandhu in their study on buying behaviour of Television buyers remarked that purchase behaviour was chiefly affected by price of various brands followed by product features and after sales service. It was also found that word of mouth publicity had good impact on consumers as compared to advertising which had low influence[70].

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[69]P. Gupta and Raghbir Singh, "Consumer's Brand Choice Behaviour for Television", **Indian Journal of Marketing**, 19(5) : 17-22, 1989.

[70]B.S.Hundal and H.S. Sandhu, "Buying Behaviour of Television Buyers in Punjab - A case study", **Indian Journal of Marketing**, 18(2-4), 23-28, 1987.

DESIGN OF THE STUDY

CHAPTER III

DESIGN OF THE STUDY

The present study was taken up in Pollachi taluk of Coimbatore district. The formidable problem that follows the task of defining the research problem is the preparation of the research design. In what follows, a resume of choice of study area, survey design, sampling procedure, method of enquiry, period of study and tools of analysis are presented.

Sampling procedure:

Pollachi taluk qualifies more than any other taluks in Coimbatore district for the present study because of its diversified cropping pattern as compared to other taluks of the district. The details of gross cropped area in different taluks of Coimbatore district are furnished in Table I. The taluk stood first in the matter of gross cropped area with 27.92 percent. The taluk ranked first in gross irrigated area of the district. It ranked second in respect of gross area irrigated to gross area sown. The taluk stood second in respect of area under cereals and food grains. Similarly as regards the fertilizer distribution the taluk tops the other taluks. Nearly 27 percent of the chemical fertilizer distributed in Coimbatore district during 1991-92 was used by the farmers of this taluk.

TABLE I

DETAILS OF GROSS CROPPED AREA IN DIFFERENT TALUKS OF COIMBATORE DISTRICT - 1992-93

(Area in ha)

Sl. No.	Crops	Avinashi	Udumalpet	Pollachi	Valparai	Coimbatore	Mettupalayam	Palladam	Tirupur	Coimbatore (Dt.)
1.	Paddy	382 (0.81)	16453 (21.33)	7415 (6.72)	-	1447 (2.89)	351 (2.03)	108 (0.22)	878 (2.82)	27034 (6.84)
2.	Cholam	1326 (2.83)	9042 (11.72)	16372 (14.84)	-	21083 (42.11)	5368 (31.04)	18283 (37.78)	18409 (59.14)	89883 (22.75)
3.	Maize	36 (0.07)	6866 (8.90)	1149 (1.02)	-	1517 (3.03)	685 (3.96)	5004 (10.34)	701 (2.25)	15958 (4.03)
4.	Other food grains	47 (0.10)	522 (0.67)	2207 (2.00)	-	417 (0.83)	701 (4.05)	171 (0.35)	23 (0.07)	4088 (1.03)
5.	Blackgram	215 (0.46)	2462 (3.19)	4167 (3.77)	-	656 (1.31)	290 (1.67)	65 (0.13)	27 (0.08)	7882 (1.99)
6.	Greengram	1263 (2.70)	930 (1.20)	795 (0.72)	-	532 (1.06)	774 (4.47)	1389 (2.87)	523 (1.68)	6206 (1.57)
7.	Cowpea	845 (1.80)	2617 (3.39)	5182 (4.69)	-	595 (1.19)	345 (1.99)	197 (0.40)	584 (1.87)	10359 (2.62)
8.	Other pulses	2248 (4.81)	6403 (8.30)	4354 (3.94)	-	3063 (6.12)	2909 (16.82)	3901 (8.06)	1792 (5.75)	24670 (6.24)
9.	Total Foodgrains	6362 (13.62)	45295 (58.73)	41641 (37.76)	-	29310 (58.55)	11423 (66.6)	29118 (60.18)	22937 (73.68)	186086 (47.10)
10.	Groundnut	11187 (23.95)	9601 (12.44)	28387 (25.74)	-	4906 (9.80)	1720 (9.94)	862 (1.78)	2736 (8.78)	59401 (15.03)
11.	Coconut	677 (1.44)	8664 (11.23)	28422 (25.77)	-	5035 (10.06)	658 (3.80)	4126 (8.52)	1588 (5.01)	49170 (12.44)
12.	Other Oilseeds	195 (0.41)	3397 (4.40)	1544 (1.40)	-	258 (0.51)	371 (2.14)	423 (0.87)	645 (2.07)	6833 (1.72)
13.	Cotton	9080 (19.43)	3394 (4.40)	5591 (5.06)	-	2614 (5.22)	314 (1.81)	2487 (5.14)	1571 (5.05)	25051 (6.34)
14.	Fruits	521 (1.11)	409 (0.53)	773 (0.70)	21 (0.14)	844 (1.69)	745 (4.30)	184 (0.38)	116 (0.37)	3613 (0.91)
15.	Vegetables	398 (0.85)	1216 (1.57)	1858 (1.68)	1442 (10.24)	538 (1.07)	1008 (5.82)	717 (1.48)	398 (1.27)	7179 (1.81)
16.	Other spices and Condiments	338 (0.72)	524 (0.67)	746 (0.67)	1015 (7.20)	1865 (3.73)	934 (5.40)	850 (1.75)	532 (1.70)	6804 (1.72)
17.	Other Crops	17950 (38.43)	4619 (5.98)	1315 (1.19)	11600 (82.39)	4694 (9.38)	117 (0.67)	9615 (19.87)	604 (1.94)	50909 (12.88)
18.	Total Non-food grain.	40346 (86.37)	31824 (41.26)	68637 (62.23)	14078 (100.00)	20754 (41.45)	5867 (33.93)	19264 (39.81)	8190 (26.31)	208960 (52.89)
	Gross Cropped area	46708 (100.00)	77119 (100.00)	110278 (100.00)	14078 (100.00)	50064 (100.00)	17290 (100.00)	48382 (100.00)	31127 (100.00)	395046 (100.00)

(Figures in the paranthesese indicate the percentage to the gross cropped area)

Source : C-return, Office of Assistant Director of Statistics, Coimbatore.

Pollachi taluk consists of four blocks viz Anamalai, Kinathukadavu, Pollachi (North) and Pollachi (South). Since the Anamalai block had exhibited variations in the cropping pattern as compared to other blocks of Pollachi taluk. the study has been carried out in Pollachi North and South and Kinathukadavu blocks of the taluk under question. In the first stage, five villages in each block were selected randomly from the list of all villages in each block arranged in the alphabetical order of their names in English. In the second stage, sample farms were selected at the rate of six per village by simple random sampling method from the register of land holdings. The list of sample villages is given in Table II.

TABLE II

LIST OF SAMPLE VILLAGES IN THE SELECTED BLOCKS OF POLLACHI TALUK

S.No	NAME OF THE SAMPLE VILLAGES IN		
	Pollachi (North)	Pollachi (South)	Kinathukadavu
1.	China Negamum	Uthukuli	Devanamplayam
2.	Vadakki palayam	T.Kollampatti	Sankarayapuram
3.	Periya Negamum	Gomangalam	Salipudur
4.	Rasakka palayam	S.Ponnapuram	Sendranpalayam
5.	N.Chandrapuram	Thondamuthur	Kovilpalayam

Apart from farmers, dealers and sales representatives of fertilizer companies were also contacted

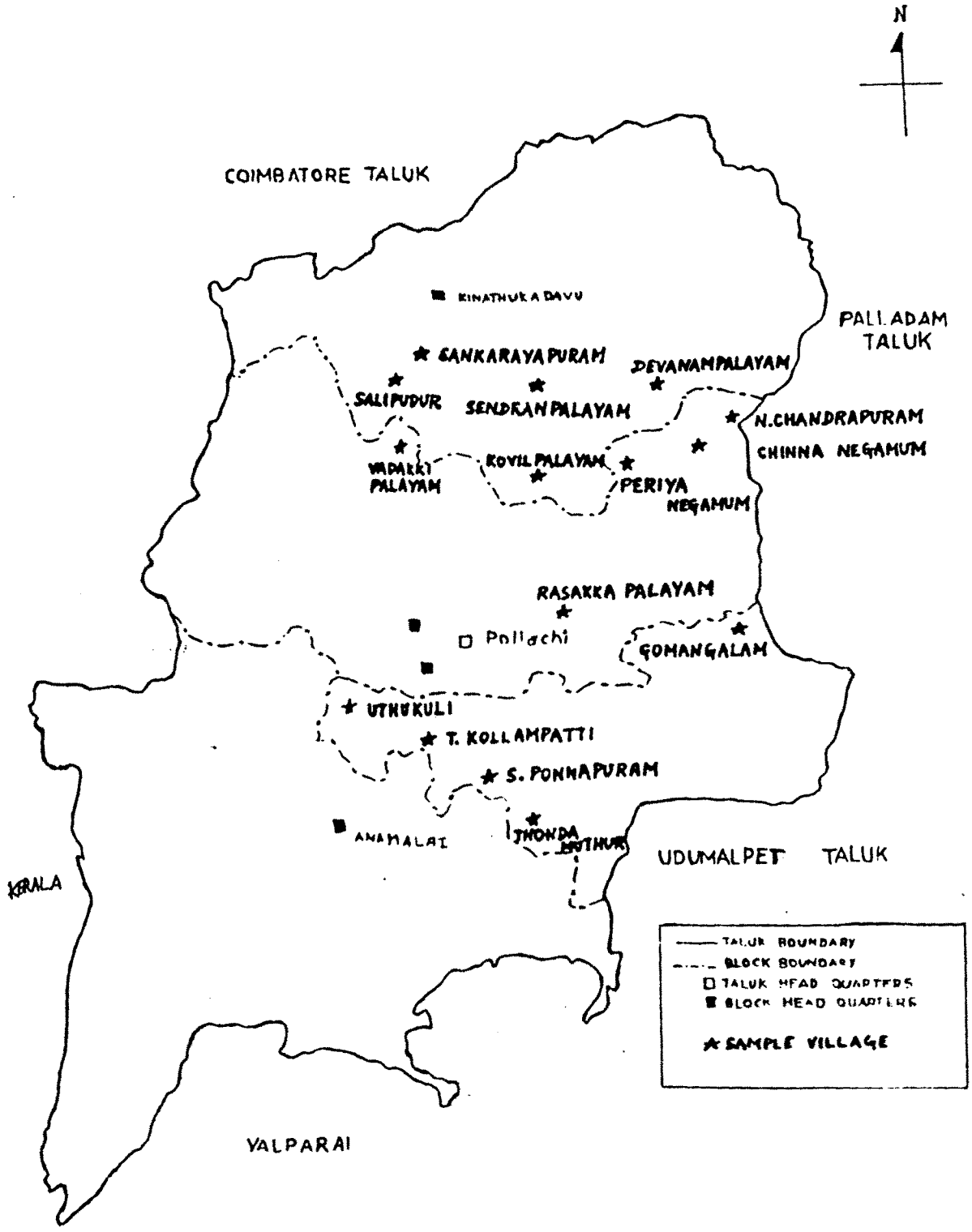

Fig. Map showing location of selected villages in Pollachi taluk.

for the present study. In all 30 dealers of different brands of fertilizers were randomly selected for the present study. The dealers were selected from both the private and co-operative sectors in the study region. Besides three sales representatives one each of SPIC, MFL and FACT were also contacted to enlist their views.

Selected farmers, dealers and representatives were contacted personally and needed information were collected. Location of the holding, description of the holding, crops raised, types of fertilizers used, brand of fertilizers used, factors influencing the choice of the fertilizers and other related information relevant to the study were gathered from the farmers. From the dealers, the detailed aspects of quantities of fertilizers purchased and sold during of the year 1992-93, their margin for various brands, the factors that influenced them to resort to the purchase of different brands of fertilizers and promotional activities undertaken by them were studied. The relative share of the brands in the study area, status of the brand image and the promotional activities followed by them were solicited from the representatives of fertilizer companies.

In general, a pre-tested comprehensive schedule was used for the survey. The primary data collected from the sample respondents formed the basis for arriving at meaningful conclusions of the study.

Period of study.

The study was taken up during the month of September through November 1993 and the data collected were related to the agricultural year 1992-93.

Tools of Analysis

The collected data were tabled, processed and analysed. The data were formed into different sub-tables which facilitated to arrive at meaningful and purposeful conclusions. In the analysis of collected data, the following tools of analysis were employed.

(i)**Conventional Analysis:**

Percentage analysis was made use of to know the types of fertilizers used, awareness of brands, types of brands used by the farmers, source of purchase and mode of purchase by the farmers.

At dealer level, percentage analysis was used to know the quantity of fertilizers of different brands purchased and their preference towards different brands.

(iii) Garett's Scoring Technique:

This technique was employed to delineate the factors influencing the farmers and dealers to purchase different brands of fertilizers. This technique was also

used to know the preference and awareness of farmers and dealers towards different promotional strategies followed by different companies.

In the Garett's scoring technique, the order of merit assigned by the respondents was converted into ranks by using the formula:[1]

$$\text{Percent position} = \frac{100\ (Rij - 0.5)}{Nj}$$

Where Rij = Rank given for i th factor by j th individual

Nj = Number of factors ranked by j th individual.

The percent position estimated were converted into scores by referring the table given by Garett. For each factor, the scores of various respondents were added and mean score has been calculated.

The mean scores were then arranged in descending order. The factor with highest score was considered to be most influcencing.

Effectiveness of Promotional Activities

Based on study by Sivakumar who adopted a three point scale with equal interval in the increasing trend of satisfaction to assess the responses on the different

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1. Henry E.Garett and R.S.Woodworth, **"Statistics in Psychology and Education,"** (Bombay: Vakils, Feffer and Simons Private Ltd., 1969) p.239.

marketing element2, a three point scale with equal interval in the increasing trend of conviction was adopted in this study and the responses to different promotional activities from the farmers were obtained. The three point scale adopted was as follows.

Not Convinced	=	1
Convinced	=	2
Highly Convinced	=	3

Following the same procedure, a five point scale was formulated with equal interval in the increasing trend of effectiveness to ascertain the responses of dealers on the different promotional activities as mentioned below.

Not effective	=	1
Less effective	=	2
Fairly effective	=	3
Effective	=	4
Highly effective	=	5

Coefficients or Weightages were arrived at based on the ratio of the number of respondents under each category to the total number of respondents. These coefficients or

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2. A.Sivakumar, "Marketing strategy Analysis - A case study" (Unpublished M.Sc (Ag) thesis, Department of Agricultural Economics,Tamil Nadu Agricultural University, Coimbatore, 1992), p.29

weights were then multiplied with the orignal score and thus the new weighted scores were obtained. The weighted scores under different promotional activities have been summed up and the mean scores were then arrived at based on number of respondents under each category of promotional activity. The mean scores were thereafter arranged in descending order. The activity which got the maximum mean score was reckoned as most effective both in the case of farmer and dealer. The promotional activities with mean scores of descending order reflected the order of effectiveness from most to the least.

Functional Analysis

Functional analysis was carried out to analyse the effect of various factors influencing the brand preference of farmers. A linear multiple regression model was specified to examine the factors influencing the brand preference of farmers. The functional analysis was carried out for the entire sample respondents.

In order to study the factors influencing brand preference of farmers, a linear multiple regression model of the following form was specified:

$$B = B_0+B_1X_1+B_2X_2+B_3X_3+B_4X_4+B_5X_5$$

Where, B = Preference of farmer to purchase a particular brand.

B_0 = Intercept,

B_1 to B_5 are the coefficients to be estimated,

X_1 = Easy availability of the particular brand,

X_2 = Price of the particular brand,

X_3 = Quality of the brand,

X_4 = Credit availability of the brand and

X_5 = Sales promotion adopted by the manufacturers of the brand.

If a farmer had preferred to purchase a particular brand, then he was said to have a preference for that fertilizer brand. A score of one was given to a farmer if he had purchased the brand for one year and increased score was given according to the years of purchase.

The independent variables X_1 to X_5 were measured using a four point continuous scale. For the independent variables X_1, X_2, X_3 and X_4, the scores of four, three, two and one were assigned to quantify highly satisfactory, satisfactory, moderately satisfactory and not at all satisfactory levels respectively, as expressed by the respondents. Similarly in the case of independent variable, X_5, a four point continuous scale was used to measure the extent of influence by sales promotional activities on farmers. For this variable, the scores of four, three, two and one were assigned to quantify the level of satisfaction as highly convinced, convinced, moderately convinced and not at all convinced respectively as expressed by selected farmers.

Farmer would prefer to purchase the brand which was easily and regularly available in the dealer shop eventhough he might be loyal to some other brand. Hence, easy

availability of fertilizer brands was included as an independent variable in this model.

Farmer would prefer the brand if it was offered at the reasonable and lower price as compared to other brands. Hence, the price was included in the model specified.

If the farmer was not satisfied with quality of the brand, he would not have preference to purchase that particular brand. Hence, the quality of the brand as perceived by the farmer was measured and included in this model.

As farmers mostly suffered for want of credit, he might have preference for the brand for which credit facility was extended by either by the manufacaturer or by the dealer. Hence, Credit availability was also included as one of the independent variable.

As various brands were available and the manufacturers of these brands had been doing various promotional activities to promote the sales of the brand, it was attempted to know the influence of promotional measures on farmers to prefer a particular brand for purchase. Hence, the sales promotion was included as one of the independent variable in this model.

DESCRIPTION OF THE STUDY AREA

CHAPTER IV

DESCRIPTION OF STUDY AREA

A knowledge on agro-economic and social conditions of the study area is of paramount importance to analyse the problem in depth and draw meaningful conclusions. This chapter deals with the agro-economic and social features of the Pollachi taluk.

Location And Extent

Pollachi taluk is situated on the south western part of coimbatore district between 76°15' of eastern longitude and 10°18' and 10°55' of northern longitude. The taluk is surrounded by Coimbatore and Palladam taluks on the northern side, Kerala state on the southern and western sides and Udumalpet taluk on the eastern side. The total area of the taluk is 1372.32sq.kilometres. The taluk consists of four blocks viz., Pollachi (NORTH), Pollachi (SOUTH).Anamalai and Kinathukadavu. There are 132 revenue villages and eight town panchayats as per 1991 census in the taluk. The headquarters of the taluk is Pollachi which is located 40 kilometers away from Coimbatore city. The population of the taluk as per 1991 census is 3,61,004 and it accounted for 10.29 percent of the population of Coimbatore district.

Climate and Rainfall

Pollachi taluk has a moderate climate as experienced in the district. The location of Palghat gap on the western ghat mountain range of the western part of taluk brings substantial amount of rainfall during the South-West monsoon period viz., June and July. The rains spread deep inside the taluk. The mean annual rainfall of the taluk for the period from 1981 to 1992 is 758.98 mm. The month-wise distribution of the rainfall of the taluk for the past twelve years is shown in the Table III. The coefficient of variation of distribution of rainfall indicated a high degree of instablity.

Soils and Topography

A stretch of undulating plain gently sloping from north towards south and east is a important physiographical features of the taluk. There are Anamalai hills on the southern side, mid uplands on the north and north eastern sides and the low flat lands on the north western side. The Uppar, Kallar, Solaiyar, Periyar, Aliyar and Solarulkalli and many other water courses like streams and channels flow in the taluk. The slopy areas are well drained as compared with the uplands on the north-eastern side of the taluk. The western flat lands and the valleys are poorly drained. In general, the area is well drained.

