MARKETING OF COMMERCIAL FLOWERS - A STUDY IN PALAKKAD AND THRISSUR DISTRICTS OF KERALA

By

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THESIS

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DECLARATION

I hereby declare that this thesis entitled **"Marketing of commercial flowers –a study in Palakkad and Thrissur districts of Kerala"** is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, fellowship or other similar title, of any other University or Society.

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CHAPTER 1

INTRODUCTION

Flowers have always had a charm unmatched. They add to the aesthetics of the environment. The use of flowers has been embedded in our culture since long, as a symbol of purity and beauty. They are synonymous with prosperity, happiness and delicacy.

When we talk of growing flowers globally, more than 140 countries are involved in cultivation of floriculture crops. India also has a long tradition of cultivating flowers. Yet we have not fully realized the potential of these flowers. The huge genetic diversity and versatile human resources offer India a unique scope for diversification into floriculture, which was not explored to its full potential earlier. In most parts of the country, flower growing is carried out on small holdings and commercial floriculture has assumed importance only in the recent past. Commercial potential of floriculture as a viable agri-business enterprise received attention of the Government of India during the eighth plan. Commercial floriculture means production of flowers with the objective of selling them in domestic or export market. Today it is recognized as a lucrative business, since it has higher potential per unit area than most of the field crops, even horticultural crops both for domestic market and export (Singh, 1997). It is a fast emerging major venture in the world especially as a potential money spinner for many third world countries.

The Indian floriculture industry comprises of florist trade, nursery plants, potted plants, bulbs and seed production, micro propagation material and extraction of essential oils from flowers. Indian floriculture industry has seen a paradigm shift from traditional flowers to cut flowers for export purposes during 1990s. The liberalized economy has given an impetus to the Indian entrepreneurs for establishing export oriented floriculture units under controlled climatic conditions. In India around 1,06,000 ha of area is under floriculture at present (2004). Production of flowers is estimated to be 5,35,000 MT of loose flowers and 2,570 million (in numbers) of cut flowers.

The Indian flower industry is growing at 7-10 per cent annually and has a turnover touching over US $ 3 billion. With its diversity in indigenous flora, India stands a great chance of cornering a lion's share of the world market as there is a shift in trend towards tropical flowers. Flower trade in India is flourishing and exports of floriculture products were valued at Rs.700 million (US $ 20 million) during 2005. More than 191 export-oriented units have been approved in this sector, out of which 70 units are operational. However, what is ailing the industry at present is that many of them operate at less than 50 per cent of their capacity. This requires strong capacity building in the floriculture industry to transform it to a viable enterprise for earning foreign exchange too.

The scope of this sector has been well understood by Government of India, which considered floriculture as 'Extreme Focus Segment Item' during the Ninth Five Year Plan. Thus floriculture in India is a recent effort to explore export earning through non-

traditional products and if we compare with 1991, the year we introduced various economic reforms in the country, we would claim that we have progressed but certainly not to the extent of our potential. India is now exporting cut flowers to Netherlands, Japan, Germany, UK, Australia, Hong Kong and UAE. But the volume of such export in terms of quantity and value is far below the opportunity available.

South India, especially Kerala is an ideal agro-ecological zone for successful cultivation of tropical flower crops having the maximum export potential. For the promotion of floriculture sector, Government of India has identified 10 intensive Floriculture areas with specific group of flowers recommended for each area. The crops suggested for Kerala under this zoning approach were orchids and anthuriums, which dominate the cut flower trade throughout the world. Apart from this, it is a branch of agriculture, which is suitable for a land scarce state like Kerala. Yet another advantage is that the return from the product is immediate with its demand spread throughout the year without wide seasonal variations.

The climatic condition of Kerala is advantageous to grow flowers under shade houses rather than glass houses, so that large number of progressive farmers can take up commercial cultivation of tropical orchids and anthuriums to earn more profit. For small and marginal farmers commercial cultivation of bush jasmine is considered well suited. It has proved to be a very economic crop for small holdings. It has an added advantage from the point of small holders that the initial investment requirements on the project are low.

Marketing of flowers

The flowers we produce are delicate and are highly perishable. Moreover, the demand and price are subjected to unexpected fluctuations. So marketing of flowers is a delicate and sensitive field. At present the producers sell flowers rather than marketing. Selling is basically disposing of a product in exchange for money while marketing involves planning, development, production, pricing, packaging and placing for the convenient access of buyers. But in Kerala, marketing efforts commence only after the flowers are produced and ready for harvest. No serious thought is given at the time of planning for production. The high production potential is bound to create problems which will have to be solved through efficient marketing. At present marketing facilities for flowers in the state are poor and major part of the production is disposed off at low prices. Thus it would be useless to enhance the output unless means are found shift the marketable surplus from producing area to consuming area at a remunerative price. Therefore, to provide incentives to the floriculturists for more quality production, it is necessary to assure higher income through efficient marketing and to increase the share of producer in the consumer's rupee.

Marketing channels

Marketing channels are the trade channels or the distribution path through which the produce is transported from the point of production till it reaches the ultimate consumer. The market is said to be efficient if the price spread i.e., difference between price paid by the consumer and price received by the producer is minimum. As the

number of market functionaries increases, they add value to the commodity in the marketing channel resulting in a fall in the producer's share in the consumer's rupee. Marketing of flowers is an essential element that involves movement of flowers from producers to ultimate consumers. In this flow, it moves via various agencies like commission agents, wholesalers and retailers.

Marketing efficiency

Marketing efficiency is directly related to the cost involved to move goods from producer to the consumer and quantum of services provided or desired by the consumers. If the cost compared with the services involved is low, then it will be an efficient marketing and if the cost compared with the services involved is high, then it will be an inefficient marketing. An improvement that reduces the cost of a particular function without reducing consumer's satisfaction indicates an improvement in the market efficiency. An efficient marketing system for farm products ensures that, (a) an increase in the farm production is translated into proportionate increase in the real income in the economy thereby stimulating the generation of additional surpluses, (b) good production year do not coincide with low revenues to producers because of effective storage, proper regional distribution and channelising of the latent demand, and (c) consumers derive the greatest possible satisfaction at the least possible cost.

Distribution strategy

A distribution strategy defines how producers are going to move products from point of creation to point of consumption in an efficient and cost effective manner. It

also means how we are going to create and satisfy demand for our products or how we are going to create and maintain customer loyalty. What matters in today's market place is not the quality or uniqueness of our distribution strategy but rather it is our ability to execute it., to turn our distribution strategy into a reality. In the case of commercial floriculture, the major weakness is that the floriculturists as well as the channel members do not have a clearly defined distribution strategy. A proper distribution strategy will provide floriculturists a very promising internal market and will help in developing the export sector.

The major commercial flowers cultivated in Kerala are orchid, anthurium and bush jasmine. The present study is restricted to these three flowers. The objectives of this study are:

(1) To identify the marketing channels of selected commercial flowers

(2) To assess the marketing efficiency of the channels, and

(3) To suggest appropriate distribution strategy for the selected commercial flowers

Practical / Scientific utility

Success of commercial floriculture depends largely on a well developed marketing system. Marketing of floricultural crops poses more problems as compared to other agricultural commodities because flowers are highly perishable and have to be carefully handled for transportation, assembling and packing. The present study will help to find out the different marketing channels through which the floriculturists sell their produce and also the portion of the produce sold through different channels. It is possible

to identify the major marketing channels existing in the study area. The study will help to highlight the relative competitiveness of existing marketing channels and will help the floriculturist identify the most profitable and suitable channel. The study of marketing efficiency assumes special significance as it is useful for both the producers/sellers and the consumers because the farmers are interested in getting the highest price for their produce while the latter are interested in paying as lower price as possible. The study will also help the market players analyze the potential of market and adopt appropriate production and marketing strategies. The study is very much suitable to know about the present marketing scenario and to suggest suitable measures to streamline a viable marketing strategy for floriculturists.

Limitations of the study

1. The study was restricted to 40 commercial floriculturists of each flower from two districts as time was a major constraint.

2. The study is based on the farm level data collected through sample survey. Hence main limitation of the study is that floriculturists do not maintain any basic farm records, as a result of which reliance had to be made on their memory recall

3. During the survey, relevant information on certain aspects of production and marketing could not be collected from farmers as well as channel members because such information were either not maintained or were considered confidential by them.

4. Unwillingness and limited cooperation on the part of most of the sample respondents for spending more time for interview was another major limitation noticed during the study.

Structure of the thesis

The report is divided into six chapters including the present introductory chapter. The second chapter gives a comprehensive review of the available literature. The third chapter outlines the methodology used including the study area, study period, sample size, database and statistical tools employed. This is followed by the presentation of results in the fourth chapter. The discussion of the results is given in the fifth chapter. The sixth chapter summarizes the findings of the study followed by references, appendices and an abstract of the thesis report.

Review of Literature

CHAPTER 2

REVIEW OF LITERATURE

Behari (1993) commented that what is achieved in flower trade is grossly inadequate, considering the immense potential, especially on the export front. Besides adopting modern production techniques like polyhouse cultivation, tissue culture etc. there is an urgent need to adopt proper post-harvest technology including pre-cooling, packaging, transport, standardization and grading to meet the rigid quality standards of the EEC, SAF etc. It is also necessary to establish proper markets for flowers within the country with the requisite infrastructural facilities.

Bhattacharjee (1997) reported that India with its diverse agro-climatic conditions, rich manpower, competitive wage rate, and easy availability of scientific & technical personnel, many enthusiastic entrepreneurs and national polices favouring floricultural enterprises is very well placed for the development of orchid cut-flower industry. The business of producing and marketing of our native orchid flowers and plants will no doubt provide means of livelihood for people.

Kumar *et al.* (1997) in his study on marketing efficiency of potato commented that adoption of an improved production technology expands output by raising the efficiency of input use on the one hand and on the other; it augments quality of product also. At the same time, an updated technology in the field of processing and marketing of agricultural produce adds to its market value either by improving or by maintaining its

quality for a longer time as well as by creating form, place and time utilities of the product. Degree of perfection in farmer's decisions regarding time and place of sale as well as regarding the pipe line through which he allows his produce to move to the ultimate consumers has a direct bearing on his total receipts. An efficient farmer is the one who besides producing high volume of marketable surplus of quality products, also enjoys the maximum benefits of existing marketing system.

Oberai (1997) reported the growth rate of domestic flower market, in recent years to be almost 35 per cent per annum as compared to the world flower market growth of 12 per cent with a population of over 900 million of which only about 10 per cent, ie. 90 million (larger than the population of some major European countries put together) have the purchasing power. India stands as one of the largest untapped flower markets of the world.

Rajeevan and Babu (1997) in their study on cultivating bush jasmine opined that cultivation of bush jasmine offers promising opportunities even on small holdings on sound economic lines. When land is the most limiting production factor, small and marginal farmers can undertake its cultivation and marketing as a supplementary enterprise, utilizing underemployed or unemployed family labour. It is hoped that the commercial floriculture development strategy in the country pays sufficient attention on these implications.

Saini and Sharma (1997) reported that India has a vast potential for growing wide varieties of flowers. Hence the Government of India has identified floriculture as a high

focus export sector. There are good prospects for Indian flowers in South-East Asia, USA, Japan and Singapore. It is expected that Indian flower export will grow at a faster rate on account of increased thrust of the Government and enthusiasm shown by the florists under new economic policy.

Sindhu (1997) recommended that the production technology of flowers must reach at the grass root level through effective extension network. Since floriculture industry is capital intensive, the provision of bank loan on lower rate of interest may assist many floriculturists to take up production of flowers and plants for export. Marketing procedure of flowers should be channelised under the control of Government of India or state Governments. Some incentive in basic facilities, marketing, cargo space and cool chain must be given to the growers.

Singh (1997) opined that now the floriculture has become one of the extreme focus segments for development of export by the Government of India. The growth of floriculture industry from 1962 to 1990 was very slow but thereafter there has been a significant rise in floriculture export. As developing countries have only 6 percent share in the world market, will help in increasing export from India which is otherwise negligible.

Sundaram (1997) reported that floriculture is fast emerging as an important segment of agri-business in India. Favourable climate and cheap labour are the two assets for this industry. Moreover this industry is eco-friendly and has no toxic wastes.

Fitch (1998) reported that orchid flower production is considered as a high income business in and around the Kingdom of Thailand. Orchid has been considered important alternative because it offers high returns and there is a strong domestic and export market for them. It has high retail acceptance, good resale value and it takes relatively little space and cultivation time in relation to income produced.

Ghosh (1998) estimated the annual growth rate of domestic flower market as 25.30 per cent in recent years. In domestic market consumption of flowers in southern states is much higher than in the northern region.

Joglekar (1998) opined that the varied agro-climatic conditions prevailing in the country with ample sunshine can maintain regular supply of any floricultural commodity throughout the year. India's geographical location particularly its proximity to Far-East, offers a tremendous competitive advantage. But there are some major marketing constraints such as non-availability of organized marketing and monitoring system, market surveys, lack of sales promotion activities, insufficient cold storage facilities etc. which affect floriculture business very badly.

Mukherjee and Shajahan (1998) in his study of marketing of gladiolus reported that there are four different types of marketing channels for cut flower trade. It has been observed that producers transact about 80 percent of their cut flower business through paikers, middlemen. The presence of paikers, wholesalers and retailers do not allow much to the farmers to enjoy the benefits of consumer's rupee.

Biju (1999) commented that modern day floriculture concentrates more to the production of high value cut-flower crops such as orchids, anthurium, gladiolus, carnation, tube rose and gerbera. Further the liberalization of industrial and trade policies paved the way for the development of export oriented production of cut-flowers. The glamour of export oriented floriculture with its impressive projection of returns, particularly the potential for earning valuable foreign exchange has titled the exchange balance in its favour.

Goyal (1999) stated that success of commercial floriculture depends largely on well-developed marketing system. Marketing of floricultural crops possess more problems as compared to other agricultural commodities and have to be carefully handled for transportation, assembling and packing.

Karan (1999) reported that marketing of orchid and anthurium was almost similar as they were usually sold together. Out of four marketing channels identified, the most important one was a producer – local florist – consumers, through which bulk of the produce moved.

Raghava (1999) pointed out that Kerala, in the recent past, has become a very active state in the field of commercial floriculture. A large number of progressive farmers are now taking up commercial cultivation of tropical orchids and anthuriums. Small and marginal farmers and some NGO's are taking up commercial cultivation of bush jasmine.

Rajeevan (1999) reported that the agro-ecological situations prevalent in the State provide great potential for flourishing of a strong floriculture industry in the state. In

order to exploit the diversity in landforms and agro-ecology, the State can be divided into four zones namely Palakkad district, Hill zone I, Hill zone II and other areas depending on the commercial flowers suited.

Rengasamy and Soorianatha Sundaram (1999) emphasized that cultivation of traditional flowers has equal potential, as modern cut flowers to become 'money spinners' with comparatively low risk and capital investment, in Kerala. Kerala climate is ideally suited to grow many tropical traditional flowers such as jasmine, chrysanthemum, marigold and crossandra.

Sukesan (1999) suggested that a dual price policy is the only solution to deal with the marketing of orchid and anthurium flowers effectively. Under dual pricing, a preliminary price to match with the cost of production and grades of different varieties of flowers will be fixed and payment to suppliers will be made on the spot at this rate. Thereafter, on marketing and realization of prices will be offered on prorata basis based on sale proceeds.

Sundaram (1999) opined that India has failed to capitalize on the booming global floriculture trade though resource and climate-wise the country is well endowed. The problem stems from entrepreneurs failure to master the techniques of the trade. This business suffers from lack of trade information such as the credibility of the buyer, weekly variations of prices at different markets, global supply date, update on resource to grievance redressal and on the cost of capital.

Chauhan (2000) reported that the uncounted and unwarranted gap between producer and consumer needs to be drastically reduced since consumers have to pay larger and the producer is getting little. Thus there is an urgent need to develop well organized marketing system for disposal of produce so that the exploitation of the farmer is minimized. The world today is highly competitive advanced and quality conscious and the prevailing system will definitely not sustain this challenge. Therefore some competitive methods of marketing of quality produce have to be devised right now.

Gopinath (2000) pointed out that India has immense potential to emerge as an important producer of floricultural product, both for internal and export market. It is possible for us to establish such a nation set a target and support its growth by providing the necessary incentives and encouragement as being given to an industrial growth center or to tourism industry.

Irulappan (2000) reported that there is great demand for traditional flowers in the domestic market. Increasing population, growing habit of flower use, uplift in economic conditions and an inherent love for flowers contribute to the growth of this industry. There is a good potential for the export of traditional flowers to meet the demands of the ethnic population in different countries.

Jadhav *et al.* (2000) commented that the domestic market for flowers and flowering plants is picking up in the country because of growing interest of affluent and upper middle class in indoor plants and flowers in the past few years. Some foreign companies have set up shops in India for growing planting materials of foreign varieties

of different flowers for sale in India, supplying planting materials imported from abroad and offering consultancy services for floriculture not only for export oriented production but even the domestic market also.

Kumar (2000) commented that direct marketing is preferable to sending flowers for auction. For better and effective trade, more emphasis should be given to direct marketing and auctions should be avoided. Far East, East Asia and Southern Europe will be ideally suitable for direct export. The chances of consignment getting rejected are very rare. In direct marketing, one has to develop a rapport. More and more industry interaction is essential for the survival of the industry. The industry will survive only on scientific management.

Mathai (2000) opined that due to the changes in world wide economic circumstances the international trade in flowers will be altered. The information technology revolution has made communication faster, better and cheaper. There are great expectations regarding the turnover that can be achieved through the internet. International economic integration of free market saturation and initiation of free market mechanisms will have a bearing on international floriculture trade also.

