CHAPTER 2
REVIEW OF LITERATURE

Until now several studies have been done in the area of marketing of pulses and spices but very few of them have covered the area of value addition and quality attributes especially of pulses and spices covering the recent period. Whatever little has been attempted in this context is too scanty and wanting in many respects.

The review of available literature on the concerned topics has been categorized in the following paragraphs into three parts:

1. Marketing studies related to pulses/spices
2. Quality aspects of pulses/spices
3. Issues related to marketing of pulses/spices

In each part the reported literature has been arranged in chronological order.

6.1 MARKETING STUDIES RELATED TO PULSES/SPICES

1) Gill K.S. et al (1972)\(^1\): Marketing of Pulses in Punjab; conducted a study on trends in area, production and marketing pattern followed by producers of pulses in Punjab. The study was confined to those markets of Punjab where local pulses were brought for sale.

2) Prasad (1977)\(^2\): Marketing of Chillies for Exports; in his paper identified that Indian Chillies had a stronger flavor, could be stored for longer periods and were produced all the year round but they tended to cost more to produce than those in other countries. Recommendations are made on export strategy saying that the dependence on one major market, Sri-Lanka, should be brought to an end by expanding sales to other countries. The Government should authorize State Trading Corporation and Food Corporation of India to buy graded Chillies in regulated markets at maximum fixed prices.
3) Oppen. M. Von et al (1980)^3: Marketing of Pigeon pea in India; the variation of prices at which different lots of pigeon pea may be transacted to any market reflects consumer preferences and can be explained by variation in quality.

4) Varadarajan. S. (1986)^4: Prospects for Pulses in Tamil Nadu; the study has reported the production, marketing and consumption aspects of pulses in Tamil Nadu covering major districts where cultivation of pulses is concentrated. Results are presented under the headings: marketing, prices and consumption.

5) Dias (1987)^5: World Market and Marketing of Spices; an overview is provided of the world spices market and the position of Sri-Lankan spices trade within it. Consumption patterns, trade patterns, supply and demand, the marketing of value added spices and service & product differentiation are described.

6) Nandakumar T (1995)^6: Role of Spices Board for Export Marketing of Spices from India; focused in his study is the role of Spices Commodity Board under Indian Ministry of Commerce in promotion of spices products and development of export markets. Brand promotion and quality standards are the ways through which the Board is seeking to improve India’s market share in the World spices trade.

7) Kumumbaroa P. et al (1996)^7: Marketing of Spices at a Glance; issues relating to the development and marketing of spices in India are examined. 42 states produce 75% of India’s spices. Issues discussed are establishment of Spices Board, international trade and quality controls.

8) Marks. N. (1996)^8: Market Opportunities for Pulses in Indian Subcontinent; a study tour was undertaken with the objective of identifying market opportunities for exporting pulses from Australia to India, Pakistan and Bangladesh. The crops were chickpea, field pea, lentils and grass pea.
9) Hla Kyi (1997)\textsuperscript{9}: Production, Consumption and Marketing; focused in his study is the pulse production in Myanmar (Burma); the issues discussed were related to the production situation, pulses consumption, marketing (market structure, price vs. marketing cost and margins) and export marketing.

10) Brahm Prakash et al (1999)\textsuperscript{10}: Pattern of Market Arrivals and Prices of Mungbean in U.P.; annual variability in prices was more than that of arrivals of mung bean. No definite trend in coefficient of correlation between market arrivals and prices was observed.

11) Selvan T. et al (1999)\textsuperscript{11}: Marketing of Spices in India; has reported the statistics of area and production of major spices in India during last five years. Need for quality regulated markets and financial resources for the farmers have been emphasized.

12) Shailaja et al (2000)\textsuperscript{12}: Market for Spices - World Scenario; reported in his study is the rising demand for spices in the world market. It is indicated that world consumption of pepper, chilli, ginger and mustard is rising due to the popularity of ethnic cuisines and spicy food.

13) Madan (2000)\textsuperscript{13}: The Indian Black Pepper - Economics and Marketing; tried to analyze the current status of black pepper industry in India in relation with international pepper market. This paper discusses production of pepper, value added pepper products and their economic contribution, efforts taken to improve the acceptability of Indian pepper in international market, the present direction of exports and future for Indian pepper in international market.

