Chapter 2

REVIEW OF LITERATURE

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Spices constitute an important segment of the agricultural economy of the world in terms of production, employment and world trade. This sector has been a matter of extreme interest for academicians and planners and a good number of studies have been conducted on its various aspects such as production, marketing, world trade etc. The findings of these studies appear in the form of Books, Articles and Reports. A brief review of these, Books, Articles and Reports is made below:-

2.1 Books

Henry (1912) in his book ‘Spices’ opined that the duration of the life of a pepper vine depends mainly on the way the plant is cared for, and the amount of manure which it receives. He viewed that a Chinese planter, if pepper happens to be of low price, will give it no manure further than the first year or two years and plant becomes worn out in four or five years. If properly treated, however, it should last in good condition for 12-14 years.

Vijayaraghavachary (1943) in his book ‘Land and its Problems’ pointed out that practical importance in agriculture is the provision of facilities to the growers for marketing their produce. A wide divergence between farm gate price and retail price is noticeable in all countries, but in a country like India, wherever villages are at a distance from the railway line and are badly served by roads connecting with their nearest markets, the divergence is extreme. The gap widens if a comparison is
made between farm gate price and the price not at the nearest market town, but at the large provincial centers from where the products are sent off in the case of international trade.

Fredrick (1969) in his book ‘The Book of Spices’ stated that the important spices producing regions of Java and Sumatra, which were scientifically developed, were destined to remain under Dutch control until world war II. Through their efficient administration and new advances in tropical agricultural techniques, spices production increased tremendously by 1938. For example, in 1938 over 55000 tons of Indonesian black and white pepper was exported, while in the same year India exported only 700 tons of pepper. During sixties, the situation has changed and India also joined Indonesia as one of the world leading pepper producers and each country exports between 20000 and 25000 tons of pepper annually.

Joh (1969) in his book ‘Spices’ evaluated the uses of spices in ancient Greek and Roman world. He opined that most of the spices used by the people today were known to the ancient Greek and Romans. When pepper first came into use in those parts, it was spoken as of two kinds of pepper viz. black and white pepper, and observed that the black is of a more agreeable flavour while white pepper is of milder quality. In realm of superstition, the ancients entertained some strange notions about some of the spices. Anise, they said, imparted youthful look to the features. Cumin, they believed, if cursed and abused while sowing, would produce a splendid crop. Fennel was believed to sharpen the sight of snake and aid them in casting off their skins in the spring.
Purseglove, Brown, Green and Robbin (1981) in their book ‘Spices’ assessed the standards of pepper producing countries. They opined that among the three major pepper producing countries namely India, Indonesia and Malaysia, India has the most advanced system of grading and fixing standards. The Indian Government has prescribed the obligatory grading and standardization of a large number of agricultural products, under the label of ‘Agmark’ both at home and abroad.

Mahindra (1982) in his book ‘Spices in Indian Life’ has revealed the facts that the Portuguese merchants were so much obsessed with pepper possession that these merchants who were given permission to trade in Kerala by the Zamorin in Calicut, took away numberless pepper vines by force for cultivation outside India. However, the Zamorin knew very well that the Portuguese would not be successful. The following remarks of the Zamorin became very popular in the folklore of Malabar area. “They can very well take away all pepper vines from us, but how they can steal the Thiruvathira Nhattuvela from us?”

George, Nair and Pushpangadan (1989) in their book ‘The Pepper Economy of India’ reported that the price analysis shows that Indian pepper has lost its premium to Indonesia and Malaysian varieties. As a result, Indian pepper has to compete in the world market in order to maintain its market share. Its competitive position is weakened during mid-eighties due to its low productivity and high unit cost of production. The increased uncertainty may be a factor that caused the stagnation of pepper production. Therefore the Government has to take urgent step to stabilize price and reduce uncertainty. The recent change of ownership of pepper production
in Brazil to multinational companies and Brazilian Government assistance to hold stocks through credit facilities will only help to put further pressure on the dwindling share of India’s export market.

Nair, Narayanan and Sivanadan (1989) in their book ‘Ecology or Economics in Cardamom Development’ found that while the importance of cardamom as an export crop was increasing over the time, the productivity of the plantation was showing a declining trend from the mid-fifties. Large scale incidence of pests and diseases, poor management of the plantations, and the lack of timely replantation of the aged plants were cited as the factors responsible for this phenomenon. By the sixties, the Government of India set up the Cardamom Board to look after the various developmental requirements of the crop.

Nair et al. (1989) in their book ‘Ecology or Economics in cardamom Development’ stated that the world demand for cardamom has been increasing; the world supply is also rising at a faster rate. They observed that much of the increase in supply during recent years has come from Guatemala. India no longer retains her monopoly position in the world market. The upward trends in cardamom price in India is partly a reflection of the increasing demand for the product in the Middle East markets.