Raghava and Dadlani (2000) reported that the floriculture research system in our country is nearly four decades old, but the technology base, particularly for export-oriented production is still very low. Most growers after continuous experiments have learnt the tricks to overcome critical factors which hamper the growth of floriculture

sector. These are receiving due attention of the Government agencies concerned for redressal.

Rao (2000) reported that floriculture has not received as much attention as it ought to have had. The cut flowers segment is one area which offers a tremendous advantage to the country. By gearing up our production, introducing appropriate and cost-effective technology, improving transport facilities both within the country and to international market, India can become a significant player in international market and also earn valuable foreign exchange. Thus floriculture has been identified as an 'extreme focus area' for special attention of the Government for thrust in exports. And rightly so it is an area with abundant potential which has unfortunately remained untapped till now.

Raut and Rasane (2000) opined that in India large consumption of flowers is recorded in temples and marriages. However, the changes in the life styles of people, over time have created high domestic and personal demand for cut-flowers. On account of this, flower growing has attained economic and commercial importance and farmers have started growing different types of flowers on trade basis. Efforts for promoting commercial floriculture in the country have started only recently and are gaining momentum now.

Bhatt *et al.* (2001) pointed out that due to under developed marketing structure the producers are not getting the remunerative price and at the same time consumers are not getting the product at a reasonable price.

Karthikeyan *et al.* (2001) highlighted that natural factors like heavy wind or cyclone, severe rain, wide market price fluctuation, changing demand level in terms of colours and varieties of cutflower in the international trade scene, maintenance of export quality standards were the threats prevailing in the cutflower enterprise.

Seetharaman *et al.* (2001) commented that commercial floriculture is the most profitable agro-industry in many developed countries. A right package of technical inputs, policy initiatives, market development and concerned actions can definitely make India force to reckon with the global floriculture trade.

Babu (2002) reported that in the Ninth Five Year Plan Government identified horticulture as the thrust area and in this floriculture has been identified as the main focus. Limelight has been thrown on this field to encourage growing flower crops in green houses, preserving cut-flowers in green houses, maintaining cut-flowers for a long time after harvest and strengthening the model floriculture centers for additional facilities.

Chaudhary (2002) opined that today floriculture is increasingly regarded as a viable diversification from the traditional field crops due to higher returns per unit area and increasing habit of "staying it with flowers" on all occasions. Indian Government identified floriculture as a priority area and has extended various incentives both in the form of credit and subsidies to boost floriculture industry in India. Now the Government has taken a step in the right direction by providing transport subsidy to the exporters which is certainly going to benefit the sector.

Dadlani (2002) states that for a highly perishable produce like flowers, marketing is of key importance. Creation of appropriate infrastructure, improving growers access to market intelligence and assisting them to adopt simple accounting system will help them to obtain between returns. Producers must be guided to sell their products at markets which are near, rather than sending to distant markets where they fetch low prices because of relatively low quality.

Kandpal and Srivastava (2002) opined that in India, the flower consumption is rising and floriculture related activities have attracted great attention in the recent years. The investment made in the floriculture industry during last decade in the country is worth Rs.500 crores. Our floriculture industry provides an excellent opportunity to enter into the export market.

Kazi (2002) reported that along with the agro climatic diversity of the country, the required reforms on the economic, technological and marketing fronts, can enhance the floriculture activities, which will also contribute significantly to the national economy. The main requirement is creating demand or market both at domestic and export levels, for diversified floriculture products. This be supplanted with aggressive marketing maneuvers through many channels.

Misra and Dhankhar (2002) opined that the proper use of area, land, planting material, technical know-how and proper marketing can only develop the nation into a well-developed floral industry. Transportation facility will have to be extended to such areas, as flowers are highly perishable commodities.

Ravikumar and Dhakate (2002) reported that the floriculture sector will surely witness unprecedented growth in the times to come. This sector is get to receive a boost with the tools of biotechnology coming to forefront by offering immense prospects to improve the flower crops using advanced tools and thereby increasing the market value of the flowers. Thus now it is possible to get the flowers of desired colour, size and fragrance with the help of genetic engineering.

Singh (2002) observed that environment friendly production under Government and services in combination with the price will be a key factor in market competition. Commercial transaction system is also expected to change with information technology. Other challenges which need to be addressed are enhanced production and flow of products which demand specialized organization with efficient purchasing process and logistics backed by IT to meet the challenges in charged economic circumstances. Evidently floriculture is expected to grow well but challenges and advantages of the growth can only be harnessed with well planned strategies.

Sundaram (2002) opined that in a bid to revive the floriculture industry, the centre is planning to infuse more funds and finance into the sick units across the country. A rehabilitation financial package is being worked out for floriculture units under which additional kinds would be made available to the sick units to revive them. To help the flower sector the Government may also think of altering the present policy of 100 per cent export oriented units.

Banumathy and Sitadevi (2003) in their study 'An economic analysis of marketing costs, margins and price spread of jasmine in Chidambaram taluk of Cudalore district, TamilNadu' suggested that there is a need to aculeate the activities of the middlemen by establishing a co-operative market flower marketing. All the growers are also of the view that there is a need for the Government intervention in the form of minimizing or fixing minimum commission charge and establishing co-operative market so that it will be more beneficial to the producers as well as consumers.

Kumar and Bhattacharjee (2003) reported that floriculture has become a potential money spinner for the third world countries with higher potential of return per unit area than most field, plantation and horticultural crop.

Sudha (2003) reported that the contribution to total export earnings increased from a mere 0.89 per cent in 1989-90 to over 28 per cent by 1998-99 indicating the changing export composition. However, in view of the technological failures, high marketing costs, inappropriate combination of varieties, lack of cargo space, differential tariff rates at export markets for Indian flowers and other constraints, the future of this trend seems uncertain, though vast scope exists.

Tale *et al.* (2003) in their study "Economics of flower marketing" recommended that Government should make proper efforts to minimize marketing cost through regulatory authority and should provide sufficient marketing facilities. Efforts should be made for development of low cost technology for maximizing yield at minimum cost. Also proper guidance regarding grading, packing, maintenance of keeping quality should

be provided regularly through agricultural Universities and Government departments so as to export the produce.

Upadhyay and Das (2003) reported that India can become a major player in cutflower trade at the global level. A strong research support in the form of development of internationally acceptable varieties, standardization of production technologies, availability of quality planting material in large scale and post-harvest management, marketing support in the form of proper market outlets, subsidy in transport and reduced freight charges, will go a long way in establishing cutflower industry in the country.

Bhagat (2004) reported that the per unit size of floriculture industry is very small in India compared to world standards. Thus the Indian entrepreneurs are unable to utilize economies of scale to compete with those in other countries. Again Indian growers feel that small competitors from countries like Israel have started marketing their produce directly through co-operatives while many small growers in India are being driven out of business. Others are trying to survive by exploring new markets.

Kanwat (2004) commented that Indian floriculture industry has more or less established itself in the national and international market after initial struggle. The quantum jump witnessed in production and trade of floricultural products is due to sound research system, focused attention of Government coupled with innovative entrepreneurs. Traditional flowers have been the mainstay in the country but production of flowers under greenhouse, with international quality standard is only a recent development.

Khan (2004) opined that apart from fruits and vegetables, floriculture industry has a major stake in horticulture. Liberalization of economy in 1991-92 led to large scale adoption of commercial floriculture as an enterprise. Emphasis shifted from traditional flowers to cut flowers for export purpose. Cultivation of flowers under controlled conditions in green houses provided better results for the export oriented units.

Kumar (2004) suggested that various problems associated with the marketing of flowers create hurdles in expansion of area and production of flowers. Hence it is necessary to have an in-depth knowledge of the marketing system for development.

Mahalakshmi (2004) pointed out that poor performance by the floriculture units in the last few years was on account of high cost of finance, increase in freight cost, absence of proper infrastructure for export facilitation and discrimination for Indian exporters with the European Union import duty. Hence the ailing Rs.300 crore floriculture industry is still on the lookout for a possible rehabilitation package from the Union Government.

Nair (2004) reported that the demand for anthurium cut flowers in the domestic and world market is so high that there is a tremendous potential for India, but to tap this market the country must step up production. Along with that be urged the Government to provide subsidized air freight both for domestic and export consignments besides extending subsidy on the import cost and abolishing import duty. Anthurium flower, if cultivated as a commercial crop for export and the domestic market, would create employment opportunities, apart from developing an agri-business enterprise both small and large.

Rao (2004) pointed out that the Indian floriculture industry would have fared better if there had been better logistics support. Inadequate air connectivity was the main worry of the industry besides poor handling operations at the airports. On the air connectivity he pointed out that it hardly takes half-a-day for transport of flowers within Europe, as compared to two days for the Indian flowers to reach the similar destinations. At present, India's share in the global floriculture trade is less than 0.5 per cent, even though exports have a huge potential for growth.

Sundar (2004) pointed out that even though the global floriculture industry is growing at 20 per cent annually, India's share is negligible despite several inherent advantages such as a national horticulture mission at an outlay of Rs.18,000 crore of which floriculture was a definite component.

Thakur *et al.* (2004) in their study, 'Floriculture scenario in Himachal Pradesh – infrastructural needs' pointed out that in the absence of regulated markets for cut flower, the growers were found selling their produce through unorganized channels having no set norms for conducting sale proceeds and charging commissions. The prices were arbitrarily fixed by the traders instead of open auction method. Along with that growers did not get sufficient information about market trends, demand, prices and consumer preferences.

Siddiqui (2005) finds that India has the world's best flora and fauna. Despite that we do not have even one per cent of organized floriculture business though its value has increased from zero to Rs.250 crore within a short span of time. Lack of awareness

among entrepreneurs has caused a huge loss to the floriculture industry in India. Reasons for lack of awareness include highly disorganized and scattered floriculture units, floriculture ventures on wrong locations, import of wrong technologies and so on.

Singh (2005) reported that flowers emerge as the essential accessory for creating a warm inviting home. Adding flowers and floral arrangements brings equiseta individuality and charm to any home decor.

Materials and Methods

CHAPTER 3

MATERIALS AND METHODS

The present study analyses the marketing efficiency of the channels used for commercial flowers produced by floriculturists of Palakkad and Thrissur districts. Various analytical tools were used to examine the efficiency of the marketing channels existing in commercial floriculture. The methodology of the study is outlined in this chapter.

3.1 Conceptual framework

The various concepts and terms used in the study to analyze the objectives are given below:

Commercial floriculture – Commercial floriculture means production of flowers with the objective of selling them in domestic or export market.

Flower marketing – Marketing of flowers is an activity which involves movement of flowers from producers to ultimate consumers.

Marketing channels – Marketing channels are the trade channels or the distribution path through which the produce is transported from the point of production till it reaches the ultimate consumer.

Marketing cost – The cost involved in moving the product from the point of production to the point of consumption. In other words, it is the cost of performing the various marketing functions and of operating of various agencies.

Marketing margin - Marketing margin is the difference between the total payments (cost + purchase price) and receipts (sale price) of the middleman.

Marketing efficiency – It is the effectiveness or competence with which a market structure performs its designated function.

Marketing behaviour – Marketing behaviour refers to the pattern of decision to select and sell the produces through various marketing channels.

Marketing problems – The problems perceived by the flower cultivators in marketing the flowers.

Distribution strategy – Distribution strategy refers to the way in which we are going to move products from the point of creation to point of consumption in an efficient and cost-effective manner.

3.2 Sampling procedure

Random sampling procedure was adopted for the sample selection. The list of floriculturists dealing in orchid, anthurium and bush jasmine for two districts were collected from various sources such as Agriculture Department, Krishibhavans and Floriculture Department of College of Horticulture. The sample floriculturists had been selected randomly from this list.

3.2.1. Study area

The study was conducted in the Central Agro-climatic zone of Kerala focusing on Palakkad and Thrissur districts. These two districts were selected as they represent two different agro-climatic conditions and socio-economic background. Both the districts have sizable number of commercial floriculturists in orchid, anthurium and bush jasmine. Moreover, among the identified districts, Palakkad was having relatively large number of producers of bush jasmine and Thrissur was having a good assortment of orchid and anthurium growers.

3.2.2. Study period

The field level investigation for the study was carried out during September and October, 2005.

3.2.3. Selection of Respondents

Separate lists of growers were prepared for each crop for two districts from various sources such as Agriculture Department, Krishibhavans and Floriculture Department of College of Horticulture. The sample size of the floriculturists was fixed at 120 due to limitations of time and other resources. Women floriculturists were mainly engaged in floriculture activities since government extend their support to them through "Women Empowerment Programme". Due to this, a sample group of 20 women floriculturists of each flower from each district which constituted the 120 respondents were selected for this study.

The details of sample selection are given in Table 3.1.

Table 3.1. Samples selected for the study

Flower	Palakkad	Thrissur	Total
Orchid	20	20	40
Anthurium	20	20	40
Bush jasmine	20	20	40
Total	60	60	120

3.3 Methodology

3.3.1. Data base

The study was mainly based on primary data collected through field level investigation. The data required for the study were collected from the respondents through personal interview method by administering a pre-tested structured schedule.

3.3.2. Statistical tools used for the study

Bivariate tables and percentages formed the basis of analysis. The other tools and techniques used for the analysis are described below:

3.3.2.1. Price spread (P.SP.)

Price spread is the difference between the price received by the producer and the price paid by the consumer for a given commodity in a market at a point of time. The market is said to be efficient if the price spread is minimum.

This method was used to find out the efficient flower marketing channel in which the price spread was the minimum.

3.3.2.2. Producer's share (P.S.) in the consumer's rupee

$$P.S. = \frac{Price\ received\ by\ the\ producer}{Retail\ price} x\,100$$

The marketing efficiency is said to be higher if the producer's share approaches 100. Even if the absolute price received by the farmer is higher, the producer's share in the consumer's rupee may be lower.

This method was used to find out the flower marketing channel in which the producer's share in consumer's rupee was higher.

3.3.2.3. Shepherd's Formula

$$ME = \frac{V}{I} - 1$$

where, ME = Index of marketing efficiency

V = Value of the goods sold

I = Total marketing cost

This method was used to compare the efficiency of various channels of flower marketing directly.

Results and Discussion

CHAPTER 4

RESULTS AND DISCUSSION

The data collected through the survey were subjected to statistical analysis and the results are presented in this chapter. Keeping the objectives of the study in view; the results are given below.

4.1 Details of Respondents

The sub sections of 4.1 discuss the details of the respondents on their occupation, age, education, religion and experience in farming.

4.1.1 Occupation of the Respondents

Occupation-wise classification of respondents is shown in Table 4.1.

Table 4.1 Occupation-wise classification of respondents

Occupation	Thrissur	Palakkad	Total
Government	3	3	6 (5)
Private	3	0	3 (2.5)
Unemployed	54	57	111 (92.5)
	60	60	120 (100.0)

Note: Figures in parenthesis represent percentage

Table 4.1 shows that the majority of the respondents were not having any job (92.5 per cent). Government servants constituted 5 per cent and only 2.5 per cent of the respondents were having private jobs. Majority of the respondents were unemployed women. This trend is probably due to their preference to do ornamental

flower cultivation either as a hobby or a leisure time earning. This trend is common in the urban pockets of Kerala.

4.1.2 Age of the Respondents

Age-wise classification of respondents is shown in Table 4.2.

Table 4.2 Age-wise classification of respondents

Age	Thrissur	Palakkad	Total
< 35	4	3	7 (5.83)
35 – 50	36	49	85 (70.83)
> 50	20	8	28 (23.33)
	60	60	120 (100.0)

Note: Figures in parenthesis represent percentage

It is clear from Table 4.2 that majority of the respondents belonged to the age group of 35-50 years (70.83 per cent) closely followed by the age group of more than 50 years (23.33 per cent). Only 5.83 per cent of the total respondents belonged to the age group of below 35 years. This shows that the youngsters are not much involved in floriculture. This trend reassures that this is mainly an activity of the middle aged women, which is not an encouraging trend. Hence, awareness programmes and training sessions are to be organized extensively to attract the youth to take up commercial floriculture.

4.1.3 Educational status of the Respondents

Classification of the respondents on the basis of their educational qualification is shown in Table 4.3.

Table 4.3 Educational status of the respondents

Educational qualification	Thrissur	Palakkad	Total
Below matriculation	1	3	4 (3.33)
Matriculation	12	22	33 (28.33)
Pre-Degree	25	20	45 (37.5)
Degree	22	14	36 (30)
PG & above	0	1	1 (0.83)

Note: Figures in parenthesis represent percentage

Table 4.3 indicates that majority of the respondents were having pre-degree qualification (37.5 per cent). Exactly 30 per cent of the respondents were Degree holders, 28.33 per cent were matriculated and 3.33 per cent below matriculation. Only 0.83 per cent of the respondents were having Post-graduation. These observations are quiet natural when compared with the status of those, who are engaged in farming operations.

4.1.4 Religion of the Respondents

The classification of the respondents on the basis of their religion is shown in Table 4.4.

Table 4.4 Religion-wise classification of respondents

Religion	Thrissur	Palakkad	Total
Hindu	43 (71.67)	54 (90)	97 (80.83)
Christian	9 (15)	6 (10)	15 (12.5)
Muslim	8 (13.33)	0	8 (6.67)
	60	60	120

Note: Figures in parenthesis represent percentage

It is clear from Table 4.4 that majority of the respondents belonged to the Hindu community (80.83 per cent) followed by the Christian community (12.5 per cent) and Muslim community (6.67 per cent). No Muslim respondent was there in the sample from Palakkad.

4.1.5 Experience in farming

The classification of the respondents on the basis of experience in farming is shown in Table 4.5.

