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PROBLEMS IN PRODUCTION AND MARKETING OF LEMON IN TAMILNADU

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Abstract
In this paper the problems identified in cultivation of lemon, high cost of input is the major problem faced by the growers with a mean score of 53.78, followed in by Circulation of years of yield is the second important problem with a mean score of 55.11 in cultivation out of seven problmes whereas in marketing price fluctuation is the major problem faced by the grower with mean score of 53.78 followed by Inadequate market finance is the second important problem with a mean score of 49.15 out of six problems in Dindigul District of Tamilnadu and offered suitable suggestions accordingly.

Keywords: Garrett Ranking Technique, Problems in Lemon Cultivation and Marketing.

Introduction

A large variety of fruits are grown in India, and among them mango, banana, citrus, guava, grape, pineapple and apple had been the major ones. Fruits and vegetables are rich sources of vitamins, minerals, proteins and carbohydrates, which are essential for human nutrition. India produced 40 per cent of the tropical fruits, against Asia's production of 90 per cent. The Total production and area of fruits had been estimated at 43.1 Million Tonnes and 4.01 Million Hectares respectively, which had accounted for 10 per cent of the Total world's production of fruits which was Second only to that of Brazil. According to a report of the World Health Organisation (WHO) the low fruit intake had been estimated to cause about 31 per cent of the number of heart diseases and of 11 per cent of stroke in the World. The cultivation of Horticultural Crops which had a vital role in improving the prosperity of the Nation was directly linked to the health and happiness of the people. The emphasis on Horticulture was a recognition of the need for attaining nutritional security and for earning a sustainable income. Healthier diets improve the learning capacity of the children and the working capacity of the adults, leading to higher incomes and a reduction in poverty levels. Citrus is the world's leading tree – fruit crop. It is a crop adaptable to wide range of soils, terrain, planting and cultural arrangements, and over 100 nations reported citrus production in the world. The area and production have increased many fold in the past 30 years, particularly in Japan, Brazil, Israel, Turkey and Cuba. Although domestic consumption is the principal market for citrus fruit, the major citrus producing countries, like Spain, USA, Israel, Morocco and South Africa export a sizeable amount of fresh fruits to the world market, in particular to Europen Economic Community, Russia, Canada, Saudi Arabia, Kuwait and Hong kong. Citrus plantations in Israel occupy more than 40,000 hectares and 80 per cent of Israel's agricultural export value lies on citrus. In Cuba the planting is about 1,50,000 hectare, though grapefruit is mainly under cultivation. In Japan, citrus occupies the first place among fruit crops, covering nearly more than 50 per cent of the total areas under fruit crops and 2.8 per cent of the total area under Natsudaidai. Citrus occupies about 9 per cent of the total land under various fruits in India. The most important commercial citrus in India is the mandarin orange followed by the sweet oranges and acid limes

Statement of Problem

India stands first in the production of Lemon. Since the citric acid content in Indian Lemon is high it receives resounding reception in modern cuisine both of indigenous and continental. As the fruit has medicinal and nutritional value it finds a respectable place in many kinds of beverages all over the world. In India, Tamil Nadu occupies sixth place both under area of cultivation and production of Lemon. From the horiticultural stand point of view, Dindigul District had numerous special features of which, the first and the foremost one was the prevalence of three distinct climates, namely the temperate, the sub-tropical and the tropical climates. No other districts in the Tamil Nadu State had such unique agro climatic zones. Accordingly, the Dindigul District had been selected as it stood first in the cultivation of lemon with an average area of 1229 Hectares during the year 2009-2010 in Tamil Nadu. Dindigul district has 27.499 hectares of fruit producing area with 380658 tonnes of fruit production. The average productivity in the District is estimated to be 13.84 tonnes per hectares. The district has been famous for Guava, Jack fruit, Pear, Plums and Lemon. Due to the prevalence of red and black soil and moderate climatic conditions the district is known for different varieties of fruits of which lemon is widely grown by number of farmers. The Nilakotai, Ottachandram and Batalgundu fruit markets located in the district drawn hundreds and thousands of wholesale fruit vendors. The farmers are motivated to grow more and more fruits including Lemon. Lemon is a tree fruit which gives substantial revenue to the farmers in addition to providing large scale employment directly and indirectly to the people. Through the fruit is being cultivated in the natural way from time immemorial, the growing awareness among various utilities of lemon fruits and the presence of important fruit markets in the district and the economic factors of production and marketing of lemon create growing enthusiasm among prospective fruit cultivators of the district. As there is no detailed study made so fare on production and marketing of lemon in Dindigul District of Tamil Nadu, the researcher felt

that it is pertinent to have on exploratory study of cultivation pattern and marketing practices certainly help the policy makers to frame suitable policies which ultimately will result in the overall economic development of the region, hence the present study.