TABLE III

MONTHWISE DISTRIBUTION OF RANIFALL IN POLLACHI TALUK, 1981-1992

(mm)

Years	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
1981	—	—	—	36.0	131.0	168.0	78.0	123.0	87.0	262.0	39.0	7.2	931.80
1982	—	—	—	16.0	74.4	78.2	90.0	112.2	115.0	148.0	47.0	4.2	685.00
1983	—	—	—	3.0	58.0	64.0	97.0	114.6	17.6	76.4	111.0	23.0	564.60
1984	—	7.0	50.2	40.4	10.0	100.0	180.0	47.0	50.40	146.40	22.0	52.0	705.40
1985	101.80	—	—	62.0	60.0	218.4	55.0	95.4	39.0	52.0	124.0	11.0	818.60
1986	3.0	12.0	4.0	12.0	18.0	98.4	141.7	153.0	—	10.5	43.7	7.8	504.10
1987	—	—	24.0	9.0	47.4	62.6	46.5	65.8	82.6	294.6	63.7	134.0	830.20
1988	—	—	10.0	195.4	114.6	42.4	146.0	66.0	32.4	19.0	47.7	10.0	683.50
1989	—	8.0	45.0	46.0	22.4	120.0	184.0	60.0	55.0	140.4	30.0	50.0	832.8
1990	12.0	—	20.0	10.0	45.4	60.6	50.5	62.0	80.6	290.6	68.0	135.0	834.7
1991	22.0	—	58.0	72.0	72.6	84.0	308.0	53.4	11.8	86.0	4.0	1.6	773.4
1992	—	—	—	31.2	147.8	182.4	119.9	78.0	51.8	40.0	292.6	—	943.7
Mean	11.56	2.25	17.60	44.42	66.8	106.58	124.71	85.87	51.93	130.49	74.44	36.31	758.98
C.V	252.66	187.72	124.52	117.85	66.33	51.86	59.98	38.71	66.23	78.89	103.14	135.00	17.80

Source: Office of the Assistant Director Statistics, Coimbatore.

The soil types of the Pollachi taluk along with their share in the total geographical area is given in Table IV;

TABLE IV

DISTRIBUTION OF SOIL TYPES IN POLLACHI TALUK

(Area in ha)

Sl.No.	Type of Soil	Extent	Percent to Total
1.	Red Sand	63672.88	54.56
2.	Red Loam	45830.48	39.30
3.	Black Clay	3964.98	3.40
4.	Black Loam	3148.66	2.74
	Total Geographical area	116617.00	100.00

Source: Records of the Office of the Assistant Director of Statistics, Coimbatore.

The major soil in the taluk is red soil. The soils of taluk are enriched with fair chemical composition as they got potash, lime and magnesia of the original rocks but the granules are insufficiently decomposed. Soil survey and land organisation classified the soils of this taluk in to five major soil series. They are Irugur, Palladam, Dasarapatti, Peelamedu and Anamalai series. Of these, Irugur sereies and Palladam are the major soil series covering about 31.30 and 21.36 percent of total geographical area respectively. Irugur soil series is dark reddish in colour and is sandy loam in texture. Palladam series is moderately reddish in colour and the texture is of sandy loam. Dasarapatti and Peelamedu series are dark grey and grey in colour

respectively with clay and clayloam texture and occupy 3.61 and 2.02 percent of the total geographical area respectively. Anamalai series occupies a small percentage of the total geographical area with 1.59 percent and is dark brown in colour with sandy clay texture. A small percentage of the area is occupied by sandy tracks. Unsurveyed reserve forest and hill tracks occupy the remaining area accounting for nearly 39 percent.

The nutrient status of the soil varies with soil series. The level of nitrogen is generaly found to be low. Anamalai series has the highest available nitrogen while Palladam series has the lowest. Similarly, the phosphorous availability is low. It ranges from 3.5 kg per ha in Irugur series to 4.25 kg per ha in peelamedu series. Available potash on the other hand is found to be medium and it ranges from 52 kg per ha in Anamalai series to 75 per ha in Irugur series.

As regards the soil physical properties, the electrical conductivity ranges from less than 0.2 milli mhos to 3.0 milli mhos per cm^2 in Pollachi taluk. Anamalai series has the maximum presence of organic matter while Peelamedu series has the lowest. The pH of the soil is slightly acidic in Anamalai series while it is alkaline in Palladam, Peelamedu and Dasarapatti series.

Land use pattern

A study on land use pattern is essential to know the extent of area used for crop cultivation. The blockwise details of land use pattern in Pollachi taluk is presented in Table V. Forests cover a meagre area of 0.08 percent. A marginal area 0.69 percent has been covered by barren and uncultivable land. Land put to non-agricultural uses covered nearly 12 percent of total geographical area of taluk. Land under cultivable waste, permanant pastures and other grazing lands and miscellaneous tree crops and groves not included in net area sown covered an area of 0.23 percent, 0.30 percent and 0.11 percent respectively. Current fallows covered a substantial area of 14.62 percent while land under other fallows was negligible with an area of 0.02 percent. Nearly 72 percent of geographical area was cultivated once and 22.5 percent of area was cultivated more than once. Thus,the gross cropped area was 1,10,278 ha (94.56) percent to total geographical area). The cropping intensity in the taluk was found to be 131.21 percent.

The land use pattern in different blocks of Pollachi taluk showed marked variation as could be seen in Table V.

Anamalai block was the only block which had forest cover of 0.28 percent to total geographical area of block. Anamalai block was also found to have maximum barren and uncultivable land of 1,69 percent of geographical area of

TABLE V

BLOCKWISE DETAILS OF LAND USE PATTERN IN POLLACHI TALUK - 1992-93

(Area In Ha)

S.No.	Classification	Pollachi (South)	Pollachi (North)	Kinathukadavu	Anamalai	Pollachi taluk
	Total geographical area	20638 (100.00)	28567 (100.00)	32573 (100.00)	34839 (100.00)	116617 (100.00)
1.	Forests	-	-	-	96 (0.28)	96 (0.08)
2.	Barren and uncultivable land	60 (0.29)	52 (0.18)	100 (0.31)	589 (1.69)	801 (0.69)
3.	Land put to non-agrl uses	3310 (16.04)	3555 (12.44)	2575 (7.91)	4412 (12.67)	13852 (11.88)
4.	Cultivable waste	80 (0.39)	35 (0.12)	144 (0.44)	12 (0.03)	271 (0.23)
5.	Permanent pasture and other grazing lands	13 (0.06)	10 (0.04)	198 (0.61)	130 (0. 37)	351 (0.30)
6.	Lands under miscellaneous tree crops and groves not included in net area sown	17 (0.08)	10 (0.04)	5 (0.01)	95 (0.27)	127 (0.11)
7.	Current fallows	2694 (13.05)	3765 (13.18)	5226 (16.04)	5372 (15.42)	17057 (14.62)
8.	Other fallows	10 (0.05)	-	-	8 (0.02)	18 (0.02)
9.	Net area sown	14454 (70.04)	21140 (74.00)	24325 (74.68)	24125 (69.25)	84044 (72.07)
10.	Area sown more than once	3912 (18.96)	6790 (23.78)	6278 (19.27)	9254 (26.56)	26234 (22.51)
11.	Gross cropped area	18366 (88.10)	27930 (97.78)	30603 (93.95)	33379 (95.81)	110278 (94.56)
12.	Cropping intensity (in per cent)	127.07	132.12	125.81	138.36	131.21

(Figures in the parantheses indicate the percentage to the total geographical area)

Source: G. return office of the Assistant Director of Statistics, Coimbatore)

block while Pollachi (North) had the lowest area of 0.18 percent.

In Pollachi (South), the relative share of area under land put to non-agricultural uses was 16.04 percent while Kinathukadavu had the lowest area of 7.91 percent of geographical area under non-agricultural uses.

Kinathukadavu had the highest area of cultivable waste of 0.44 percent in the total geographical area of block while Anamalai block had the lowest with 0.03 percent. Land under permanent pasture and other grazing lands and miscellaneous tree crops and groves not included in net area sown was less than one percent in all the blocks of study area.

Kinathukadavu had the highest share of current fallows of 16.04 percent of the geographical area of block while Pollachi (South) had the lowest area of 13.05 percent. The table indicates that all blocks had substantial share of current fallows in the total geographical area of respective blocks.

Pollachi (South) and Anamalai blocks alone had land under other follows and that too they covered an area of negligible percentage of 0.05 percent and 0.02 percent respectively

As regards the net area sown, all the blocks in pollachi taluk had land area of about 70 percent and more of

geographical area of block while Anamalai had the lowest share of 69.25 percent. But in case of area sown more than once, Anamalai had the highest share of 26.56 percent in the total geographical area of block while Pollachi(South) had the lowest share of 18.96 percent.

The gross cropped area to the geographical area of block was high in Pollachi (North) with 97.78 percent while it was low in Pollachi (South) with 88.10 percent. The cropping intensity was the highest in Anamalai with 138.36 percent while it was the lowest in Kinathukadavu with 125.81 percent.

Cropping pattern

A better understanding on cropping pattern of Pollachi taluk would help to understand the requirement of critical inputs more specifically the fertilizers by the farmers. The gross cropped area of Pollachi taluk in 1992-93 was 110278 hectares. The blockwise distribution of area under major crops in Pollachi taluk is presented in Table VI. In Pollachi taluk, two major oilseed crops namely groundnut and coconut occupied large share of gross cropped area and they accounted for nearly 52 percent of the gross cropped area of the taluk.

The other major crops were cholam, paddy, cotton, cowpea and blackgram in that order. Area under Cholam formed 14.85 percent of gross cropped area of taluk and

TABLE VI

BLOCKWISE AREA UNDER MAJOR CROPS IN POLLACHI TALUK, 1992-93.

(Area in Ha)

S.No.	Classification	Pollachi (South)	Pollachi (North)	Anamalai	Kinadathukadavu	Pollachi Taluk
1.	Paddy	1203 (6.55)	471 (1.69)	5334 (17.43)	407 (1.22)	7415 (6.72)
2.	Cholam	2860 (15.57)	2998 (10.73)	1651 (5.39)	8863 (26.55)	16372 (14.85)
3.	Maize	126 (0.69)	233 (0.83)	180 (0.59)	610 (1.83)	1149 (1.04)
4.	Other Cereals	75 (0.41)	730 (2.61)	77 (0.26)	1324 (3.97)	2207 (2.00)
5.	Blackgram	228 (1.24)	1112 (3.98)	554 (1.81)	2273 (6.81)	4167 (3.78)
6.	Greengram	44 (0.24)	228 (0.82)	87 (0.28)	436 (1.31)	795 (0.72)
7.	Coupea	1419 (7.73)	1358 (4.87)	400 (1.31)	2005 (6.01)	5182 (4.70)
8.	Other pulses	530 (2.89)	1285 (4.60)	298 (0.97)	2241 (6.71)	4354 (3.95)
9.	Groundnut	3840 (20.91)	8025 (28.73)	10332 (33.76)	6190 (18.54)	28387 (25.74)
10.	Coconut	5743 (31.27)	8115 (29.05)	8607 (28.12)	5957 (17.85)	28422 (25.77)
11.	Other oilseeds	372 (2.02)	237 (0.85)	278 (0.91)	671 (2.01)	1558 (1.41)
12.	Cotton	1200 (6.53)	2056 (7.36)	1066 (3.48)	1269 (3.80)	5591 (5.07)
13.	Fruits and Vegetables	443 (2.41)	720 (2.58)	828 (2.71)	641 (1.92)	2632 (2.39)
14.	Other Crops	282 (1.54)	362 (1.30)	911 (2.98)	492 (1.47)	2047 (1.86)
	Gross Cropped area	18366 (100.00)	27930 (100.00)	30603 (100.00)	33379 (100.00)	110278 (100.00)

(Figures in the parantheses indicate the percentage to the gross cropped area)

Source : G-return, Office of Assistant Director of Statistics, Coimbatore.

Kinathukadavu was found to have highest area under this crop Paddy occupied nearly seven percent of gross cropped area of taluk and was prominent in Anamalai Block. Cotton was cultivated in 5,591 hectares in Pollachi taluk and Pollachi(North) dominated other blocks of this taluk with 2,056 hectares under cotton.

As regards cowpea, Kinathukadavu had the largest cropped area of 2,005 hectares while the total area cultivated in the taluk was 5,182 hectares and it accounted for 4.70 percent of gross cropped area of the taluk . Black gram was found to cover 3.78 percent of gross cropped area of taluk and Kinathukadavu block had the largest area under this crop.

In general, the food crops accounted for 37.76 percent of gross cropped area of the taluk as compared to 62.24 percent under non food crops. The area under fruits and vegetables occupied nearly three percent of gross cropped area.

Irrigation pattern

The quantity of fertilizer used in general would increase with the increase in gross irrigated area. The increase in irrigation facilities would augment the gross cropped area which in turn would facilitate the increased use of fertilizer. As could be seen from Table VII.well and canal irrigation were the major sources of irrigation in the

TABLE VII

SOURCES OF IRRIGATION IN POLLACHI TALUK, 1992-93

(Area in ha)

S.No.	Source of Irrigation	Pollachi (South)	Pollachi (North)	Anamalai	Kinathukadavu	Pollachi Taluk
1.	Canals	6334 (54.27)	3547 (24.09)	10579 (50.13)	2520 (23.86)	22980 (39.58)
2.	Tanks	72 (0.62)	10 (0.07)	257 (1.22)	-	339 (0.58)
3.	Tube wells	-	-	22 (0.10)	-	22 (0.04)
4.	Ordinary dry wells	5141 (44.04)	11167 (75.84)	9894 (46.89)	8043 (76.14)	34245 (58.98)
5.	Well Supplemtnting other sources	-	-	350 (1.66)	-	350 (0.60)
6.	Other Sources	125 (1.07)	-	-	-	125 (0.22)
	Gross area irrigated	11672 (100.00)	14724 (100.00)	21102 (100.00)	10563 (100.00)	58061 (100.00)

(Figures in the paranthesses indicate the percentage to the gross cropped area)

Source : G-return, Office of Assistant Director of Statistics, Coimbatore.

taluk. They occupy nearly 59 percent and 40 percent of gross irrigated area of taluk respectively. As regards the canal irrigation, Pollachi(south) and Anamalai blocks covered an area of 54.27 percent and 50.13 percent of the gross irrigated area respectively. Pollachi(North) and Kinathukadavu were found to have nearly 76 percent each of their gross irrigated area under well irrigation The gross irrigated area of the taluk is 58,061 hectares. The other sources of irrigation such as tanks and tube wells were found to cover less than one percent of gross irrigated area of taluk.

Cropping season

There are three important cropping seasons which coincide with the onset of monsoon rains. They are as follows:-

(i) AUGUST - DECEMBER

Paddy,Cotton and Sugarcane are generally cultivated in this season.

(ii) JANUARY-APRIL

Groundnut, pulses, and turmeric are raised making use of summer rains.

(iii) MAY-JULY

The cultivation of vegetables, millets, chillies and groundnut is undertaken with the help of south - west monsoon. Different crops raised under differing irrigated conditions are as follows;-

Wetland

Paddy, Tomato and Sugarcane, are cultivated in wet land areas.

Garden land

Cotton, groundnut, turmeric, banana, chillies, coconut, tomato , onion and blackgram are culltivated under gardenland condition. Of late, turmeric and chillies are becoming popular. Coconut area is on the increase due to decreasing irrigation water potential. Pulses especially blackgram, greengram and cowpea were also grown as inter-crop in groundnut.

Dry land

Cholam and pulses are raised in dry land during the two monsoon seasons.

Infrastructural Facilities

The study area was found to have many infrastructural facilities of which some were sufficient while some were found to be inadequate. The facilities available in this study area are given as follows.

(i) Transport and Communication Facilities

The transport and communication facilities are very important for the movement of fertilizer from manufacturing firms to dealers and from dealers to farmers. The transport

TABLE VIII

TYPE OF ROADS IN POLLACHI TALUK

(length in Kms)

Sl. No.	Type of Roads	Kinathu-kadavu	Pollachi (North)	Pollachi (South)	Anamalai	Pollachi Taluk
1.	Cement Concrete Road	-	5.26	-	-	5.26
2.	Tar Roads (Bituminous)	5.2	154.00	18.60	135.0	312.80
3.	Metal Roads (Water bound mecadam)	89.2	-	64.00	90.60	243.80
4.	Mud Roads (Unsurfaced)	*	10.07	-	112.40	122.47
5.	Saralai Road	-	-	43.70	-	43.70
	Total	94.4	169.33	126.30	338.00	728.03

* Not available

Source: Block Registers, Office of the Assistant Director of Statistics, Coimbatore.

facilities available in Pollachi Taluk are given in Table VIII. It could be seen that the Pollachi taluk had a road length of 728.03 Km. Among different types of road, tar road constituted the major share with nearly 313 Kilometers while metal roads were next major type of road with nearly 244 Kilometres.

Mud roads constituted about 122 Kilometres. Saralai roads and cement concrete roads accounted for 43.70 Kilometers and 5.26 Kilometers respectively

The road facilities varied among the blocks. Cement concrete road was present only in Pollachi (North). Tar roads were prominent in Pollachi (North) with the length of 154.00 Km while metal roads were fairly present in all the blocks except Pollachi (North). Anamalai block had mud road prominently with the length of 112.40 kilometres while Pollachi (North) had only 10.07 kilometres under this category. Saralai road is seen exclusively in Pollachi (south) with a length of 43.70 kilometres.

While analysing the total picture of road facilities, Anamalai block was found to have good road facilities with total length of 338.00 kilometres under different types of roads.

(ii) **Communication Facilities**

The communication facilities avaialable in Pollachi taluk are given in Table IX. From the table it could be seen that the taluk was found to have 86 post offices doing postal business alone. 17 post and telegraph offices. Six telegraph offices. 16 telegram offices and 35 public call offices. The taluk was found to have substantial communication facilities.

TABLE IX

COMMUNICATION FACILITES IN POLLACHI TALUK

(in number)

Sl.	Particulars	Kinathu-kadavu	Pollachi (North)	Pollachi (South)	Anamalai	Pollachi Taluk
1.	Post office doing postal business alone	31	15	12	28	86
2.	Post and telegraph office	1	6	8	2	17
3.	Telegraph office	--	6	--	--	6
4.	Letter boxes	167	91	86	92	436
5.	Telephone exchange/ sub exchange	5	4	4	3	16
6.	Telephone in use	437	*	763	*	1200
7.	Public call offices	14	4	8	9	35

* Not available

Source: Block registers, Office of the Assistant Director of Statistics, Coimbatore.

It could also be observed from the table that Pollachi (South) and Anamalai blocks had more number of post and telegraph offices than the other two blocks while Pollachi (South) alone was found to have six telegraph offices additionally. Anamalai had more number of telephones in use while Pollachi (North) had more number of public call offices.

(iii)Banking and Other Credit institutions

Pollachi Taluk had a number of credit institutions which lend credit to agriculture, rural development schemes and commercial establishments. The availablity of credit facilities in the study area could be better explained with Table X.

TABLE X

CREDIT INSTITUTIONS IN THE POLLACHI TALUK

(Number)

Sl. No.	Particulars	Kinathu-kadavu	Pollachi (North)	Pollachi (South)	Anamalai	Pollachi Taluk
1.	Nationalised Banks	6	5	7	6	24
2.	Scheduled Banks	1	1	3	--	5
3.	Agricultural Cc-op.banks	21	20	16	18	75
4.	Land Mortgage Banks	1	1	1	--	3

Source: Block Registers, Office of the Assistant Director of Statistics, Coimbatore.

In all the taluk had 75 Agricultural Co-operative Banks, 24 Nationalised banks, five scheduled banks and three land mortgage banks. It could be observed from the table

that the credit institutions were fairly distributed among the blocks. Inspite of presence of substantial number of credit institutions, farmers were mostly dissatisfied with the flow of credit.

iv) **Market Facilities**

Weekly shandis help the producers and buyers in the villages of the taluk to carry out their selling and buying activities with ease. Agricultural outputs like vegetables, fruits, etc. were brought to market for sale.