Table 4.5 Experience of the respondents in farming

Experience	Thrissur	Palakkad	Total
> 20 years	49	45	94 (78.33)
Inexperienced	11	15	26 (21.66)
	60	60	120

Note: Figures in parenthesis represent percentage

It is clear from Table 4.5 that majority (78.33 per cent) of the respondents were having sufficient experience (more than 20 years) in farming. More than 80 per cent of respondents in Thrissur and about 80 per cent respondents in Palakkad were farmers. But the reality is, while the primary farmers were engaged in farming operations, their spouses were engaged in leisure agriculture like floriculture.

4.2 Experience in flower cultivation

The experience of the respondents in flower growing is depicted in Table 4.6. for orchid, anthurium and bush jasmine.

Table 4.6 Respondents experience in orchid, anthurium and bush jasmine cultivation

Experience	Thrissur			Palakkad			Total		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
< 2 years	1	0	1	0	1	0	1 (2.5)	1 (2.5)	1 (2.5)
2 – 4 years	2	2	5	8	5	2	10 (25)	7 (17.5)	7 (17.5)
4 – 6 years	4	9	4	7	8	4	11 (27.5)	17 (42.5)	8 (20)
6 – 8 years	6	5	5	1	1	1	7 (17.5)	6 (15)	6 (15)
8 – 10 years	3	2	4	0	2	1	3 (7.5)	4 (10)	5 (12.5)
> 10 years	4	2	1	4	3	12	8 (20)	5 (12.5)	13 (32.5)
	20	20	20	20	20	20	40	40	40

Note: Figures in parenthesis represent percentage

4.2.1. Experience in orchid cultivation

It is clear from Table 4.6 that 27.5 per cent of the respondents were having 4-6 years of experience in orchid growing. The respondents who fall between 2-4 years of experience were 25 per cent and the respondents who were having more than 10

years of experience were 20 per cent. Exactly 17.5 per cent were having 6-8 years experience and 7.5 per cent were having 8-10 years experience. Only 2.5 per cent were having less than 2 years experience. Thus it may be inferred that a large number of floriculturists were having experience of 2-6 years. The probable reason for this trend may be that government played a key role in these types of floriculture activities which were started only since a decade.

4.2.2. Experience in anthurium cultivation

As seen from Table 4.6, 42.5 per cent of the respondents were having 4-6 years of experience in anthurium growing. Exactly 17.5 per cent of floriculturists were having 2-4 years of experience, 15 per cent were having 6-8 years of experience, 12.5 per cent were having more than 10 years of experience and 10 per cent were having 8-10 years. Only 2.5 per cent were having less than 2 years of experience. Thus it may be inferred that anthurium cultivation has developed in Kerala only in the recent past as in the case of orchid.

4.2.3. Experience in bush jasmine cultivation

In the case of bush jasmine, as seen from Table 4.6, majority (32.5 per cent) of the respondents were having more than 10 years of experience in bush jasmine cultivation. Exactly 17.5 per cent of the respondents were having 2-4 years of experience and 35 per cent were having 4-8 years of experience. Moreover, 12.5 per cent of the respondents were having 8-10 years of experience and only 2.5 per cent were having less than 2 years of experience. It may be inferred that bush jasmine cultivation is not a recently emerged activity compared to anthurium and orchid.

4.3 Reasons for preferring floriculture

The reasons for preferring floriculture are depicted in Table 4.7.

Table 4.7. Reasons for preferring floriculture

Sl. No.	Reason	Thrissur	Palakkad	Total
1	Self employment	19	20	39 (32.5)
2	Additional income	19	13	32 (26.67)
3	Encouragement by Krishibhavan	1	12	13 (10.83)
4	Hobby	17	8	25 (20.83)
5	Diversified agriculture	1	7	8 (6.67)
6	Profitable enterprise	3	Nil	3 (2.5)
		60	60	120

Note: Figures in parenthesis represent percentage

It is clear from Table 4.7 that the major reasons which attracted the respondents towards this activity were self employment (32.5 per cent) and additional income (26.67 per cent). Another 20.83 per cent of the respondents started this as a hobby and 10.83 per cent started this because of the encouragement and support by Krishibhavans. Eight per cent of the respondents preferred this as a part of diversified agriculture and 2.5 per cent preferred this because of its profitability. Various development programmes such as "Women Empowerment Programme" initiated in the state as part of de-centralization of power and micro credit also promoted floriculture.

4.4 Training

All floriculturists had undergone trainings organized by Krishibhavans of the State Department of Agriculture. They also attended seminars organised by Kerala Agricultural University every year. Through this training, the floriculturists obtained information such as cultivation practices, newly arrived varieties, solution to pests & diseases problems, and marketing of flowers. Training & extension services among on latest trends & technologies will helped them to equip with such changes.

4.5 Area under floriculture

Area owned by the respondents under floriculture is depicted in the below given tables. The Table 4.8 depicts the Area under orchid and anthurium.

Table 4.8 Area under orchid and anthurium

No. of plants	Thrissur		Palakkad		Total	
	Orchid	Anthurium	Orchid	Anthurium	Orchid	Anthurium
< 500	11 (55)	9 (45)	3 (15)	6 (30)	14 (35)	15 (37.5)
500 – 1000	4 (20)	6 (30)	11 (55)	10 (50)	15 (37.5)	16 (40)
> 1000	5 (25)	5 (25)	6 (30)	4 (20)	11 (27.5)	9 (22.5)
	20	20	20	20	40	40

Note: Figures in parenthesis represent percentage

4.5.1. Area under orchid

From Table 4.8, it is seen that 37.5 per cent of the total respondents own 500-1000 plants. Similarly, 35 per cent own below 500 plants and 27.5 per cent own more

than 1000 plants. Moreover, we could also see that there was variation in the number of plants grown by the floriculturists in Thrissur and Palakkad districts.

In Palakkad, number of plants grown by the floriculturists were more, that is, when 55 per cent of the floriculturists in Palakkad district were growing 500-1000 plants, the same percentage of the floriculturists were growing less than 500 plants in Thrissur district. Also, the number of floriculturists cultivating more than 1000 plants was less (27.5 per cent) in total. This was due to small size of holdings or limited scope for marketing.

4.5.2. Area under anthurium

In the case of anthurium, as seen in Table 4.8, 40 per cent of the total respondents own 500-1000 plants. Similarly, 37.5 per cent own below 500 plants and 22.5 per cent own more than 1000 plants. Moreover, we could also see that there was variation in the number of plants grown by the floriculturists in Thrissur and Palakkad districts. In Palakkad, number of plants grown by the floriculturists were more, that is, when 50 per cent of the floriculturists in Palakkad district were growing 500-1000 plants, whereas, 45 percentage were growing less than 500 plants in Thrissur district. Altogether, the number of floriculturists cultivating more than 1000 plants were less (22.5 per cent). This is due to small size of holdings or limited scope for marketing.

4.5.3 Area under bush jasmine

The table 4.9 describes the area owned by the respondents under bush jasmine.

Table 4.9 Area under bush jasmine

No. of plants	Thrissur	Palakkad	Total
< 250	8	4	12 (30)
250 – 500	7	4	11 (27.5)
500 – 750	3	7	10 (25)
> 750	2	5	7 (17.5)
	20	20	40

Note: Figures in parenthesis represent percentage

In the case of bush jasmine, as seen from Table 4.9, it is clear that 30 per cent of the respondents own below 250 plants, 27.5 per cent own 250-500 plants, 25 per cent own 500-750 plants and 17.5 per cent own above 750 plants .This pattern suggests that the scale of operation was very limited due to small size of holdings or limited scope for marketing.

4.6 Source of planting material

The major sources of planting materials for orchid and anthurium were as follows:

a) Hafy orchids (Ernakulam)

b) Toyo Floriculture Company (Quilon)

c) Indo-American Hybrid Seeds (Bangalore)

d) Kerala Agricultural University (Vellanikkara,Thrissur)

e) A.V. Thomas &Co. (Kochi)

f) Tissue Culture Lab, (Nattika,Thrissur)

Based on the field enquiry, it was found that the average cost of planting material for orchid was Rs.51 at current rates (2005). In the case of anthurium it was Rs.43 at current rates (2005).

The major sources of planting materials for bush jasmine were Pushpa Krishi Vikasana Samithies, Krishibhavans, local nurseries and neighbours. The average cost of planting material for bush jasmine was Rs.3.50 in 2005. Krishibhavans used to distribute bush jasmine plants free of cost under the scheme "Women Empowerment Programme".

4.7 Varieties

The major varieties of orchid grown by the floriculturists were Phalaenopsis, Vanda and Dendrobium. In Dendrobium, Sonia-17, Sonia-28, Kasim Gold, Kasim White and Emma white, are grown by majority of the floriculturists. The major reason for preferring these varieties is the very high market premium and consequently high price.

The major varieties of anthurium cultivated by the floriculturists were Cancan, Tropical, Mauritious red, Mauritious white, Honduras, Nitta, Sunburst, Lima, Acropolis, Midori and Agnihotri. All these varieties are exotic from Hawaii, Holland and Mauritius. The reasons for preferring these varieties are good quality, sustainable yield, big flower size and market value. All orchid and anthurium growers are also using tissue culture plants because of its quality such as quick flowering, disease resistance and high yield.

In the case of bush jasmine, the variety preferred by all floriculturists was *Jasminum sambac*. The reasons for preferring this variety are good yield, flower size and fragrance. In the case of bush jasmine top cuttings are used.

4.8 Yield

The average yield from orchid plants noted was 6 spikes per plant. When compared to Thrissur, Palakkad was having more yield. The average yield of anthurium was 9 flowers per plant. The average yield of bush jasmine was 500 gm per plant. The yield is more in the case of bush jasmine in Palakkad. This is likely due to the ideal climatic conditions such as warm summer and sunny days in the district. Another advantage is that humidity is more in Palakkad and hence attack of pests, diseases to plants are less compared to Thrissur.

4.9 Harvesting

Orchid and anthurium flowers are harvested by growers themselves. In the case of orchid, inflorescence is cut when two or three buds are yet to bloom. Anthurium flowers could be plucked only after the complete blossom of Spathe. The flowers in Sapdix will bloom after the bloom of Spathe. Accordingly there will be changes in colour of the Spadix. In the case of bush jasmine, fully grown buds are plucked.

4.9.1 Harvesting frequency

Harvesting frequency of orchid and anthurium is depicted in table 4.10.

Table 4.10 Harvesting frequency of orchid and anthurium

Harvesting frequency	Thrissur		Palakkad		Total	
	Orchid	Anthurium	Orchid	Anthurium	Orchid	Anthurium
Weekly	7	9	16	8	23 (57.5)	17 (42.5)
Fortnightly	5	8	4	10	9 (22.5)	18 (45)
Monthly	8	3	-	2	8 (20)	5 (12.5)
	20	20	20	20	40	40

Note: Figures in parenthesis represent percentage

4.9.1.1. Harvesting frequency of orchid

From Table 4.10, it is obvious that majority of the orchid growers were doing weekly harvesting (57.5 per cent) because they were having more number of plants to produce sufficient quantity of flowers. Exactly 22.5 per cent are engaged in fortnightly harvesting and 20 per cent are engaged in monthly harvesting.

4.9.1.2. Harvesting frequency of anthurium

From Table 4.10., it is evident that 45 per cent of the anthurium growers were used to fortnightly harvesting. Exactly 42.5 per cent were doing weekly harvesting and 12.5 per cent were doing monthly harvesting.

4.9.1.3 Harvesting frequency of bush jasmine

In the case of bush jasmine, all the floriculturists were following daily harvesting.

4.9.1.4 Mode of harvesting of orchid and anthurium

In the case of orchid and anthurium, all the floriculturists were following self harvesting.

4.9.1.5 Mode of harvesting of bush jasmine

The table 4.11 depicts the mode of harvesting of bush jasmine.

Table 4.11 Mode of harvesting of bush jasmine

Mode of harvesting	Thrissur	Palakkad	Total
Self	17	15	32 (80)
By Labourers	3	5	8 (20)
	20	20	40

Note: Figures in parenthesis represent percentage

From Table 4.11, it is clear that 80 per cent of the bush jasmine growers were doing self harvesting and 20 per cent were employing labourers for that. For harvesting 1 kg of flowers Rs.10 was the charge.

4.10 Labour requirement for flower production

The study revealed that only 5 per cent of the orchid and anthurium floriculturists were employing labourers for spraying operations alone. All other operations were done by the floriculturists themselves. Orchid requires spraying 2 times in a week while anthurium requires weekly spraying. All bush jasmine growers were employing labourers for land preparation and planting. About 20 per cent of the bush jasmine growers were employing labourers for harvesting also as the quantity

of flowers were more. In the case of orchid and anthurium cultivation, all other activities except green house preparation and spraying operations were done by the floriculturists themselves.

In the case of bush jasmine labourers were required only for land preparation and planting. If the quantity of flowers are more, then the labourers will be employed for harvesting also.

4.11 Cost of production of flowers

Table 4.12 provides the details of Cost of Production of orchid, anthurium and bush jasmine.

Table 4.12 Cost of production of flowers

SI.No	Components of Cost of Production	Cost of Production per plant (in Rs.)		
		Orchid	Anthurium	Bush jasmine
1.	Flower pot	20	20	0
2.	Land Preparation	0	0	0.50
3.	Green house/Shade house	10	10	0
4.	Planting Material	51	43	3.50
5.	Manures and Fertilizers	23	20	1.50
6.	Pesticides	18	15	0
7.	Irrigation	0	0	0
8.	Transport of Inputs	3	4	0
9.	Labour	3	2	0.50
10.	Harvesting	0	0	0.50
11.	Miscellaneous Expenses	2	2	0.50
Total Cost		**130**	**116**	**7**

As seen from Table 4.12, the average cost of production for orchid was Rs.130 per plant and that of anthurium was Rs.116 per plant. The average cost of production for bush jasmine was only Rs.7 per plant.

In the case of orchid and anthurium, planting material is the major component in the cost of production. Here good quality planting materials cost very high since majority of the varieties are exotic. Along with that lack of availability of these varieties in numbers large enough for commercial cultivation also add to its cost.

Chemical fertilizers as well as organic fertilizers are needed in correct quantity for rapid growth of strong plants and flowering. While organic fertilizers are applied once in a week, chemical fertilizers are applied twice in a week. Pesticides and fungicides are also applied to plants to control pests and diseases.

Green houses or Shade houses are needed to control sunlight and provide the convenient temperature for plants. Correct shade should be given to plants to produce good plants and flowers. Shade houses should be given in roofs as well as sides to control sunlight from all parts.

Planting in pots is advisable than planting in land. This is because more flowers bloom when kept in pot than in the land. Also, the plants that are infected with diseases spread much faster when grown in land.

In the case of bush jasmine, it was evident from Table 4.12 that it is having very low capital investment.

4.12 Involvement in Government schemes

The Government of India has declared Kerala as a specific zone for intensive cultivation of orchids and anthurium. The Government was providing subsidy to floricultural units and green houses through Krishibhavans as a part of trust given to floriculture under "Women Empowerment Programme".

Exactly 40 per cent of the cost of green houses is provided as subsidy. The only condition is that atleast 20 women floriculturists should register as a floriculture unit under the local Krishibhavan (Agricultural office).

The Krishibhavans provide bush jasmine cuttings free of cost or at a subsidized rate (Rs.1.50) as part of Women Empowerment Programme. For this also, minimum 20 women should register as Pushpakrishi Vikasana Samithi under the Krishibhavan.

4.13 Method of post-harvest treatments

In the case of orchid, when flowers are ready to harvest, the stem containing the flowers is cut 2-3 cm from the bottom. The knife used for cutting the flowers is dipped in fungicide. The cut flowers are kept in water before packing. The stem is once again sliced at the edge inside the water in order to prevent entry of air through it. The edge of the stem is then tide with wet cotton. A polythene cover is also tied at the edge over the cotton in order to prevent it from drying.

In the case of anthurium, flowers along with the stem are cut from the bottom of the plant. The stem is dipped immediately in water. The stem is once again sliced 1 cm from the edge inside the water.

There are no post-harvest treatments in the case of bush jasmine.

4.14 Details of finance

Table 4.13 provides details of funding of orchid, anthurium and bush jasmine.

Table 4.13. Funding of orchid, anthurium and bush jasmine

Source	Thrissur			Palakkad			Total		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
Own fund	10	10	17	11	13	-	21(52.5)	23(57.5)	17(42.5)
Credit	10	10	3	9	7	20	19(47.5)	17(42.5)	23(57.5)
	20	20	20	20	20	20	40	40	40

Note: Figures in parenthesis represent percentage

4.14.1. Funding for orchid

From Table 4.13, it is evident that 52.5 per cent of the respondents were depending on their own funds for orchid cultivation and 47.5 per cent were using credit for orchid cultivation. The credit used by them was loan linked subsidy from scheduled commercial banks.

Exactly 40 per cent of the cost of green houses is provided as subsidy. The period of loan is 5 years and the pattern of repayment is on monthly basis. The average rate of interest is 10 per cent.

4.14.2. Funding for anthurium

From Table 4.13., it is clear that 57.5 per cent of the respondents were depending on their own funds for anthurium cultivation and 42.5 per cent were using credit. The credit used by them was loan linked subsidy from scheduled commercial banks with average interest rate of 10 per cent.

Exactly 40 per cent of the cost of green houses is provided as subsidy. The period of loan is 5 years and the pattern of repayment is on monthly basis.

4.14.3. Funding for bush jasmine

From Table 4.13, it is evident that 57.5 per cent were using credit for bush jasmine cultivation and 42.5 per cent were depending on their own funds. The credit used by them was loan linked subsidy from scheduled commercial banks.