Khan (1990) in his book ‘Spices in Indian Economy’ examined the trends in area, production and productivity of black pepper in different states. He made the following observations in his book:- In case of area there was significant
improvement in Tamil Nadu (35 per cent). In Kerala and Karnataka also area
increased by 27 per cent and 18 per cent respectively. Production, however declined
by 4 per cent and 56 per cent in Karnataka and Tamil Nadu, but it increased by 13
per cent in Kerala.

Ramanadesan (1992) in his book ‘Production and Productivity of Pepper and
Cardamom’ reported that nearly 50 per cent of area under crop is unproductive and
senile. So, massive programme should be planned to replant these areas with latest
high yielding varieties of pepper vines under scientific management practices. He
also stressed in his study the need for developing drought tolerant variety of pepper
vines. According to him, a major constraint recurring in the recent past is dwindling
soil moisture levels. Consequently, the yields of pepper and cardamom are
drastically reduced. So soil conservation measures such as mulching the base has
been recommended by him.

Swaminathan (1996) in his book ‘Sustainable Agriculture Towards Food
Security’ has given the view that intensive cultivation of land without conservation
of soil fertility and soil structure would lead ultimately to the springing up of
desserts. He opined that irrigation without arrangements for drainage would result
in soil getting alkaline or saline. Indiscriminate use of pesticides, fungicides and
herbicides could cause adverse changes in biological balance as well as lead to an
increase in the incidence of cancer and other diseases, through the toxic residues
present in the grains or other parts. The rapid replacement of numerous locally
adapted varieties with one or two high yielding in large contiguous areas would result in the spread of serious diseases capable of wiping out the entire crops.

Ravindran (1999) in his book ‘Black pepper’ reported that the consumption of pepper has registered a steady increase during the past many years. The year wise consumption pattern is influenced by many factors like size of population, per capita income, and economic status of people, food and social health. The annual per capita consumption is highest in Denmark with 194 grams. Europe and America are the two major pepper consuming sectors in the world, and the prices in the international market are controlled by the demand from these two sectors.

Peter (2001) in his book titled ‘Hand book of Herbs and Spices’ explains the functional role of spices. He quoted that herbs and spices are not only valuable in adding flavor to foods, but their antioxidant activity also helps to preserve food from oxidative deterioration and increasing their shelf life. For example round black pepper has been found to reduce the lipid oxidation of cooked pork. Anti-oxidants also play a role in the body’s defense against cardiovascular diseases, cancer, and other conditions of life such as arthritis and asthma. Ginger oil is also an intestinal stimulant and promoter of the bio-activity of drugs. Likewise Fenugreek, onion and garlic help lower cholesterol levels in human beings.

Pruthi (2001) in his book ‘Minor Spices and Condiments - Crop Management and Post harvest Technology’ evaluated the need for reducing cost of production of spices. He noticed that, one of the major handicaps in the international spices trade
for India is the high cost of production of its spices which do not permit an effective market competition. He suggested various means to reduce cost such as the use of high yielding varieties, efficient use of fertilizers, and adoption of scientific cultivation practices. In addition to this, he recommends inter cropping, mixed cropping and crop rotation as the other means of reducing cost of production.

Sanjeev, Divakara and Sharma (2001) in their book ‘Seed Spices-Quality and Export’ reported that India produces about 52 spices and the important ones among them that occupy a sizeable area and enter the national or international trade are black pepper, cardamom, ginger chilli, clove, coriander, cumin, fennel, etc. The seed spices are mainly cultivated in the states of Rajasthan and Gujarat. The Indian seed spices have the advantage of superior intrinsic quality. However, Indian spices industry is facing challenges on four fronts namely- productivity, equity, quality and value addition.

Azhar Ali Farooqi, B Sreeramu and Srinivasappa (2005) in their book ‘Cultivation of Spice Crops’ described that quality is the key to good marketing of spices. They reported that Indian motto should be ‘clean spices rather than cleaned spices’. In order to compete and retain India’s position in the world spices market, our ability to meet the quality expectations in the area of pesticides residues should be strengthened. According to them the critical need is effective transfer of technologies.
Thakamani C K (2009) in his book ‘Organic Spices’ stated that the over use of chemicals, fertilizers and pesticides has ruined the mother earth, polluting food, drinking water and air. He suggested that organic mode of production is the only way to save ecology and environment, produce hazard-free food for the people and conserve natural resources. According to him, organic production is a commercially viable option for farmers, as organic food/products fetch a premium price at less cost of production as it avoids chemical fertilizers and pesticides.