Review of Literature

Mali ***et al.,*** had observed that the high cost of transportation, the non- availability of sufficient credit from the institutions and in time, the high price fluctuations, the problem of cheating in the weighing of the produce and the lack of suitable grading services of the produce according to quality were the main problems in the production and marketing of the product.

Mishra ***et al.,*** had found that the problems faced by the farmers in the production and marketing of bananas had been the non-availability of suckers and the high costs of the seed suckers, the high costs of transportation, the lower ruling prices for the produce due to the non- availability of sufficient storage facilities and the weak financial structure. The problem of the supply of adequate electric power during critical periods, and the non-availability of fertilizers and insecticides at reasonable prices had also been faced by the farmers.

Objectives

The main objective of the study is to analyse the problems encountered in the cultivation and marketing of Lemon by the growers and to offer suitable suggestions to solve them.

Methodology

The Dindigul District comprised of 7 taluks. Lemon is mainly cultivated in Ottanchathiram and Natham taluks while in Kodaikanal, Nilakottai and Dindigul taluks Lemon is cultivated here and there and in negligible proportions. In Vedasandhur and Palani taluks Lemon is not at all grown. Hence the selection of the sample villages had been restricted to the two taluks only. According to the reports of NABARD any sample size between 300 and 500 is suitable for studying the issues related to agricultural farming, particularly about the fruit crops. Hence in consultation with the Officials of the Horticultural Department and the experts in the fields of Food and Fruit crops the researcher had decided to select 400 Lemon cultivators; 200 each from the respective two taluks of Oddanchathiram and Natham. The chosen cultivators were then classified into marginal farmers and small farmers based on their land holdings. Accordingly 107 marginal and 92 small farmers from Oddanchatram taluk and103 marginal and 98 small farmers from Natham taluk making a total of 400 Lemon farmers had formed part of the sample size. Primary data were collected from Lemon growers and merchant middle men. The survey was undertaken during the period of July 2013 to March 2014.

Tools for Analysis

Garrett's Ranking Technique has been used to identify the problems in Lemon cultivation and marketing. The farmers were asked to rank some of the identified reasons.

$$\text{Per cent Position} = \frac{100\,(Rij-0.5)}{Nj}$$

Where,

Rij = Rank given to i^{th} factor by j^{th} individual.

Nj = Number of factors ranked by j^{th} individual.

By referring the table given by Garrett, the per cent position estimated were converted into scores. Then for each factor, the scores of various respondents were added and divided by the number of respondents to arrive at the mean score. The mean score thus obtained for each factor were arranged in a descending order. The factor with highest mean score was given the first rank followed by second, third and so on.

Results and Discussions

An attempt has been made to identify the problems faced by the growers in the cultivation of Lemon.

Table 1 Problems Faced by the Growers in Cultivation of Lemon

Sl.No.	*Problem*	*Garrett's Mean Score*	*Rank*
1.	High cost of Input	56.52	I
2.	Circulation of Years of Yield	55.11	II
3.	Unfavourable Climatic Condition	46.75	III
4.	Pests and Diseases	43.40	IV
5.	Non-availability of Skilled Labour	39.27	V
6.	Non-availability of Hybrid Seedling	36.98	VI
7.	Lack of Scientific Knowledge	35.58	VII

Source: Primary data

It could be observed from Table 1 that high cost of input is the major problem faced by the growers with a mean score of 53.78. Cultivation trend is dependent upon monsoon, so the growers are often not sure about the outcome from agriculture due to weather and market induced risk. Circulation of years of yield is the second important problem with a mean score of 55.11. Unfavourable climatic condition is the third important problem with mean score of 46.75. Pest and disease is the fourth important problem with a mean score of 43.40. Lemon crop suffers from several diseases at all stages of its life.

Non availability of skilled labour is the fifth important problem with a mean score of 39.27. At the time of plucking Lemon, it is difficult to get skilled labour. Non- availability of hybrid-seedling is the sixth important problem with a mean score of 36.98 and lack of scientific knowledge is found to be the least important problem faced by the growers in the study area.

