



CONSTRAINTS OF CLOVE CULTIVATION AND MARKETING IN KANYAKUMARI DISTRICT

Dr. R. KRISHNAVENI,

Associate Professor & Principal

Department of Commerce,

Balagan Saraswathi Arts & Science College for Women,

Mukkudal,

Tirunelveli district, Tamilnadu, India.

Abstract : Cloves is one of the important spices produced by small scale farmers in Kanniyakumari District. cloves are mostly used for food spice, trade and medicine and income from cloves plays a significant role in contribution to the socio-economic development of the people in the area of the study. Also, the Identified factors hindering cloves production activities were lack of awareness, low production, and lack of reliable market for both producers and traders and poor physical infrastructural systems. The study was designed to assess the constraints of clove cultivation and marketing in study area. The study involved 50 respondents who were selected using simple random sampling. Primary data were collected using interview from the key informants, observation, and focus group discussion. Secondary data were also collected from published and unpublished documents from various sources and government officials. In order to improve the performance of cloves production for the livelihood of people there is a need for creating awareness, capacity building and facilitation to improve capital to acquire modern cloves production system. This will contribute better livelihood of people in the village concerned and government at large.

IndexTerms – Clove, Spices, Marketing, constraints and Producers.

I. INTRODUCTION

India is the largest producer, consumer and exporter of spices in the world. The major share (90%) of spices produced in the country is used to meet the domestic demand not only 10% is exported. India's share in the world spices market is estimated as 46% by volume and 27% by value. More than 70% of exported spices in terms of value are destined to developed countries.

India is the home of spices. It is also the largest producer and exporter of spices, Spice oils and oleoresin. They are also valued in ayurvedic and allopathic drugs and also in cosmetics. The "king of spices"- The Black pepper, "Queen of spices" – Cardamom is primarily produced in India. Spices are used individually and mixtures in whole or ground form for imparting flavor, aroma and piquancy to food, population trends and changes in dietary habits have greatly increased the use of spices.

1.1 Spices:

Spices are non-leafy parts (e.g.bud, frit, seed, bark, rhizome, bulb) of plants used as a flavoring or seasoning, although many can also be used as an herbal medicine. A closely related term, 'herb', is used to distinguish plant parts finding the same uses but derived from leafy or soft flowering parts. The two terms may be used as herbs, while other dried parts are used as spices, e.g.corriander dill. Spices have a profound influence on the course of human civilization. They permeate our lives from birth to death. In everyday life, spices succor us, cure us, relax us, and excite us. Ancient peoples such as Egyptian, the Arab and the Roman made extensive uses of spices, not only to add flavor to foods and beverages, but as medicines, disinfectants, incenses, stimulants and even as aphrodisiac, incenses, stimulants and even as aphrodisiac agents. No wonder they were sought after in the same manner gold and precious metals.

1.2 Sources of spices:

Pepper, turmeric, cinnamon, cloves, mace and cardamom were supplied from India. China and its neighboring countries supplied ginger, cassia, star anise, licorice and rhubarb. Chile peppers in addition to potatoes from Boliva and peru. An increasing appetite in Europe for new spicy culinary experiences spurred the allure of trade for the valuable spices that could be transported successfully over vast distances.

The desire to monopolize major spices and the need to control the profitable sea routes were the driving forces that led to many of the dramatic events of history during the past 200 years. In ancient times, Arabia, Syria and Egypt provided well-organized marketing sites along the major recognized spice routes. From which Asiatic spices were sent on their final land or sea journeys to the great spice ports of Europe, such as La Spezia, Venice and Genoa in Italy, Seville in Spain, Lisbon in Portugal, and the major parts cities of England, Belgium and Holland.

1.3 Clove:

The clove of commerce is the aromatic, fully grown but unopened dried flower buds of *syzygium aromaticum*. It is one of the ancient valuable spices of orient, holding a unique position in the international trade. It originated in Moluccas, and so it is called, "spice Island" in Indonesia, Sri Lanka and Malaysia are the important producer of clove. Clove was first introduced to India around 1800 AD by the East Indian Company in its 'spice garden' Courtallam, Tamil Nadu. Induced by the success of its introduction, cultivation of clove was extended during the period after 1850 AD to Nilgiris, Southern region of the erstwhile. The important clove growing districts in India now are Nilgiris, Tirunelveli, Kanyakumari, and Ramanathapuram districts of Tamil Nadu.