Besides large number of private dealers have been functioning throughout Pollachi taluk in the marketing of agricultural inputs. Village co-operatives were also functioning throughout the taluk dealing with input supply and credit requirements. The taluk has the highest number of dealers both in retail outlets and wholesalers in the district and the detailed are furnished in Table XI.

It could be observed from the table that the taluk had sufficient number of retail outlets which could provide timely supply of inputs to the farming community.

TABLE XI

DETAILS OF DEALERS IN COIMBATORE DISTRICT - 1992-93
(in numbers)

Sl.	Taluk	Retail outlets	Wholesalers
1.	Coimbatore	48	8
2.	Mettupalayam	32	6
3.	Avinashi	37	1
4.	Tirupur	14	2
5.	Palladam	16	2
6.	Pollachi	78	15
7.	Udumalpet	46	12
8.	Thondamuthur	6	1
9.	Valparai	-	-

Source: Office of the Joint Director of Agriculture, Coimbatore.

In Pollachi Taluk, four Government agricultural depots, apart from fertilizer dealers, provide the much needed inputs to farmers. The location of agricultural depots in the district are furnished in Table XII.

TABLE XII

AGRICULTURAL DEPOTS IN COIMBATORE DISTRICT

S.No.	Name of Taluk	Location
1.	Coimbatore	Municipal Depot, Perur Periyanaickenpalayam, S.S.Kulam
2.	Mettupalayam	Mettupalayam and Karamadai
3.	Avinashi	Avinashi, Annur
4.	Tirupur	Tirupur, Pongalur
5.	Palladam	Palladam, Sultanpettai, Sulur
6.	Pollachi	Pollachi(North), Pollachi South Anamalai, Kinathukidavu
7.	Udumalpet	Udumalpet, Madathukulam,

Source: Office of the Joint Director of Agriculture, Ccimabatore.

It could be observed that the Pollachi Taluk has the maximum number of agricultural depots along with Coimbatore Taluk.

v) **Distribution of Fertilzers**

The distribution of chemical fertilizers is done through the dealers both of private and co-operative. Among the 78 retail outlets in the taluk under study, there were 12 co-operative dealers. The Distribution of Chemical fertilizers in the Coimbatore district during the 1991-92 has been indicated in Table XIII.

TABLE XIII

DISTRIBUTION OF CHEMICAL FERTILISERS IN 1991-92

(Metric tons)

S.No.	Name of Divisison	N	P	K	Total
1.	Coimbatore	7289	2500	3342	13131
2.	Mettupalayam	2410	1202	2015	5627
3.	Avinashi	2764	1260	2103	6127
4.	Tirupur	5879	2968	3314	12161
5.	Pollachi	11500	3806	5450	20756
6.	Udumalpet	10685	4110	4640	19435
7.	Coimbatore District	40527	15846	20864	77237

From the table, it is evident that the distribution of fertiliser in 1991 - 92 was more in Pollachi division than other divisions in Coimbatore District. This could be attributed to the fact that there was large number of retail

outlets and wholesalers in this region. In sum, the distribution of NPK nutrients in Pollachi division accounted for nearly 27 per cent of total distribution in the district.

Developmental agencies and schemes

Apart from government departments, private and co-operative agencies dealing with agricultural inputs and financial institutins, there were a number of special developmental agencies operating in the study areas.

The schemes that were in operation are Integrated Rural Development Programme, Training Rural Youth for Self employment. National Rural Employment Programme, Rural Landless Employees Guarantee Programme and Jawahar Employment Programme. Dryland development scheme was the only Agricultural Scheme operating in Pollachi taluk with special emphasis in Kinathukadavu block.

Regulated Markets and Co-operative Marketing Societies

There were four regulated markets in the Pollachi Taluk. They were located in Kinathukadavu, Pollachi, Negamam and Anamalai. It could be found that most of the farmers were not making use of regulated markets for marketing their outputs. There were 12 Co-operative Marketing Societies all over the taluk which helped in supplying inputs to farmers on credit. However, most of the farmers opined that the number of co-operative societies were inadequate to meet the requirements of farmers and services provided by them were not upto the expectation.

RESULTS AND DISCUSSION

CHAPTER V

RESULTS AND DISCUSSION

The present study is an attempt to know the fertilizer brand preference of farmers and dealers and to delineate factors influencing them to prefer different brands. Besides, this study is also aimed to ascertain the effectiveness of promotional activities which influence the preference of fertilizer brands. The brand preference of farmers may vary with land holding of farmers. So, the total sample was categorised into the three categories of farmers viz., 1. Small farmers (Less than 5 acres) 2. Medium farmers (5-10 acres) and 3. Large farmers (more than 10 acres). It was aimed to know whether brand preference varies with heavy users (large farmers), medium users (medium farmers) and light users (small farmers) of fertilizer. The results of this study have been presented and discussed in this chapter for the three major category of respondents viz., Farmers, Dealers and Sales Representatives of the fertilizer firms operating in the study region.

A FARMER

An analysis of farmer's preference for different brands of fertilizers would bring to light the brand that had greater market share in the study area. The results on farmer's brand preference, the factors affecting farmers to

choose their brands and the promotional activities which influenced them are presented and discussed in this section. For better understanding, the results are presented and discussed under various sub-sections as given below:

I General characteristic features of sample farmers.
II Fertilizer application activities of farmers.
III Purchase details of farmers.
IV Factors affecting farmers brand preference.
V Problems faced in purchasing fertilizers.
VI Promotional activities and their influence.

I). GENERAL CHARACTERISTIC FEATURES OF FARMERS

A study on general characteristic features of farmers would help to analyse the brand preference of farmers in greater depth . The basic characteristics of farmers are presented and discussed in what follows.

i. Disposition of selected farmers:

Farmers were classified into three categories based on size of the holding by each farmer. The farmers with less than 5 acres, 5 to 10 acres and above 10 acres of size of the holding were considered as small farmers, medium farmers and large farmers respectively. In all 90 farmers were contacted for this study. Among them there were 21 small farmers (23.33 percent), 42 medium farmers (46.67) and 27 large farmers (30 percent). This categorisation was

necessary to find out whether the results showed any variation among light users, medium users and heavy users of fertilizers. The details on disposition of farmers are given in Table XIV.

TABLE XIV

DISPOSITION OF SELECTED FARMERS

S.No	Particulars	No	Percent to total
1.	Small farmers	21	23.33
2.	Medium farmers	42	46.67
3.	Large farmers	27	30.00
	Total	90	100.00

It could be inferred that medium farmers constituted the highest in number in the sample followed by large farmers and small farmers.

ii. Literacy level of selected farmers.

The literacy level of selected farmers showed wide variation as indicated in Table XV. About 16 percent of the respondents were illiterate, 27.8 percent and 17.8 percent of selected farmers had elementary and middle school education respectively. Nearly 14 percent, 13 percent and 11 percent of selected farmers had high school, higher secondary and collegiate education respectively. It could

TABLE XV

LITERACY LEVEL OF SELECTED FARMERS

S.NO.	Particulars	Small farmers	Medium farmers	Large farmers	All farmers
1	Illiterate	4(19.05)	6(14.20)	4(14.81)	14(15.60)
2	Elementary school	6(28.56)	12(28.57)	7(25.93)	25(27.80)
3	Middle school	4(19.05)	7(16.67)	5(18.52)	16(17.80)
4	High school	3(14.29)	7(16.67)	3(11.12)	13(14.40)
5	Higher secondary	3(14.29)	5(11.90)	4(14.81)	12(13.30)
6	Collegiate education	1(4.76)	5(11.90)	4(14.81)	10(11.10)
	Total	21(100.00)	42(100.00)	27(100.00)	90(100.00)

(Figures in the parantheses indicate the percentage to the total under each category)

be observed that more number of farmers had elementary education and least number of farmers had collegiate education.

In the category of small farmers, nearly 29 percent had elementary school education while about 19 percent had middle school education. About 19 percent of small farmers were illiterates. Similarily 14.29 percent each of the selected farmers had high school and Higher secondary education. Only five percent of small farmers had collegiate education.

It could be inferred that more number of small farmers had only elementry school education and substatial number of farmers were either illiterates or had their education upto middle shcool level only.

In the case of medium farmers nearly 29 percent of the selected respondents were educated upto elementary school level while the farmers who had middle school and high school education were 16.67 percent each. Nearly 14 percent of medium farmers were illiterates and about 12 percent each had higher secondary and collegiate education. It could be inferred that more number of medium farmers were having literacy upto elementray school level. A substantial number of farmers were found to have been educated upto middle and high school level.

In the large farmer category, about 26 percent of

farmers had elementary school education while 18.52 percent of farmers had middle school level education. About 15 percent each of selected farmers had higher secondary and collegiate education. Nearly 15 percent of the large farmers were illiterates and 11.12 percent had high school level education . It could be observed that as in case of other category nearly one-fourth of the respondents had their education upto elementary school level followed by middle school level.

It could be observed further that the difference among the number of selected farmers under different categories barring collegiate school education was not prominent.

iii Experience in farming

The selected farmers had sufficient experience in farming and it varied from farmer to farmer. The selected farmers were classified according to the experience in farming as indicated in Table XVI.

It could be noted from the table that 13.3 percent, 25.6 percent and 31.1 percent of selected farmers had experience in farming of less than five years, five to ten years and 11 to 20 years respectively. The percentage of selected farmers who had an experience of 21 to 30 years and more than 30 years were 24.4 and 5.6 respectively. It is evident from the table that majority of farmers had

TABLE XVI

EXPERIENCE IN FARMING OF SELECTED FARMERS

S.NO	EXPERIENCE	Small farmers	Medium farmers	Large farmers	All farmers
1	Less than 5 years	-	8(19.05)	4(14.82)	12(13.30)
2	5 to 10 years	6(28.57)	11(26.19)	6(22.22)	23(25.60)
3	11 to 20 years	9(42.85)	10(23.81)	9(33.33)	28(31.10)
4	21 to 30 years	3(14.29)	11(26.19)	8(29.60)	22(24.40)
5	More than 30 years	3(14.29)	2(4.76)	-	5(5.60)
	Total	21(100.00)	42(100.00)	27(100.00)	90(100.00)

(Figures in parantheses indicate per cent ot total respondents under each category)

experience between 11 and 20 years. There was also substantial number of farmers who had experience of 6 to 10 years and 21 to 30 years. The number of farmers with experience more than 30 years was the lowest. Generally majority of the selected farmers had more than 5 years of experience in farming.

It could also be observed that none of the small farmers had less than five years of experience in farming. Nearly 43 percent of small farmers had experience between 11 and 20 years.

In the category of medium farmers, about 19 percent of farmers had an experince of less than 5 years. The percentage of medium farmers who had the experience between 5 and 10 years, 11 and 20 years and 21 and 30 years was 26.19, 23.81 and 26.19 respectively. About five percent of medium farmers had an experience of more than 30 years.

In the category of large farmers 33.33 percent, 29.63 percent and 22.22 percent of farmers had experience between 11 and 20 years, 21 and 30 years and 5 and 10 years respectively. None of the large farmers had the experience of more than 30 years.

It could be inferred that majority of small and large farmers had the experience between 11 and 20 years while majority of medium farmers had an experience between 5 and 10 years and 21 and 30 years.

iv Land holding pattern

The details of land holding pattern of selected farmers are given in TableXVII.

There were no tenants among the selected farmers. All the selected farmers had owned lands. In all the categories of farmers the area owned formed a major percentage of total operational area.

It could be observed further that there was no wetland farm in the category of small and medium farmers. The gardenland constituted major share of total owned land and total operational area. The same is the case under each category of selected farmers.

It could be seen that the average size of farm for small, medium and large farmers is 3.33 acres, 6.61 acres and 12.35 acres respectively.

It could be inferred that the major share in the size of farm was constituted by gardenland in study area.

v Cropping pattern of selected farmers

A study on cropping pattern of selected farmers would help in analysing and understanding the study in greater depth.

The details of cropping pattern were provided in Table XVIII.

TABLE XVII

LAND HOLDING PATTERN OF SELECTED FARMERS

(Area in acres)

S.NO.	Particulars	Wetland		Garden land		Dry land		Total	
		Area	Percent to total	Area	Percent to total	Area	Percent to total	Area	Percent to total
I.	Small farmers								
1.	Owned land	-	-	62.00	81.05	8.00	76.19	70.00	80.46
2.	Operational area	-	-	76.50	100.00	10.50	100.00	87.00	100.00
3.	Average size of the farm	-	-	2.75	-	0.57	-	3.33	-
II	Medium farmers								
1	Owned land	-	-	242.00	89.13	35.00	92.11	277.50	89.66
2	Operational area	-	-	271.50	100.00	38.00	100.00	309.50	100.00
3	Average size of the farm	-	-	5.76	-	0.83	-	6.61	-
III	Large farmers								
1	Owned land	3	100.00	306.00	91.12	24.50	87.50	333.50	91.75
2	Operational area	3	100.00	335.50	100.00	28.00	100.00	363.50	100.00
3	Average size of the farm	3	-	11.33	-	0.91	-	12.35	-

TABLE XVIII

CROPPING PATTERN OF SELECTED FERMERS DURING 1992-93.

S.NO.	Particulars of the crops	Small Farmers		Medium Farmers		Large Farmers		All the Farme	
		Area in ha	per cent to total	Area in ha	per cent to total	Area in ha	per cent total	Area in ha	per c to to
1.	Paddy	-	-	-	-	1.20	0.82	1.20	0.
2.	Cholam	2.60	7.47	4.00	3.23	5.20	3.58	11.80	3.
3.	Blackgram	0.80	2.30	7.20	5.82	5.60	3.85	13.60	4.
4.	Greengram	-	-	-	-	2.00	1.38	2.00	0.
5.	Coupea	3.00	8.62	6.38	5.15	6.90	4.75	16.28	5.
6.	Groundnut	4.80	13.79	17.82	14.39	17.80	12.24	40.42	13.
7.	Coconut	16.50	47.41	54.52	44.04	72.70	50.00	143.72	47.
8.	Cotton	2.20	6.32	14.78	11.94	12.70	8.73	29.68	9.
9.	Banana	-	-	0.40	0.32	0.80	0.55	1.20	0.
10.	Tomato	2.50	7.19	3.79	3.06	5.00	3.44	11.29	3.
11.	Chillies	2.40	6.90	7.35	5.94	9.80	6.74	19.55	6.
12.	Onion	-	-	2.36	1.91	1.10	0.76	3.46	1.
13.	Turmeric	-	-	5.20	4.20	4.60	3.16	9.80	3.
	Total	34.80	100.00	123.80	100.00	145.40	100.00	304.00	100.

In the small farmer category, coconut was cultivated in 47.41 per cent of total area. Groundnut, cowpea, cholam, tomato, chillies and cotton in that order were cultivated in 13.79 per cent, 8.62 per cent, 7.47 per cent, 7.19 per cent, 6.90 per cent and 6.32 per cent of total area respectively.

It could be inferred that coconut was the largely cultivated crop and it was followed by cowpea, cholam, tomato, chillies and cotton respectively in the small farmer category.

In the category of medium farmers, coconut was cultivated in 44.04 per cent of total area whereas groundnut and cotton were cultivated in 14.39 per cent and 11.94 per cent of the area respectively. Chillies, blackgram and cowpea were cultivated in 5.94 percent, 5.82 per cent and 5.15 per cent of total area respectively. Paddy and greengram were not cultivated. The rest of the crops were cultivated in less than five per cent each of total area.

In the case of large farmers, coconut was cultivated in 50 per cent of total area whole groundnut and cotton were cultivated in 12.24 per cent and 8.73 per cent of the cultivated area respectively. Chillies and cowpea were cultivated in 6.74 per cent and 4.75 per cent of total area respectively. The rest of the crops were cultivated in less than four per cent each of the total area.

It could be inferred that coconut was the major

crop cultivated by large farmers. Groundnut and cotton were found to be cultivated largely by large farmers.

On analysing the cropping pattern of selected farmers as a whole, coconut was cultivated in 47.28 per cent of total area while groundnut and cotton were cultivated in 13.30 per cent and 9.76 per cent of the total area respectively. Chillies, cowpea and blackgram were cultivated in 6.43 per cent, 5.36 per cent and 4.47 per cent of total area respectively while cholam, tomato and turmeric were cultivated in 3.88 per cent, 3.72 per cent and 3.22 per cent respectively by large farmers. Onion, greengram, paddy and banana were cultivated in very meagre area.

It could be inferred that in general, coconut was the major crop. Groundnut and cotton were also found prominently in the Pollachi taluk. Chillies, cowpea and blackgram also occupied the cultivated area substantially. Cholam, tomato and turmeric were also cultivated to some extent while onion, greengram, paddy and banana were found to be cultivated in a very small area.

II FERTILIZER APPLICATION ACTIVITIES OF FARMERS

Of the 90 selected respondents for the study only five farmers accounting for 5.6 per cent have tested their soil for its nutrient content and among them only three farmers have adopted the recommended level of fertilizer application. The details are furnished in Table XIX.

TABLE XIX

DETAILS OF SOIL TESTING DONE BY SAMPLE FARMERS

S.No.	Particulars	Small farmers	Medium farmers	Large farmers	All the farmers
1.	No.of farmers soil tested	1(4.76)	2(4.76)	2(7.41)	5(5.6)
2.	No. of farmers who adopted recommended level	-	1(2.38)	2(7.41)	3(3.3)

(Figures in the parantheses indicate the percentage to the total number of selected farmers under each category)

From the table it is evident that two large farmers, two medium farmers and one small farmer tested soil. Two large farmers and one medium farmer alone adopted soil test recommendations. It could be observed that farmers in the study area were not intrested in soil testing.

i REASONS FOR NOT TESTING THE SOIL

Since large majority of farmers did not opt for soil testing, it was found necessary to study reasons for not testing soil. The reasons pointed out by farmers are listed in Table XX

TABLE XX

REASONS FOR NOT TESTING THE SOIL

(Number)

S.No.	Reasons	Small farmers	medium farmers	large farmer	All the farmers
1.	Not interested	12(57.14)	17(40.48)	13(48.15)	42(46.66)
2.	Small area	7(33.33)	1(2.30)	--	8 (8.88)
3.	No Soil problem	2(9.52)	3(7.14)	3(11.11)	8 (8.88)
4.	None approached	---	3(7.14)	1(03.70)	4 (4.44)
5.	No time to spare	1(4.76)	2(4.76)	1(3.70)	4 (4.44)
6.	No confidence in soil testing	---	1(2.38)	1(3.70)	2 (2.22)
7.	Not aware of soil testing	---	1(2.38)	1(3.70)	2 (2.22)
8.	More fertilizer used than recommendation	---	1(2.38)	2(7.41)	3 (3.33)
9.	No specific reason	1(4.76)	14(33.33)	5(18.52)	20(22.22)

(Figures in parantheses of indicate the percentage to total number of farmers under each category)

As could be seen from the table, nearly 47 percent of farmers were not interested in soil testing. About nine percent of selected farmers were not interested in soil testing because of small area. The same percentage of selected farmers reasoned that they had no soil problem. The percentage of farmers who attributed reasons such as "they were not approached" no time to spare", "no confidence in soil testing", "not aware of soil testing " and" more

fertilizer was used than recommendation" were of less than five percent for each reason.

As could be observed from the table that 22.22 percent of selected farmers opined that they had no specific reason for not testing the soil.

On analysing the different categories of farmers, more or less the same trend has been reflected with few exceptions. In the category of small farmers nearly 33 percent of the respondents opined that they have not resorted to soil testing owing to small area.

Similarly 57.14 percent of the small farmers remarked that they were not interested in testing their soil.