Reports

Abraham (1955) in his study titled as ‘Now Better With Cardamom’, gave suggestions to Indian farming community regarding the use of high yielding and elite planting material replacing conventional inferior clones as an important step to increase productivity. He reported that research on crop improvement in cardamom was initiated almost four decades ago.

Sahadevan (1965) in his article ‘Cardamom’ opined that even where the marketing is comparatively well organized, considerable improvement is still possible. He further remarked that both grading and marketing could be profitably taken up by cooperatives at the assembling centers and the number of co-operatives should be increased and they should be located suitably to avoid costly transport. He also expressed the view that with the organization of package industry, export of finished products in the form of seeds, powders and oils could be thought of. He also remarked that supply of cardamom in ready to use packets must be the next
stage of development. The growing of cardamom has to be linked to an industry in
the above manner for an all round efficiency in production and management.

International Trade Centre (1970) in its study ‘Marketing for Spices in North
America, Western Europe and Japan’ reported that there is an increasing use of
spices extract in all the markets except in United Kingdom. In U.K, it is estimated
that about 25 per cent of all spice imports are produced into oils, resins or soluble
spice before being used in the industry.

Lokhande (1973) in his paper ‘Socio-Psychological Factors Associated With
Farm Credit Behavior of Delhi Farmers’ evaluated the effectiveness of credit given
to the farmers. He revealed that only big farmers utilized the entire amount
borrowed for plant protection measures. He reported that small farmers spent the
loan amount to pay off old debts as well as to purchase seeds and fertilizers and
medium farmers also utilized the money for non productive purposes like marriage,
educational and medical expenses and also to purchase some machinery.

Economic Review (1982) published by the Government of Kerala stated that
the important problem for the cardamom industry in India is the tough competition
it has to face in international market especially from Guatemala. The export price
since 1978-79 has been showing a continuously declining trend. Compared to the
price level in 1978-79 there has been a decline of 35 per cent in export price in
1981-82 both for Kerala and all India, and this trend adversely affects the industry.
Planting new varieties, avoidance of crop loss by improving the curing process, etc.
are some of the suggestions recommended in the report for bettering the prospects of cardamom.

Santhosh (1985) in his paper ‘Cost of Cultivation And Marketing of Pepper in Kannur District’ – pointed out that pepper proved to be a labour intensive crop and labour cost accounts for more than 50 per cent of total cost. He reported that the situation of scarcity of agricultural labour and high wage rates have caused gradual decline in pepper cultivation. Though Idukki is leading in cultivation, the profitability of the crop is higher in Kannur. He also estimate the benefit-cost ratio of pepper as only 1.09 in Idukki as against 1.16 in Kannur.

Indo-German Chamber of Commerce (IGCC) (1985) in its study titled ‘Market Reports’ found that basically spice oleoresins cover two types of material, natural and prepared. The former are exudations from trees, while the latter are the residues, i.e. the flavor/odor/pungency particles extracted from the original material by using a solvent. The natural oleoresin finds the bulk of its use in perfumery, while the prepared oleoresin, which is more important commercially, is used as a flavoring agent in the food processing industries. The prepared oleoresin may be derived from almost any spices or herb, but the commonly significant ones are those extracted from major spices such as pepper and capsicum.

Baby (1985) in his Ph D thesis titled ‘A Blue Print for Export Development of Kerala- a Study on Selected Agricultural Products’ suggested that a comprehensive time bound programme incorporating strategies to increase production and
productivity, to recapture the lost market share, to develop new markets, to maintain consistency of quality, to promote new products and to attain an overall growth rate commensurate to the increasing world demand for spices has to be adopted on a primary basis. Again, he pointed out that a new policy approach with emphasis on exporting spice products, spice oils, oleoresins and other value added items has to be adopted immediately and price understanding with IPC should be arrived at to stabilize prices of pepper in the world market.

Economic Affairs Division, London (1986) in their report stressed about the scarcity of institutional support for spices cultivators. The Division opined that the existence of an adequate institutional infrastructure at local, national and international levels is generally considered as a necessary pre-requisite for launching a successful export development. Most of the spices producers’ organizations do not have sufficient strength to secure the assistance necessary to establish proper quality control, grading and processing facilities or to negotiate the most effective price arrangements with foreign countries.

Gopinatha Menon (1987) in his Ph D thesis titled ‘Processing. Procurement and Marketing of Pepper with particular reference to co-operative sector’ identified the causes of low productivity in pepper as the cultivation of a large number of variety of poor variety genetic stocks, high population of senile and unproductive vines in the garden, unscientific inter or mixed cropping and non-adoption of proper manuring, plant protection, poor shade regulations, lack of soil conservation measures and inadequate extension services. He has also suggested ways to
overcome these problems in cultivation by taking measures like expansion of cultivable area, urgent replanting or rejuvenation through proper farm management practices, etc.