14) Nasuruddin P. et al (2000)\textsuperscript{14}: Future Trade in Pepper - An Economic Analysis; this paper describes the future trading of black pepper in India. The history of future trading in India, the importance of future trading in Indian pepper industry
and potential of Indian pepper market to enter the international future market are discussed.

15) Ravindran T. C. et al (2001): Production, Export and Marketing of Spices in India; mentioned about production of major spices in India during 1990’s, data on area and importance of development programmes aimed at increasing production during Eighth and Ninth five year plans. Exports of spices from India in 1990’s are discussed. Also described is the Indian marketing system for spices.

16) Vigneshwara Varmudy (2001): Marketing of Spices; mentioned the global scenario of spices with respect to India. The country is blessed with a wide range of agro-climatic conditions from tropical to temperate zones, coastal plains to high altitudes and semi-arid to highly humid evergreen forests, it is in an advantageous position to produce a number of spices. As per the terminology on spices prepared by the Bureau of Indian Standards, there are sixty-three spices produced in India.

17) Schneider A.V.C. (2002): Overview of the market and consumption of pulses in Europe; The human consumption of grain legumes and pulses in Europe and the European Union (EU) is lower than in other regions of the world. However there is a lot of variation between countries and an overall slight increase has been observed in recent years. The major trends in the EU pulse market are illustrated here with a specific focus on Spain, France and the UK, which account for about 60% of the EU pulse consumption. The ways in which pulses are consumed are very different in the various EU countries, due to different regional food habits and traditions, and to differences in the supplies of grain legumes and the markets. Canned products dominate pulse sales compared with dry pulses sold in packets. Dry beans are the most consumed of the pulses in the EU but the preference between species varies according to country.

6.2 QUALITY ASPECTS OF PULSES/ SPICES

18) Sharma (1981): Problems of Supplying Improved Pigeon pea Seeds to Farmers; has discussed the problems caused by lack of good quality seeds,
facilities for further seed multiplication, training and incentives for seed growers and efficient distribution and marketing channels. Because of the schemes provided by the Government, seed production has gained momentum in all the states and it is expected that the future demand for pigeon pea seeds will be met in a large manner.

19) Bhatia (1990)^19: Agmark and the Consumer; through this study investigated the role of AGMARK and the institutional framework for quality control in the consumer market. The standards denoted by AGMARK are discussed for products like spices, butter, edible oils, etc.

20) George C. K. (1994)^20: Ensuring Quality in Spices Exports; made a general study on Export (Quality Control and Inspection) Act with amendments in 1984 to streamline and strengthen the inspection and testing system for exports of all commodities from India. A quality mark ‘Logo’ scheme is in operation for exports of spices in consumer packs.

21) Sharma R.N. (1994)^21: Quality Up-gradation of Spices and Condiments; this paper briefly describes the work done at national and international level in the area of standardization of spices and condiments with emphasis on the work of Bureau of Indian Standards (BIS). To date, 34 product standards have been brought out so far and 35 international standards are at various stages of review/revision.

22) Ahlert et al (1997)^22: Improving the Quality of Pepper at Producer’s Level; in the paper highlighted that the importers and final distributors are mainly large companies which carry out a final microbial cleaning operation in black pepper. An appropriate technology project is described to improve the microbial quality of pepper at farm level.

23) Hunter (1997)^23: Survey of Pulse Quality Attributes sought by Users and Consumers; conducted a study on food quality attributes that might be included in
their targets for breeding. Exporters, marketers, primary processors and food processors were included to cover a wide section of industry for comments on attributes.

24) Arora et al (1999): Effect of different Drying Methods using Sun’s Energy on the Quality of Garlic Powder; the effect of various drying methods on the quality characteristics was highlighted.

25) Umaid Singh & Singh. U (1999): Cooking Quality of Pulses; topics reviewed were general characteristics of pulses, availability in daily diet, consumer preferences for pulses, market demand for pulses, mechanism of cooking, methods of cooking, nutritional qualities of pulses, conclusions and future research needs.