Among the medium farmers, 40.48 percent of them reported that they were not interested in testing the soil and about 33 percent of them attributed no specific reasons for not testing their soil. Similar trend was observed among the large farmer category. This clearly indicated that the developmental agencies and fertilizer concerns have not yet convinced the farmers about the need for testing the soil and the relative advantages associated with it.

ii Source of information of fertilizer dosage

Since a macroscopic majority of farmers did not opt for soil testing, there should have been some ways and

means for deciding the dosage of fertilizer. Accordingly the sources of information of fertilizer dosage were solicited from the respondents and the details are furnished in Table. XXI

TABLE XXI

SOURCE OF INFORMATION OF FERTILIZER DOSAGE.

(in numbers)

S.No.	Particulars	Small farmers	medium farmers	large farmer	All the farmers
1.	Past experience	13(61.90)	28(66.67)	21(77.78)	62(68.28)
2.	Agricultural Dept/ Agricultural Off/ Asst Agri.Off	7(33.33)	12(28.57)	13(48.15)	32(35.55)
3.	Fertilizer dealer	1(4.76)	4(9.52)	1(3.70)	6(6.66)
4.	Radio/Television	----	14(33.33)	9(33.33)	23(25.55)
5.	Journal/Newspaper	2(9.52)	7(16.66)	6(22.22)	15(16.66)
6.	Neighbours influence	3(14.29)	5(11.90)	1(3.70)	9(9.99)

(Figures in the parantheses indicaate percentage to total number of farmers under each category)

It could be observed from the table that past experience had been the main source of information among the selected farmers. Nearly 68 percent of selected farmers attributed this source.

Nearly 36 percent of farmers mentioned Agricultural department and officers of this department were the main source of information about the dosage of fertilizer.

Electronic media namely radio and television were yet other important sources of information and they formed source of information for 25.55 percent of elected farmers. Journals and newspapers could pass on information to 16.66 percent of farmers. Neighbours and fertilizer dealers were the sources of information on fertilizer dosage for 9.99 percent and 6.66 percent of selected farmers respectively.

It could be inferred from the results that past experience of farmers had greater influence on fertilizer dosage than any ther sources of information. Agricultural extension department and electronic media were the other important sources of information while print media had some influence on farmers in deciding fertilizer dosage. Dealers and Neighbours were the sources only to a small number of farmers.

A study on sources of information for different categories of farmers showed little variation as against the general observation drawn from selected farmers. More or less, the same trend had been reflected in the category of large farmers as in the case of total number of selected farmers. Past experience, agricultural extension department and electronic media were the sources of information for 77.78 , 48.15 and 33.33 percent of large farmers respectively. Journals and news papers were preferred by 22.22 percent of large farmers. Dealers and neighbours could influence only 3.70 percent of large farmers.

In the category of medium farmers, past experience had been major source of information. Electronic media had been the next important source of information with an influence on 33.33 percent of medium farmers. Agricultural department was another source of information for 28.57 percent of farmers. Neighbours and fertilizer dealers were the sources of information on fertilizer dosage to 11.90 percent and 9.52 percent of medium farmers respectively.

In the category of small farmers, past experience had been source of information for 62 percent of small farmers. It was ironical to observe that none of small farmers could have information from electronic media. Extension department was the other main source of information, providing inforamtion to 33.33 percent of small farmers. Other sources such as neighbours and dealers could provide information to 14.29 percent and 4.76 percent of small farmers respectively.

It could be inferred that past experience had been major sources of information to all the categories of farmer. Agricultural department and electronic media were the other sources of information next to past experience to large farmers while reverse was the case in the medium farmer and only agriultural department had been the source of information to small farmers. Journals and news papers, neighbours and fertilizer dealers were the least preferred sources of information to all categories of farmers.

(III) PURCHASE DETAILS OF SELECTED FARMERS

i Types of fertilizers used by selected farmers.

It is necessary to know the types of fertilizers used by selected farmers before resorting to the study on different brands of fertilizer used by farmers. Table XXII gives the details on different types of fertilizer used by sample farmers.

TABLE XXII

TYPES OF FERTILIZERS USED BY SELECTED FARMERS

(Number)

S.No.	Reasons	small farmers	medium farmers	large farmers	All the Farmers
1.	Straight Fertilizer	12(57.14)	39(92.86)	26(96.30)	77(85.56)
2.	Complex	15(71.43)	36(85.71)	26(96.30)	77(85.56)
3.	DAP	4(19.05)	18(42.86)	17(62.96)	39(43.33)
4.	Mixtures	16(76.19)	30(71.43)	21(77.78)	67(74.44)

(Figures in the parantheses indicate percentage to total number of farmers under each category).

It could be noted from the table that 85.56 percent of selected farmers used straight fertilizers and complex fertilizers as well. On the other hand 43.33 percent of selected farmers used DAP and 74.44 percent used mixtures.

It could be inferred that majority of farmers used straight and complex fertilizers while DAP users were the

least in number. Mixtures were also popular among farmers. Perhaps high price for the DAP fertilizer perforced them to use to a limited extent only. Due to necessity, farmers had to use the straight fertilizers.

The table also revealed marked variations among the three categories of farmers in the use of different types of fertilizers. As regards straight fertilizers, more than 90 percent of medium and large farmers used the same.

Complex fertilizers were used by 85.71 percent of medium farmers and 96.30 percent of large farmers as against 71.43 percent of the small farmers.

DAP users were found to be 42.86 percent and 62.96 percent among medium and large farmers respectively and only 19.05 per cent of small farmers used DAP for the reasons mentioned elsewhere.

In the case of mixtures, more than 70 percent of farmers in all three categories used.

It could be inferred that the percentage of small farmers who used straight and complex was less than that of medium and large farmers. DAP users were very low among medium and small farmers as compared to large farmers. It might be attributed to the high prices of fertilizer and more so in DAP. Mixtures were popular among all categories of farmers and more so among small farmers due to its cheaper cost.

ii Awarness of fertilizer brand.

In straight, complex and DAP fertilizers, there were several brands in the fertilizer market. Before pursuing the study on preference of different brands, an analysis of awareness of different brands available in the market was found necessary to draw useful inferences.

The details on awarness of different brands of fertilizers are presented in Table XXIII. It could be found that SPIC urea was known to nearly 99 percent of selected farmers. Next to SPIC urea, FACT urea and VIJAY urea were known to 84.44 percent and 82.22 percent of selected farmers respectively. The other brands in the urea such as IFFCO, KRIBHCO, Neyveli and Mangala were not known to majority of respondents.

The same trend had been prevailing in the different categories of farmers with few execeptions. In general IFFCO urea was not known to any one of small farmers and KRIBHCO was not known to either small farmers or large farmers. In the case of large farmers, all farmers were aware of Vijay urea while 92.59 percent were aware of FACT urea. This was contrary to the general findings wherein SPIC urea, FACT urea, and Vijay urea were known to the farmers in the order of awarness from most to least.

The highest percentage of awareness of SPIC urea spoke its popularity in the study area. FACT urea and Vijay

TABLE XXIII

AWARENESS OF FERTILIZER BRAND

(number)

S.No	Brand Name	Small farmers	Medium farmers	Large farmers	All farmers
1.	SPIC urea	20(95.24)	42(100)	27(100)	89(98.89)
2.	FACT urea	13(61.90)	38(90.48)	25(92.59)	76(84.44)
3.	Vijay Urea	12(57.14)	35(83.33)	27(100)	74(82.22)
4.	IFFCO	----	7(16.67)	4(14.81)	11(12.22)
5.	KRIBHCO	----	2(4.76)	----	2(2.22)
6.	Neyveli	1(4.76)	2(4.76)	3(7.14)	6(6.67)
7.	Mangala	2(9.52)	2(4.76)	2(4.76)	7(7.78)
8.	SPIC DAP	16(76.20)	37(88.10)	25(92.59)	76(84.44)
9.	FACT DAP	9(42.86)	24(57.14)	19(70.37)	52(57.78)
10.	Vijay DAP	8(38.10)	25(59.52)	17(62.96)	50(55.55)
11.	Vijay complex	19(90.48)	41(97.62)	25(92.59)	85(94.44)
12.	Factomphos	13(61.90)	36(85.71)	24(88.89)	73(81.11)
13.	Paramphos	1(4.76)	3(7.14)	1(3.70)	5(5.56)
14.	Indian potash	19(90.48)	40(95.24)	26(96.30)	85(94.44)

(Figures in parantheses indicate percentage to total number of farmers to small, medium, large and all the selected farmers).

urea were also popular though not equal to SPIC urea. The other brands such as IFFCO, KRIBHCO, Neyveli, and Mangala were not familiar to the farmers.

In the case of DAP, SPIC DAP was known to 84.44 percent of the respondents while 57.78 percent and 55.55 percent of respondents were aware of FACT and Vijay DAP respectively. Though all the brands of DAP were familiar with farmers there was a substantial gap between the level of awarness of SPIC DAP and that of FACT and Vijay DAP.

While analysing the awarness of different brands of DAP among different categories of farmers, SPIC DAP was the most known brand among all the three categories of selected farmers. Further it could be observed that FACT DAP was slightly better known than Vijay DAP to small farmers and large farmers but reverse was the case with medium farmers.

In the case of complex fertilizers, Vijay complex was known to 94.44 percent of respondents while Factomphos was known to 81.11 percent. Paramphos was just known to 5.56 percent of respondents. It could be inferred that Vijay complex was most familiar closely followed by Factomphos in terms of familiarity. Paramphos was the least known brand.

In the case of Indian Potash, 94.44 percent of respondents were aware of the brand and in general more than 90 percent of respondents of the three categories of farmers

were aware of Indian Potash. The results clearly indicated the popularity of this brand which was the only straight potassic fertilizer known in the study area.

iii Quantity of fertilizer purchased by selected farmers

The Quantity of fertilizer purchased in each brand by the selected farmers also would aid in identifying the most preferred brand. The brand which was purchased in higher quantities would be considered to be having relatively a greater market share and this also formed the basis on which brand preference of farmers was determined. The details of quantity of fertilizer purchased by the sample farmers are presented in Table XXIV.

It could be seen from the table that SPIC urea was purchased by 46.31 percent of selected farmers while FACT urea was purchased by 34.74 percent of selected farmers. Vijay urea was purchased by 12.63 percent of farmers. The other brands of urea such as IFFCO, KRIBHCO, Neyveli and Mangala were purchased by nearly two or less than two percent of selected farmers. It could be inferred that SPIC urea was the most preferred followed by FACT urea and vijay urea.

It could also be seen from the table that the total quantity of SPIC urea purchased by selected farmers accounted for 51.87 percent of total quantity of urea purchased by selected farmers while FACT urea accounted for

TABLE XXIV

QUANTITY OF FERTILIZER PURCHASED BY SELECTED FARMERS

(Quantity in Qtls)

S.No (1)	Brand Name (2)	Quantity purchased (3)	No.of farmers (4)	Average consumption (5)
I	UREA			
1.	Spic	138.50(51.87)	44(46.31)	3.15
2.	Fact	92.50(34.64)	33(34.74)	2.80
3.	Vijay	19.00(7.12)	12(12.63)	1.58
4.	Iffco	4.00(1.50)	1(1.05)	4.00
5.	Kribhco	4.00(1.50)	1(1.05)	4.00
6.	Neyveli	3.00(1.12)	2(2.11)	1.50
7.	Manyala	6.00(2.25)	2(2.11)	3.00
	Total	267.00(100.00)		
II	DAP			
1.	Spic	35.50(51.08)	24(53.33)	1.48
2.	Fact	19.00(27.34)	14(31.11)	1.36
3.	Vijay	15.00(21.58)	7(15.56)	2.14
	Total	69.50(100.00)		
III	COMPLEX			
1.	Vijay	126.00(45.74)	41(42.71)	3.07
2.	Factomphos	144.50(52.45)	52(54.17)	2.78
3.	Paramphos	5.00(1.81)	3(3.12)	1.67
	Total	275.50(100.00)		
IV	Indian Potash	127	63(70.00)	2.016

(Figures in the parantheses of column (4) indicate percentage to the total number of selected farmers. The total number of farmers may not tally with the sample due to multiple purchase of different brands.)

34.64. percent. Purchase of Vijay urea constituted 7.12 percent of the total quantity of the urea. The rest of the urea brands accounted for nearly two percent or less than two percent each. Based on quantity purchased, it could be observed that SPIC urea had greater market share than other brands and hence it was the most preferred brand. SPIC urea was followed by FACT urea. Vijay urea got very limited market share and it was preferred next to FACT. The rest of the brands had very low market share to create any impact on farmers brand preference.

In DAP, SPIC brand was bought by 53.33 percent of selected farmers while FACT DAP was purchased by 31.11 percent of the selected farmers. Vijay DAP was purchased by 15.56 percent of selected farmers only.

It could be seen from the table that 51.08 percent of total quantity of DAP purchased was of SPIC brand while FACT DAP accounted for 27.34 percent. The quantity of Vijay DAP purchased by selected farmers was 21.58 percent of total quantity of DAP.

It could be inferred from the results, SPIC DAP top the list based on number of farmers purchased and market share. FACT DAP was behind by a considerable margin and Vijay DAP was the least preferred brand by the farmers in the pollachi taluk.

In the case of complex fertilizers, Factomphos was purchased by 54.17 percent of selected farmers while Vijay was purchased by 42.71 percent. Paramphos was purchased by only 3.12 percent of farmers.

The quantity of Factomphos purchased was 52.45 percent of total quantity of complex fertilizers purchased by selected farmers and Vijay complex accounted for 45.74 percent. Paramphos was purchased in meagre quantity and it accounted for only 1.81 percent of total purchase.

It could be found that Factomphos was the most preferred brand based on number of farmers purchased and the quantity of complex fertilizer purchased. Vijay was closely behind the leader in the order of preference while paramphos was prefered by negligible percentage.

Indian potash was the only straight potassic fertilizers preferred by the selected farmers. Of the total farmers under question, 63 farmers preferred Indian potash and the quantity purchased was 127 quintals. The preference for Indian Potash in general, could be rated high.

iv Quantity of fertilizer purchased by different categories of farmers

As in the case of total selected farmers, more or less the same pattern of brand preference was seen among the different categories of farmers and the details are provided in Table XXV.

TABLE XXV

QUANTITY OF FERTILIZER PURCHASED BY THREE DIFFERENT CATEGARIES OF FARMERS

(Quantity in (

S.No	Brand Name	Small farmers		Medium farmers		Large farmers	
		No	Qty	No	Qty	No	Qty
I.	UREA						
1.	SPIC	6(28.57)	10(44.44)	20(47.62)	45.5(47.40)	18(66.67)	83(55.89)
2.	FACT	3(14.29)	7(31.11)	12(28.57)	32.5(33.85)	18(66.67)	53(35.69)
3.	Vijay	1(4.76)	0.5(2.22)	5(11.90)	10.0(10.42)	6(22.22)	8.5(5.73)
4.	IFFCO	----	----	-----	-----	1(3.70)	4.0(2.69)
5.	KRIBHCO	----	----	1(2.38)	4.0(4.17)	----	----
6.	Neyveli	----	----	2(4.76)	3(3.13)		
7.	Mangala	1(4.76)	5(22.22)	1(2.38)	1(1.04)	----	----
	Total		22.57(100.00)		96(100.00)		148.5(100)
II	DAP						
1.	SPIC	4(19.05)	4(80.00)	10(23.81)	15(42.86)	10(37.04)	16.5(55.93)
2.	FACT	1(4.76)	1(20.00)	7(16.67)	11(31.43)	6(22.22)	7(23.73)
3.	Vijay			3(7.14)	9(25.71)	4(14.81)	6(20.34)
	TOTAL		5(100.00)		35(100.00)		29.5(100.00)
III	COMPLEX						
1.	Vijay	7(33.33)	14(47.46)	16(38.10)	38.5(46.11)	18(66.67)	73.5(45.23)
2.	Factomphos	6(28.57)	14.5(49.15)	25(59.52)	45(53.89)	21(77.78)	85.0(52.31)
3.	Paramphos	1(4.76)	1(3.39)			2(7.40)	4(2.46)
	TOTAL		29.5(100)		83.5(100)		162.5(100)
I V.	INDIAN POTASH	8(38.10)	12	30(71.43)	52.3	25(92.59)	62.7

(Figures in the parantheses indicate the percentage to the total number of farmers under each category. total number of farmers may not tally with sample due to multiple purchase of different brands).

In case of urea, equal number of large farmers preferred SPIC and FACT.

In case of DAP, small farmers did not buy Vijay brand at all. In complex fertilizers, the number of small farmers who purchased Factomphos was slightly less than that of Vijay but the quantity of Factomphos was slightly higher than that of Vijay as could be observed from the table. Apart from this minor variation, a similar pattern in the order of preference and market share emerged. However, these exceptions were totally insignificant to make any amendments in the general conclusions.

v Source of Purchase of different brands of fertilizers

An analysis of different sources of purchase of fertilizers would help to understand the study in greater depths.

The details of purchase were presented in Table XXVI. It could be observed that none of the sample farmers purchased from agricultural depots. It could be noted the farmers purchased different brands of fertilizer both from co-operative and private dealers. The percentages of sample farmers who purchased SPIC urea from co-operative dealers was 13.33 and 35.55 from private dealers while FACT urea was purchased by 2.22 percent and 34.44 percent of selected farmers from co-operative and private dealers respectively. In case of Vijay urea, 2.22 percent of selected farmers

TABLE XXVI

SOURCE OF PURCHASE OF DIFFERENT BRANDS OF FERTILIZERS

(NUMBER)

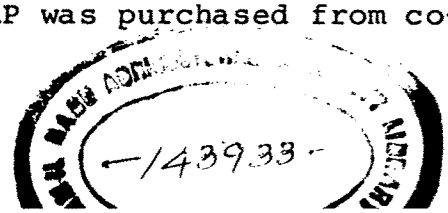
S.No	Brand Name	Small farmers		Medium farmers		Large farmers		All farmers	
		Co-operative	Private	Co-operative	Private	Co-operative	Private	Co-operative	Private
I	UREA								
1.	SPIC	1(4.76)	5(23.81)	4(9.52)	16(38.10)	7(25.93)	11(40.74)	12(13.33)	32(35.55)
2.	FACT	---	3(14.29)	---	12(28.57)	2(7.41)	16(59.26)	2(2.22)	31(34.44)
3.	Vijay	1(4.76)	---	---	5(11.90)	1(3.70)	5(18.52)	2(2.22)	10(11.11)
4.	IFFCO	---	---	---	---	1(3.70)	---	1(1.11)	---
5.	KRIBHCO	---	---	1(2.38)	---	----	---	1(1.11)	
6.	Neyveli	---	---	---	2(4.76)	----	---	---	2(2.22)
7.	Mangala	---	1(4.76)	---	1(2.38)	---	---	---	2(2.22)
II	DAP								
1.	SPIC	1.(4.76)	3(14.29)	---	10(23.81)	1(3.70)	9(33.33)	2(22.22)	22(24.44)
2.	FACT	---	1(4.76)	---	7(16.67)	--	6(22.22)	---	14(15.55)
3.	Vijay	---	---	1(2.38)	2(4.76)	---	4(14.81)	1(1.11)	6(6.67)
III	COMPLEX								
1.	Vijay	2(9.52)	5(23.81)	3(7.14)	13(30.95)	5(18.52)	13(48.15)	10(11.11)	31(34.44)
2.	Factomphos	---	6(28.57)	2(4.76)	23(54.76)	4(14.81)	17(62.96)	6(6.67)	46(51.11)
3.	Paramphos	---	1(4.76)	---	---	---	2(7.41)	---	3(3.33)
IV	INDIAN POTASH	---	8(38.10)	2(4.76)	28(66.67)	6(22.22)	19(70.37)	8(8.89)	55(61.11)

(Figures in the parantheses indicate percentage tc the total number of farmers under each category).

purchased from co-operative dealers while 11.11 percent from private dealers. IFFCO and KRIBHCO urea were purchased exclusively from co-operative dealer by 1.11 percent each of selected farmers while Neyveli urea and Mangala urea were bought exclusively from private dealers by 2.22 percent each of selected farmers.