National Institute of Industrial Research (NIIR) (1988) in their survey titled as ‘Report of the First Meeting of the International Spice Group- New Delhi’ observed that in recent years organic agriculture has been gaining considerable importance. The survey reported that many farmers have started showing interest in organic cultivation. It added that the world demand for organically produced foods is growing rapidly in developed countries like Europe, USA, Japan and Australia and the current estimated share of organic foods in these countries is approximately 1 to 1.5 per cent. According to them India, at present exports around 50 tonnes of different varieties of organic spices. The survey further reported that exports will get a significant boost in the coming year as more farmers are switch to organic methods.

Administrative Staff College of India (ASCI), Hyderabad (1988) in its study titled ‘Economics of Cardamom Cultivation of Small Growers’ opined that, a majority of cardamom cultivators belong to the category of small growers. They often sell their produce to intermediaries at a price lower than that prevailing at the auction due to various reasons such as being uneconomic to bring small produce to auction, the spot payment by intermediaries and absence of auction centers within a reasonable distance. The study stated that apart from marketing, small growers have problems like poor access to credit, lack of knowledge about modern
cultivation practices and curing. According to the study, problems seem to be more acute in many interior parts of Kerala and Karnataka.

Indian Institute of Foreign Trade, (1989) in its survey titled ‘Base Line Survey of Major spices in Kerala- prepared For International Trade Centre Geneva’ explained the socio-economic impact of export trade. The total employment generated by the spices industry in Kerala is estimated to have grown from 71300 in 1982-83 to around 74900 in 1986-87, 92.4 per cent of which constituted farm labours. In the same year self employed farm labourers were about 27100 of which 21100 were cardamom growers and the rest in pepper and other spices.

Eapen (1989) in his paper ‘Strategies for Developing Export of Spices to Wana Region’ revealed the fact that Guatemala, which is a chief coffee producer losing in the international market because of falling prices and consequently low farm revenues. Looking out for viable alternative, Guatemala cashed in on the difficult cardamom market situation by switching over to cardamom from coffee. In addition, Guatemala’s high productivity, which is five times larger than that of India and cooperative structure of farming and other favourable infrastructural facilities helped it to trade its produce at affordable prices.

Pal (1992) in his article ‘Agriculture Exports of India-Issues of Growth and Instability’ opined that the comparative advantage in the production of agricultural products could not be exploited by least developed countries in the real world mainly because of poor bargaining power in the international market and tariff and
non-tariff protection strategy followed by developed countries. He further stated that the export of least developed countries fluctuated more than developed countries and this unstable export has a tendency to weaken the stability of developing countries since they depend on export of agricultural products as the major source of national income.

Commonwealth secretariat (1991) in their Report of the ‘3rd Meeting of the International Spices Group at Kingston’ stated that marketing is less of a problem with spices as compared with other agricultural commodities. This is because of high export potential of spices. Inadequate supply appears to be a more common problem than over supply or lack of take off. According to them, the main problem for developing countries in the area of spices marketing is the vulnerability to fluctuations in the world market price. By virtue of small quantities of production and other factors, they are the price takers on international market.

Sukumara Pillay (1992) in his paper ‘Management of Improved Cultivation of Black Pepper’ opined that for any crop, selection of varieties with a high production potential is the primary step towards realization of higher yields. The variety so selected should have a genetic potential to respond well to management practices and many a times special management practices are recommended for such improved varieties of crops. It is also reported by him that in several cases improved varieties perform much worse than local types under poor management. Hence, he recommends adoption of appropriate management practices as important as selection of varieties in attaining high productivity and production.
Nirmal and Ravindran (1992) in their paper ‘Black pepper and Cardamom:- Problems and Prospects’ stated that the average productivity of black pepper vines in India is very low compared to other major black pepper producing countries. According to them, prevalence of low yielding cultivars is one of the major factors affecting productivity. To increase productivity they recommended that the old low yielding cultivars are to be replaced with new high yielding cultivars with good quality attributes. They also observed that piperine, oleoresin and essential oil are the important factors contributing to quality of black pepper production as a spice. The piperine content in pepper varieties ranges from 3.4- 6.6 per cent, oleoresin from 9.2-13.8 per cent and essential oil from 3.4 - 7.0 per cent. Panniyur-2 has the highest piperine content (6.6 per cent) and Pournami has highest in oleoresin (13.8 per cent).

Hidde (1994) in his article in the Report titled ‘Towards a More Vibrant Pepper Economy’ gave a general outlook of the pepper economy including the assessment of possible effects of and prerequisite for implementing supply management scheme and diversification programmes. He also evaluated the future of pepper economy and the scenario for the pepper prices to the year 2020.