26) Pratibha Parihar et al (1999): Effect of Cooking Processes on Nutritional Quality of some Common Pulses; the effect of open vessel boiling and pressure cooking on the nutritional quality of the seed was examined in three varieties of red gram, Bengal gram, green gram, black gram, lentils and soyabean. Losses of carbohydrate, protein and fat incurred in all the pulses and soyabean during cooking.

27) Ingle et al (2000): Garlic; It has thrown some light on the quality and bulb yield of garlic as influenced by planting methods and spacing.

28) John M. et al (2000): Quality Characteristics of Ginger-Garlic Paste; mentioned about the quality characteristics of ginger and garlic pastes, numbers of ready-to-use mixtures and spices products being marketed in the country to help reduce the time taken for cooking. Being the products of recent origin, many of the commodities do not have any quality standards. An attempt is made in this study to formulate quality standards for ginger and garlic pastes.
6.3 ISSUES RELATED TO MARKETING OF PULSES/SPICES

29) Abott J. C (1962)^29: Marketing - Its Role in Increasing Productivity; this book attempts to highlight the importance of agricultural marketing to free world from hunger. It covers the relation of food production to climate, weather, better distribution and marketing of food and the use of available surpluses to relieve hunger and provide an incentive to economic and social development in developing countries.

30) Wands S. P. (1972)^30: Spices; in his paper suggested that the consumer survey for spices buying habits had shown that with a growing use of convenience foods, the role of spices had increased in importance. The role of FOA and ASTA in promoting sales of spices in developing research programmes is described.

31) Sikka K. K. (1976)^31: Price Spreads in Ginger Trade; has focused in his study on the remunerative return to ginger growers for efficient marketing of the produce. It is possible to keep up the production trend and also accelerate it further provided there is steady demand and attractive prices.

32) Nadda A. L. (1976)^32: Economics of Cultivation, Returns and Marketing of Ginger in Sirmur district of Himachal Pradesh; this paper assesses the cost of production of ginger for various categories of farms according to various cost concepts, evaluates the returns to cultivators, measures the economic efficiency of ginger cultivation using different measures of farm profit and studies the price behavior and producer’s share in consumers’ rupee.

33) Iqbal B. A. (1982)^33: Chillies, Ginger and Turmeric- Trends in Production and Export; it is shown that future development of spices depends on increasing production and yield particularly of ginger. The present level of the productivity of these spices in India is quite low compared to other producing countries. There is a need to increase yield to improve quality.
34) Fountain R. et al (1987): The Present End-Use and Market for Grain Legumes; through this study investigated that the scenario of Australian pulses and cereal industry had resulted in a massive search for and swing to alternate crops especially pulses. The paper sees this scenario as self-destructive and as negatively influencing the sector's reputation overseas. The study recommends supplying the product that the consumer wants and not the product which is easily cultivated. Market potential and demand for field peas, chickpeas and mung bean are also briefly described.

35) Pruthi J. S (1993): Major Spices in India; this book throws light on the importance of spices in Indian economy. It has classified the spices on the basis of their comparative economic importance and parts of plants used. Each spice has been dealt with in detail related to processing, distribution, post-harvest techniques, storage and marketing practices.

36) Nandakumar T. (1995): Role of Spices Commodity Board in Promoting Indian Spices Products and the Development of Export Markets; the Board has to equip the export sector to face the challenges of world markets especially since the signing of new GATT agreement, which has created new opportunities for the sector. Brand promotion and the introduction of quality standards are ways in which Board is seeking to improve India's market share in the World spices trade.

37) Singh U. et al (1997): Quality Expectation in Processing Grains; in the paper highlighted that little attention was paid to the processing and grain quality factors on which depended the consumer acceptance of the product. Nutritional quality needs to be considered in terms of protein digestibility, anti-nutritional factors, availability of carbohydrates, etc. These topics are reviewed and future research needs are suggested in the paper.

38) Lovett J. V. et al (1997): Pulses; mentioned that the market demands for pulses were diverse ranging from an economical source of protein to convenience
and health foods to stock-feed. There is likely to be a widening of supply demand gap unless productivity can improve. Focus should be on quality attributes to better meet the customer requirements and gain access to higher value markets.