It could be inferred that SPIC urea was purchased by large number of farmers both from co-operative and private dealers and hence it could be declared as mostly preferred brand in urea. FACT urea and Vijay urea were in second and third position in terms of preference by the farmers from private dealers where as the two brands were purchased from co-operative dealers equally. IFFCO and KRIBHCO were in fourth position in terms of purchase preference by number of farmers from co-operative dealers after Vijay while Neyveli and Mangala were in the same position after Vijay in the case of private dealers. Since majority of farmers bought from private dealers, the number of farmers who purchased from private dealers determine the consumer preference. Accordingly, SPIC, FACT, and Vijay were in the order of preference of purchase by the farmers.

In the case of DAP, SPIC was purchased by 24.44 percent of farmers from private dealers and 22.22 percent from co-operative dealers. FACT DAP was completely purchased from private dealers by 15.55 per cent of the selected farmers. Vijay DAP was purchased from co-operative



dealer only by 1.11 per cent of sample respondents whereas 6.67 percent purchased from private dealers.

Barring three farmers, DAP was purchased from private dealers by the rest of farmers. It could be said that SPIC DAP was the most preferred followed by FACT and Vijay DAP.

In the case of complex fertilizers, 11.11 percent and 6.67 percent of selected farmers purchased Vijay and Factomphos from co-operative dealers respectively while 34.44 percent and 51.11 percent of selected farmers purchased Vijay and Factomphos from private dealers respectively. Paramphos was just purchased by 3.33 per cent of the farmers from private dealers.

It could be inferred that Vijay complex fertilizer was more purchased than Factomphos from co-operative dealers while reverse was the case with private dealers. Thus majority of the farmers were in favour of Factomphos rather than Vijay complex fertilizer.

In the case of Indian potash, 8.89 percent and 61.11 percent farmers purchased from co-operative and private dealers respectively.

vi Mode of Purchase

An overview of mode of purchase would help to infer whether the brand preference of farmers was shifted on account of mode of purchase.

TABLE XXVII

MODE OF PURCHASE OF DIFFERENT BRANDS OF FERTILIZERS

(Number)

S.No	Brand Name	Small farmers		Medium farmers		Large farmers		All farmers	
		Cash	Credit	Cash	Credit	Cash	Credit	Cash	Credit
I	Urea								
1.	SPIC	5(23.81)	1(4.76)	16(38.10)	4(9.52)	12(44.44)	6(22.22)	33(36.67)	11(12.22)
2.	FACT	3(14.29)	----	12(28.57)	----	16(59.26)	2(7.41)	31(34.44)	2(2.22)
3.	Vijay	-----	1(4.76)	5(11.90)	----	6(22.22)	----	11(12.22)	1(1.11)
4.	IFFCO	----	----	----	----	----	1(3.70)	----	1(1.11)
5.	KRIBHCO	----	----	1(2.38)	----	1(1.11)	----		
6.	Neyveli	----	----	2(4.76)	----	----	----	2(2.22)	----
7.	Mangala	1(4.76)	----	----	1(2.38)	-----	----	1(1.11)	1(1.11)
II	DAP								
1.	SPIC	3(14.29)	1(4.76)	10(23.81)	----	9(33.33)	1(3.70)	22(29.44)	2(2.22)
2.	FACT	1(4.76)	----	6(14.29)	1(2.38)	6(22.22)	----	13(14.44)	1(1.11)
3.	Vijay	----	----	2(4.76)	1(2.38)	4(14.81)	----	6(6.67)	1(1.11)
III	Complex								
1.	Vijay	5(23.81)	2(9.52)	14(33.33)	2(4.76)	14(51.85)	4(14.81)	33(36.67)	8(8.89)
2.	Factomphos	6(28.57)	----	24(57.14)	1(2.38)	18(66.67)	3(11.11)	48(53.33)	4(4.44)
3.	Paramphos	1(4.76)	----	----	----	2(7.41)	----	3(3.33)	----
IV	Indian Potash	8(38.10)	----	28(66.67)	2(4.76)	20(74.07)	5(18.52)	56(66.22)	7(7.78)

(Figures in parantheses indicate the percentage to the total number of farmers under each category)

The details of mode of purchase by the selected farmers are given in Table XXVII. It could be found that 36.67 percent bought SPIC urea on cash while 12.22 percent bought on credit. In the case of FACT urea, 34.44 percent of selected farmers purchased for cash while 2.22 percent purchased on credit. Nearly 12 percent of selected farmers purchased Vijay urea for cash while 1.11 percent purchased for credit. Besides, IFFCO urea was purchased for credit and KRIBHCO and NEYVELI urea were purchased for cash totally. Mangala urea was purchased equally for cash and credit.

It could be inferred that more number of farmers could get SPIC urea on credit than the rest of the brands and this factor might have contributed to a considerable extent for its popularity.

In the case of DAP, 24.44 percent of farmers purchased SPIC DAP for cash while 2.22 percent purchased on credit. FACT DAP was purchased by 14.44 percent of selected farmers for cash while 1.11 percent purchased the same brand on credit. In the case of Vijay DAP, 6.67 percent of sample farmers purchased for cash and 1.11 percent purchased on credit. It could be inferred that farmers could get credit hardly for all the DAP brand.

In the case of complex fertilizers, 36.67 percent of respondents purchased Vijay complex for cash while 8.89

percent purchased on credit. In the case of Factomphos, 53.33 percent of selected farmers purchased for cash and 4.44 percent purchased on credit. Paramphos was exclusively bought for cash by the selected farmers.

It could be found that number of farmers who purchased Vijay on credit was double that of those purchased Factomphos. But Factomphos was largest purchased fertilizer. It might be due its easy availability as compared to Vijay complex fertilizer.

In general, majority of farmers had purchased for cash whatsover be the brands. This was also reflected among the different categories of farmers. It could be observed from the table that the number of large farmers who purchased on credit was more than the number of small farmers generally for all brands. This indicated that the large farmers had exerted considerable influence for getting the fertilizer on credit.

Credit availability to farmers had to be determined by dealers rather than manufacturers who distribute different brands to dealers. Hence, brand preference of farmers based on the mode of purchase would be impossible to be determined. Some co-operative dealers issued credit. But then, the number of co-operative dealers were less in number. More over, the availability of fertilizer both in quantity and quality was not adequate to satisfy the farmers. A general observation could be made from the

sources of purchase and mode of purchase is that majority of farmers had to purchase from private dealers and almost all of them had to purchase for cash. A small number of farmers had purchased from co-operative dealers and substantial number of farmers were able to get credit. The credit availability from co-operative societies was not mostly based on brands. Hence, the credit availability was too samll in quantity to make any impact on brand preference.

vii Preference for purchase of Brands

Even though the relative share of quality of different brands purchased by sample respondents indicated the brand that was mostly preferred by the farmers, it was not expected to provide complete picture. There might be difference between what farmers actually purchased and what they preferred to purchase. The latter would give a clear picture on the brands that were mostly preferred by farmers because the farmers would have purchased even the unpreferred brand due to some reasons such as non-availability of preferred brand at the time of purchase.

Table XXVIII presents a picture wherein the most preferred brands could be identified. In urea, SPIC was the most preferred brand as it got preference from 62 selected farmers (68.88 percent). FACT urea and Vijay urea were preferred by 23.33 percent and 7.77 percent of selected

TABLE XXVIII

PREFERENCE FOR PURCHASE OF BRANDS

S.No.	Name of brand	Number of respondents					
		Small farmers	Medium farmers	Large farmers	All farmers		Rank
	UREA						
1	SPIC urea	17(18.88)	26(28.88)	19(21.17)	62	(68.89)	I
2	FACT urea	3(3.33)	11(12.22)	7(7.77)	21	(23.33)	II
3	Vijay urea	1(1.11)	5(5.55)	1(1.11)	7	(7.78)	III
	DAP						
4	SPIC	20(22.22)	34(37.77)	22(24.44)	76	(84.44)	I
5	FACT	1(1.11)	5(5.55)	2(2.22)	8	(8.89)	II
6	Vijay	-	3(3.33)	3(3.33)	6	(6.67)	III
	COMPLEX						
7	Factomphos	6(6.66)	21(23.33)	12(13.33)	39	(43.33)	II
8	Vijay	14(15.55)	21(23.33)	14(15.55)	49	(54.45)	I
9	Paramphos	1(1.11)	-	1(1.11)	2	2(2.22)	III

(Figure in the parentheses indicate percentage to total number of farmers under each category)

farmers respectively. The other brands of urea such as IFFCO, KRIBHCO, Mangala and Neyveli were not at all preferred by the selected respondents eventhough they were purchased by few farmers due to the non-availability of other preferred brands.

It could be inferred that SPIC urea was mostly preferred and hence it had been a market leader. FACT urea had a substantial preference while Vijay urea got the least preference. The same order of preference could be established based on the quantity of different brands purchased.

In DAP also, SPIC brand got the highest preference as it was preferred by 84.44 percent of selected farmers. FACT DAP and Vijay DAP were preferred by 8.89 percent and 6.67 percent of farmers respectively. It could be observed that SPIC brand could simply outplay FACT and VIJAY on account of its very high brand preference and good brand image among farmers. Eventhough Vijay DAP was the least preferred brand, there was little difference in the preference between FACT DAP and Vijay DAP.

Among the complex fertilizer, Vijay complex (17:17:17) received the highest preference for purchase as it was preferred by 54.44 percent of respondents. Factomphos was closely behind with the preference from 43.33 percent of respondents. Paramphos was just preferred by 2.22 percent of respondents.

Based on quantity, Factomphos had greater share than the Vijay complex fertilizer. But Vijay was more preferred than Factomphos by the selected respondents.

It could be inferred that non-availability of Vijay complex in adequate quantities in all distribution channels was attributed by the farmers who preferred to purchase Vijay but purchased other complex fertilizers especially Factomphos.

Factomphos relatively enjoyed greater market share than Vijay and its brand preference was not higher than Vijay. Vijay complex fertilizer was mostly preferred on account of its balanced nutrient content.

Analysing the three categories of farmers on brand preference, more or less the same trend had been established as observed in the case of total selected farmers barring slight variations.

In urea, the same order of preference had prevailed in all the three categories of farmers.

In DAP, Vijay had a slight edge over FACT in the order of preference in the large farmer category.

In small farmers category, Vijay DAP was not at all preferred to purchase.

In the complex fertilizers, medium farmers gave equal preference to Vijay and Factomphos.

These variations were too minimum to make any valid conclusion based on different categories of farmers.

(IV) FACTORS INFLUENCING BRAND PREFERENCE OF FARMER

A study on factors influencing the brand preference would help to make meaningful conclusions and some useful policy implications. An analysis of factors would help further to infer why and how the brands attained popularity among consumers.

In this study, several factors were listed and the respondents were asked to give their order of preference for different factors that influenced them to prefer particular brand for purchase. By using Garett's Ranking Technique, the mean scores were arrived for each factor and their order of influence was found out.

It could be observed from Table XXIX. that easy availability of fertilizers was considered most important by the farmers. Eventhough farmers preferred particular brand, they were prepared to buy the other available brands if their preferred brand was not available with dealer. Hence, easy availability of fertilizer was the critical factor which influence them to purchase particular brand.

TABLE XXIX

FACTORS INFLUENCING BRAND PREFERENCE OF FARMERS

S.No	Factors	MEAN SCORE			
		Small farmers	Medium farmers	Large farmers	All farmers
1.	Price differential	----	3.48 (IX)	----	1.62 (IX)
2.	Quality	26.29 (II)	49.40 (II)	48.48 (II)	43.73 (II)
3.	Packaging and easy to handle	1.48 (XI)	---	---	0.34 (XII)
4.	Easy availability	48.67 (I)	54.90 (I)	52.26 (I)	52.65 (I)
5.	Dealer's influence	5.62 (VII)	4.45 (VII)	2.07 (VII)	4.01 (VIII)
6.	Neighbour's influence	10.43 (IV)	3.81 (VIII)	2.07 (VII)	4.83 (VII)
7.	Ignorance over other brands	3.29 (IX)	----	----	0.76 (XI)
8.	Suitability to soil	5.05 (VIII)	6.38 (VI)	7.26 (IV)	6.3 (VI)
9.	Suitability to crop	7.62 (V)	8.14 (IV)	7.22 (V)	7.74 (IV)
10.	Credit availability	13.24 (III)	8.79 (III)	10.15 (III)	10.23 (III)
11.	Sales promotion	2.10 (X)	1.05 (XI)	---	0.97 (X)
12.	Sales personnel's influence	---	1.64 (X)	---	0.76 (XI)
13.	Brand loyalty	7.48 (VI)	7.8 (V)	5.67 (VI)	7.08 (V)

(Figures in Parantheses indicate the rank obtained based on mean score)

Quality was considered next important factor with the mean score of 43.73 by the selected respondents. Credit availability with mean score of 10.23 also got some influence. The other factors such as suitability to crop, brand loyalty, suitability to soil, neighbour's influence, dealer's influence, price differential, sales promotion, sales personnel's influence, ignorance over other brands and packaging and easy to handle received mean scores of less than ten which indicated that these factors had little influence on farmer's brand preference. Among these factors, suitability to crop and brand loyalty received mean scores of 7.74 and 7.08 respectively. These factors could be assumed to have less than moderate influence. Suitability to soil had also got little influence with the mean score of 6.3. Neighbour's influence and dealer's influence had received mean score of 4.83 and 4.01 respectively which indicated their very little influence on brand preference of farmers.

Price differential, sales promotion, sales personnel's influence, ignorance over the brands and packaging to handle got negligible influence with the mean score of 1.62, 0.97, 0.76, 0.76 and 0.34 respectively.

It could be inferred that easy availability of fertilizer brands and quality of brands were the most influencing factors for preferring a particular brand. Credit avaiability was also a influencing factor to

substantial extent. The other factors were not of much importance in deciding the brand preference.

The different categories of farmers showed some variations contrary to the general trend available from the selected farmers. However, easy availability and quality of fertilizer brands were the most important influencing factors even among three categories of farmers. Credit availability was the third most influencing factor for all categories of farmers.

Neighbour's influence, suitability to crop, brand loyalty, dealer's influence, suitability to soil, ignorance over other brands and sales promotion were the other factors in that order influenced the brand preference of small farmers after credit availability. Price differential and sales personnel's influence had no influence on small farmers.

In the case of medium farmers, suitability to crop, brand loyalty, soil suitability, dealer's influence, neighbour's influence, price differetial, sales personnel's influence and sales promotion in that order of influence were the factors after credit availability. Packaging and easy to handle had no influence on medium farmers.

In the category of large farmers, suitability to soil, suitability to crop, brand loyalty, dealer's influence and neighbour's influence were in the order of influence

after credit availability. The factors like price differential, packaging and easy to handle, ignorance over other brands, sales promotion and sales personnel influence had no influence on brand preference of large farmers.

The results indicated that there were minor changes in the order of influence of different factors after credit availability among the three categories of farmers. But these factors have mean scores of about 10 or less than 10 which revealed that their influence was minimal.

It could generally be inferred that easy availability, quality and credit availability were the chief factors influencing the brand preference.

The result was in confirmity with that of the study of Ahmad and Singh wherein easy availability and good quality were found to be the chief considerations for the preference to purchase a particular fertilzer brand[1].

Functional Analysis

To identify the determinants of brand preference of the farmers, a linear regression function was fitted. The brand preference of the farmers was treated to be a function of easy availability of the brand, price of the brand, quality of brand, credit availability of the brand under

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[1]Tauseef Ahmad and Inderjeet Singh, **op.cit.**, pp.28-31.

question and the sales promotional activities resorted to by the manufacturing firms.

The results of the functional analysis are presented in Table XXX.

TABLE XXX

FACTORS CONTRIBUTING TO THE BRAND PREFERENCE OF FARMERS

Sl. No.	Specified Variables	Estimated Coefficients	Standard Error	Computed 't' value	Remarks
1.	Intercept	-0.943929	0.457746	-2.06218	
2.	Easy availability (X1)	0.659387	0.117882	5.59364	**
3.	Price (X2)	-0.024055	0.110964	-0.216781	NS
4.	Quality (X3)	0.493501	0.124489	3.9642	**
5.	Credit availability (X4)	0.216051	0.119371	1.8099	NS
6.	Sales promotion (X5)	0.036121	0.095983	0.120099	NS

Adjusted R^2 = 0.76 N = 90

** = Significant at one per cent level of probability

NS = Non significant.

The coefficient of multiple determination (R^2) indicated that 76 per cent of the variation in the brand preference of the farmers could be explained by the explanatory variables included in the function. The rest could perhaps be explained by other factors such as

suitability to the soil, crop, brand loyalty, dealer's influence etc. which were not studied.

Among the variables specified only the easy availability of the brand and the quality of the brand were alone found to have significant influence on the brand preference of the farmers. Influence of other variables though they are with the expected signs, they were not significant. In the linear function, the regression coefficients were marginal productivities of the concerned independent variables. Therefore when the easy availability of the brand was increased (availability of the brand at a right place and right time) by one score, **ceteris paribus**, the brand preference would increase by 0.659387 unit. Similarly, when the quality of the brand was increased by one score, **ceteris paribus**, the brand preference of the farmer would increase by 0.493501.

It could thus be inferred that to augment the brand preference of the farmers, the fertilizer brand should be made available at a right time and at the right place with an acceptable quality (devoid of all adulteration of any sort). Though independent variable X_2, the price of the brand has an expected sign, it is not significant and as such it has no influence on the brand preference by the farmers.

Keeping all the variables under question **ceteris paribus**, the brand preference of the farmers would be

-0.943929 which implies that the selected farmers have no say on the brands of fertilizers as such.

Similarly the variables X_4 and X_5 ie credit availability of the brand and sales promotion respectively, though they have positve relation with that of dependent variable they had no significant influence on the brand preference.

It could thus be inferred that the dealers and manufacturers should take into consideration of easy availability of the fertilizers and the quality of the fertilizer brand in their future developmental programmes.

V PROBLEMS FACED BY FARMERS IN PURCHASING FERTILIZERS

An overview of problems faced by the farmers in purchasing fertilizers would assist in evolving solutions which could be utilised in promoting brand preference of farmers.

Table XXXI contains mean scores arrived from Garett's Ranking Technique for various problems as indicated and ranked by farmers. The scores in the descending order indicate the order of importance from the most to the least.

In general, the high retail price of fertilizer was considered to be most important problem faced by farmers as it received maximum mean score of 36.22. Adulteration and non credit sales were the next important problems and they

TABLE XXXI

PROBLEMS FACED IN PURCHASING FERTILIZERS BY FARMERS

Sl.No.	PROBLEMS	MEAN SCORE			
		Small farmer	medium farmer	large farmer	All farmers
1.	Long distance of dealership	5.71 (VIII)	-	-	1.33 (VIII)
2.	Non credit sales	21.0 (II)	24.98 (III)	19.96 (III)	22.54 (III)
3.	High retail price	44.57 (I)	39.95 (I)	23.92 (II)	36.22 (I)
4.	Lack of awareness	-	-	1.37 (IX)	0.41 (X)
5.	Poor quality	13.33 (V)	21.98 (IV)	12.52 (IV)	17.12 (IV)
6.	Adulteration	16.86 (III)	25.31 (II)	29.15 (I)	24.48 (II)
7.	Under weight	-	-	2.56 (VIII)	0.76 (IX)
8.	Defective packaging	5.76 (VII)	2.98 (VII)	3.74 (VII)	3.85 (VII)
9.	Non-availability of preferred brand	15.24 (IV)	11.5 (VI)	10.48 (V)	12.06 (V)
10.	Untimely supply	6.67 (VI)	14.52 (V)	8.11 (VI)	10.76 (VI)

(Roman numerals in parantheses indicate the ranks obtained by each problem)

received a mean score of 24.48 and 22.54 respectively. Poor quality of fertilizer was another problem for farmers and it received mean score of 17.12. Non-availability of preferred brand was yet another problem which received a mean score of 12.06. Untimely supply of fertilizer was also reported by farmers and it received a mean score of 10.76. Defective packaging and long distance of dealership were the other problems which received mean scores of 3.85 and 1.33 respectively. Problems such as underweight and lack of awareness had received mean scores of 0.76 and 0.41 respectively.