Vidyasagar (1994) in his paper in the Report titled ‘Towards a More Vibrant Pepper Economy’ reported that black pepper future trading was conducted in Bombay in an unorganized manner until 1944 when it was banned under Defense of India Rule 1944. He added that after the Second World War the prices of
agricultural commodities increased by 3.5 times whereas the prices of spices rose by a staggering 36 times. On account of this, the Spices Enquiry Committee was constituted in 1953 to keep an eye on the black pepper prices.

Economic and Social Commission for Asia and the Pacific (ESCAP) (1994), in its paper presented on International Pepper Seminar, Bangkok, described that the production of white and black pepper in Indonesia takes place in separate area unlike in other producing countries such as Brazil and Malaysia. In Indonesia, white pepper is produced mainly in Bangka Island, while black pepper is planted in Lampang. The discretion whether to plant black or white pepper in other producing countries depends on the price differential between black and white peppers in the international market. Producing white pepper entails more cost than producing black pepper. It is therefore understandable why during the period 1988-1993, of prolonged depressed pepper prices, production of white pepper in producing countries except Indonesia was not encouraged.

Fazli (1995), in his study ‘Global Overview of International Trade and Consumption of Spices’ distinguished the importance of individual spices from one importing country to another. Almost without exemption, pepper is invariably the principal spice imported, in terms of both volume and value. The only exceptions are: Finland, Saudi Arabia, Kuwait (cardamom), and Democratic Republic of Yemen (ginger and chilli). Next in importance is the capsicum group consisting of paprika and chillies. Nutmeg, mace and cinnamon are important to the Western
Europe and North America, Pimento (all spice) is important to Eastern Europe and Union of Socialist Republic.

Common Wealth (1996) in its report titled ‘The Global Spice Trade and Uruguay Round Agreements’ presented at Geneva quoted that the spice sector has been characterized by unplanned production, resulting in volatile markets with widely fluctuating prices. Unplanned production has also turned spice producing countries into ‘price followers’ rather than ‘price setters’. Some spice producing countries have fallen in the low quality – low price trap. Because of the small quantities produced and their indifferent quality, these countries have been forced to sell spices at low prices and these sales have had the effect of bringing down international prices significantly to lower levels.

Centre for the Promotion of Import from Developing Countries (CBI) (1999) in its survey of the Netherlands and other major markets in the European Union published under the title ‘Spices and Herbs’ reported that pepper and paprika are well established and are widely used throughout the European countries. With regard to pepper, the performance by industrial users varies from country to country. Spice extracts generally favour black pepper from Indonesia and India, while ‘Salami’ makers in Italy have a preference for Indian bold Tellicherry pepper. White pepper from Brazil is preferred by several European importers because of their clean appearance and uniform size. The report says that Green peppers are still considered as a luxury item and thus have a limited market. Germany and France are the important consuming centers of green pepper.
Madan (2000) in his article ‘Indian Black Pepper, Economics and Marketing’ stated that Kerala is the major producer of pepper in India. Among other producing states, Karnataka contributes a sizable quantity to the total production. Pepper has a high contribution on rural employment and farmers’ income in these regions of production. Although pepper price fluctuates sharply, pepper farming still exists and is extended to new areas with the hope of getting better returns on investment. This condition will strengthen the Indian pepper industry in the global competition. He also described the comparative advantage of India over other competing countries in value added products like oils and oleoresins produced by its well developed industrial establishments. He concluded by recommending that since the quality has become the key word in the world of spices, efforts to produce clean pepper should start from the farm itself.

Ravindran (2000) in his paper ‘Conclusions, Constraints and Yield Gap in Black Pepper’ exposed the fact that although pepper has originated in Kerala (India) and it has been under cultivation for centuries, the yield of pepper in India is one of the lowest in the world mainly because intensive cultivation practices are not in vogue, and people have been growing pepper in a casual way (plant and forget) as in the case of many other crop plants. As a result, there is wide gap existing between the productivity in India and that of other countries-320 kg/ha for India and 4500 kg/ha for Thailand.
Sherly (2001) in her M.Phil dissertation titled ‘Emerging Trends in Spices Exports’ evaluated the growth performance in export of spices to different countries. Among the traditional export markets, European Union and East Asia show relatively a better performance than other countries. Based on the growth parameters, America shows much higher growth rate than European Union and East Asia. The period 1990-95, shows a declining trend in spices export earnings. This declining trend is the result of the disintegration of USSR and Gulf crisis. The prices of Indian spices are very high when compared to its competing countries. One of the main bottle necks in export of spices is the high fluctuation in unit prices.