4.15 Flower market

Kerala has all the potentials for the development of a successful flower industry on scientific lines as the state has varied and suitable climate and hence almost all the important commercial varieties of orchid, anthurium and bush jasmine can be grown. These flowers are marketed both as potted plants and as cut-flowers. In the past few years, the flower trade has increased both in volume and value throughout the world (Sukesan ,1999).

4.16 Channels of distribution

A channel of distribution comprises a set of institutions which performs all the activities involved to move a product and its title from production to consumption. This provides the utility of place, time and possession of having products where and when the customer wants them.

Members of the marketing channels perform many key functions such as transporting and storing goods, acquiring and using funds to cover the costs of the channel work, assuming the risks of carrying out the channel work and gathering and distributing market information.

The key distribution channel function is moving goods from producers to consumers by helping to complete transactions and fulfilling the completed transactions.

All orchid and anthurium growers were aware of the following marketing channels which are shown in the form of a flowchart diagram in Figure1:

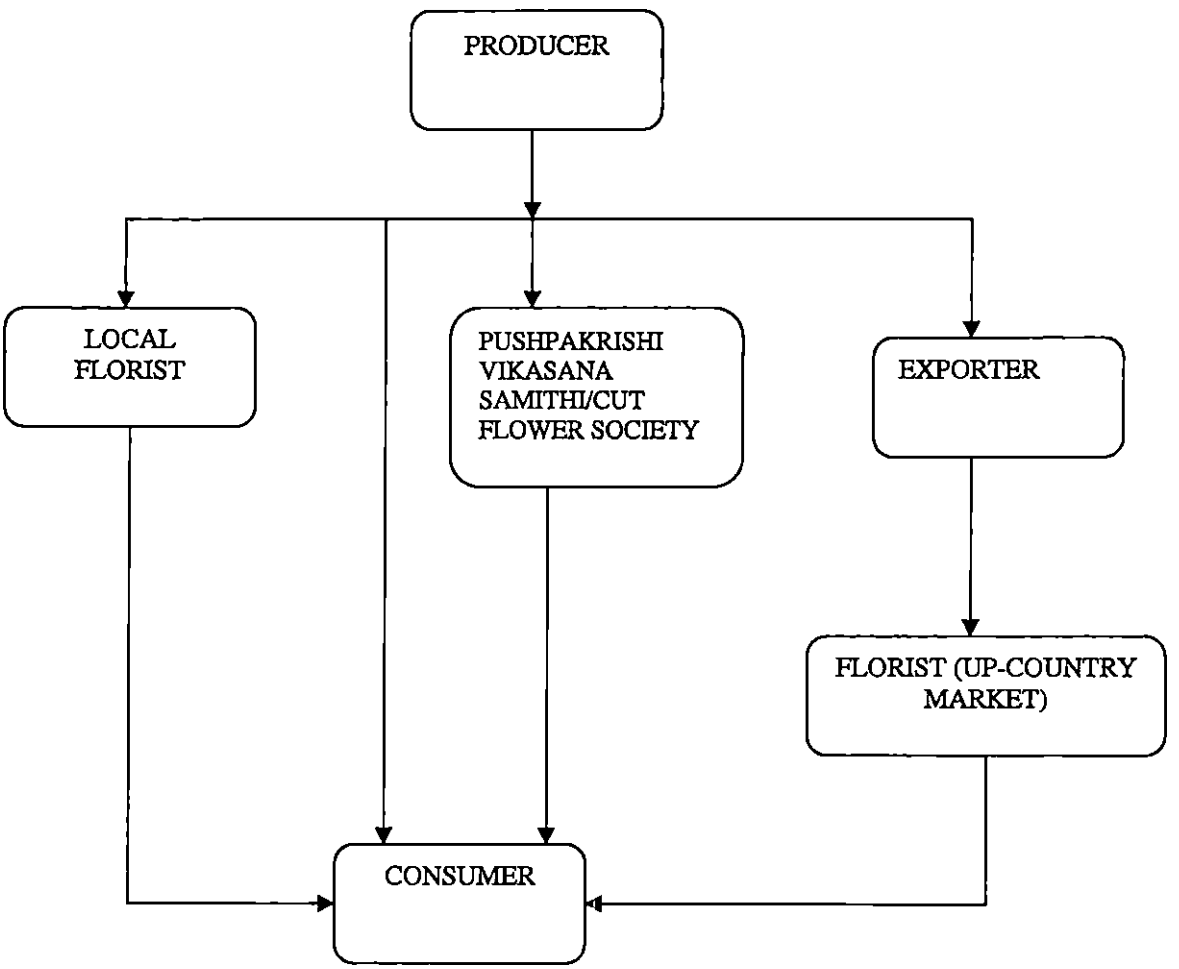

Figure1. Channels followed by orchid and anthurium growers.

All bush jasmine growers were aware about the following channels which are shown in the flowchart diagram in Figure 2.

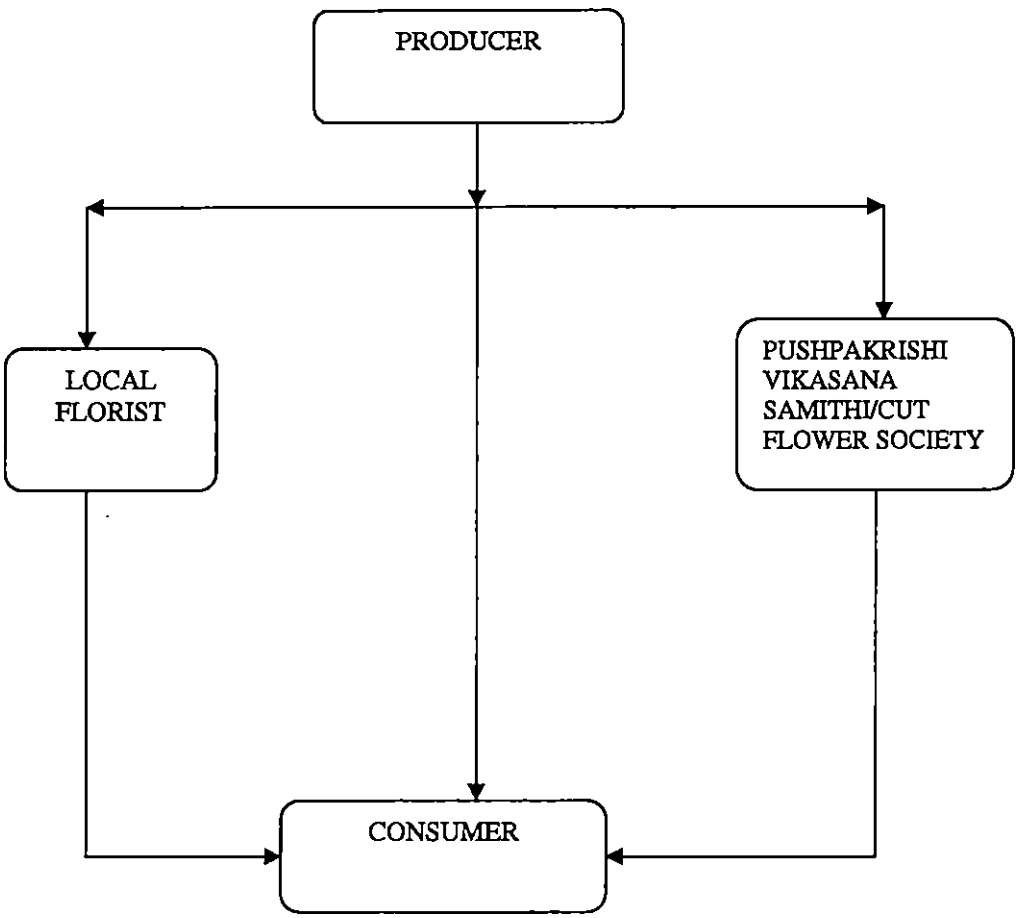

Figure2. Channels followed by bush jasmine growers.

4.17 Channel preference of floriculturists

Channel preference of orchid growers is depicted in table 4.14.

Table 4.14 Channel preference of orchid growers

Sl. No.	Channels	Thrissur	Palakkad	Total
1	Producers → Pushpakrishi Vikasana Samithi/ Cut flower Society → Consumers	11	13	24 (60)
2	Producers → Local florists → Consumers	6	5	11 (27.5)
3	Producers → Florists (outside state) → Consumer	0	2	2 (5.0)
4	Producers → Consumers	3	0	3 (7.5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.14, it is clear that 60 per cent of the orchid growers preferred the channel I, Producers → Pushpakrishi Vikasana Samithi / cut flower society → Consumers followed by the channel II, Producers → Local florists → Consumers (27.5 per cent). Exactly 7.5 per cent preferred channel IV, Producers → Consumers and only 5 per cent preferred channel III, Producers → Florists (outside state) → Consumers.

Channel preference of anthurium growers is depicted in table 4.15.

Table 4.15 Channel preference of anthurium growers

Sl. No.	Channels	Thrissur	Palakkad	Total
1	Producers → Pushpakrishi Vikasana-Samithi/Cut flower Society → Consumers	9	13	22 (55)
2	Producers → Local florists → Consumers	7	3	10 (25)
3	Producers → Florists (outside state) → Consumer	2	3	5 (12.5)
4	Producers → Consumers	2	1	3 (7.5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From the Table 4.15, it is evident that 55 per cent of anthurium growers preferred the channel I, Producers → Pushpakrishi Vikasana Samithi/Cut flower Society → Consumers followed by channel II, Producers → Local florists → Consumers (25 per cent). Exactly 12.5 per cent preferred channel III, Producers → Florists (outside state) → Consumers and only 7.5 per cent preferred channel IV, Producers → Consumers.

Channel preference of bush jasmine growers is depicted in table 4.16.

Table 4.16 Channel preference of bush jasmine growers

Sl. No.	Channels	Thrissur	Palakkad	Total
1	Producers → Pushpakrishi Vikasana-Samithi/Cut flower Society → Consumers	17	0	17 (42.5)
2	Producers → Local florists → Consumers	3	15	18 (45)
3	Producers → Consumers	0	5	5 (12.5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From the above table 4.16, it is clear that 45 per cent of the bush jasmine growers preferred channel II, Producers → Local florists → Consumers, 42.5 per cent preferred channel I, Producers → Pushpakrishi Vikasana Samithi / Cut flower society → Consumers and only 12.5 per cent preferred channel III, Producers → Consumers.

4.18 Major customers of floriculturists

Major customers of orchid growers are depicted in table 4.17.

Table 4.17 Major customers of orchid growers

Sl. No.	Customers	Thrissur	Palakkad	Total
1	Pushpakrishi Vikasana- Samithi/Cut flower Society	1	13	24 (60)
2	Local florists	6	5	11 (27.5)
3	Individual consumers	3	-	3 (7.5)
4	Florists outside state	1	2	2 (5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.17, it is evident that 60 per cent of the orchid growers were supplying their flowers to Pushpakrishi Vikasana Samithi/Cutflower Society, 27 per cent to local florists, 7.5 per cent to individual customers and 5 per cent to other florists (outside state). The major customers of orchid growers were Pushpakrishi Vikasana Samithi/Cutflower society.

Major customers of anthurium growers are depicted in Table 4.18.

Table 4.18. Major customers of anthurium growers

Sl. No.	Customers	Thrissur	Palakkad	Total
1	Pushpakrishi Vikasana- Samithi/Cut Flower Society	9	13	22 (55)
2	Local florists	0	3	10 (25)
3	Florists (outside state)	2	3	5 (12.5)
4	Individual consumers	2	1	3 (7.5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.18, it is clear that 55 per cent of anthurium growers were supplying their flowers to Pushpakrishi Vikasana Samithi / Cut flower society, 25 per cent to local florists, 12.5 per cent to Florists (outside state) and only 7.5 per cent to individual consumers. The major customers of anthurium flowers were Pushpakrishi Vikasana Samithi / Cut flower society.

Major customers of bush jasmine growers are depicted in table 4.19.

Table 4.19 Major customers of bush jasmine growers

Sl. No.	Customers	Thrissur	Palakkad	Total
1	Local florists	17	0	17 (45)
2	Pushpakrishi Vikasana- Samithi/Cut Flower Society	3	15	18 (42.5)
3	Individual Consumers	0	5	5 (12.5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.19, it is clear that 45 per cent of the bush jasmine growers were supplying their flowers to Local florists, 42.5 per cent to Pushpakrishi Vikasana Samithi and only 12.5 per cent to individual consumers.The major customers of bush jasmine growers were local florists.

4.19 Purpose of demanding flowers

Orchids and anthuriums are not having strong internal market. They are in high demand in other states such as Delhi and Bombay as well as export markets. About 95 per cent of the flowers produced here are sent to other states for domestic consumption and export. On the contrary, bush jasmine has got a strong domestic market.

4.20 Reasons for the choice of customers

Pushpakrishi Vikasana Samithi / Cut flower Society

The reasons pointed out by floriculturists for their preference of Pushpakrishi Vikasana Samithi/Cut-flower Society were 'convenience', 'steady demand', and 'fair and reasonable price'.

Local Florists

The reasons pointed out by floriculturists to prefer local florists were 'convenience' and 'quick payment'. Some local florists are also undertaking the farm gate collection.

Florists (outside state)

The reasons pointed out by floriculturists to prefer florists (outside state) were 'quick payment' and 'steady demand'.

Individual consumers

The reason pointed out by floriculturists to prefer individual consumers was that there were no other alternative because of less quantity available.

4.21 Information Regarding Channel Members

4.21.1. Palakkad District Cutflower Growers Association:

Palakkad District Cut flower Growers Association was established in the year 2000-2001.It comes under Malampuzha block in Palakkad District. This was started with the aim of helping small orchid and anthurium floriculturists for marketing their flowers, and also to eliminate exploitation of other private agents. This acts as a pooling and nodal agency to its members. It has two collection centers, one in Chittoor and another in Palakkad. Farmers themselves bring flowers on every Thursday and the average collection is about 1000 orchid flowers and 1000 anthurium flowers. Thus weekly procurement is done and it does not place any restrictions on the quantity of procurement. This association does not have any employees. Floriculturists do all the activities such as grading, packing, transportation, account keeping, etc. concerned with the association. It also acts as a Charitable Trust and does not have any divisible profit. It charges 5 per cent of the selling price on flowers

from members as service charge. Even though this was started as a part of floriculture development in Palakkad district, it did not get any assistance from Government.

All the activities concerned with the marketing of flowers are done by the members themselves. The members bring orchids which are having at least 5-10 flowers in the inflorescence out of which there should be 2-3 flower buds. In the case of Anthurim, it should have complete blossom of Spathe and $3/4^{th}$ of the flowers on the Sapdix are blossomed. Flowers are then packed in Carton by members which can accommodate about 250 flowers. The price of one Carton is Rs.25. This is then transported by trains to the florists (outside state) and the charge for transportation is Rs.35 per Carton. The orchid flowers are sold at different places such as Coimbatore and Bangalore and for anthurium flowers the main market is in Delhi.

The Association is not getting any subsidy till now. But, it got technical support from Karnataka Agro Corporation, and training from Kerala Agricultural University. The flowers are sold to outside states because of the reasons that there is still a steady demand and fetch a reasonable price.

The method of pricing followed by the Samithi is as follows:

The selling price obtained by the association from the buyers is divided among the members equally according to the number and size of flowers brought by them. The major sources of information for the members regarding the association are reports, magazines and newspapers. This association is having good marketing awareness such as prices existing in various markets, quantity of flowers that arrives to each market and export potential of flowers. But the association is not aware about the quality specifications in International market.

4.21.2. Perinjanam Pushpakrishi Vikasana Samithi

This Samithi was established in the year 1997. It comes under Nattika block in Thrissur district. This was established with the objective of helping small bush jasmine growers in Perinjanam to sell their flowers at a reasonable price. It started with bush jasmine marketing and later expanded its activity to orchid and anthurium marketing. It also acts as a pooling agency to its members. Farmers themselves bring bush jasmine on everyday and orchid and anthurium on every Monday.

There are no restrictions on the quantity of flowers procured by the society from the floriculturists. The association is having one female employee for controlling and carrying out the activities of the Samithi. The employee is paid Rs.100 daily. It charges 10 per cent margin of selling price of flowers in the case of orchid and anthurium and 20 per cent in the case of bush jasmine from members as service charge.

One or two members of the Samithi come each day to assist the employee for carrying out the activities of the Samithi.

Floriculturists bring fully grown buds in the early morning to the Samithi. The Samithi will transport it by the bus to the near by flower shops. All the activities concerned with the marketing of flowers are done by the members as well as employee of the Samithi. The Samithi will collect all orchid and anthurium flowers without any defect. Grading and packing are done by the Samithi while collecting flowers. The major market for this is Delhi.

The Samithi makes Jasmine garlands to sell according to the order. The Samithi collects orchid and anthurium on every Monday and is sold to one agent at Ernakulam who comes and collects from the Samithi. The Samithi collects the price from agent once in 10 days. The Samithi will record the quantity of flowers provided by the members and makes the payments at the end of every month. The Samithi is also undertaking marriage decorations and marriage garlands and bouquet making at reasonable rates. The members of the Samithi also undertake bouquet making with orchid and anthurium flowers and provide them to shops weekly.

The bouquet is sold at double the making cost by the Samithi. The Samithi will get the payment of the bouquet on the spot of sale.

The Samithi is following value pricing in the case of orchid and anthurium, that is, in the case of anthurium it will charge price according to its size and in the case of orchid it will charge price according to the number of flowers in each flower bunch. In the case of Bush jasmine it is providing prices existing in local market.