The results indicated that high retail price of fertilizer was the menacing problem for farmers. Adulteration and non-availability of credit while purcahsing were also important problems perceived by farmers.

Among the different categories of farmers, the intensity of problems varied among the three categories of farmers as indicated in the table.

In the small farmers category, as expected high retail price of fertilizer was the most important problem faced by them. Non credit sales was the next important problem and adulteration of fertilizers ranked third important problem. Non-availability of preferred brand and poor quality of fertilizers were the other problems faced by them. Small farmers faced some problems to little extent on

account of untimely supply, defective packaging and long distance of dealership. However small farmers were not at all affected by lack of awareness and underweight.

For the medium farmer category, again the high price of fertilizer was the topmost problem. Adulteration and non credit sales were the next important problems faced them in that order. Poor quality and untimely supply of fertilizers were also the other problems faced by them. Non-availability of preferred brand and defective packaging were the problems faced by the medium farmers to little extent. Besides medium farmers have also reported that they were not affected by problems such as long instance of dealership, lack of awareness and underweight.

Large farmers considered adulteration as the foremost problem. High price was considered next important problem by them while non credit sales, quality of fertilizer, non-availability of preferred brand and untimely supply of fertilizer were placed in that order. Defective packaging, underweight and lack of awareness were the other problems that affected the large farmers to little extent. After analysing the problems in different categories of farmers, it could be inferred that high price, non credit sales and adulteration were considerd as their foremost problems by all categories of farmers. Apart from these problems, poor quality of fertilizer, untimely supply and defective packaging were also experienced by all three categories of farmers.

(VI) EFFECTIVENESS OF PROMOTIONAL ACTIVITIES

i Awareness due to promotional activities

Various promotional activities were followed by manufacturing firms and distributing organisation to promote their brand image and brand preference. Different promotional activities evoked varied response among the consumers. In this study, farmers were asked to rank the promotional activities that made them known the different fertilizer brands available in the market. This disposition of promotional activities and their effect analysed by Garett's ranking tachnique are furnished in Table XXXII.

From the table it is evident that radio advertisement received the highest mean score of 41.81 while wall paintings ranked second with the mean score of 35.16. Film shows or slides was the next important promotional activity with the mean score of 31.04. Other promotional activites in the order of awareness were sales promotion, advertisement in newspapers and magazines, printed handouts and advertisement in television with the mean score of 25.98, 22.35, 21.52 and 20.53 respectively. Posters and signboards and trials and demonstrations had received scores of 10.57 and 6.24 respectively. The promotional activities which received very low mean scores were personal selling, exhibiition show and farmers training and tour.

TABLE XXXII

DISPOSITION OF PROMOTIONAL ACTIVITIES AND THEIR EFFECT

Sl.No.	PROMOTIONAL ACTIVITIES	MEAN SCORE			
		Small farmer	medium farmer	large farmer	All the farmers
1.	Personal selling	3.57 (X)	-	-	0.83 (X)
2.	Film show/Slide	31.19 (III)	34.33 (II)	25.81 (V)	31.04 (III)
3.	Radio advertisement	52.76 (I)	36.21 (I)	42 (I)	41.81 (I)
4	Printed handouts	21.76 (V)	20.64 (VI)	22.70 (VI)	21.52 (VI)
5.	Wall paintings	38.86 (II)	32.93 (III)	35.78(II)	35.16 (II)
6.	Trails and demonstrations	4.81 (IX)	5.90 (IX)	7.89 (IX)	6.24 (IX)
7.	Posters and sign boards	6.90 (VIII)	10.07 (VIII)	14.23 (VIII)	10.57 (VIII)
8.	Advertisement in news papers and magazines	17.57 (VI)	25.24 (IV)	21.59 (VII)	22.35 (V)
9.	Dealer promotion	27.24 (IV)	23.83 (V)	28.37 (IV)	25.98 (IV)
10.	Advertisment in Television	14.76 (VII)	11.07 (VII)	30.41 (III)	20.53 (VII)
11.	Farmers training and tour	-	0.60 (X)	0.74 (XI)	0.5 (XII)
12.	Exhibition shows	-	0.48 (XI)	1.37 (X)	0.63 (XI)

(Roman letters in the parantheses indicate the ranks obtained by the promotional activities).

It could thus be inferred that radio advertisement was the most effective promotional method in creating awareness of brands. This method was followed by wall paintings and film shows and slides. Dealer promotion, advertisement in newspapers and magazines, printed handouts and advertisement in television were other promotional activities have also produced awareness to a considerable extent. Posters and sign boards and trials and demonstrations could create awareness to little extent. Personal selling, exhibition and shows and farmers training and tours were the least effective methods in creating awareness of different brands among the consumers.

The three categories of farmers showed little variation in choosing the promotional activities in the order of creation of awareness. In the small farmers category, the first four positions were in agreement with the overall ranking for the entire study region. In other words, radio advertisement, wall paintings, film show and slides and dealer promotion have created awareness in that order. Printed handouts, advertisement in newspapers and magazines and advertisement in television were the other promotional activities that had some effect in creating awareness among small farmers. Posters and sign boards, and trials and demonstrations and personal selling had created awareness to little extent. Farmers training and tour and exhibhition show had no impact on small farmers.

Medium farmers also ranked radio advertisement as the first important promotional activity in creating awareness. Then they chose film shows and slides as second and wall paintings as third in the order of creating awareness. This was contrary to the general trend established by all the respondents in the study region. Advertisements in newspapers and magazines, dealer promotion and printed handouts were also rated high in the order of creating awareness by medium farmers. The promotional activities such as advertisement in television, posters and signboards and trials and demonstrations had some impact on medium farmers while farmers training and tour and exhibition show had no impact at all.

Large farmers also rated radio advertisement as most attractive promotional activity in creating awareness of brands on them. Wall paintings and television advertisement were considered next important promotional activites in creating awareness. It could be inferred that large farmers had more accessibility towards television than small and medium farmers and thus television advertisement had gone high in their ranking.

Dealer promotion and Film show and slides were next in the order of creating awareness among large farmers. Promotional activities such as printed handouts, advertisement in newspapers and magazines also had poor impact on large farmers as could be observed from their mean scores.

Posters and sign boards and trials and demonstrations had impact on large farmers to some extent while exhibition shows and farmers training and tour had very little impact in creating awareness. Personal selling had not created awareness among large farmers.

It could be inferred that apart from radio advertisement and wall paintings, film shows and slides were popular among small and medium farmers, while television advertisement was popular among large farmers. Dealer promotion was popular among all categories of farmers.

ii Effectiveness of promotional activites:

To find out the effectivness of promotional activities, it is essential to find out the conviction of the same other than creating awareness.

Farmer's conviction on promotional activities was measured in a three point continuous scale with equal intervals in the increasing trend of conviction. A scaling technique was adopted to arrive mean scores. The mean scores in the descending order indicated the effectiveness of promotional activites from the most effective to the least and the details are furnished in Table XXXIII.

From the table, it could be observed that radio advertisement was the most convincing promotional activity as it received highest mean score of 0.980. Wall paintings

TABLE XXXIII

EXTENT OF CONVICTION WITH PROMOTIONAL ACTIVITIES

Sl.No	Promotional activities	Mean score	Rank
1.	personal selling	0.044	XI
2.	Film show/slide	0.670	III
3.	Radio Advertisement	0.986	I
4.	Printed handouts	0.465	VII
5.	Wall paintings	0.789	II
6.	Trials and demonstrations	0.267	IX
7.	Posters and sign boards	0.302	VIII
8.	Advertisment in newspapers and sign boards	0.561	V
9.	Dealer promotion	0.626	IV
10.	Advertisement in television	0.489	VI
11	Farmers training and tour	0.070	X
12.	Exhibition and shows	0.020	XII

and film shows and slides were next in the order of conviction with good mean scores of 0.789 and 0.67 respectively.

Dealer promotion, advdertisement in newspapers and magazines, advertisement in television and printed handouts received mean scores of 0.627, 0.561, 0.489 and 0.465 respectively while posters and signboards and trials and demonstrations could get mean scores of 0.302 and 0.267 respectively. The promotional activities with low mean scores were farmers training and tour, personal selling and exhibition and shows which recieved the mean score 0.07, 0.044 and 0.02 respectively.

It could be inferred that radio advertisement was most effective followed by wall paintings and film shows and slides. The results of the study is in confirmity with that of Yadav who found audio/audio visual media was very popular among the audience[2].

Namasivayam observed in his study that uneducated persons preferred the media televsion and cinema for soap advertisement. He also indicated that the low income group people (below Rs.1000 per month) preferred cinema as a medium[3].

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[2] Pradeep kumar Yadav, **op.cit.**,pp.31-33.

[3] M. Namasivayam, op.cit., pp. 23-28.

These studies stressed the importance of cinema as an important medium for sales promotion. In the present study also, film shows and slides had been found as one of the important promotional activity.

Dealers promotion, advertisement in newspaper and magazines, advertisement in television and printed handouts had succeeded in convincing the farmers to a substantial extent while posters and signboards and trials and demonstrations had limited effect on consumers. The rest of the promotional activities had very low impact on farmers.

iii Reasons for non-conviction of promotional activities

An analysis on reasons for non-conviction of promotional activities would throw light further on behavioural response of farmers towards different promotional activities.

As could be observed from Table XXXIV 23.33 percent of the farmers opined that promotional methods are gimmicks. 10 percent of farmers attributed that same types of promotional activities were done by manufacturing firms.

Nearly 21 percent of farmers opined that the quality of the brands is known only after use and such promotional activities have no role to play.

Nearly nine percent of selected farmers were of the view that the promotional methods were profit motive and 7.78 percent beleived that they exaggerate the quality of

TABLE XXXIV

REASONS FOR NON-CONVICTION OF PROMOTIONAL ACTIVITIES

S.No.	Reasons	No. of respondents	Percent to total
1.	All companies do same promotional activities	9	10.00
2	Promotional methods are gimmicks	21	23.33
3	Promotional companies express same attribute on products	3	3.33
4	Exaggerate the quality of the product	7	7.78
5	Quality of the brand is known only after use	19	21.11
6	Traditional usage of brand	4	4.44
7	Promotional activities are profit motive	8	8.89
8	Available fertilizer from dealer is bought	1	1.11
9	No difference in qualities of brand	4	4.44
10	Promotional methods are not clear	2	2.22
11	No specific reason	9	11.11

product. About four percent of farmers were using same brand traditionally due to loyalty and 3.33 percent of farmers mentioned that promotional compaigns express same attribute of fertilizer product eventhough they differ in brand names. About four percent of farmers felt they could not differentiate the qualities of brand. While 2.22 percent of farmers expressed that promotional methods were not clear 1.11 percent of farmers bought the available fertilizer from dealer and not bothered about promotional activites. About eleven percent of farmers could not attribute specific reason for non-conviction of promotional activities.

It could be inferred that most of the farmers were aware of the quality of brand and hence they were not convinced with promotional activities. Lack of innovative promotional activity was another reason for non-conviction among farmers. Farmers had certain strong views on promotional activities such as promotional methods are profit-motive, gimmicks, and therefore they were not convinced by promotional activities. Further, some farmers felt that promotional activities express same attributes on products of different brands while some others felt the quality of the product was exaggerated. These were the major reasons for the farmers being not convinced on promotional activities. Besides there were minor reasons such as traditional usage of the brand and no clear promotional methods.

iv Other promotional activities recommended by farmers

Apart from the promotional activities that were mentioned the respondents were asked to mention if any additional or other promotional activities were required by them. It would help to suggest some more promotional activities to promote brand preference of farmers. Nearly 95 percent of the respondents viewed that no other promotional activities are required. Only four percent of the respondents suggested that credit facilities from fertilizer supplying firms shouls be made available and 2.22 percent of the respondents recommended that farm consultancy service by the manufacturing or marketing organisations.

B. DEALERS

The results under dealer section have been presented and discussed under various sub-sections. To begin with, the general characteristics of the sample dealers are presented and discussed.

(I) GENERAL CHARACTERISTICS OF THE SAMPLE DEALERS

Information on general characteristics of the study would help to analyse and understand the problem in wider perspective. Therefore, the general characteristics of the sample dealers were presented and analysed in this sub-section.

i.Type of Business:

It could be seen from Table XXXV that twenty-nine (96.67 percent) out of thirty dealers are retailers and the remaining one dealer was a wholesaler cum retailer. There was no wholesaler in the sample dealers. It could be observed that none of the fertilizer dealers are interested to do wholesale alone.

TABLE XXXV
TYPE OF BUSINESS OF DEALERS

S.No	Particulars	Number	Percent to Total
1.	Wholesaler	-	-
2.	Retailer	29	96.67
3.	Wholesaler Cum Retailer	1	3.33
	Total	30	100.00

ii.Nature of Dealership

Table XXXVI indicate that Co-operative dealers and private dealers accounted for 10 per cent and 90 per cent of the sample respectively. It showed that the major share of distribution of fertilizers to farmers was through private dealers only. As the private dealers dominated the dealership, they have more safe in the brand preference of dealers.

TABLE XXXVI

NATURE OF DEALERSHIP OF DEALERS

S.No	Dealers	No	Per cent to Total
1.	Co-operative	3	10.00
2.	Private	27	90.00
	Total	30	100.00

iii. Year of Establishment:

The year of establishment of dealership business of sample dealers varied widely and the details are furnished in Table XXXVII. Among the sample dealers, 40.00 per cent of dealers established dealership between 1971 and 1980 and 36.66 per cent started between 1981 and 1990. Between 1961 and 1970, only 10.00 per cent of the sample dealers estasblished dealership. About 6.67 per cent sample dealers established dealership before 1960. The same percentage of dealers established dealership beyond 1990. From the table, it could be found that maximum number of sample dealers started their business between 1971 and 1980.

TABLE XXXVII

YEAR OF ESTABLISHMENT OF SAMPLE DEALERS

S.No	Particulars	No	Per cent to Total
1.	Before 1960	2	6.67
2.	1961-70	3	10.00
3.	1971-80	12	40.00
4.	1981-90	11	36.66
5.	1991 and thereafter	2	6.67
	Total	30	100.00

iv.Experience in Fertilizer Dealing

The experience of dealers was considered important in making the dealer's decision regarding purchase of different brands of fertilizers. The experience of sample dealers in fertilizer dealing in terms of number of years could be known from Table XXXVIII. While 56.67 per cent of the dealers had less than ten years experience ,30.00 per cent of sample dealers had experience in fertilizer dealing between 11 and 20 years. About 10.00 per cent of sample dealers had experience in fertilizer dealing between 21 and 30 years and only 3.33 per cent of the dealer respondents had experience of more than 30 years.

TABLE XXXVIII

EXPERIENCE OF SAMPLE DEALERS IN FERTILIZER DEALING

S.No	Particulars	No	Per cent of total
1.	Less than ten years	17	56.67
2.	11-20 years	9	30.00
3.	21-30 years	3	10.00
4.	More than 30 years	1	3.33
	Total	30	100.00

It could be seen from the table that large number of sample dealers (86.67 per cent) have less than 20 years experience while fewer number of dealers (13.33 per cent) had greater experience of more than 20 years.

II. BRAND PREFERENCE OF DEALERS

i. Purchase details of dealers

The dealers's preference for vaious brands of fertilizers can be analysed from their purchase details of different brands of the fertilizers. Table XXXIX provides details of purchase by sample dealers during 1992-93.

It could be seen that in case of urea SPIC brand was dealt by 86.67 per cent of dealers followed by FACT and Vijay accounting for 83.33 per cent and 46.67 per cent respectively. IFFCO urea was purchased by 20 per cent of dealers and 13.33 per cent of dealers purchased KRIBHCO urea. Mangala and Neyveli brands were dealt by 6.67 per cent and 3.33 per cent of dealers respectively.

While analysing the total quantity purchased by sample dealers, it could be seen that 47.85 per cent of urea purchased was of SPIC brand. Nearly 35.00 per cent of FACT urea and 12.35 per cent of Vijay urea were also purchased during 1992-93 by sample dealers. The other brands of urea namely IFFCO, KRIHBCO, Mangala and Neyveli accounted for 2.42 per cent, 2.05 per cent, 0.31 per cent and 0.36 per cent respectively of total quantity of urea purchased during the year 1992-93 by sample dealers.

The table also reveals that SPIC with 707.27 quintals per dealer led in average quantity of urea purchased. This was followed by FACT and Vijay urea with 532.80 quintals and 338.92 quintals respectively.

TABLE XXXIX

PURCHASE DETAILS OF DIFFERENT BRANDS (1992-93)

(Qty in Qtls)

S.No	Brand Name	No of dealers	Total Qty Purchased	Average Qty Purchased Per dealer
I	Urea			
1.	SPIC	26(86.67)	18389 (47.85)	707.27
2.	FACT	25(83.33)	13320 (34.66)	532.80
3.	Vijay	14(46.67)	4745 (12.35)	338.92
4.	IFFCO	6(20.00)	930 (2.42)	155.00
5.	KRIBHCO	4(13.33)	789 (2.05)	197.25
6.	MANGALA	2(6.67)	121 (0.31)	60.50
7.	NEYVELI	1(3.33)	140 (0.36)	140.00
	TOTAL		38434 (100.00)	
II	DAP			
	SPIC	24 (80.00)	5282(58.79)	220.08
	FACT	17 (56.67)	3015(33.55)	177.35
	VIJAY	6 (20.00)	688(7.66)	114.66
	TOTAL		8985(100.00)	
III	COMPLEX			
	FACTOMPHOS	24 (80.00)	8550(59.13)	356.25
	VIJAY	23 (76.67)	5690(39.35)	247.39
	PARAMPHOS	3 (10.00)	220(1.52)	73.33
	TOTAL		14460(100.00)	
IV	MOP			
	INDIAN POTASH	18	60	7241	402.27

(Figures in the Parantheses indicate percentage to the total. Total may not tally with the total number of respondents because of multiplicity of the dealing)

In the case of DAP, three brands namely SPIC, FACT, and Vijay were dealt by sample dealers. Of the 30 sample dealers, 80.00 per cent purchased SPIC DAP, 56.67 per cent dealt FACT DAP and 20 per cent of the dealers dealt Vijay DAP. The results indicated that majority of the dealers preferred SPIC DAP and FACT DAP was preferred next only to SPIC. Vijay as in case of urea, could secure only third place. An identical inference could be drawn while analysing quantity of DAP purchased by sample dealers and average quantity purchased per dealer. SPIC DAP was enjoying the market share of 58.79 per cent and FACT was behind the leader with 33.55 per cent. Vijay DAP was third with the market share of 7.66 per cent Consequently, SPIC DAP also emerged first based on average quantity purchased with 220.08 quintals per dealer while FACT DAP was second with 177.35 quintals purchased per dealer. Vijay DAP was third with 112.26 quintals per dealer.