Madan and Tamil Selvan (2001) in their article ‘Indian Pepper, Changing Scenario’ reported that Kerala state is the major producer of pepper in India. Among the other producing states, Karnataka contributes a sizable quantity to the total production. High level of productivity is also reported from this state. Although pepper price fluctuated sharply, pepper farming is still considered to be highly remunerative and consequently farming is extended to new areas. It is observed that the newly extended area under pepper is more productive than the traditional area.

Mukundan and Indira Devi (2001) in their study on ‘Economy and Marketing of Black Pepper in India’ revealed that there has been a widening supply-demand gap in world pepper market since 1995 which is estimated to the tune of 35000 tons in 1997. Most of the producing countries have already exhausted their stocks and the demand is to be fully met by current year’s production. Indian pepper harvests
begin by January-February which is the earliest among major producing countries.
So all major consuming nations have entered the Indian pepper market and pepper
prices have reached the record level. Indian pepper production is to be tuned to
enjoy the full advantage of this market situation through planned release of the
product. Price mechanism plays the lead role in ensuring a better productivity in
most of the crops.

Sindhu (2001) in her M Phil dissertation ‘Trade Liberalization and Export
Performance of Kerala’ opined that, in spite of trade liberalization and export
growth rate being higher in the world export, Indian export shows declining trend in
recent years. The growth rate of export during post EXIM policy period was 2.29
per cent as against 6.86 per cent of pre EXIM policy of 1991.

Dr. Vigneshwara Varmudy (2001) in his study ‘Marketing of spices’
highlighted the fact that the consumption of spices vary from country to country and
consumption is influenced to a large extent by the size of the population, disposable
income along with social habits. The food industry, mainly the meat processing
sector and food service sector now account for nearly 60 per cent of the spices trade
in the developed countries.

Koshy (2000) in his article ‘Availability of spices in India’ stated that, it could
be discernible from the balance sheet of production and export performance that
India could be a continued potential source for spices like pepper, small cardamom,
ginger, turmeric, chilli, tamarind, coriander, cumin etc. in large quantities and clove,
nutmeg, vanilla, saffron in limited quantities. Cassia and cumin are not available for exports from India. Apart from Malabar garbled pepper, Cochin ginger and Alleppy cardamom are some of the favourites always sought over from India. Organically produced spices are also now available although limited to pepper, ginger, turmeric, vanilla and clove for niche marketing.

Behera and Indira (2002) in their article ‘Indian Spices Challenges Ahead’ evaluated the growth of spices export from India during the period from 1995-’00. The export of Indian spices has grown at the rate of 7.94 per cent in terms of quantity and 17.64 per cent in terms of value during this period. Likewise, the export of other items like spice oils and oleoresins, mint oil and curry powder has sharply increased during the period. The growth of spices import into India during the period was found to be 6.69 per cent in terms of value, which was much below the growth rates of exports. It was found that India imports clove in comparatively larger quantities and nutmeg, pepper and other spices in small quantities mainly from European Union and USA.

Khan and Krishnakumar (2002) in their paper ‘Spices in Coconut Based Cropping System’ analyzed the cultivation of spices in coconut based cropping system. He said that in the world of free trade of commodities depending on a single crop is always risky and hence adoption of multicropping/mixed farming system will definitely provide higher income and employment as well as protect the farmer against falling prices of a particular commodity. In the coming years, coconut based
farming system will hold a key role to play for sustainability and should receive attention from all concerned.

Manju (2004) in her M Phil Dissertation titled ‘India’s Spices Exports with Special Reference to Cardamom’ stated that for India 80 per cent of export earnings in respect of spices came from few spices and this leads to instability and fluctuations. So product portfolio should be widened with new spices like Vanilla, Paprika, Herbal spices, medicinal spices and organic spices. India produces more than 30 lakhs tonnes of spices per annum. But it exports only around 2.5 lakh tonnes which is only 8 per cent of the total production. She in her thesis stresses that quality standards of spices sold in domestic market also should conform to high standards maintained for export items to boost exports.

Anitha (2004) in her dissertation Submitted for MBA titled ‘Trend Analysis of Spices Export at Cochin Port Trust’ pointed out that the decrease in demand for pepper from Kerala was due to the fact that most of the upcoming markets for pepper abroad were getting Sri Lanka pepper imported via Mumbai. If, brought from Kochi, the transportation cost alone would come around ₹5 per Kg in addition to taxes. This accounted for the lower exports from Kochi.

Tudugala and Kularathna (2005) in their article titled ‘Report on Export of Pepper from Sri Lanka to India’ stated about the import of pepper by various countries. They revealed that among the non-producing countries United States rank the number one importer of pepper. India is the major importer among the
producing countries. Non-producing countries import pepper in large quantities when compared with producing countries. World imports of pepper increased gradually from 1999 to 2002 and declined during 2003. United States’ import of pepper from India reported gradual reduction during 2000-2004. While its import of pepper from Vietnam gradually increased during this period.