The major sources of information for the members regarding the Samithi are reports, magazines and news papers. This Samithi is having good marketing awareness such as prices existing in market and export potential of flowers. But they are not aware about the quality specification in international market. Major problems faced by the association are lack of adequate supply of flowers, mainly because of the pests and diseases attack in that area and lack of Government help. The major suggestion to improve the marketing of flowers is that there should be enhanced government assistance by implementing the announced programmes as well as new programmes to develop the floriculture sector of Kerala.

Local Florists

Local Florists are having a major role in marketing of flowers in Kerala. The major sources of flowers for them are other states rather than floriculturists of Kerala. Floriculturists themselves bring flowers and they make 'ready and quick payment' which is less than market price. There is no need to undertake grading and packing by the floriculturists and they accept as loose flowers. They accept flowers which are free of any defect and make payment accordingly. Local florists are selling these flowers mainly in internal market to marriages, decorations, bouquet, garlands etc. They did not get any training or technical assistance in this field. They will get information regarding prices of flowers from outside state mainly Coimbatore market and accordingly they will fix price. According to their opinion, there are heavy price and demand fluctuations in this field mainly due to seasonality. The major problem now faced by them is high competition existing in the field. The suggestion pointed out to improve the marketing of flowers is the establishment of a Government monitored agency to stabilize price of flowers.

Florists (outside state)

Some orchid and anthurium floriculturists of Palakkad district are selling their flowers to florists in Coimbatore. The major reason for selling their flowers to Coimbatore market is that Coimbatore market is close to them and they are getting down payment. There is also steady demand for these flowers. Grading is followed for orchid and anthurium flowers. In the case of orchid flowers, payment is made according to the number of flowers in each flower bunch, and in the case of anthurium payment is made according to inch. There is no need of packing by the floriculturists.

They will get information regarding prices of flowers from different parts of state mainly Coimbatore market and accordingly they will fix price. The major problem faced by them is high competition existing in this field.

4.22 Qualitative preference

In the case of orchid, there must be at least 5-10 flowers in the inflorescence out of which there should be 2-3 flower buds. In the case of anthurium, quality flowers can be plucked only after the complete blossom of spathe and 3/4th of the flowers on the spadix are blossomed. In the case of bush jasmine fully grown buds are plucked.

4.23 Seasonal fluctuations in demand and price of flowers

4.23.1 Seasonal fluctuations in demand and price of orchid flowers

Seasonal fluctuations in demand and price of orchid flowers are depicted in Table 4.20.

Table 4.20 Seasonal fluctuations in demand and price of orchid flowers

Seasonal fluctuations	Thrissur	Palakkad	Total
Yes	5	7	12 (30)
No	15	13	28 (70)
	20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.20, it is clear that 70 per cent of the growers opined that there are no seasonal fluctuations in demand and price of orchid flowers; that is, they get

fixed price for their flowers throughout the year. Exactly 30 per cent of the growers were of the opinion that there are seasonal fluctuations in demand and price of flowers. During off season they have to sell flowers at a fixed rate without considering the number of flowers in a bunch.

4.23.2 Seasonal fluctuations in demand and price of anthurium flowers

Seasonal fluctuations in demand and price of anthurium flowers are depicted in Table 4.21.

Table 4.21 Seasonal fluctuations in demand and price of anthurium flowers

Seasonal fluctuations	Thrissur	Palakkad	Total
Yes	9	13	22 (55)
No	11	7	18 (45)
	20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.21, it is evident that 55 per cent of the growers opined that there are seasonal fluctuations in demand and price of anthurium flowers, that is, they get fixed price for their flowers. This is because during off season, flowers are sold at fixed rate without considering the width of Spathe. Exactly 45 per cent of the growers opined that there are no seasonal fluctuations in demand and price of anthurium flowers.

4.23.3 Seasonal fluctuations in demand and price of bush jasmine flowers

All bush jasmine cultivators were of the opinion that there are seasonal fluctuations in demand and price of bush jasmine flowers. The price ranges from Rs.35 to Rs.130 from off-season to season. The highest price for bush jasmine is during December to January.

4.24 Grading methods

It was found that no grading was followed by floriculturists. Instead quality flowers are sold without grading. However, the channels use to do the grading and accordingly make payments to the floriculturists. In the case of orchid, channels insist that there must be at least 5-10 flowers in the inflorescence out of which there should be 2-3 flower buds.

In case of anthurium, channels prefer flowers having the complete blossom of spathe and $3/4^{th}$ of the flowers on the spadix are blossomed.

In case of bush jasmine, fully grown buds are accepted by the channels.

4.25 Selling price of flowers

In the case of orchid, each flower in a flower bunch is sold at Rs.2.50, and anthurium is sold at Rs.2 per inch. In the case of bush jasmine there is a wide range in the selling price, depending on the season. The range varied from Rs.35 to Rs.130 depending on the seasonal demand.

The latest price of bush jasmine in the market at the time of this study was Rs.110 per kg. But in the case of bush jasmine growers who produce less quantity of flowers get only Rs.35/kg as they were supplying to only individual consumers.

4.26 Packing

Packing is done by the channels and not by the floriculturists. Normally orchid flower bunches are packed in cardboard boxes. The cardboard boxes are chosen to suit the count and size of the flower bunches. Normally 50-100 bunches are packed in one cardboard box. Small holes are made on the sides of cardboard boxes to allow flow of air. Five or ten flower bunches are grouped and tied before packing into the cardboard boxes. Laying newspaper inside the cardboard boxes will help to retain moisture and also to absorb excess water if any. To ensure safe handling of flower bunches in the cardboard boxes paper pieces are packed tightly in it. Newspaper is placed over the packed flowers before closing cardboard boxes. Finally the cardboard boxes are wrapped with tape. The cost of one cardboard box is Rs.35.

The edge of the anthurium flowers are covered with cotton and then wrapped with polythene cover and tied with rubber band. The spathe is then packed in a polythene cover. Flowers are arranged in cardboard boxes in opposite direction. Around 70-100 flowers can be accommodated in a cardboard box.

4.27 Transportation

The number of people using transportation facility for orchid is depicted in Table 4.22.

Table 4.22 Transportation facility for Orchid

Particulars	Thrissur	Palakkad	Total
Number of people using transportation facilities.	0	16	16 (40)
Number of people not using transportation facilities.	20	4	24 (60)
	20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From the Table 4.22, it is evident that 60 per cent of the people were using transportation facility and 40 per cent of the people were not using transportation facility as they sell their flowers in nearby places. The average cost per transportation is Rs.20.

The number of people using transportation facility for anthurium is depicted in Table 4.23.

Table 4.23 Transportation facility for Anthurium

Particulars	Thrissur	Palakkad	Total
Number of people using transportation facility	0	19	19 (47.5)
Number of people not using transportation facility.	20	1	21 (52.5)
	20	20	40

Note: Figures in parenthesis represent percentage

From Table 4.23, it is clear that 52.5 per cent were not using transportation facility and 47.5 per cent were using transportation cost. The average cost per transportation was Rs.20. Thus it is clear that majority of the anthurium cultivators were selling their flowers in nearby places.

There was no transportation cost in the case of bush jasmine. None of the floriculturists were using refrigerated modes of transportation.

4.28 Value addition of flowers

Value addition of flowers is having a crucial role to fascinate people world over in the form of garlands, bouquet, flower pictures, flower balls, cards & covers and festive decorations.

In spite of being a smaller branch in the overall floricultural setup, it has a significant presence with increasing interest for these natural products. These producers are natural, 'environmental friendly' and are a replacement for various artificial and unnatural ways of decoration.

Value addition of flowers is depicted in Table 4.24.

Table 4.24 Value addition of flowers

Sl. No.	Value addition	Thrissur		Palakkad		Total	
		Orchid	Anthurium	Orchid	Anthurium	Orchid	Anthurium
1	Yes	4	3	4	3	8 (20)	6 (15)
2	No	16	17	16	17	32 (80)	34 (85)
		20	20	20	20	40 (100.0)	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.24, it is evident that only 20 per cent of the orchid cultivators were doing value addition and 80 per cent were not doing value addition. In the case of anthurium 85 per cent of cultivators were not undertaking any value addition and only 15 per cent were undertaking value addition. The type of value addition done by the floriculturists were bouquet making and flower arrangement. These articles were sold at double the actual cost.

In the case of bush jasmine, floriculturists were not following any value addition. They sell flowers in loose.

4.29 Terms and conditions for sale

Terms and conditions for sale of orchid are depicted in Table 4.25.

Table 4.25 Terms and conditions for sale of orchid

Sl. No.	Terms and conditions	Thrissur	Palakkad	Total
1	Spot payment	9	0	9 (22.5)
2	Weekly payment	0	2	2 (5)
3	Monthly payment	10	0	10 (25)
4	Bimonthly payment	0	1	1 (2.5)
5	Quarterly payment	0	15	15 (37.5)
6	Credit sales	1	0	1 (2.5)
7	Half yearly payment	0	2	2 (5)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From the Table 4.25, it is clear that 37.5 per cent were getting quarterly payment, 25 per cent were getting monthly payment and 22.5 per cent were getting

spot payment. Exactly 5 per cent each were getting weekly payment and half yearly payment. Only 2.5 per cent each were getting bimonthly payment and credit sales.

The terms and conditions for the sale of anthurium are depicted in Table 4.26.

Table 4.26 Terms and conditions for sale of anthurium

Sl. No.	Terms and conditions	Thrissur	Palakkad	Total
1	Spot payment	10	4	14 (35)
2	Credit sales	1	0	1 (2.5)
3	Weekly payment	0	0	0 (0.0)
4	Monthly payment	9	0	9 (22.5)
5	Quarterly payment	0	16	16 (40)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.26, it is evident that 40 per cent were getting quarterly payment, 35 per cent were getting spot payment, 22.5 per cent were getting monthly payment and 2.5 per cent were getting credit sales.

Terms and conditions for sale of bush jasmine are depicted in Table 4.27.

Table 4.27 Terms and conditions for sale of bush jasmine

Sl. No.	Terms and conditions	Thrissur	Palakkad	Total
1	Spot payment	2	6	8 (10)
2	Weekly payment	0	14	14 (35)
3	Monthly payment	18	0	18 (45)
		20	20	40 (100.0)

Note: Figures in parenthesis represent percentage

From Table 4.27, it is clear that 45 per cent were getting monthly payment, 35 per cent were getting weekly payment and 10 per cent were getting spot payment.

4.30 Annual Income from Floriculture

Average annual income from Orchid and Anthurium cultivation is depicted in Table 4.28

Table 4.28 Annual income from Orchid and Anthurium cultivation

Number of Plants	Average Annual Production of flowers (Nos.)		Average Price received by Producers		Average Annual Income (Rs.)	
	Orchid	Anthurium	Orchid per flower	Anthurium per flower	Orchid	Anthurium
500	24000	4500	2.22	1.42	53280	38340
1000	48000	9000	2.22	1.42	106560	76680

From Table 4.28, it is clear that for a unit having 500 plants is earning an average annual income of Rs. 53280 in the case of Orchid and Rs.38340 in the case of Anthurium. For a unit of 1000 plants, average annual income is Rs. 106560 in the case of Orchid and Rs. 76680 in the case of Anthurium.

This shows that Orchid growers earn higher Annual Income than Anthurium growers.

Average annual income from Bush Jasmine cultivation is depicted in Table 4.29.

Table 4.29 Annual income from Bush Jasmine cultivation

Number of plants	Average Annual Production of flowers (Kg)	Average Price received by Producers	Average Annual Income (Rs.)
250	125	82.5	10312.50
500	250	82.5	20625.00
750	375	82.5	30937.50

From Table 4.29, it is clear that for a Bush Jasmine unit having 250 plants is earning an average annual income of Rs. 10312.50.For a unit of 500 and 750 the average annual income is 20625.00 and 30937.50 respectively.

4.31 Method of pricing

The floriculturists were not in a position to dictate price. The price was determined by the channels. For getting a role in fixing price either they should produce large quantity or they should be organized.

4.32 Marketing efficiency

Marketing efficiency is directly related to the cost involved to move goods from producer to the consumer and quantum of services provided or desired by the consumers. It is measured by the following methods.

1. Price Spread (P.SP):

Price spread refers to the difference between consumer's price and the net price received by the producers. This difference consists the charges borne by producers and other market functionaries against marketing cost and the margins of

intermediaries involved in the system. Greater is the number of intermediaries, higher the value of gross margins. Higher is the value of gross margins, higher the value of price-spread. And higher is the value of price-spread, lower the marketing efficiency of producers.

Formula:

Price spread (P.SP) = Consumer's price (C.P) – Price received by the producer (P.P).

a) Using the above formula, Price spread for orchid, anthurium and bush jasmine is calculated for Channel I, Producers → Pushpakrishi Vikasana Samithi / Cutflower society → Consumers.

Orchid:

Consumer's price (C.P) = Rs.2.5/flower in each flower bunch.

Price received by the producer (P.P) = Rs.2.4/flower in each flower bunch.

Therefore, P.SP = 2.5 (–) 2.4 = 0.10 (10 paise).

Anthurium:

Consumer's price (C.P) = Rs.2/inch

Price received by the producer (P.P) = Rs.1.75 per inch

Therefore, P.SP = 2 (–) 1.75 = 0.25 (25 paise)

Bush Jasmine:

Consumers price (C.P) = Rs.110/kg.

Price received by the producer = Rs.105/kg.

Therefore, P.SP = 110 (-) 105 = 5 (Rs.5)

b) The below calculation for Price spread is done for orchid, anthurium and bush jasmine for Channel II, Producers → Local florists → Consumers.

Orchid:

Consumer's price (C.P) = Rs.2.5/flower in each flower bunch

Price received by the producer (P.P) = Rs.2/inch

Therefore, P.SP = 2.5 (-) 2 = 0.50 (50 paise).

Anthurium:

Consumer's price (C.P) = Rs.2/inch

Price received by the producers (P.P) = Rs.1.5/inch

Therefore, P.SP = 2 (-) 1.5 = 0.50 (50 paise).

Bush Jasmine:

Consumers price (C.P) = Rs.110/kg

Price received by the producer = Rs.100/kg

Therefore, P.SP = 110 (-) 100 = Rs.10

c) The below calculation for Price spread is done for orchid, anthurium and bush jasmine for Channel III, Producers → Florists (outside state) → Consumers.

Orchid:

Consumers price (C.P) = Rs.2.5 per flower in each flower bunch.

Price received by the producer (P.P) = Rs.2.25 per flower in each flower bunch.

P.SP = 2.5 (-) 2.25 = 0.25 (25 paise).

Anthurium:

Consumers price (C.P) = Rs.2/inch.

Price received by the producer (P.P) = Rs.1/inch.

P.SP = 2 (-) 1 = Rs.1

There were no bush jasmine growers who were moving their products through this channel.

The market is said to be efficient if the price spread is minimum. Hence, channel I is found to be the most efficient channel.

The above calculations of price-spread are shown in Table 4.30

Table 4.30 Price-spread computation

Channel	Producer Price			Consumer Price			Price-spread		
	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/flo wer)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)
Channel I	2.4	1.75	105	2.5	2	110	0.10	0.25	5
Channel II	2	1.5	100	2.5	2	110	0.50	0.50	10
Channel III	2.25	1	0	2.5	2	0	0.25	1	0

2. Producer's share in consumer's rupee (P.S):

Formula:

$$\text{Producer's share, P.S.} = \frac{\text{Price received by the producer (P.P)}}{\text{Retail price (R.P)}} \times 100$$

a) The below calculation for Producer's share is done for orchid, anthurium and bush jasmine for Channel I, Producers → Pushpakrishi Vikasana Samith/Cutflower Society → Consumers.

$$\textit{Orchid} = \frac{2.4}{2.5} \times 100 = 96$$

$$\textit{Anthurium} = \frac{1.75}{2.0} \times 100 = 87.5$$

$$\textit{Bush Jasmine} = \frac{105}{110} \times 100 = 95.45$$

b) The below calculation for Producer's share is done for orchid, anthurium and bush jasmine for Channel II, Producers → Local florists → Consumers.

$$\textit{Orchid} = \frac{2.0}{2.5} \times 100 = 80$$

$$\textit{Anthurium} = \frac{1.5}{2.0} \times 100 = 75$$

$$\textit{Bush Jasmine} = \frac{100}{110} \times 100 = 90.9$$

c) The below calculation for Producer's share is done for orchid, anthurium and bush jasmine for Channel III, Producers → Florists (outside state) → Consumers.

$$\textit{Orchid} = \frac{2.25}{2.5} \times 100 = 90$$

$$\textit{Anthurium} = \frac{1.0}{2.0} \times 100 = 50$$

There were no bush jasmine growers who were moving their products through this channel.

The marketing efficiency is said to be higher if the producer's share is approaching 100. Here channel I is efficient as producer's share in orchid, anthurium and bush jasmine cultivation is 100.