In the case of complex fertilizers, sample dealers were dealing with Factomphos (20:20:0:15) Vijay (17:17:17) and Paramphos (16:20:0:15) as it could be observed from the table. Factomphos was purchased by 80 per cent and Vijay by 76.67 per cent of the dealers. Paramphos was dealt by just ten per cent of the dealers. Based on quantity purchased, Factomphos was leading with 59.13 per cent amd Vijay emerged next with 39.55 per cent. Paramphos had a negligible share of 1.52 per cent in the total quantity of complex fertilizer

purchased by sample dealers. It could thus be inferred that Factomphos was the leader in the market enjoying larger market share eventhough there was little difference between Factomphos and Vijay based on number of dealers dealt, the market share of Vijay falls behind Factomphos. This was due to wide difference in average quantity of fertilizer of two brands purchased per dealer.

Indian potash was the only muriate of potash dealt by 60 per cent of the dealers. The total quantity purchased was 7,241 quintals during 1992-93 and the average quantity purchased was nearly 402 quintals per dealer.

ii.Preference for purchase of different brands

The sample dealers expressed their order of preference for different brands in case of urea, DAP and complex fertilizers. By Garett's Ranking Technique, the mean scores were assigned and the results are provided in Table XL.

This aspect of study was essential to know what actually the sample dealers preferred to purchase rather than what they actually purchased during 1992-93. It could be observed from the table that the results were on the expected lines. SPIC urea was the most preferred brand with the mean score of 59.50. FACT urea was closely behind the leader with mean score of 56.33. Vijay urea was preferred with the moderate mean score of 34.16.

TABLE XL

PREFERENCE FOR PURCHASE FOR DIFFERENT BRANDS

S.No	Brand Name	Mean Score	Rank
I.	Urea		
1.	SPIC	59.50	I
2.	FACT	56.33	II
3.	Vijay	34.16	III
II	DAP		
1.	SPIC	63.30	I
2.	FACT	53.16	II
3.	Vijay	33.53	III
III	Complex		
1.	Factomphos	61.40	I
2.	Vijay	57.60	II
3.	Paramphos	31	III

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SPIC DAP topped the list of preference with mean score of 63.30 while FACT DAP enjoyed second preference with the mean score of 53.16. Vijay could only secure third rank with the mean score of 33.53.

In the case of complex fertilizers, Factomphos edged out Vijay by scoring a mean score of 61.40. Vijay complex received mean score of 57.60 per cent. Paramphos could have only last preference with the mean score of 31.

It could be inferred from the above observation that SPIC urea was mostly preferred by the dealers while FACT urea got second preference. Vijay urea was preferred third. In case of DAP also, SPIC brand was preferred by most of dealers while FACT DAP and Vijay DAP emerged second and third respectively in the order of preference. In case of complex fertilizers eventhough there was slight different between the preference of Factomphos and Vijay, Factomphos emerged top in the order of preference and Vijay was closely behind. Paramphos got the least preference.

(iii) Dealer Margin availed by the Dealer

An analysis of market margin would help to know whether brand preference is tilted based on difference in market margin. The market margin availed by the dealers for different brands is indicated in Table XLI.

It could be observed that there was no significant difference in the range of margin availed for different

TABLE XLI

DEALER MARGIN FOR DIFFERENT BRANDS OF FERTILIZERS

S.No	Name of the brand	Range of Margin (Rs/qtl)	Total No.of dealers dealt (A)	No of dealers		
				Less than Rs.2 (B)	Rs.2-5 (C)	More than Rs.5 (D)
1.	SPIC urea	1-10	26(86.67)	3(11.54)	18(69.23)	5(19.23)
2.	FACT urea	1.5-10	25(83.33)	2(8.00)	19(76.00)	4(16.00)
3.	Vijay urea	1.5-10	14(46.67)	1(7.14)	11(78.58)	2(14.29)

S.No	Name of Brand	Range of margin (Rs./qtl)	Total no.of dealers (A)	No of dealers		
				Less than Rs.5 (B)	Rs.5-10 (C)	More than Rs.10 (D)
1.	SPIC DAP	2-18.5	24(80.00)	4(16.67)	13(54.17)	7(29.17)
2.	FACT DAP	3-15	17(56.67)	1(5.88)	6(35.29)	10(58.82)
3.	Vijay DAP	6-12	6(20.00)	----	3(50.00)	3(50.00)
4.	Vijay complex	2-14	23(76.67)	13(13.04)	17(73.92)	3(13.04)
5.	Factomphos	2-10	24(80.00)	5(20.83)	15(62.50)	4(16.67)
6.	Paramphos	2-10	3(10.00)	1(33.33)	2(66.67)	----
7.	Indian Potash	1-12	18(60.00)	3(16.67)	13(72.22)	2(11.11)

(Figures in the parantheses a indicate the percentage to total number of selected dealers. Figures in the parantheses in the columns B, C and D indicate percentage to total number of dealers who dealt the paticular brand)

brands. In all the brands of urea, the range of margin availed was between Rs.1 and Rs.10 per quintal. It could be observed further that majority of dealers had received margin from two to five rupees in the category of urea. About 69 per cent of dealers who dealt the SPIC urea availed a margin ranged from rupees two to five as against 76 per cent and 79 per cent of dealers who dealt the FACT urea and Vijay urea respectively. Further 19.43 per cent, 16 per cent and 14.29 per cent of dealers who dealt the SPIC urea, FACT urea and Vijay urea respectively received a margin of more than five rupees per quintal. It could be inferred that there was no notable difference in the margin received by the dealers and the slight differences in the margin was mainly due to competition among the rival dealers.

It the case of DAP, 54.17 percent, 35.29 percent and 50 percent of dealers who dealt the SPIC DAP, FACT DAP and Vijay DAP respectively received a margin ranged from five to ten rupees per quintal. Similarly 29.17 percent, 58.82 percent and 50 percent of dealers who dealt SPIC, FACT and Vijay DAP respectively had received a market margin of more than ten rupees per quintal. About 17 per cent and 5.88 per cent of dealers who dealt SPIC and FACT DAP had received a margin of less than five rupees per quintal.

It could be found that large number of dealers had availed a margin of more than ten rupees in the case of FACT DAP while large number of dealers received margin between

rupees five to ten in case of SPIC DAP. But SPIC DAP was the most preferred brand than FACT. It might be because of popularity of brand and consumer preference of SPIC DAP. Also, there was no timely supply of FACT DAP in the study area. Vijay DAP was dealt only by 20 per cent of dealers and all of them received a margin of more than five rupees. This was least preferred because of low consumer preference.

In the case of complex fertilizers 73.92 per cent and 62.50 per cent of dealers who dealt Vijay and FACT respectively had received a margin of rupees five to ten. Besides 13.04 per cent and 16.61 per cent of dealers who dealt Vijay and FACT respectively had received margin of more than ten rupees while 13.04 per cent and 20.83 per cent of dealers who dealt Vijay and Factomphos had received a margin of less than rupees five. Only 10 per cent of the dealers dealt Paramphos and of them, 33.33 per cent of received a margin of less than five rupees and 66.67 per cent of dealers received between five and ten rupees. In the complex fertilizer, the number of dealers who secured margin between five and ten rupees for vijay is more than that of Factomphos while the number of dealers who received margin of less than five rupees and more than ten rupees is more for Factomphos than that of Vijay.

It could be inferred that the difference in the margin of complex fertilizers was not enough to influence the brand preference of dealers.

III. FACTORS INFLUENCING DEALER'S BRAND PREFERENCE

The dealers were asked to indicate the factors that influenced them to prefer different brands from the highest to lowest order of influence. Garett's ranking technique was adopted to delineate the factor which influenced the dealers. The mean scores as arrived by this techinque for each factor indicated the level of influence of the concerned factors and the details are presented in Table XLII.

It could be observed from the table that credit availability had emerged as the top most influencing factor with the mean score of 35.67. High profit margin is the another factor that influenced the dealers with the mean score of 32.87. Apart from credit availability and high profit margin, easy availability of brands, consumer preference on fertlizer brands and good brand image of fertilizer brands are the other factors that influenced the dealers with the mean score of 28.30, 27.43 and 25.53 respectively. High sales recorded by different brands of fertilizers also influenced the dealers substantially with the mean score of 18.37. Quality of fertilizer brand and special incentives like transport rebate, cash discount etc offered by manufacturers were the other factors which had some influence on dealers with the mean score of 8.07 and 4.53 respectively. Promotional support by the manufacturers, good packaging of different brands and

TABLE XLII

FACTORS INFLUENCING DEALERS TO PREFER DIFFERENT BRANDS OF FERTILIZERS

S.No	Factors	Mean Score	Rank
1.	Credit availability	35.67	I
2.	High profit margin	32.87	II
3.	Easy availability	28.30	III
4.	Consumer preference	27.43	IV
5.	Good brand image	25.53	V
6.	High sales	18.37	VI
7.	Quality	8.07	VII
8.	Special incentives (transport rebate, cash discount, etc.,)	4.53	VIII
9.	Promotional support	2.37	IX
10.	Good packaging	1.87	X
11.	Sales representative influence	1.06	XI
12.	Recognition by manufactureres	0.83	XII
13.	Product linking	0.66	XIII

influence of company's salesrepresentative with their mean score of 2.37 , 1.87 and 1.06 respectively had low influence on dealers in their preference to different brand fertilizer. Recognition by manufacturers and product linking were the factors which had negligible influence on the dealers brand preference. Their mean scores being 0.83 and 0.66 respectively.

The results indicated greater influence of factors like credit availability from manufacturers and profit margin offered by manufacturers. It could be further observed that factors like easy availability of brands, consumer(farmers) preference, and brand image also influenced the dealers highly. High sales recorded by different brands had moderate influence. The other factors in the order of influence were quality, special incentives, promotional support, good packaging and salesrepresentative influence.

The results in this study almost confirmed the results obtained by Velappan in his research on fertilizer dealer motivation. Velappan identified the factors such as consumers preference, credit availbility, dealer margin and easy availability as the predominant factors which influenced the dealer motivation. In the present study also credit availability, profit margin to dealer, easy availability of brands and consumer preference in that order influenced the dealers to prefer fertilizer brands.[4]

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4. S. Velappan, **Op. Cit.,pp.1-3**

Ramesh babu in his study on factors influencing dealers purchase decision making regarding fertilizers in Tamil Nadu found that consumers prefernce, quality of the product, easy availability, special rebate offered by the manufacturers and credit facilities were the major factors that influenced the dealer's purchase decision making.[5] In the present study also credit facilities and easy availability of fertilizers were the prime factors that influenced the dealer's purchase.

The results also indicated that the companies which wanted to popularise their brands and increase the market share, should increase the credit availability to dealer profit margin and resort to timely supply of fertilizer to dealer shops. Companies also should maintain good brand image among dealers and consumers.

(IV)PROMOTIONAL ACTIVITIES

Promotional activities done by different companies

The dealers were asked about the promotional activities followed by different fertilizer manufacturing companies and the promotional activities carried out by different companies are furnished in Table XLIII. From the table, it could be observed that maximum number of dealers were aware of the promotional actitivies followed by leading manufacturing companies operating in the study area. About 80 percent of dealers felt that SPIC (Southern Petrochemical Industries Corporation) was resorting to advertisement in

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5. Ramesh Babu., op.cit., pp.1-3.

TABLE XLIII

PROMOTIONAL ACTIVITIES DONE BY DIFFERENT COMPANIES

S.No	Promotional activities	Number of Dealers					
		SPIC	FACT	MFL	IPL	IFFCO	EID
1.	Personal Selling	1(3)	——	——	——	——	——
2.	Filim show/slide	13(43)	16(53)	11(37)	8(27)	——	2(7)
3.	Radio advertisement	24(80)	23(77)	12(40)	7(23)	——	3(10)
4.	Printed handouts	24(80)	25(83)	11(37)	11(37)	7(23)	3(10)
5.	Wall paintings	27(90)	21(70)	5(17)	3(10)	——	1(3)
6.	Trial and demonstration	7(23)	7(23)	2(7)	1(3)	——	——
7.	Poster and Sign boards	9(30)	9(30)	8(27)	3(10)	——	1(3)
8.	Advertisement in news papers magazines	24(80)	23(77)	14(47)	4(13)	——	1(3)
9.	Sample to dealers	14(47)	14(47)	3(10)	1(3)	——	——
10.	Advertisement in TV	14(47)	14(47)	4(13)	3(10)	——	——
11.	Farmers training and tours	1(3)	——	——	——	——	——
12.	Exhibition shows	3(10)	——	——	——	——	——

(Figures in the Paratheses indicate percentage to total)

radio, newspapers, magazines besides issuing printed handouts.About 90 percent of dealers were aware of wall paintings done by SPIC. Further, 47 percent of the dealers were aware of the advertisement in Television and dealer service provided by SPIC.

Fewer number of sample dealers indicated the other promotional activities such as film show/slide, poster and sign boards, trials and demonstration, exhibition show, farmers training and tour and personal selling. Only one dealer knew the personal selling activity of SPIC. None of the sample dealers indicated that personal selling, farmers training and tour and exibition shows were conducted by FACT (Fertilizers and Chemicals Travancore Limited) as it could be seen from the table. As in the case of SPIC, maximum number of dealers felt that FACT adopted promotional activities of printed handouts, radio advertisment, advertisement in newspapers and magazines and wall paint ings. While 83 percent of dealers were aware of printed handouts, 77 percent of dealers were aware of radio advertisement and advertisement in newspapers and magazines of FACT. While 53 percent of sample dealers knew the film show and slides of FACT, 47 percent of dealers were aware of the services to dealers and advertisement in television done by FACT . Fewer number of dealers felt that FACT adopted other promotional methods like posters and sign boards and trials and demonstrations.

In the case of Madras Fertilizers Limited (MFL), none of the sample dealers were aware of promotional activities such as personal selling, farmers training and Tour and exhibition shows. 47 percent of sample dealers were aware of the advertisement done by MFL in newspapers and magazines , while 40 percent of dealers were aware of radio advertisement, 37 percent of dealers could find the film show / slides and printed handouts of MFL. The other promotional actitivities done by MFL as reported by few dealers were wall paintings, advertisement in television, service for dealers, posters and sign boards and trails and demonstrations.

As in the case of FACT and MFL, none of the dealers had known the personal selling, farmers training and tour and exhibition shows of IPL (Indian Potash limited). 87 percent of dealers reported that IPL issued printed handouts while the rest of promotional actitivities followed by IPL were known to few dealers only..

Nearly 23 percent reported that printed handouts were issued by IFFCO (Indian Farmers Fertilizer Co-operative Limited) and the other promotional activities of IFFCO were not known to the dealers. In the case of EID Parry India Limited, only few dealers were aware of promotional ac tivities namely radio advertisement, printed handouts, film show/slides, wall paintings, posters and sign boards and advertisment in newspapers.

The results clearly revealed that the intensive promotional actitivities were done by SPIC followed by FACT. It could be inferred that the promotional activities of SPIC also contributed to the preference of brand among dealers. FACT which came next to SPIC in preference had also contribution from the promotional activities of company to some extent.

The intensity of promotional activities done by MFL and IPL could be considered below normal. Vijay brand (MFL fertilizer) had low preference in urea and DAP. The intensity of promotional activities was not enough to increase the brand preference. In case of IPL, Indian Potash is straight potassic fertilizer which had no worth while competition in the market. So the intensive promotional activities where not carried out by IPL.

ii. Effectiveness of promotional activities

Several promotional activities are undertaken by the manufacturing firms to promote their brands. The dealer's response for each promotional activity was measured in a five point scale with equal intervals in the increasing trend of effectiveness. The mean scores obtained under this scaling technique for each promotional activity reflected the order of effectiveness of the same.

Different kinds of services are provided by manufacaturing firms to dealers to promote the sales of

TABLE XLIV

EFFECTIVENESS OF DIFFERENT PROMOTIONAL ACTIVITIES IN PROMOTING BRAND PREFERENCE

Sl.No.	PROMOTIONAL ACTIVITIES	Mean score	Rank
1.	Personal selling	2.73	3
2.	Film show /slide	2.30	4
3.	Radio Advertisement	2.87	2
4.	Printed handout	1.77	10
5.	Wall paintaings	2.13	6
6.	Trails and demonstration	1.97	8
7.	Posters and sign boards	1.23	11
8.	Advertisement in news papers and magazines	2.27	5
9.	Service to dealers	3.37	1
10.	Advertisement in Television	2.07	7
11.	Farmers Training and Tour	1.87	9
12.	Exihibition /shows	1.07	12

their brand. The services are credit facilities, transport rebate, higher profit margin, etc. Dealers mostly favoured the brands supplied by firms which provided better service to dealer. Thus, dealer service emerged as most effective promotional activity with a mean score of 3.37 as indicated in Table XLIV. Dealers are the important market intermediaries between producer of fertilizer and farmer, so, it could be rightly inferred that better the services to dealer, higher will be the preference for the brand whose manufacturers provide those services.

Next to service to dealers, radio advertisement and personal selling were considered as effective promotional activities by the dealers. Radio advertisement and personal selling have obtained a mean score of 2.87 and 2.73 respectively. Radio, a mass medium had greater access to farmers. The preference attached to radio advertisement by dealers as a effective promotional activity revealed the importance of electronic media in promoting the brand. Personal selling by the manufacturing firms was also considered to be effective promotional activity by the dealers as representatives of firms could directly meet, motivate and influence the farmers to buy their brand.

Film show and slides in the cinema theatres were considered as next important and effective promotional activity by the dealers. The mean score for this activity was 2.3. It could be inferred that the importance given to

this promotional activity by the dealers was due to crazyness of people towards movies.

Advertisement in newspapers and magazines, wall paintings and advertisement in television were the three other promotional methods which secured a mean score of 2.27, 2.13 and 2.07 respectively. The results could be inferred as these promotional activities had moderate effect on brand preference of dealers and farmers. Newspapers and magazines and wall paintings were accessible to literates But information from newspapers and magazines were perceived with greater credibility than wall paintings, advertisement in television was only moderately effective as its exposure to consumer was limited.

Trial and demonstration was one of the promotional activities done by manufacturers. This promotional measure had obtained a mean score of 1.97. From dealer point of view this method had limited effect on consumer as it could cover very limited number of farmers. The failure of trials might be counter-productive to brand development.

If could be observed that farmers traning and tour could secure only 1.07 mean score.This was not considered effective as this promotional measure could not be under taken for large number of farmers.

Interestingly printed handouts could obtain mean score of 1.77 though printed handouts in form of the leaf folders, leaflets and phamplets were issued by almost all the companies. It is a cheap promotional activity. These handouts had limited effect on consumers as this handouts could reach only literates.

Posters and sign boards had little effect (mean score is 1.23) on rural consumers though widely practiced by the manufacturing firms. Exhibition shows received a low mean score of 1.07. These promotional activities had very low effect on rural consumers. Exhibition shows could not be frequently conducted and large gathering into the exhibition for farmers consuming products was not possible.

It could be inferred from the results, that promotional activities which required high expenditure were effective. It could be further observed that direct selling and the promotional activities which had greater acessibility to farmers and entertainment value were considered as effective by the dealers. From the dealers point of view, services to dealers, radio advertisement , personal selling and film show or slides were considered as some effective promotional methods.

iii. Promotional activities done by dealers

Table XLV reveals that none of the dealers were doing promotional activities on their own. This was expected as there were several brands in the market. Further the dealers would not be willing to loose their profit margin by spending on promotional activities to promote manufacturers brands. If could be further seen from the table that only 6.7 percent reported that company provided incentives for promotion in the form of extension of credit days.