1.4 Medicinal uses of clove:

- Nervous disorder: It stimulates mind and memory, relieves mental fatigue, used as an aphrodisiac nervous exhaustion, neuralgia.
- Skin care: Clove oil is very effective for the treatment of bruises, burns, ulcers, wounds, scabies, measles and an insect repellent.
- Digestive disorder: Clove promotes enzymatic flow and boosts digestive functioning. It may also help to relax the smooth muscle lining of the digestive tract.
- Diarrhea: An ingredient in clove fights the bacteria responsible for diarrhea, clove kills intestinal parasites and exhibit broad antimicrobial property against fungi, traditional use as a treatment for diarrhea, intestinal worms and other digestive ailments.
- Cholera: Cloves are very useful for treating cholera, licking the powder of fried clove mixed with honey is effective in controlling vomiting. The anesthetic action of clove numbs the gullet and stomach and stops vomiting.
- Cancer: Clove contains antioxidants, Antioxidants help to prevent the cell damages that scientist believes eventually causes cancer.
- Cough: Chewing a clove with a crystal of common salt eases expectoration, chewing a burnt clove is also an effective medicine for coughs caused by congested throat and pharyngitis.
- Heals cut and bits: Clove can help to kill several strains of staphylococcus bacteria and one strain of pseudomonas organisms that can cause skin infection.
- Asthma: Clove is an effective remedy for asthma, a teaspoon of decoction prepared by boiling six cloves in 30 ml of water can be taken with honey thrice daily as an expectorant.
- Headaches: A paste of clove and salt crystal in milk is a common household remedy for headaches, salt as a hygroscopic agent, absorbs fluid and decreases tension.
- Mouth care: The use of a clove in toothache decrease pain. It also helps to decrease infection due to decayed tooth, also relieves toothache. It helps to freshen the breath.
- Muscular cramp: Muscular cramps are often relieved when the oil of clove is applied as a poultice near the affected portion.
- The clove is used to cure various ailments viz. asthma, blood flow, bronchitis, cough, cholera, digestive disorder, earache, headache, toothache, vomitin etc,

II. RESEARCH DESIGN

Location of the study	Kanniyakumari
Sampling unit	Individual person (Males & Females)
Sample size	50
Sampling method	Simple Random Sampling
Instrument for information	Structured questionnaire
Statistical tools	Percentage, chi-square test

III. ANALYSIS

3.1 Problems in Clove cultivation and marketing of clove:

Problems in Clove cultivation: About 58 percent of the farmers expressed that clove (Tree spices) needs much care as it is having some plant protection. Nearly one fourth of the farmers indicated that they need technical guidance and 18 percent are facing with labour problem.

PROBLEMS IN CLOVE CULTIVATION

Sl.No	Category	No. of farmers	%
1	Labour problem	9	18
2	Need technical guidance	12	24
3	Care due to religious value	29	58
	Total	50	100

Land: Non availability of fertile land is one of the important problems. The most suitable soil for maximum clove production. The problem of disease tends to increase when clove is grown every year in the same land. In less fertile land they must use larger quantities of manure and fertilizers.

Labour: Clove cultivation is highly labour intensive, it reveals that labour constitutes more than 40% of the total cost, non-availability of labour and the consequent increasing wage rate are the main problems related with labour. The increasing cost of cultivation of clove is mainly due to increasing wage rate year by year, on the other hand there is no such increase in clove price, many farmers complain that sufficient labour is not available the planting period.

Seed: Most of the farmers surveyed have informed that inadequacy and non-availability of healthy seeds is a serious hurdle in the efficient production of clove. Generally, cultivators retain adequate quantities from their crop for the purpose of seeds. In many years the preservation of seed previous cultivation is not possible due to the plant diseases.

Manures and chemical Fertilizers: The study shows that most of the farmers are not applying adequate quantity of manures and fertilizers, non-availability of cattle manure is one of the important problems of clove growers. The per hectare use of chemical fertilizers is also far below the recommended dosage, many growers report the prices of chemical fertilizers have increased by more than 100% within three years.