Peter, Nybe and Shylaja (2005) in their paper ‘Spices Production and Export from India’ discussed the spices production and exports from India for the last five decades. They reported that the quantity exported and export earnings showed an increasing trend during the period from 1960-2000. Based on an analysis of growth in export and earnings at five year interval, it is seen that the quantity showed a decreasing trend in the 5 year period ending 1970-71 and 1985-86 and increasing trend are noticed in all other quinquenniums. Again they reported that the export earnings from spices during 1960-61 was ₹16 crores and the earnings increased to ₹2025 crores during 1999-’00.

Hugh and Colleen (2006) through their article ‘Assam’s Pepper Solution’ revealed their experiences of visiting the plantations of Assam. They said that, pepper vines are planted and nurtured with great care in the tea plantations of Assam without interfere the delicate balance of tea bushes. These plantations had increased their yield by intercropping tea with pepper. They concluded by saying that this is a beverage - spice double - crop successful story.
Jagadeesan (2006) in his article ‘Spices Imports by United States’ revealed the facts relate to the import of spices by United States from India. He said that the United States is the single largest spices importing country in the world. Its share in the total world spices import is 33 per cent. USA imports almost all spices like pepper, capsicum, cinnamon, ginger and seed spices. In addition to this, they import spice oleoresins also from India in large quantities. But cardamom is less an important item of spice import by USA. However he concluded that, even though USA is the major spice importer and India is the major spice producer in the world, India’s share in US market is not very significant because of severe competition from other countries.

Tamil Selven and Thomas (2007) reported in their study ‘Spices Development of India’ that a wide range of agro climatic zones prevalent in India boost the production of a number of spices and herbs. About 60 spices of different varieties are grown in the country out of which few are grown in almost all states. In total 17 spices are important with respect to domestic requirement and export demand. They said that spices account for 5.18 per cent of total agricultural earnings of the country and the Indian spices command a formidable position in the world trade with 37 per cent in volume and 23 per cent in value.

Varghese (2007) in his article ‘Economics of Cardamom Cultivation in India’ proved that the per unit cost of production is very high in small size groups as compared to medium and large size groups. He argues that a concrete action plan needs to be implemented for creating awareness among the planters as well as
cultivators with regard to the recommended packages of cultivation by experts. Small size cultivators are applying more manure and cow dung (produced by them) and their imputed value is higher when compared to the medium and large cultivators.

Ibrahim (2007) in his M Phil dissertation ‘Export Performance of Indian Spices in the WTO Regime’ stated that 78 per cent of the export earnings of spices are contributed by pepper (7%), turmeric (6%), chilli (18%), mint produce (25%) and spice oils and oleoresins (22%). India meets around 70 per cent of the world demand for spice oils and oleoresin. The quantity of spices exports from 1995-96 to 2005-06 increased by 57-58 per cent and value by 185-32 per cent. In the year 2005-06, the export of pepper has increased to 16700 tonnes valued ₹140.5 crores as compared to 14150 tonnes valued ₹121.40 crores during 2004-05. The introduction of WTO Compatible Export Subsidy Schemes for pepper had an impact on the increase in pepper exports.

Ian (Herbie) Hemphil, Australia (2007) in his article ‘Pink Schinus Pepper, Is There Any Opportunity For India’ discussed the opportunities for India to grab the market for pink pepper. Pink pepper is also got from the same family of the black pepper after special drying process. But even now no method of successfully drying this true pink Indian pepper has ever been found. This variety of pepper vine is commonly seen in Australia having small yellowish flowers and bears drooping clusters of berries of green colours and turn rosy pink when ripen.
Nair and Vineetha (2007) in their study ‘Distress Debt and Suicides among Agrarian Households- Findings from Three Villages in Kerala’ revealed that a sharp fall in prices of crops like pepper, coffee, cardamom and tea along with fall in their yield levels due to adverse weather conditions created a situation of ‘shake and vulnerability’ and agrarian distress in the producing regions of Kerala. Every section of the agrarian population- cultivators, agricultural labours, non-farm workers was severely affected by the distress.

Chempakam, John, Shiva and Jayasree (2007) in their paper titled ‘Processing and Value Addition in Spices’ described the importance of processing and value addition of spices in the world spices trade. They reported that there was a growing trend towards the trade of processed spices, which fetch higher prices. The increasing demand for value added processing of spices offer business opportunities for the food and extraction industries in international markets. According to them, the main difficulties in augmenting the international trade in spices through value addition are the low productivity, inferior quality of the produce and lack of infrastructure facilities for post harvest management and marketing.