39) Jayantha H. M. N. et al (1998): A New Small Scale Processor for Pulses; this paper highlights the availability of an effective small scale processing technology to de-hull pigeon pea which is critical to its successful production and marketing. Apart from de-hulling and splitting, the machine can clean and grade grain or split. Important research results and relevant technical information on the machine are also presented.

40) Acharya S. S. & Agarwal N. L (1998): Agricultural Marketing in India; this book provides an information about the comprehensive and analytical presentation of agricultural marketing system of developing countries.

41) Patil H. K. et al (1999): Export Scenario of Spices and Future Strategy; in this paper, the following aspects relating to spices are discussed: production trend in India, organizations engaged in research and development and export promotion of spices, technology development directly useful to the farming community, quality maintenance in Indian spices, market overview and production of organic spices.

42) Arznei et al (1999): Spices and Medicinal Plants; general information on medicinal and spices plants is presented in chapters on plant components. Marketing in Europe, harvesting, quality criteria, storage and packaging aspects are also discussed.

43) Sasi-Kumar et al, (2000): Spices; mentioned that the major contributors of export earnings were the spices. Scope of value added products, threats and opportunities come under focus. Area, production and export of major spices have also been tabulated.
44) Chaudhari M. et al (2000): Seed Spices- A Perspective; in this paper identified emerging and existing producers of seed spices. Other issues like trend in production, value added products, trade barriers and market development also come under analysis.

45) Jacobson. H. J (2000): Impact of Biotechnological Interventions on Productivity and Product Quality; this brief paper gives an overview of value of DNA markers and genetic transformation techniques in breeding with emphasis on work performed on soyabean.

46) Madan et al (2001): Indian Black Pepper; have focused on the Indian black pepper and changing scenario with respect to its uses, marketing and product development.

47) Richard. L. Kohl & Joseph. N. Uhl (2002): Marketing of Agricultural Products; this book presents the information about the comprehensive and analytical presentation of agricultural marketing systems of developing countries. Information on markets, market structure, grading of agricultural commodities and role of marketing organizations have been elaborated at great length.

48) Rathore P.S & Sharma S. K (2003): Scientific Pulse Production; all major pulses grown in India have been individually covered to ensure that crop-specific attributes are taken into account.

49) Tiwari R. S & Ankur Agarwal (2004): Production Technology of Spices; the manuscript has been shaped to cover all the aspects of spices related to their values, production and processing. Breeding and plant protection etc. are described in a simple language and concise form. The book appears to be meaningful to all concerned with spices production.
50) Prasad Jagdish (2005): Encyclopedia of Agricultural Marketing-The Case of States: Emerging Trends and Perspectives; studies all crucial aspects of agricultural marketing across the country. The specific purpose of this volume is to critically examine the changing scenario and the present status of agricultural marketing in respect of individual states.

51) Basra A.S & Randhawa L.S (2005): Quality Improvement in Field Crops; this book provides an exposition of the various factors that define seed quality in major crop plants, especially the cereal grains and the grain legumes. Also reviewed are the refinement of sugar from sugar beet roots, assessment of cotton fiber quality, and attributes of forage quality for animal feeds.

52) Guriqbal Singh, Harbhajan Singh, Sekhon and Jaspinder Singh Kolar (2005): Pulses; concludes that the pulses have an important role in agriculture and human nutrition. Keeping in mind the importance of pulses an attempts has been made to compile information on this important group of crops.

6.4 RESEARCH GAP

It is quite clear that the studies reviewed so far in the field of value addition and quality attributes in the marketing of pulses and spices have although covered different aspects but are very limited in number. Majority of these studies referred to were either related to some aspect of marketing of pulses and spices in general or about a particular state of the country. None of the study was specific in discussing different ways of adding value in the marketing of these products and little attempt has been made to study different quality characteristics that may increase the consumers' acceptability of the products. In view of the limitations of the studies and the developments that have recently taken place at the national and international levels, the new set of studies are needed to explore the emerging opportunities. There remains a gap for taking up fresh research in the area of value
addition and quality attributes in marketing of pulses and spices for keeping pace with the new changes.

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