TABLE XLV

DEALERS PROMOTIONAL ACTIVITIES

S.No	Particulars	Number of dealers	
		Yes	No
1.	Doing Promotional activities	-	30 (100.00)
2.	Company provide promotional Tools	14 (46.70)	16 (53.30)
3.	Company provide Incentives for promotion	2 (6.70)	28 (93.30)

(Figures in the parantheses indicate percent to total)

As could be seen from the table, about 47 percent of sample dealers reported that companies provided promotional tools to promote their brands in the form of printed handouts, posters and signboards. Printed handouts were received by 46.7percent of dealers and posters and signboards and wall paintings were provided to 13.3 percent

and 3.3 percent of dealers respectively. If could be found that the promotional tools with the exception of wall paintings were least effective from the dealers point of view . Wall paintings had moderate effect on consumrs but only one dealer reported wall paintings was done by the company for him.

TABLE XLVI

PROMOTIONAL ACTIVITIES PROVIDED BY COMPANIES

S.No.	Particulars.	No.	
1.	Printed handout	14	(46.7)
2.	Posters and sign boards	4	(13.3)
3.	Wall Paintings	1	(3.3)

(Figures in the parantheses indicate percentage to total)

It could be concluded that companies provided cheaper and least effective tools for promotion. Further it could be inferred that firms are not interested in providing incentives to dealers for promotional activities.

C. SALES REPRESENTATIVE

The sales representative of three leading operating companies in the study area were contacted and the information on market share of their brands and the promotional strategies adopted by their company in the study

area were gathered. The information given by the sales representative of sample companies are discussed in what follows.

i. Nature of selling

The three sample companies namely SPIC (Southern Petrochemical Industries Corporation Limited), FACT (Fertilizers and Chemicals of Travancore Limited) and MFL (Madras Fertilizers Limited) had been selling through dealers who were either wholesalers or retailers or wholesaler cum retailer. The dealers consists of both co-operative and private dealers.

ii. Market share of brand dealt by sample companies

The market share of different brands of urea, DAP, and complex fertilizers dealt by the sample companies was ascertained from sales representatives. The market share of their brands reflected the brand preference of sample farmers and dealers in the present study. The details of the brands dealt by sample companies and their market share in Pollachi taluk are given in Table XLVII.

In general, SPIC, FACT and MFL were selling urea in the brand name of SPIC, FACT and Vijay respectively. These three brands had market share of 60 per cent, 35-40 per cent, 5-10 per cent respectively. More or less, a similar result was reflected in the present study also. SPIC urea enjoyed a market share of 51.87 per cent while

FACT' urea had a share of 34.64 per cent and Vijay urea had a share of 7.12 per cent.

TABLE XLVII

BRANDS AND THEIR MARKET SHARE OF SAMPLE COMPANIES

Sl.No.	PRODUCT NAME	COMPANY NAME	BRAND NAME	SHARE PERCENT
1.	Urea	SPIC	SPIC urea	60
		FACT	FACT urea	35-40
		MFL	VIJAY urea	5-10
2	DAP	SPIC	SPIC DAP	60
		FACT	FACT DAP	20
		MFL	VIJAY DAP	10
3.	COMPLEX	MFL	VIJAY complex (17: 17: 17)	45
		FACT	Factomphos (20: 20: 0:15)	60

In the case of DAP, the sales representatives of SPIC, FACT and MFL asserted that their brands namely SPIC DAP, FACT DAP and Vijay DAP had enjoyed market share of 60 per cent, 20 per cent and 10 per cent respectively. In the present study, as indicated by sample farmers and dealers, the market leader was SPIC DAP with a market share 51.08 per cent in case of farmers and 58.79 per cent in the case of dealers. As per the results of the present study, FACT DAP had been following the leader with the market share of 27.34 per cent in the case of farmers and 33.55 per cent in the case of dealers. Vijay DAP was in third position with the market share of 21.58 per cent in the case of farmers and 7.66 per cent in the case of dealers. Thus the information

indicated by the sales representatives of sample companies were almost reflecting the results that were arrived in the present study.

In the case of complex fertilizers, the sales representatives of MFL and FACT informed that their brands namely Vijay and Fact mphos had a market share of 45 per cent and 60 per cent respectively. In the present study also, the results indicated that Factomphos was leading the market with the market share of 52.45 per cent and Vijay complex was behind with 45.74 percent in the case of sample farmer. In the case of sample dealers also the results have indicated Factomphos as market leader with the market share of 59.13 percent followed by Vijay with 39.35 per cent. In the present study, another complex fertilizer namely Paramphos supplied by EID Parry India Limited, also had a very little role to play with a share of 1.81 and 1.52 percent as indicated by farmers and dealers respectively. The results arrived in the present study have reflected the status of different brands more or less in the same line as expressed by sales representatives of sample companies.

iii. Reasons for the Present Status of Different Brands in the Market

In both the urea and DAP, SPIC had a large market share which indicated its good brand image in the market. The reasons given by sales representative were as follows.

1. SPIC had been delivering good dealer's and farmers service;
2. Promotional strategies of the SPIC are effective.
3. Quality of the SPIC brand was high and
4. SPIC had been enjoying brand loyalty for the past 20 years.

The reasons attributed by the SPIC sales representative were acceptable atleast in terms of brand loyalty and promotional strategies. The SPIC name was very popular among farmers in the study area SPIC had been implementing number of promotional strategies as indicated in Table XLVIII. The promotional strategies were very much instrumental in maintaining and improving its market share in the study area.

In the case of complex fertilizers, though Factomphos had been enjoying supremacy over Vijay in the study area, the status of market share of vijay complex was not bad. The sales representative of FACT opined that the suitablity of their complex fertilizer namely Factomphos to the crop had been the driving force to maintain higher market share and good brand image in the fertilizer market. The sales representative of MFL indicated that Vijay Complex (17:17:17) had been considered as balanced complex fertilizer and thus it could be able to mantain fairly good brand image and equally good share if not better than Factomphos in the market. The views of sales representatives of FACT and MFL were acceptable in the sense

that in the study area, variety of crops were sown and they need balanced quantity of nutrients.

The sales respresentatives of FACT also hinted the causes for the poor show of FACT DAP and fair presence of FACT urea. Due to non-availability of these two fertilizers during the season time, FACT area and FACT DAP could not make inroads in the market. It could be inferred that the demand for fertilizer was seasonal and timely supply was essential to make good impact in the market. In the present study also, farmers indicated that easy availability of fertilizer was the prime factor in preferring the brands.

The sales representative of MFL also listed out the causes for the failure of Vijay urea and Vijay DAP to dominate the market. According to him, conservative management and lack of effective promotional strategies had been hindering factors for Vijay urea and Vijay DAP to maintain good market share. If could be concluded that there was no drive from the management and sales force was lacking motivation. Few sample dealers also amplified this statement by hinting that the frequency of visits by sales persons of MFL was very low.

iv. Promotional activities followed by Sample Companies

Table XLVIII indicates the promotional activities followed by sample companies. If could be observed that SPIC had been adopting a lot of promotional activities such as

TABLE XLIII

PROMOTIONAL ACTIVITIES FOLLOWED BY SAMPLE COMPANIES

S.NO	SPIC	FACT	MFL
1.	Film show/slide	Film show/slide	Film show/slide
2.	Radio advertisement	Radio advertisement	Radio advertisement
3.	Printed handouts (inclding door slips)	Printed handouts	Printed handouts
4.	Wall Painting	Wall Painting	Wall Painting
5.	Trials and demonstration	Posters and Sign boards	Posters and Sign boards
6.	Posters and Sign boards	Advertisement in Newspapers and Magazines	Advertisement in Newspapers and Magazines
7.	Advertisement in Newspapers and Magazines	Services to Dealers	Services to Dealer
8.	Services to dealers	Exihibition shows	Exihibition and shows
9.	Advertisement in Television	Seminars	
10.	Farmers Training and Tours		Village adoption Scheme
11.	Exihibition Shows		
12.	Individual farmers contact Programme		
13.	Advisory service to farmers		
14.	Village level meetings		
15.	Seminars		
16.	Hoardings		
17.	Stencling		
18.	DAP Workshops		

film shows/slides, radio advertisement, printed handouts, wall painting, trials and demonstrations, posters and signboards. advertisement in newspapers and magazines services to dealer, advertisement in television, farmers training and tour and exhibition and show. SPIC also had been implementing some innovative promotional activities such as intensive farmers contact programme, advisory service to farmers, village level meetings of farmers, seminars, hoardings, stencling (letter conveying the message were cut out in Iron plate and the plate was hanged on the wooden poles) and DAP workshops. It is evident that SPIC showed variety and novelty in their promotional activities. Some of the activities like intensive farmers contact programme, advisory service to farmers, village level meetings, seminars and DAP workshops showed that the sales persons were moving with farmers closely. Services to farmers had been given special emphasis in their promotional activities. The sales promotional activities of SPIC were one of the important factors that contributed to good brand image of SPIC urea and SPIC DAP.

FACT is following promotional activities such as film shows and slides , radio advertisement, printed handouts, wall paintings, posters and sign boards, advertisement in newspapers and magazines, sevices to dealers, exhibition shows and seminars. Apart from seminars, the other promotional activities of FACT were the

ones usually followed by fertilizer manufacturing firms. Some of the sample dealers opined that FACT services to dealer were better than other operating firms. That would have been one of the contributing factors for good market share of Factomphos.

The highlight of MFL promotional activity is only village adoption scheme in which a particular village had been adopted and farm services are being rendered. However, this scheme could not cover the large chunk of fertilizer consumers in the entire Pollachi taluk. The other promotional activities are the familar ones such as film show/ slide, radio advertisement, printed handouts, wall paintings, poster and sign boards, advertisement in newspapers and magazines, services to dealers and exhibition shows.

v. Resultant effect of promotional activities over the years:

From the enquiry it was observed that SPIC sales representative was fully satisfied with promotional activities. According to him the promotional activities had visually increased the sales tremendously and SPIC was able to maintain the market share continuously.

FACT representative informed that their promotional activities evoked good response from farmers while MFL representative opined that the consumption of fertilizer was generally increased due to promotional activities.

It could be observed that the sales representatives of SPIC and FACT were satisfied with their promotional activities. It might be because that their brands in general had prominently positioned in the market.

SUMMARY AND CONCLUSION

CHAPTER VI

SUMMARY AND CONCLUSION

Fertilizer is an essential ingredient to Crops for augmenting their yield. There are different brands in fertilizers especially so in Urea, DAP and complex fertilizers. The existence of various brands in fertilizers makes the farmers to make a choice among the different brands. To know the preference of farmer towards different brands and the related aspects, the present study was carried out. The broad objective of the present study was to make an enquiry on the brand preference of the farmers. The specific objectives of the present study were to analyse the fertilizer brand preference of farmers and dealers to identify the factors influencing the preference for use of particular brand and to study the effectiveness of promotional activities adopted by the manufacturers of different brands of fertilizers.

The study was undertaken in Pollachi taluk of Coimbatore District. Among the three blocks selected for the present study in the Pollachi taluk, five villages in each block were randomly selected and in each village six farmers were contacted. In all, 90 respondents constituted the sample frame work for the enquiry Apart from farmers, 30 dealers, in Pollachi taluk were randomly selected for the study. One sales representative each from the manufacturing firms of Madras Fertilizers limited, Southern

Petrochemical Industries Corporation, and Fertilizers and Chemicals Travancore Limited were also contacted for study. The results of the present study are summarised in what follows.

A. Farmers

The selected farmers were categorised into small, medium and large farmers based on their size of the holding. There were 21 small farmers, 42 medium farmers and 27 large farmers in the sample framework.

As regards the literacy level of farmers, more than 25 per cent of the selected farmers had education up to elementary school level followed by middle school level.

About 31 per cent of selected farmers had an experience in farming between 11 and 20 years. Nearly 43 per cent of small farmers had an experience between 11 and 20 years while 26.19 per cent each of medium farmers had an experience between five and 10 years and 21 and 30 years. About 30 per cent of large farmers had an experience between 11 and 20 years.

The study area was largely constituted by the gardenland followed by dryland. There were no tenants in the sample farmers. The average size of farm of small, medium and large farmers was 3.33 acres, 6.1 acres and 12.35 acres respectively.

As regards the cropping pattern, coconut was the largely cultivated crop. Groundnut and cotton were prominently figured in the cultivation of medium and large farmers while cowpea and cholam were the crops cultivated by small farmers prominently.

Soil testing was done only by five farmers and three among them adopted the recommend level of dosage. Past experience has been the major source of information for the fertilizer dosage for the farmers who did not resort to soil testing.

Purchase details of the farmers

Majority of the farmers in the study area used straight and complex fertilizers. DAP users were less in numbers. Mixtures are used largely by all categories of farmers.

As regards the awareness of fertilizers brands, SPIC was popular both in Urea and DAP. FACT and Vijay ranked after SPIC in Urea and DAP in terms of awareness. In complex fertilizer, Vijay was better known than Factomphos , Indian potash was also well known to farmers in Pollachi taluk.

As regards the market share, SPIC was leading both in Urea and DAP while FACT and Vijay emerged second and third position respectively . In the case of Complex fertilizers, Factomphos was preferred and purchased more than Vijay.

As regards the source of purchase, SPIC urea was purchased by 13.33 per cent and 35.55 per cent of farmers from cooperative and private dealers respectively while FACT urea was purchased by 2.22 per cent and 34.44 per cent of selected farmers from cooperative and private dealers respectively. Vijay ures was also mostly purchased form private dealers. SPIC DAP was purchased by 24.44 per cent and 2.22 of per cent from private and cooperative dealers respectively while FACT DAP was completely purchased from cooperative dealers. Vijay DAP was purchased by 1.11 per cent and 6.67 per cent from cooperative and private dealers respectively. In the case of complex fertilizers, 11.11 per cent and 6.67 per cent of selected farmers purchased Vijay complex fertilizer and factomphos respectively from cooperative dealers while 34.44 per cent and 51.11 per cent of selected farmers purchased Vijay complex fertilizer and factomphos from private dealers. Mostly the fertilizers brands were purchased more from private dealers than from cooperative dealers.

As regards the mode of purchase, 36.67 per cent and 12.22 per cent of farmers purchased SPIC urea on cash and credit respectively while FACT urea was purchased by 34.44 per cent and 2.22 per cent of farmers for cash and credit respectively. The other brands of urea were mostly purchased for cash. In DAP 24.44 per cent and 2.22 per cent of farmers purchased SPIC DAP for cash and credit respectively while FACT DAP was purchased by 14.44 per cent and 1.11 per cent

of selected farmer for cash and credit, respectively from private dealers. Vijay DAP was mostly purchased for cash. In the case of complex fertilizers 36.67 per cent and 8.89 per cent of farmers purchased Vijay complex fertilizers for cash and credit respectively while 53.33 per cent and 4.44 per cent of farmers purchased factomphos for cash and credit respectively. In general all brands of fertilizers were mostly purchased for cash only.

As regards the preference for purchase, SPIC was the most preferred brand for purchase followed by FACT and Vijay in Urea and DAP Vijay complex was more preferred for purchase than Factomphos.

On analysis the factor influencing the brand preference, easy availability and quality were the most influencing factors while sales personnel's influence, ignorance over other brands and packaging were the least influencing factors.

The functional analysis on the brand preference revealed that the easy availability and the quality of the brands were found to influence significantly the brand preference of the farmers at one per cent level of probability. The price of the brands did not have influence on brand preference as the variation among the brands were absent or very little.

In purchasing fertilizers in general, the problems, such as high retail price, adulteration, non credit sales and poor quality of fertilizers were found to affect the farmers mostly.

Promotional activities

As regards the awareness of brand through promotional activities, radio advertisement, wall paintings, film shows and slides and dealer promotion were found to creat awareness among farmers while exhibition shows and farmers training and tour were found to be least effective in creating awareness.

Adopting a three point scale, it was found that radio advertisement, wall paintings, film shows and slides and dealer promotion were found to be most effective promotional activities among farmers while exhibition shows was found to be least effective.

Unbelievable and similar types of promotional activities were found to be the major reasons for non-conviction of promotional activities.

B. Dealers

In all, 30 dealers were contacted for present study. Nearly 97 per cent of dealers were retailers and the remaining three per cent were wholesalers are cum retailers. As regards the nature of dealerships,

90 per cent of dealers were private and the remaing were cooperative dealers. Most of the dealers established their business between 1971 and 1980.

About 57 per cent of dealers had less than the ten years of experience in fertilizers dealing and about 30 per cent of dealers had experience between 21 and 30 years and more than 30 years.

In the case of urea, SPIC, FACT and Vijay were dealt by 86.67 per cent, 83.88 per cent and 46.87 per cent of the dealers respectively. The other brands were dealt by 20 per cent or less than 20 per cent of dealers. In terms of quantity, 47.85 per cent of urea purchased was of SPIC brand while 34.66 per cent and 12.35 per cent of total quantity purchased were of FACT and Vijay respectively. As expected, the other brands were purchased in small quantities by sample dealers. In DAP SPIC FACT and Vijay were dealt by 80 per cent, 56.67 per cent and 20 per cent of sample dealers respectively. Of the total quantity of DAP purchased by sample dealers. SPIC, FACT and Vijay accounted for 58.79 per cent 33.55 per cent and 7.66 per cent respectively. In the case of complex fertilizers, Factomphos and Vijay complex were dealt by 89 per cent and 76.67 per cent of selected dealers respectively. Of the total quantity purchased, factomphos and Vijay accounted for 59.13 per cent and 39.55 per cent respectively. In urea and DAP, SPIC brand was the leader followed by Factomphos and Vijay while Factomphos and Vijay ranked first and second position

respectively in complex fertilizers based on number of dealers and quantity of fertilizer purchased.

As regards the dealer margin, the range of margin for all the brands of urea ranged between 1 and RS.10 per quintal.

Credit availability, high profit margin, easy availability, consumers preference and good brand image were the factors in that order found to influence the brand preference of dealers while sales representative influence, recogition by the manafactuers and product linking were the least influencing factors.

Promotional activities

Intensive promotional activities were carried out by SPIC followed by FACT.

C Sales representative

The sales representative of SPIC, MFL and FACT were contacted for this study and the market share indicated by sales representatives for their brands closely reflected the results obtained in this study.

Good dealers and farmers service, effective promotional strategies, the quality of SPIC brand and brand loyalty over the past 20 years were the reasons attributed for high market share enjoyed by SPIC brands.

Non availability of fertilizer during season at a required quantity was the prime reason for the poor show of FACT DAP and fair presence of FACT urea. Factomphos had an edge over Vijay complex because of its availability in large quantities during season time.

Conservative management and lack of effective promotional strategies were the reason for the poor show of Vijay urea and Vijay DAP.

A variety of promotional activities like intensive contact programme, advisory service to farmers, seminars and hoardings was followed by SPIC. The promotional activities of FACT included seminars while village adoption scheme was the innovation activity followed by MFL. Among the three companies, the intensity and variety of promotional activities were the hall mark of SPIC promotional compaign.

Policy Implication

Some policy suggestions are provided to improve brand preference among farmers and dealers.

1. Timely supply of fertilizers at a right place to the farmers and dealers would ensure and secure their preferred brand easily.

2. The quality of fertilizer should be ensured so that the preference for the particular brand will improve . Similarly, increasing the credit days to dealers would also improve the brand preference on the part of dealer.

3. Audio and audio visual media such as radio and film shows and slides can be effectively utilised as promotional activities to promote the brand preference of farmers while special services to dealer should be improved to increase the brand preference among dealers.

4. Innovative promotional activities like lucky tips to farmers, literary programmes like Kaviarangam, Pattimanram, seminar and Quiz programmes in television and radio can also be thought of to attract the rural consumers.

5. Responsive marketing can be adopted to provide consultancy services to farmers along with selling of fertilizers and

6. Arrangements must also be made to see that the adulteration is not done by the market intermediaries at any stage.

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