The above calculations of Producer's share are shown in Table 4.31

Table 4.31 Producer's share computation in consumer's rupee

Channel	Producer Price			Retail Price			Producer's share		
	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)
Channel I	2.4	1.75	105	2.5	2	110	96	87.5	95.45
Channel II	2.0	1.5	100	2.5	2	110	80	75	90.9
Channel III	2.25	1.0	0	2.5	2	0	90	50	0

3. *Shephard's formula:*

$$M.E = \frac{V}{I} - 1$$

where, M.E = Index of marketing efficiency

V = Value of the goods sold

I = Total marketing cost.

a) The calculation for Marketing efficiency is done for orchid, anthurium and Bush Jasmine for Channel I, Producers → Pushpakrishivikasana Samithi/Cutflower society → Consumers. The calculations are given below

Orchid:

Value of the goods sold (V) = Rs.25/flowerbunch

Total marketing cost (I) = Rs.1.1/flowerbunch

Therefore, $M.E = \frac{25}{1.10} - 1 = 22.7 - 1 = 21.73$

Anthurium:

Value of the goods sold (V) = Rs.12/flower

Total marketing cost (I) = 80 paise/flower

Therefore, M.E = $\frac{12.00}{0.80} - 1$ = 15 - 1 = 14

Bush Jasmine:

Value of the goods sold (V) = Rs.110/kg

Total marketing cost (I) = Rs.12/kg

Therefore, M.E = $\frac{110}{12} - 1$ = 9.17 - 1 = 8.17.

b) The calculation for Marketing efficiency is done for orchid, anthurium and bush Jasmine for Channel II, Producers → Local florists → Consumers. The calculations are given below.

Orchid:

Value of the goods sold (V) = Rs.25/flowerbunch

Total marketing cost (I) = Rs.1.25/flowerbunch

Therefore, M.E = $\frac{25}{1.25} - 1$

= 20 - 1 = 19

Anthurium:

Value of the goods sold (V) = Rs.12/flower

Total marketing cost (I) = 90 paise/flower

Therefore, M.E = $\frac{12}{0.90} - 1$

= 13.33 - 1 = 12.33

Bush jasmine:

Value of the goods sold (V) = Rs.110/kg

Total marketing cost (I) = Rs.15/kg

Therefore, M.E = 110 / 15 - 1

= 7.33 - 1 = 6.33

c) The calculation for Marketing efficiency is done for orchid, anthurium and bush Jasmine for Channel III, Producers → Florists (outside state)→ Consumers. The calculations are given below.

Orchid:

Value of the goods sold (V) = Rs.25/flowerbunch

Total marketing cost (I) = Rs.1.30/flowerbunch

Therefore, M.E = 25 / 1.30 - 1

= 19.23 - 1 = 18.23

Anthurium:

Value of the goods sold (V) = Rs.12/flower

Total marketing cost (I) = 95 paise/flower

Therefore, M.E = 12 / 0.95 - 1

= 12.63 - 1 = 11.63

There is no bush jasmine growers who were moving their flowers through this channel.

Here marketing efficiency in Channel I is higher than other two channels.

The above calculations of Shephard's formula are shown in Table 4.32

Table 4.32 Shephard's formula computation

Channel	Value of the goods sold			Total marketing cost			Marketing efficiency		
	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)	Orchid (Rs/ flower)	Anthurium (Rs/inch)	Bush jasmine (Rs/Kg)
Channel I	25	12	110	1.1	0.80	12	21.73	14.00	8.17
Channel II	25	12	110	1.25	0.90	15	19	12.33	6.33
Channel III	25	12	0	1.30	0.95	0	18.23	11.63	0

Note: Transportation is the only item in marketing cost.

4.33 Market orientation of the floriculturists

4.33.1. Start up Information sources on floriculture

Major information sources of the floriculturists are news paper, encouragement by the Krishibhavan and word of mouth communication, micro credit programmes.

4.33.2. Information sources on channels

Major information sources regarding channels are word of mouth communication and experience of floriculturists.

4.33.3. Awareness of prices and demand of flowers existing in market

All floriculturists are aware about the prices existing in market but they are not aware of the demand of flowers in market.

4.33.4. Awareness of export market of flowers

All orchid and anthurium floriculturists are aware about the export market of flowers. But bush jasmine cultivators are not aware about the export market.

4.34 Problems in floriculture

Problems faced in orchid and anthurium cultivation are shown in Table 4.33.

Table 4.33 Problems in orchid and anthurium cultivation

SI.No	Problems Faced	% of respondents encountering the problems
1	Non-availability of Quality planting materials.	95
2	Delay in getting payment	33
3	Plant diseases	27
4	Absence of low interest loan schemes	25
5	Absence of proper training and guidance	15
6	Existence of bogus societies	8

The major problem in orchid and anthurium cultivation was non-availability of quality planting materials.

Problems faced in bush jasmine cultivation are described in Table 4.34.

Table 4.34 Problems in bush jasmine cultivation

Sl. No.	Problems faced	% of respondents encountering problems
1	Plant diseases	57
2	Wide fluctuation in price	54
3	Low price for the product	15
4	Delay in getting payment	12
5	Competition from other places	3

The major problems faced by bush jasmine cultivators were plant diseases and widespread fluctuation in price.

4.35. Problems in marketing of flowers

Problems faced in marketing of flowers are described in Table 4.35.

Table 4.35 Problems in marketing of flowers

Sl.No	Problems Faced	% of respondents encountering the problems
1	Lack of Assistance from Government	88
2	Low Price	35
3	Exploitation by the channels	32
4	Absence of an Agency to control supply demand and price	21
5	No ready and quick payment	12
6.	Difficulty in transportation	5

The major problems faced by the floriculturists in marketing flowers were lack of government assistance, low price and exploitation by the channels.

4.36 Suggestions to improve the marketing of flowers

Table 4.36 depicts the suggestions to improve marketing of flowers.

Table 4.36. Suggestions to improve marketing of flowers

SI.No	Recommendation	% of respondents who gave suggestions
1	Creation of a Government agency to supply guaranteed planting materials at reasonable cost	95
2	Provision of low interest loans	64
3	Implementation of schemes announced by Government	52
4	Establishment of a Central Government institution for carrying out all the activities related to floriculture	18
5	Value addition for jasmine in the form of jasmine oil	12
6.	Undertake selling of flowers in metros by Vegetable and Fruit Promotion Council, Kerala and Horticorp.	11
7	Introduction of grading system	4

Major suggestions evolved from the survey are creation of a Government level agency to supply guaranteed planting materials at reasonable cost, provision of low interest loans, implementation of schemes announced by Government, establishment of a Central Government institution for coordinating all the activities related to floriculture, value addition for jasmine in the form of jasmine oil, marketing of flowers in metros by Vegetable and Fruit Promotion Council, Kerala (VFPCK) and Horticorp, and introduction of grading techniques, .

4.37 Distribution Strategy for flowers

India has immense potential to emerge as an important producer of floricultural products both for internal and export market. Floriculture is to be considered as an industry and definitely not as a hobby as it has so far been looked at by the vast majority, except a very few commercial entrepreneurs.

Floriculture industry does not confine its activity to growing flowers only, it is only one of its activities, the end-products are cutflowers, live plants, live bulbs, potted plants and cut foliages. The global market for floricultural product is in excess of US $ 7 billion and presently India's share is practically nil (0.3 per cent).

Floriculture in India is to explore earning through non-traditional products and if we take 1991, the year we introduced various economic reforms in the country, we would claim that we have progressed but certainly not to the extent of our potential. We are now exporting cutflowers to Netherlands, Japan, Germany, U.K, Australia, Hong Kong, and U.A.E. But the volume of such export in terms of numbers and value is far below the opportunity available.

4.37.1 Distribution Strategy for orchid and anthurium

In India, Kerala has got the most congenial climatic conditions for cultivation of anthurium and orchid throughout the state. It has got the locational advantages such as airport facilities, educated and resourceful families with land-holdings and as such anthurium and orchid offer an excellent product for development on a long-term basis.

In order to grow anthurium and orchid as a commercial flower, we need to educate our own middle class population of its advantages as decorative flower for use at home and as a gift to friends. This is the first step in marketing anthurium and orchid. If we promote this product based on their distinct advantages over other flowers, we will not be able to grow enough to meet our own internal market. If we do not create an internal market, people may not come forward to take up its commercial production. Once we have produced large volume to meet the Indian market, we could take up export. If we are to promote the growth of anthurium and orchid as a commercial flower, we have to encourage a large number of growers to take up this product for intensive cultivation.

To encourage such small growers to invest money in the project, they should have support and encouragement from a dependable and strong government organization as a mother unit guaranteeing all assistance in case of production problems and marketing of cutflowers against timely and guaranteed payments. Small and medium farmers of Kerala should be brought together under this mother unit to encourage commercial cultivation of the flowers. There are many who are ready to take up anthurium and orchid cultivation seriously, provided the 'Mother Unit' assures their market and payment.

Some of the few reasons for the fear of investment in this project are as follows:

There is no trained labour available on the actual cultural practices to be followed to maximize production. 'Mother Unit' has to organize work camps or training camps to provide both theoretical and practical training to the entrepreneurs and their employees. The 'Mother Unit' has to fund such training programmes. It is also necessary to depute technical staff for periodical visit to the units of its member floriculturists.

There is practically no knowledge of post-harvest treatment, packing and storage. The 'Mother Unit' has to assist the growers in this area on a continuous basis.

Another main bottle-neck in marketing the flowers is transportation to major destinations. 'Mother Unit' should arrange for the collection of flowers once a week. This can be done area-wise to minimize travel time. The grower should be free of his responsibilities, once the flowers, packed as per approved packing practices, are delivered to the 'Mother Unit'.

The 'Mother Unit' should buy all the flowers that are produced by the grower at prices depending on the quality, size, colour etc. and the grower should be free of this worry at all times. The present practice is that a middle man takes the flowers from the grower, sells it to the wholesaler who in turn gives it to the retailers or the end user. The grower is paid in parts after months and where pressurized for payment the middleman turns to the next grower for supply. This exploitation can be stopped by 'Mother Unit' as it directly supplies to wholesaler and Florist. They should be made aware that if the payments are not made in time no flower will come from Kerala.

The 'Mother Unit' should identify and select 4-6 varieties of anthurium and orchid plants for propagation amongst the assisted units. These plants should be internally produced in TC labs and given to certain selected growers for hardening and development. 'Mother Unit' should guarantee their buy-back for distribution amongst the new growers. This will ensure quality of the end product which is cutflowers.

A grower planting about 5000 plants (a minimum for his total involvement) should be given only one variety and colour so that the management of production, marketing etc. becomes easy. There is no point in a small grower planting 10 different varieties and in small quantities. Such action will not allow him to be commercially successful.

The Government should offer all the concessions, subsidy and incentives as they do in the case of small scale industries, treating floriculture as a S.S.I. It is not enough to offer subsidy for planting machinery (as is the normal practice) such as water pump, irrigation equipments and shade net but also for anthurium and orchid plants, as the cost of anthurium and orchid say flowering after 2-3 months will be 75 per cent of the project cost. There is justification on this one time subsidy to be offered on the first purchase of anthurium and orchid plants, because unlike other commercial flowers, anthurium and orchid plants are perennial, it seldom dies but it produces more and more plants year after year.

'Mother Unit' should develop internal and external market for anthurium and orchid flowers.

The airfreight for flowers is prohibitive particularly when billed on the basis of volume and small consignments. Indian Airlines should offer airfreight subsidy for 3-

5 years till we develop the internal market. Subsidy for overseas market development, internal market development should also be considered by the government or in association with 'Mother Unit'.

Government of India has a number of piecemeal incentives on offer and it should be consolidated and entrusted to one Agency for dispensation. We should bear in mind that the objective of the subsidy is to assist the growth of floriculture and not to restrict it in volume of business.

Research and Development expenses to be funded by 'Mother Unit' or Government to develop new varieties of anthurium and orchid plants for the 21st century.

'Mother Unit' should also take up marketing of potted plants as an export item to meet the changing market requirements.

The below diagram depicts the distribution strategy for orchid and anthurium flowers as shown in Figure 3.

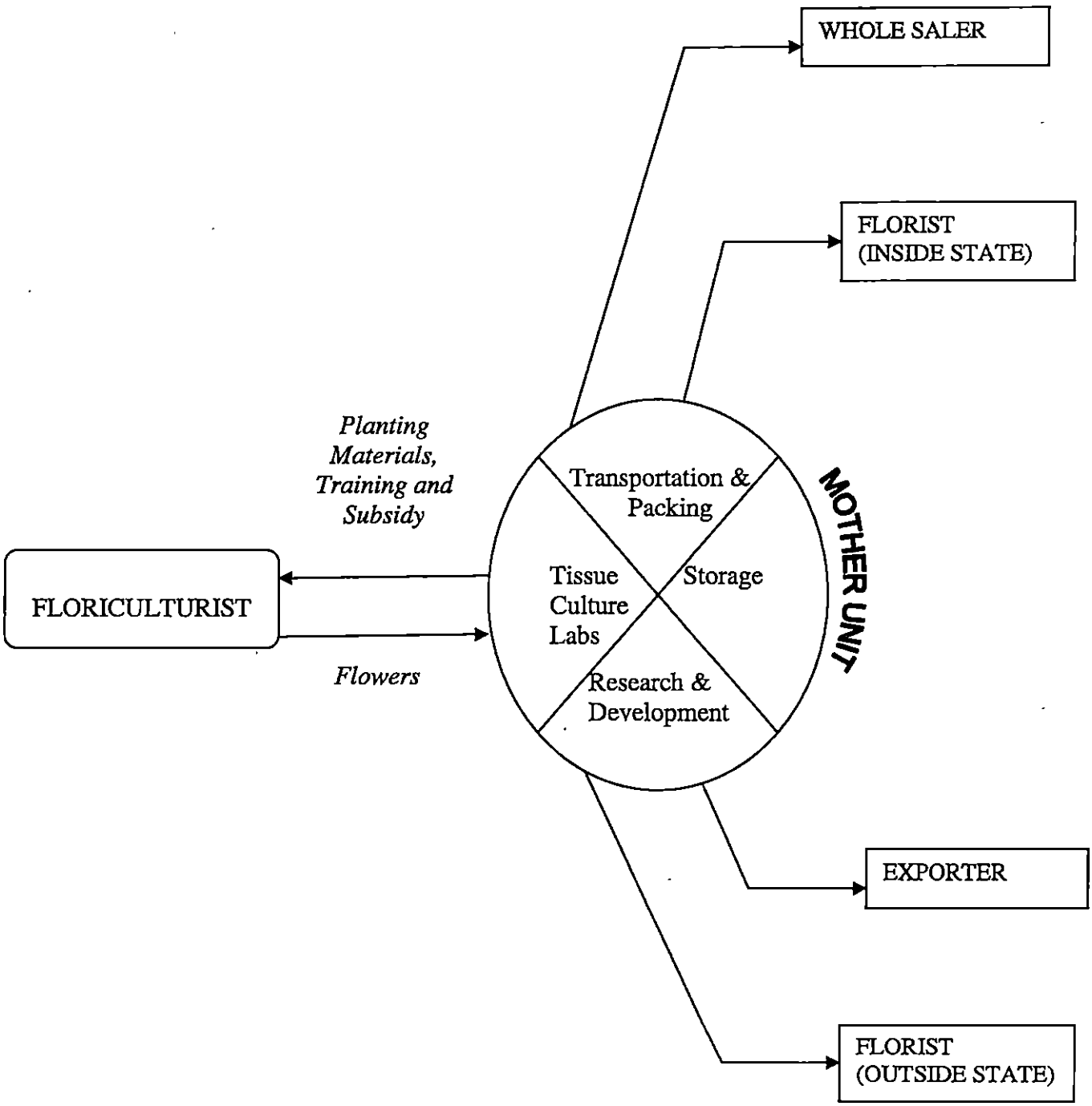

Figure 3: Distribution strategy for orchid and anthurium flowers

4.37.2 Distribution Strategy for bush jasmine

From the marketing perspective traditional flowers like bush jasmine have a number of structural issues compared to other agricultural commodities. Some of the problems are quite unique and are listed below.

1. High perishability and shelf life of the bush jasmine are very short.
2. Highly dispersed production centers with marginal quantities of production. This creates need for specialized activities of assembling, transporting and storing. All these processes lead to cost escalation and finally the consumer price.
3. The problems pointed out above have prompted a large number of intermediaries to involve in the post harvest operations and the channel of distribution. All these have, in turn, installed exploitative trade practices.
4. High price sensitivity both spatially and temporally due to: Seasonality in production, demand, consumer buying patterns and their preferences.
5. Lack of technological support for transport / storing and also in adopting value addition / conversion processes.

Organizational innovations coupled with institutionalization of the system from production to marketing are the only choice.

Farmers have to be organized into groups depending on the area of cultivation. The purpose is to make the quantity of production economical in size for handling. Either co-operative form of organization or any other voluntary type of organization should be formed to help the floriculturists to market their flowers. However, care should be taken that only true farmers have the membership in such farmer's groups.

These farmer groups have to be federated on district wise / block wise. The marketing should be the sole responsibility of such federated organizations. These district wise / block wise units should be linked in order to perform effectively. Consistency in supply and stabilization of prices are also to be carefully designed.

Figure 4 depicts the hierarchy of distribution organizations for bush jasmine.