Plant protection: The sample farmers have reported that plant protection is the most important problems of clove cultivation.

Diseases: All sampled farmers have reported that plant diseases the most important problem of clove cultivation, many diseases are seed borne and soil borne. The main pests found in this plant are shoot borer, leaf roller and rhizome scale.

Seedling wilt: It is a serious problem in majority of the nurseries and causes 5-40% death of seedlings. The leaves of affected seedlings loose natural luster, trend to drop and ultimately die, the infected plants is another problems.

Leaf rot: It is another problem; leaf rot is caused by cylindro coldium quinquespitatum and is noticed in manure trees and seedlings.

3.2 Problems in marketing of clove

Fluctuation in prices of clove was expressed by nearly three fourth (75 percent) of the farmers as the major problem in the marketing followed by lack of proper market information (20 percents) only four percent of the farmers indicated that high cost of transport was the other problem in marketing. Further, majority of farmers cultivating clove on contract with traders, and they were not aware of the prevailing market rates and whatever the prices offered by the traders the cultivators were forced to sell their produce for that price. Hence, they require current market price information.

PROBLEMS IN MARKETING OF CLOVE

Sl.No	Category	No. of farmers	%
1	Fluctuation in prices	37	74
2	No market information	10	20
3	High cost of transport	3	6
	Total	50	100

Constraints: The major constraints faced by the growers were lack of competition among buyers, low price, lack of market and lack of processing facilities, other problems reported were ignorance about quality (78.90%) lack of storage facilities (63.20%), climate problems, and problem of labour in primary processing. In spite are so many problems, ample number of farmers are growing this crop which shows their innovativeness and enthusiasm for cultivation of medicinal plants. However, at the same time, much needs to be done to incorporate this crop in the cropping pattern Tamil Nadu agriculture.

Lack of awareness: Most of the respondents are not aware of the scientific crop management and harvesting technology of clove cultivation.

Lack of research and extension support: there is very little research focus on standardization of agro-techniques and extension support in popularizing clove cultivation.

Unorganized market: Marketing of clove is still unorganized, and the famers sell to local dealers at low price. The local dealers sell it to the nearest town market, the actual producers are exploited by the middlemen.

Findings:

- Lack of awareness among the cultivators about the existence and functioning of clove was noticed.
- No motivation was found for becoming the cultivators of clove.
- Most of the growers are unaware about the various advantages of the cultivation of clove.
- Lack of awareness regarding the various subsidies and other facilities extended by the government was other facilities extended by the government were also noticed.
- Only a few areas are cultivation of clove other areas are not suitable for cultivation of clove in this district.

Suggestions:

- The cultivators should get easy credit facilities with subsidies, and also good quality seeds as appropriate rates.
- The farmers and NGOs could be given training on cultivation and marketing of clove.
- Training on improved nursery raising, improved package of practices and exposure visit to different markets are to be undertaken.
- Group marketing through formation of Self-Help Groups (SHGs) could be initiated for clove.
- Market information of clove must be provided for farmers to sell their produce profitably.
- Although there are co-operative societies and commercial banks in village to provide credit facilities to farmers, the amount of loan given by these institutions is inadequate and so they are exploited by the indigenous money lenders.
- There is a lot of potential for the export of value-added products like clove oil and oleoresin especially to the developed countries. This potential needs to be tapped fully. For this Adequate international marketing Information system should be developed to help formulate strategy to develop exports.
- Along with crop research, marketing research may be taken up. So that enough data is available to the policy makers to fix prices and formulate development policies.

Conclusion:

Cultivation aspects and economics of medicinal crops are having significance in its production and productivity. The important aspect in the medicinal plant cultivation is the cost of cultivation. The cost involved for cultivating the medicinal plants should be low so that farmers who belong to very low economic status can take up the cultivation of the medicinal crops. Protection of medicinal plants largely depends upon the efforts of cultivators. Hence knowledge on the plant technologies, marketing mechanism and problems associated with the cultivation and marketing of the medicinal plants is essential to take up cultivation of medicinal plant in a commercial way. Further, there is an urgent need to establish as assured market, minimum support price, accessibility of loans, dissemination of recent technical knowledge, grading and standardization of produce. There is a need of contract farming to promote the cultivation of clove. Based on the research work conducted in Economic cultivation and marketing of clove in various places of Kanayakumari district suggested that the requirement of seed bulbs differ from variety to variety and depends on bulb size, bulb weight, number of cloves and weight of cloves. As there is a vast scope for yielding as well marketing of cloves in the district, the farmers can be very well motivated towards this venture to brighten the lives of the farmers and to earn a good foreign exchange in the national level.