Tamil Selvan and Homey Cherian (2008) in their article ‘Pepper Production and Prospects’ reported that Kerala is the major pepper producing state in India and small and marginal farm holdings dominate 80 per cent of the total number of pepper farms in the state. Pepper is grown in almost every homestead or plot of land in the plain lands; and in high ranges like Idukki and Wyanad. In Kerala, eight out of fourteen districts namely, Idukki, Wyanad, Kannur, Kollam, Kozhikode,
Kottayam, Kasargod and Thiruvananthapuram account for more than 83 per cent of the area under pepper cultivation and 90 per cent of total pepper production in the state.

Srijit (2008) in his paper titled ‘Risks, Farmers’ Suicides and Agrarian Crisis in India, Is There a Way Out’ explained the features of the crisis in the agriculture. they are: firstly, there has been a decline in the trend of growth rate of production as well as productivity for almost all crops from the mid-nineties: secondly, there is an excessive dependence of a large section of the population on agriculture (64 per cent in 2004-05) indicating that rural non-farm employment opportunities are limited: thirdly, with declining size-class of holdings and an increasing predominance of marginal holdings (63 per cent as per 2001-02 census) returns from cultivation are becoming poor and fourthly, supply of credit from formal sources to agricultural sector is inadequate leading to greater reliance on informal sources at higher interest burden.

Evan, Chin Hong, Sue-Ling and Yanching (2008) in their article ‘Casuality Between White pepper and Black pepper; Evidence from Six Markets’ reported that the pepper markets in Sarawak are said to be co integrated. i.e. both white pepper and black pepper markets are bound together in the long run. The pepper market in Sarawak is also price sensitive, where by the prices tend to move parallel to each other. When one market (white pepper) amends its price by raising or lowering it, the rest of the market (black pepper) too would gaze towards a similar direction.
B.Sreekumar (2009) in his article ‘Spices Resources in Guyana’ reported that in Guyana, a Caribbean country in South America blessed with tropical climate and fertile soil is having some spices production. They produce mainly ginger, chilli and celery on commercial basis. In addition, some black pepper, turmeric, nutmeg, allspice, and cinnamon are also cultivated there on a small scale.

UPASI (2009) in its ‘Planters’ Chronicle’ reported that both domestic and international demand were instrumental for the increase in price level. Higher domestic prices lead to higher imports from Guatemala, as the global prices constantly stay at a discount when compared to Indian prices.

Financial express (2009) in its report ‘Cardamom Exports Decline Sharply’ stated that the demand for cardamom in domestic market had grown sharply in recent years consuming almost the entire production. The cardamom consumption in household category is estimated to grow at a compounded annual growth rate of 3.7 per cent beyond last year and attain the demand level of 6,150 tonnes by the end of the century. The report stated that the average household consumption by urban and rural population was about 35 grams per year, and these were used as an ingredient in various food items, mouth refresher and medicines. According to them, northern India is the major consumer with 36 per cent followed by western with 28 per cent, eastern 22 per cent and southern region 14 per cent.

Thomas (2009) in his Ph.D Thesis titled ‘Problems and Prospects of Spices Trade in Kerala’ expressed the view that a major problem in the domestic market of pepper in Kerala is the sale of imported pepper. He suggested that pepper imported
for value addition and re-export should be re-exported within the prescribed time and should not allowed to be sold in the domestic market. He also recommended that the Government should announce WTO compatible export subsidy for pepper in order to increase the pepper export from Kerala.

Andre Leu (2010) in his article ‘Organic Farming and Climate Change’ reported that one of the advantages of organic farming is to improve soil health and productivity by increasing organic matter (carbon) levels, particularly humus. In doing so, organic farming can remove significant amount of carbon dioxide from the atmosphere. In contrast, some forms of conventional agriculture have caused a massive decline in soil organic matter, due to oxidizing organic carbon by incorrect tillage, the over use of nitrogen fertilizers and form top soil loss through wind and water erosion. According to him, soil carbon is one of the most neglected yet most important factors in soil fertility, disease control, water efficiency and farm productivity.

The above literature survey has enabled the researcher to locate the informational gap in this field of study. The reports examined above regarding the problems of spices sector are old and outdated and they do not contain up to date information. Likewise, a study evaluating the role of the Spices Board in the development of spices sector in the country has not been held so far. This has prompted the researcher to undertake a serious study evaluating the role of Spices Board as well as on the present day problems of the farming and exporting communities.
References

Books


Ravindran, P.N. (1999). Black pepper. Calicut: Published by IISR.


Reports


Manju, Rajan. (2004). India’s Spices Exports with Special Reference to Cardamom. Kochi: M Phil Dissertation Submitted to the Department of Applied Economics CUSAT.