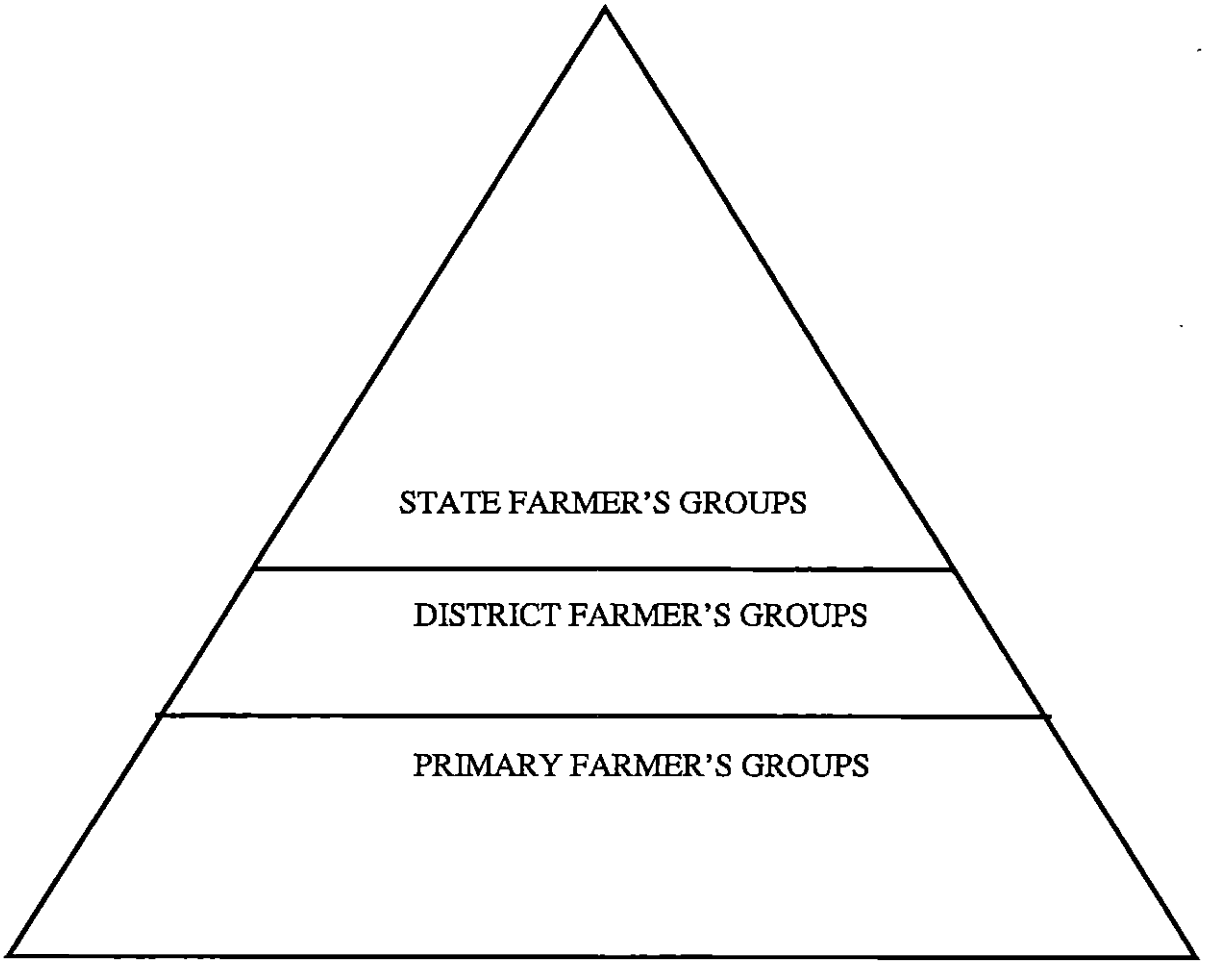

Figure 4: Hierarchy of distribution organizations for bush jasmine.

Figure 5 depicts the distribution strategy for bush jasmine flowers.

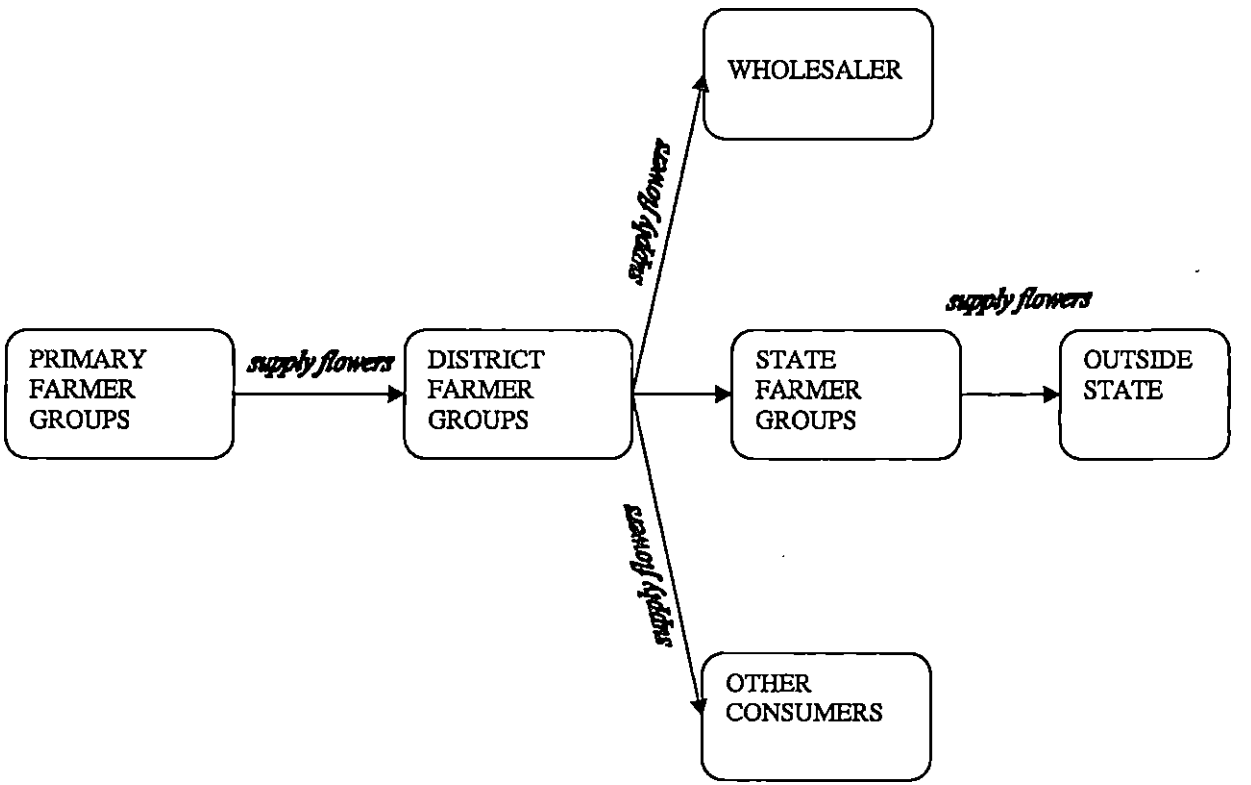

Figure 5: Distribution strategy for bush jasmine flowers.

Summary

CHAPTER 5

SUMMARY

Floriculture has blossomed into a profitable and potential enterprise throughout the world. Commercial floriculture has excellent opportunities both for domestic as well as international market. Kerala with its humid climate, high temperature and plenty of sunshine has been identified as an ideal place for the cultivation of tropical orchids, anthuriums and bush jasmines. Apart from this it is a branch of agriculture, which is suitable for a land scarce state like Kerala. Yet another advantage is that the return from the product is immediate with its demand spread throughout the year.

The climatic condition of Kerala is suitable to grow flowers under shade houses rather than glass houses, so that large number of progressive farmers can take up commercial cultivation of tropical orchid and anthurium to earn more profit. For small and marginal farmers, commercial cultivation of bush jasmine is very much suitable. Thus commercial floriculture will open immense scope for generating employment especially for women in Kerala. From the marketing perspective flowers have a number of structural issues compared to other agricultural commodities such as perish-ability, highly dispersed production centers, seasonality in production, demand and price and lack of technological support. So this industry does not confine its activity with growing flowers only instead it should consider the way of effectively marketing its product also.

Market efficiency is directly related to the cost involved to move goods from producer to the consumer and type and quality of services provided as desired by the consumers. If the cost compared with the services involved is low, then it will be an efficient marketing and vice-versa. An improvement that reduces the cost of a particular function without reducing consumer's satisfaction indicates an improvement in the market efficiency.

A higher level of satisfaction desired by the consumer even at a higher marketing cost may mean increased marketing efficiency. In other words, an efficient marketing can be defined as optimization of the input-output ratio. A change that reduces the input costs in performing a particular activity without reducing consumer satisfaction is clearly an improvement in efficiency. However, a change that reduces cost and also reduces consumers' satisfaction may not indicate a decline in the marketing efficiency.

An efficient marketing system for farm products ensures that,

a) An increase in the farm production is translated into proportionate increase in the real income in the economy thereby stimulating the generation of additional surpluses.

b) Good production year do not coincide with low revenues to producers because of effective storage, proper regional distribution and channelising of the latent demand and

c) Consumers derive the greatest possible satisfaction at the least possible cost.

The study will help to highlight the relative competitiveness of existing marketing channels and will help the floriculturist to identify the most profitable and suitable channels. It will also help the market participants to analyze the potential of market and adopt appropriate production and marketing strategies.

It was in this context that the present study was undertaken with the following specific objectives:

a) To identify the marketing channels of selected commercial flowers.

b) To assess the marketing efficiency of the channels and

c) To suggest appropriate distribution strategy for selected commercial flowers.

The study covered the three major commercial flowers of Kerala, namely orchid and anthurium (falling under the category of modern/cut flowers) and bush jasmine (falling under the category of traditional/loose flowers). The study was conducted in the central zone consisting of Palakkad and Thrissur districts. These two districts were selected since these fall in two different agro climatic conditions and socio-economic backgrounds. The sample size was 120 floriculturists of orchids, anthurium and bush jasmine selected from Thrissur and Palakkad districts.

The study was mainly based on both primary and secondary data. Primary data were collected from the respondents using a pre-tested structured interview schedule. The collected data were analyzed by using relevant statistical tools and techniques. Bivariate tables and simple percentages formed the basis of analysis. Price spread and efficiency indices were used to assess the efficiency of the channels of flower marketing in Kerala.

5.1 Summary of findings

5.1.1. Socio-economic profile of the respondents

1. Occupation-wise classification of the respondents revealed that majority of them was unemployed and females.

2. Age-wise classification of the respondents revealed that majority of them belonged to the age group of 35 and 50 years.

3. Classification of the respondents based on their educational qualification disclosed that majority of them were having pre-degree.

4. Religion-wise classification revealed that majority of the respondents belonged to the Hindu community.

5. A significant portion of the respondents were having sufficient experience (more than 20 years) in farming.

5.1.2. Flower cultivation details

1. Majority of the orchid and anthurium growers were having experience of 4 to 6 years and majority of the bush jasmine growers were having experience of more than 10 years.

2. Major reason pointed out by the respondents for preferring floriculture was its self employment nature.

3. Majority of the orchid and bush jasmine growers were small growers having less than 500 plants (orchid) and less than 250 plants (bush jasmine). In the

case of anthurium, majority of the growers were medium size having 500-1000 plants.

4. The major source of planting material was private nurseries for orchid and anthurium and Krishibhavan for bush jasmine.

5. The major varieties of orchid, anthurium and bush jasmine were dendrobium, tropical and jasminum sambac respectively.

6. All orchid and anthurium growers were using tissue culture plants and all bush jasmine growers were using top cuttings.

7. The average yield of orchid, anthurium and bush jasmine respectively was 6 flower bunches/plant, 9 flowers/plant and 500 gms/plant respectively.

8. While comparing the two districts, Palakkad was having more yield mainly because of the suitable climatic conditions.

9. In the case of orchid, inflorescence were cut when two/three buds were yet to bloom and anthurium flowers were plucked only after the complete blossom of spathe. In the case of bush jasmine, fully grown buds were plucked.

10. Majority of the orchid growers were doing weekly harvesting and anthurium growers were doing fortnightly harvesting.

11. All orchid and authurium growers and majority of the bush jasmine growers were following self harvesting.

12. In the case of orchid and anthurium cultivation, all activities other than green house preparation and spraying operation were done by the floriculturists

themselves. In the case of bush jasmine cultivation, labourers were used for land preparation, planting and harvesting if quantity of flowers are more.

13. The average cost of production for orchid, anthurium and bush jasmine was Rs.130/plant, Rs.116/plant and Rs.7/plant respectively.

14. In the case of orchid and anthurium cultivation 40 per cent of the costs of green houses are provided as subsidies. Bush jasmine cuttings are also provided either free of cost or at a subsidized rate as a part of women empowerment programme. For availing this facility, Government insists that at least 20 women floriculturists should register as a floriculture unit under Krishibhavan.

15. All floriculturists had undergone training organized by Krishibhavan and Department of Agriculture.

16. Majority of the orchid and anthurium cultivators were using their own funds for flower cultivation. But majority of the bush jasmine growers were using credit for flower cultivation. The credit used by them was mainly loan linked subsidy.

17. Majority of the orchid growers are of the opinion that there are no seasonal fluctuations in demand and price of orchid flowers. But majority of the anthurium and all bush jasmine growers are of the opinion that there are seasonal fluctuations in demand and price of flowers.

5.1.3. Flower marketing channel details

1. The following four Channels of Distribution were identified for orchid and anthurium:

   a) Producers → Pushpakrishi Vikasana Samithi/Cutflower society → Consumers.

   b) Producers → Local florists → Consumers.

   c) Producers → Exporters → Florists (upcountry market) → Consumers

   d) Producers → Consumers.

The following three Channels of Distribution were identified for bush jasmine:

   a) Producers → Pushpakrishi Vikasana Samithi/Cutflower society → Consumers.

   b) Producers → Local florists → Consumers.

   c) Producers → Consumers.

2. Preferred channel of orchid and authurium growers are:

   Producers → Pushpakrishi Vikasana Samithi/cutflower Society → Consumers

and

Preferred channel of bush jasmine growers are:

   Producers → Local florists → Consumers.

3. Major customers of orchid and anthurium growers were Pushpakrishi Vikasana Samithi/Cutflower Society, local florists, florists (outside state) and individuals and major customers of bush jasmine growers are Pushpakrishi Vikasana Samithi, local florists and individuals.

4. The major reasons pointed out by the floriculturists to prefer Pushpakrishi Vikasana Samithi/Cutflower Society are convenience, steady demand and fair and reasonable price. Convenience and quick payment are the reasons to prefer local florists. Florists (outside state) were also offering steady demand and quick payment. Floriculturists were offering their flowers to individual consumers mainly as they didn't have any other alternative because of low production.

5.1.4. Marketing efficiency details

1. Grading was not practiced by the floriculturists, instead channels did the grading.

2. Current market price (2005) of orchid, anthurium and bush jasmine are Rs.2.50/flower in each flower bunch, Rs.2/inch and Rs.110/kg respectively.

3. Packing was done by the channels and not by the floriculturists.

4. Majority of the orchid and anthurium growers and all bush jasmine growers were not incurring transportation cost.

5. Majority of the orchid and anthurium growers and all bush jasmine growers were not undertaking any value addition activities.

6. Majority of the orchid and anthurium growers were getting quarterly payment for their flowers and majority of the bush jasmine growers were getting monthly payment.

7. The floriculturists were not having any role in fixing flower prices, instead they were getting only the price fixed by the channels.

8. The channel, Producers → Pushpakrishi Vikasana Samithi / Cutflower society → Consumers is considered as the most efficient channel for orchid, anthurium and bush jasmine as price spread is minimum and producer's share is approaching 100. While evaluating based on Shephard's formula also this channel is considered efficient.

5.1.5. Market orientation of the floriculturists

1. Major information sources of the floriculturists were newspapers and Krishibhavans.

2. Major information sources for channels were word of mouth and experience of floriculturists.

3. All floriculturists were aware about the prices existing in the market.

4. Majority of the floriculturists were not aware about the demand for flowers in the market.

5. All orchid and anthurium floriculturists are aware about the export potential of flowers. But majority of bush jasmine growers are not aware about the export potential of flowers.

5.1.6. Problems in floriculture

1. Major problem in orchid and anthurium cultivation is non-availability of quality planting materials and major problem in bush jasmine cultivation is plant diseases.

2. Major problem in marketing of flowers is lack of assistance from Government and exploitation by the channels.

5.1.7. Suggested Distribution Strategy.

Following Distribution strategy is formulated based on the problem in marketing of flowers.

In case of orchid and anthurium, small and medium floriculturists of Kerala should be brought together under a strong government organization as a 'Mother Unit' which guarantees all assistance in the case of production problems and marketing of these flowers against timely and guaranteed payment.

In case of bush jasmine, farmers have to be organized into groups in order to make the quantity of Production economical in size for handling. These farmer's groups have to be federated on district wise / block wise and the marketing should be the sole responsibility of such federated organization.

At present the cultivation of flowers is taken up by a few large, medium and small units, who maintain thousands of plants according to their own cultural practices from place to place and grower to grower. There is no co-ordination between the growers or State Agricultural Department or University or Associations or Federations formed for the purpose. Hence if the suggested distribution strategy is organized in a systematic manner, it will help to improve the floriculture activities and market substantially.

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Appendices

APPENDIX I

MARKETING OF COMMERCIAL FLOWERS IN KERALA – A STUDY IN PALAKKAD AND THRISSUR DISTRICTS

SURVEY SCHEDULE FOR FLORICULTURISTS

1. Name of the respondent :

2. Address :

3. District :

4. Block :

5. Panchayat :

6. Occupation :

7. Sex :

8. Age :

9. Educational qualification:

Below matriculation	☐	Matriculation	☐	Pre-Degree	☐
Degree	☐	PG and above	☐	Professional	☐

10. Religion / Caste :

11. Family Particulars:

SI.No	Name of Family Members	Sex	Age	*Educational Qualification	**Primary Occupation	Annual Income	Secondary Occupation	Annual Income

* - 1.Below matriculation 2.Matriculation 3.Pre-Degree 4.Degree 5.PG and above 6.Professional
** - 1.Agriculture 2. Government Servants 3. Private Employees 4. Business 5. Floriculture 6.Others.