References

- [1] Dufournet R 1968 Le giroflier et sa culture à Madagascar Bulletin de Madagacascar, Nr 262 Tananarive Madagascar
- [2] Rojas D F C, Fernandes C R and Oliveira W P 2014 Clove (*Syzygium aromaticum*): a precious spice Asian Pacific Journal of Tropical Biomedicine 4(2) 90-96
- [3] Martin P J 1991 The Zanzibar clove industry Economic Botany 45(4) 450-459
- [4] Barichello R and Patunru A 2009 Agriculture in Indonesia: Lagging performance and difficult choices Choices 24(2) 37
- [5][6] Badan Pusat Statistik 2013 Jawa Tengah dalam Angka Tahun 2013 (Jawa Tengah, Indonesia: Badan Pusat Statistik)
- [7] Badan Pusat Statistik 2016 Jawa Tengah dalam Angka Tahun 2016 (Jawa Tengah, Indonesia: Badan Pusat Statistik)
- [8] Dinas Perindustrian dan Perdagangan Jawa Tengah 2017 Realisasi ekspor – impor Jawa Tengah periode 2012 -2017 (Oktober) Bidang Perdagangan Luar Negeri. Dinas Perindustrian dan Perdagangan Jawa Tengah Indonesia
- [9] Martin P J and Dabek A J 1988 The role of agronomic factors in the juvenile decline condition of clove trees in Zanzibar Tropical Pest Management 34(3) 271-277
- [10] Baietto M 2014 Bud fall induction in clove (*Syzygium Aromaticum*) Academic Research International 5(4) 23-29
- [11] Martin P J, Butler D R and Dabek A J 1988 Causes of irregular clove production in the islands of Zanzibar and Pemba Experimental Agriculture 24(1) 105-114
- [12] Kaya M, Kammesheidt L and Weidelt H J 2002 The forest garden system of Saparua island, Central Maluku, Indonesia, and its role in maintaining tree species diversity Agroforestry Systems 54(3) 225–234
- [13] Godoy R and Bennett C 1990 The quality of smallholder cloves in Maluku: The local response to domestic demand for a high-quality product Bulletin of Indonesian Economic Studies 26(2) 59 – 78
- [14] Lubbe A and Verpoorte R 2011 Cultivation of medicinal and aromatic plants for specialty industrial materials Industrial Crops and Products 34 785 – 801
- [15] Saptana 2016 Pertanian Indonesia dalam menghadapi disruptive innovation di bidang pangan Agrimedia 21(2) 3-12
- [16] Simatupang P 2003 Opsi kebijakan memulihkan anjlok harga cengkeh Analisis Kebijakan Pertanian 1(4) 297-305
- [17] Neuman W Lawrence 1994 Social research methods: qualitative and quantitative approach (Boston: Allyn and Bacon)
- [18] Patton M Q 2001 Qualitative Research and Evaluation Methods (Thousand Oaks, CA: Sage Publications)
- [19] Wiersum K F 1982 Tree gardening and taungya on Java: Examples of agroforestry techniques in the humid tropics Agroforestry Systems 1(1) 53–70
- [20] Michon G 1983 Village forest gardens in West Java In: Huxley PA (ed) Plant Research and Agroforestry pp 13–24 ICRAF Nairobi Kenya
- [21] Soemarwoto O and Conway G R 1991 The Javanese home garden J. Farm. Syst. Res. Ext. 2 95– 118
- [22] Tidbury G E 1949 The clove tree (London UK: Crosby Lock- wood)
- Tidbury G E 1949 The clove tree (London UK: Crosby Lock- wood)
- [23] Michon G and Mary F 1994 Conversion of traditional village gardens and new economic strategies of rural households in the area of Bogor, Indonesia Agroforestry Systems 25(1) 31- 58