12. Experience in farming of the sample floriculturists :

0-5 years ☐ 5-10 years ☐ 10-15 years ☐
15-20 years ☐ 20-25 years ☐ > 25 years ☐

13. Experience in flower cultivation :

SI.No	Flowers Cultivated	Experience*
1	Orchid	
2	Anthurium	
3	Bush Jasmine	

* - (1) < 1 year (2) 1-2 years (3) 2-3 years (4) 3-4 years (5) 4-5 years (6) > 5 years

14. What are the reasons for preferring this? :

Self employment ☐ Good opportunity and remuneration ☐

Less competitive field ☐ Government aid ☐ Others ☐

15. Area of Floriculture

Sl. No.	Particulars	Orchid	Anthurium	Bush Jasmine	Source of Irrigation
1	Owned area under cultivation				
2	Leased area under cultivation				
3	Total Area				

16. Source of Planting material for flower cultivation:

Sl. No.	Flowers Cultivated	Source of Planting material	Cost (Rs.)
1	Orchid		
2	Anthurium		
3	Bush jasmine		
4	Other (Specify)		

17. Gestation period for flower production :

Sl. No.	Flowers Cultivated	Gestation period
1	Orchid	
2	Anthurium	
3	Bush jasmine	
4	Other (Specify)	

18. Flower production details :

Sl.No	Flowers Cultivated	Variety	Reasons for preferring the varieties	Area/Cents/ Stands/Ports	Method of planting	Total Yield/ Cent /Stand/ Port	Total Production / year
1	Orchid						
2	Anthurium						
3	Bush Jasmine						

19. Harvesting Frequency of Flowers :

Sl. No.	Flowers Cultivated	*Mode of Harvesting	Harvesting Frequency	Quantity per harvest
1	Orchid		Daily/ weekly/Biweekly/Monthly	
2	Anthurium		Daily/ weekly/Biweekly/Monthly	
3	Bush jasmine		Daily/ weekly/Biweekly/Monthly	
4	Other (Specify)		Daily/ weekly/Biweekly/Monthly	

* - (1) Self (2) By Labourers (3) Contract (4) Others.

20. Method of Post Harvest Treatment, if any:

Sl. No.	Flowers Cultivated	Post Harvest Treatment
1	Orchid	
2	Anthurium	
3	Bush Jasmine	

21. Wage Rate: Male- Rs._____ Female – Rs. _____

22. Labour Requirement for flower production:

Sl.No	Particulars	Orchid				Anthurium				Bush Jasmine			
		Family		Hired		Family		Hired		Family		Hired	
		M	F	M	F	M	F	M	F	M	F	M	F
1	Land Prepartion												
2	Green House Preparation												
3	Manure and Fertilizer Application												
4	Pesticide Application												
5	Irrigation												
6	Transportation of Inputs												
7	Harvesting												
8	Transportation of Flowers												
9	Miscellaneous												

23. Cost of Production of flowers :

Sl.No	Particulars	Area / Quantity			Cost / Plant / Area			Total Cost		
		Orchid	Anthurium	Bush Jasmine	Orchid	Anthurium	Bush Jasmine	Orchid	Anthurium	Bush Jasmine
1	Cost of Land/rent on leased land									
2	Cost of land preparation									
3	Cost of Green house									
4	Planting Materials									
5	Manures and Fertilizers									
6	Pesticides									
7	Irrigation									
8	Transport of Inputs									
9	Implements									

Sl.No	Particulars	Area / Quantity			Cost / Plant / Area			Total Cost		
		Orchid	Anthurium	Bush Jasmine	Orchid	Anthurium	Bush Jasmine	Orchid	Anthurium	Bush Jasmine
10	Labour Cost									
11	Harvesting cost									
12	Transportation of flowers									
13	Miscellaneous Expenses									

24. Whether you involved in Government / NGO Scheme? If "yes", what assistance you obtained from it?

25. Details of finance:

Source	Amount	Interest Rate	Repayment Pattern
Own Fund			
Credit			

26. Whether you are getting any subsidy? If "yes" specify the amount.

27. Whether you are getting any technical support? If "yes" specify.

28. Whether you have undergone any training? If "yes" specify.

29. Channel Awareness of floriculturists:

1) Producers → Local florists → Consumers.
2) Producers → Exporters → Florists (upcountry market) → Consumers
3) Producers → Florists (upcountry market) → Consumers
4) Producers → Consumers.
5) Others (Specify)

30. Channel Preference of Floriculturists:

1) Producers → Local florists → Consumers.
2) Producers → Exporters → Florists (upcountry market) → Consumers
3) Producers → Florists (upcountry market) → Consumers
4) Producers → Consumers.
5) Others (Specify)

31. To whom do you sell flowers? (Quantity and Average price of last sale).

Sl.No.	Customers	*Reason for choice of customers	Orchid		Anthurium		Bush Jasmine		Qualitative Preference
			Quantity	Price	Quantity	Price	Quantity	Price	
1	Individual Customers								
2	Federation of Indian Floriculturists								
3	Cut flower producer societies								
4	Pushpakrishi Vikasana Samithi								
5	Brokers								
6	Local florists								
7	Primary Wholesalers								
8	Wholesalers								
9	Beauticians								
10	Florists (upcountry market								
11	Exporters								
12	Outside State								
13	Churches and Christian institutions								
14	Marriages and decorations								
15	Other institutional customers								
16	Others								

*Reason for choice of customers :

(1) Good Price (2) Convenience (3)Ready & Quick Payment

(4) Collection from the spot (5) Steady Demand (6) Marketing Network (7)Others(Specify)

33. Whether there are any seasonal fluctuations in demand and price of flowers?

Sl. No.	Flowers Cultivated	Gestation period
1	Orchid	
2	Anthurium	
3	Bush jasmine	
4	Other (Specify)	

If "yes" specify.

34. Method of Grading:

Sl. No.	Flowers	Grading Methods
1	Orchid	
2	Anthurium	
3	Bush jasmine	

35. Specify shelf life of flowers:

Sl. No.	Flowers	Shelf Life
1	Orchid	
2	Anthurium	
3	Bush jasmine	

36. Whether you are using refrigerated mode of transportation? If "yes" specify.

37. Marketing cost.

Particulars	No. of employees			Wages paid/employee			Total cost		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1. Grading									
(a) Labour requirement hired labour									
(b) Any other operations before packing									
2. Packing									
Particulars	Number			Cost/flower/kg			Total cost		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1) Mode of packing (a) Polythene cover/Sleeves (b) Paper (c) Cardboard boxes (d) Any others									
2) Packing aids (a) Adhesive tapes (b) Others									
3) Labour cost in Packing									
4) Cost of value addition									
3. Transportation									
Particulars	Place of sale			Distance of the market (km)			Cost / transportation		
	Orchid	Anthuri-um	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1) Mode of transportation (a) Headload (b) Bi-cycle (c) Moped (d) Bus (e) Van (f) Lorry (g) Train — Owned/ Leased									
Particulars	Number of employees			Wage / employee					
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
2) Labour cost involved in transportation									
Particulars	Quantity of flowers			Cost / unit					
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
3) Post-harvest losses (a) harvesting, grading, packing (b) transportation									

38. Whether you are undertaking value addition of flowers? If "yes" specify.

39. Types of value addition?

Sl. No.	Flowers	Value Addition*
1	Orchid	
2	Anthurium	
3	Bush jasmine	

* - (1) Garland making (2) Bouquet making (3) Flower Arrangement (4) Others(Specify)

40. Cost involved in Value Addition:

Sl. No.	Particulars	Cost
1	Cost of processing materials	
2	Packing aids	
3	Transportation	
4	Labour cost	
5	Others	

41. Terms and conditions for sale

Terms and Conditions	Flowers		
	Orchid	Anthurium	Bush Jasmine
Spot payment			
Credit sales			
Contract			
Auction			
Others(specify)			

42. Method of Pricing:

Pricing methods	Flowers		
	Orchid	Anthurium	Bush Jasmine
Cost plus pricing			
Target profit pricing			
Value pricing(based on quality)			
Competition-based pricing			
Seasonal pricing			
Others			

43. Market Orientation of the floriculturists:

a) What are your other activities (profession)?

b) How did you come to know of this flower cultivation?

Word of Mouth ☐ Television ☐ Magazines ☐ Newspapers ☐

Others ☐

c) How did you come to know about the channel?

Word of Mouth ☐ Television ☐ Magazines ☐ Newspapers ☐

Others ☐

d) Are you aware about the prices existing in various markets?

Yes ☐ No ☐

e) Are you aware about the quantity of flowers that comes to each market?

Yes ☐ No ☐

f) Are you aware about the export potential of these flowers?

Yes ☐ No ☐

44. What are the problems involved in floriculture?

45. What are the difficulties involved in marketing of flowers?

46. What are the suggestions you can give to improve the marketing of flowers?

APPENDIX II

MARKETING OF COMMERCIAL FLOWERS IN KERALA – A STUDY IN PALAKKAD AND THRISSUR DISTRICTS

SURVEY SCHEDULE FOR CHANNEL MEMBERS

1. Name of the respondent :

2. Address :

3. District :

4. Block :

5. Panchayat :

6. Age :

7. Educational qualification:

Below matriculation	☐	Matriculation	☐	Pre-Degree	☐
Degree	☐	PG and above	☐	Professional	☐

8. Experience in flower marketing :

< 1 year	☐	1-2 years	☐	2-3 years	☐
3-4 years	☐	4-5 years	☐	> 5 years	☐

9. What are the reasons for preferring this? :

Self employment ☐ Good opportunity and remuneration ☐

Less competitive field ☐ Government aid ☐ Others ☐

10. Source of flower collection:

Sl. No.	Flowers collected	Source of collection*	Contact address	Current price of flower (per kg.)	Average quantity per collection (current)
1	Orchid				
2	Anthurium				
3	Bush jasmine				

Source: 1. Floriculturists 2. Private nurseries 3. Pushpakrishi Vikasana Samithi
4. Cutflower producer societies 5. Brokers 6. Outside state 7. Others

11. Mode of collection and frequency of procurement:

Sl. No.	Flowers collected	Mode of collection*	Procurement frequency**	Quantity/ procurement
1	Orchid			
2	Anthurium			
3	Bush jasmine			

* 1. Self 2. By labourers 3. Contract 4. Farmers themselves 5. Others
** 1. Daily 2. Weekly 3. Fortnightly 4. Monthly

12. Daily wage rate of employees: Male Rs. Female Rs.

13. Procurement cost of flowers: (current procurement quantity)

Sl. No.	Particulars	Orchid	Anthurium	Bush jasmine
1	Transportation cost			
2	Labour cost			
3	Packing cost			
4	Grading cost			
5	Miscellaneous expenses			

14. Whether you are involved in any Government/NGO Scheme? If 'Yes', what assistance you obtained from it.

15. Details of finance:

Sl. No.	Source	Principal amount (Rs.)	Agency	Interest rate	Repayment period
1	Own funds				
2	Credit				

16. Marketing cost.

Particulars	No. of employees			Wages paid/employee			Total cost		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1. Grading (a) Labour requirement hired labour (b) Any other operations before packing									
2. Packing									

Particulars	Number			Cost/flower/kg			Total cost		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1) Mode of packing (a) Polythene cover/Sleeves (b) Paper (c) Cardboard boxes (d) Any others									
2) Packing aids (a) Adhesive tapes (b) Others									
3) Labour cost in packing									
4) Cost of value addition									

3. Transportation									
Particulars	Place of sale			Distance of the market (km)			Cost / transportation		
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
1) Mode of transportation (a) Headload (b) Bi-cycle (c) Moped (d) Bus (e) Van (f) Lorry (g) Train — Owned/ Leased									
Particulars	Number of employees			Wage / employee					
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
2) Labour cost involved in transportation									
Particulars	Quantity of flowers			Cost / unit					
	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine	Orchid	Anthurium	Bush jasmine
3) Post-harvest losses ***(a) harvesting, grading, packing*** ***(b) transportation***									

17. Government Assistance

Sl. No.	Statements	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
1	You are getting subsidy					
2	You are getting technical support					
3	You have undergone training					

18. Specify the source and amount of subsidy.

19. Specify the type and source of technical support.

20. Specify the name and source of training.

21. Specify the immediate channel member to whom you supply flowers? (specify quantity and average price of last sale).

Sl. No.	Immediate channel	Orchid		Anthurium		Bush jasmine		Address
		Quantity	Price	Quantity	Price	Quantity	Price	
1	Pushpakrishi Vikasana Samithi							
2	Local Florists							
3	Wholesalers							
4	Exporters							
5	Outside State							
6	Others							

*Reason for the choice of customers:

1. Good price 2. Convenience 3. Ready and quick payment 4. Collection from the spot
5. Steady demand 6. Marketing network 7. Others (specify)

22. Method of grading:

Sl. No.	Flowers	Grading Methods
1	Orchid	
2	Anthurium	
3	Bush jasmine	

23. Whether you are using refrigerated mode of transportation. If 'Yes', specify.

24. Mode of packing:

Sl. No.	Flowers	Packing methods*	Cost/flower/kg (Rs.)
1	Orchid		
2	Anthurium		
3	Bush jasmine		

* 1. Polythene cover/sleeves 2. Paper 3. Cardboard boxes 4. any other

25. Method of pricing:

Pricing methods	Flowers			Reason for preferring this
	Orchid	Anthurium	Bush Jasmine	
Cost plus pricing				
Target profit pricing				
Value pricing based on quality				
Competition based pricing				
Seasonal pricing				
Others				

26. Market orientation of the Floriculturists:

(a) Do you have any other marketing activities other than floriculture

(b) How did you come to know of this flower business:

Word of mouth ☐ Television ☐ Magazines ☐

Newspapers ☐ Others ☐

(c) Marketing awareness

Sl. No.	Statements	Strongly agree	Agree	No opinion	Disagree	Strongly disagree
1	You are aware about the prices existing in various market					
2	You are aware about the quantity of flowers that comes to each market					
3	You are aware about the export potential of these flowers					
4	You are aware about the quality specification in international market					
5	You are aware about sources of market information					

(d) What are the sources of market information you are receiving.

Direct from the market ☐ Media ☐ Internet ☐ Others ☐

27. What are the problems involved in flower marketing.

Sl. No.	Problems	
1	Poor quality of flowers	
2	Inadequate quantity of flowers	
3	Competition from other states	
4	Widespread fluctuation in price	
5	Lack of demand	
6	Low price for the product	
7	Irregular supply	
8	Others	

28. What are your suggestions to improve the marketing of flowers.

MARKETING OF COMMERCIAL FLOWERS – A STUDY IN PALAKKAD AND THRISSUR DISTRICTS OF KERALA

By

K. SANGEETHA

ABSTRACT OF THE THESIS

Submitted in partial fulfillment of the requirement for the degree of

Master of Science in Co-operation & Banking

Faculty of Agriculture

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Department of Rural Marketing Management

COLLEGE OF CO-OPERATION, BANKING & MANAGEMENT

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KERALA, INDIA

2005

ABSTRACT

The study on *'Marketing of commercial flowers – a study in Palakkad and Thrissur districts of Kerala'* was undertaken with the following objectives:

1. To identify the marketing channels of commercial flowers,
2. To assess the marketing efficiency of the channels, and
3. To suggest appropriate distribution strategy for commercial flowers.

Orchid, anthurium and bush jasmine, the three major commercial flowers of Kerala, were considered for this study. The study was conducted in the Central Zone focusing on Palakkad and Thrissur districts. These two districts were selected as these fall in the two different agro climatic conditions and socio economic backgrounds. Both the districts have sizable number of floriculturists.

Moreover, among the identified districts, Palakkad was having relatively large number of producers of bush jasmine and Thrissur was having a good assortment of orchid and anthurium flowers.

The list of floriculturists dealing in orchid, anthurium and bush jasmine for two districts were collected from various sources such as Agriculture Department, Krishibhavans and Floriculture, Department of College of Horticulture. A sample group of 20 floriculturists of each flower from each district constituted the total 120 respondents.

Floriculture was preferred as a self employment venture by most of the respondents. Government also promote floriculture units through "Women Empowerment Programme" by giving subsidy and training. Bush jasmine growers were more experienced (more than 10 years) than orchid and anthurium growers (4 to 6 years)It is very much suitable for unemployed women as all activities concerned with orchid and anthurium cultivation other than spraying are done by the floriculturists themselves. In the case of bush jasmine also all activities other than planting are

done by the floriculturists. The channels of distribution existing in orchid and anthurium marketing in Palakkad and Thrissur districts were as follows:

Channel I : Producers → Pushpakrishi Vikasana Samithi/cut flower society → Consumers.

Channel II : Producers → Local Florists → Consumers.

Channel III : Producers → Florists (outside state) → Consumers.

Channel IV : Producers → Consumers.

Among the four channels, the most preferred channel by them was Channel I and the reasons for preference were fair & reasonable price and steady demand. The channels of distribution existing in bush jasmine cultivation were as follows:

Channel I : Producers → Pushpakrishi Vikasana Samithi/cut flower society → Consumers.

Channel II : Producers → Local Florists → Consumers.

Channel III : Producers → Consumers.

Among these 3 channels, the most preferred channel by them was Channel II and the reasons for preferences were convenience and quick payment. But for orchid, anthurium and bush jasmine marketing, Channel I is considered the most efficient one. Grading and packing were not practiced by the floriculturists. They were also not having any role in fixing flower prices because of their unorganized nature and low quantity of production. Non-availability of the quality planting materials was the major problem in orchid and anthurium cultivation and in case of bush jasmine cultivation it was plant diseases. Major problems in marketing of flowers were lack of assistance from government and exploitation by the channels. In order to solve these problems, the floriculturists have to be organized under a strong government organization as a 'Mother Unit' which guarantees all assistance in case of production problems and marketing of flowers against timely and guaranteed payment.