Marketing of Lemon

Generally, agriculture marketing emphasis, is on the performance of all business activities involved in the flow of goods from the point of initial agricultural production till they reach the hands of the ultimate consumer. An attempt has been made to identify major problems faced by the growers in the marketing of Lemon. The identified problems of growers in the marketing of Lemon are ranked by making use of Garrett's Ranking Technique and the details are presented in Table 2.

Table 2 Problems Faced by the Producers in Marketing of Lemon

Sl.No	*Problem*	*Garrett's Mean Score*	*Rank*
1.	Price Fluctuation	53.78	I
2.	Inadequate Market Finance	49.15	II
3.	Lack of Cold Storage	45.91	III
4.	Absence of Grading and Processing	42.67	IV
5.	Lack of Transportation	39.21	V
6.	Lack of Market Information	38.87	VI

Source: Primary data

It could be observed from Table 2 that price fluctuation is the major problem faced by the grower with mean score of 53.78. Growers could not get right price for their produce in the absence of grading and processing facilities at the market centres. Inadequate market finance is the second important problem with a mean score of 49.15. The growers get money in advance from the village trader and they have to sell their produce only to them even at reduced price. Inadequate storage facility is the third important problem with mean score of 45.91. This results in deterioration in quality and thus they do not get a reasonable price for their produce. The fourth important problem is the absence of grading and processing with the mean score of 42.67. The lack of transport facility is found to be the fifth problem with a mean score of 39.21 and the lack of market information is found to be the least important problem faced by the growers in the study area.

Suggestions

As an outcome of the research it is observed by the researcher that the cultivation of Lemon in the study area is economically viable. However the removal of certain constrains faced by the growers both at the stage of production and marketing can help to increase the yield to get better price for their produce. In order to improve the position, the following suggestions are:

- Most of the growers relied upon the local money lenders and contractors to meet their financial requirements paying exorbitant rate of interest so steps should be devised to ensure adequate credit for cultivation of Lemon in the study area.
- Liberal financial assistance may be made available to the growers as loans through commercial banks and co-operative societies. The Government should provide Financial Assistance to the Farmers as a reasonable Rate of Interest to purchase Tractors or power Tillers along with the necessary Ploughing and Ridge Forming equipments and Instruments. The Government should make arrangements to supply herbicides at subsidized rates to the farmers.
- The Farmers should be made to realise that they had not utilized their resources to the fullest level and there was ample scope for increasing the use of such resource inputs in Lemon cultivation for both the types of sample farmers to maximise their returns. Hence the Government can take efforts through the Department of Horticulture for the efficient use of the resources by the Lemon growers through the available media.
- Medium scale cold storage facility may be established in the production centres, so that the growers can stock their produce to sell them, at attractive price at the appropriate time. The Government can initiate earnest steps in this regard.
- The Study on the Marketing of Lemon had shown that the Lemon growers were unorganized and scattered. Moreover, due to the High perishability of the produce the marketing of Lemon required a quick disposal mechanism to minimise the market risks. These problems could be handled by persons who have a fairly good knowledge of the markets and the

marketing techniques and they should keep a close watch over the changing marketing conditions. A Co-operative Marketing Society may be established exclusively for the marketing of Lemon and the Lemon Products

- Since Lemon is a perennial crop and the gestation period is long, Lemon cultivators may be encouraged by the grant of subsidies by the government. There is a need to promote Lemon processing units. This will exchange the demand for Lemon products besides creative more income to Lemon growers. The plant and fertilizers should be provided to growers on easy credit term by the government.
- Open auction system may be introduced which will open up an organized marketing system for Lemon. Information on marketing should be passed on to growers and traders through mass media and other means of communication. The scientific knowledge about the cultivation of modern high yielding varieties of Lemon must be extended to the traditional Lemon cultivation.
- Most of the growers sell their produce through commission agent cum wholesalers who charge high rate of commission. Thus to improve the marketing of Lemon, it is necessary to create alternative marketing channels and also fix reasonable commission charges.
- Since Lemon had not yet been notified, the farmers had been compelled to sell the fruits through the Commission Agents or to Village Merchants. Hence, it is suggested that Lemons may be notified as a product that could be traded in the regulated markets of Tamil Nadu. A simple notification is not good enough to attract the arrivals of Lemon in the regulated markets. Several services like transport facilities, cold storage facilities, pledge loan facilities at the regulated markets and continuous propaganda programmes combined with the provision of facilities could attract arrivals to the regulated markets where the farmers could sell without any commission charges and get a higher share in the Consumer's Rupee.
- As the incidence of pests and diseases had been identified as the constraint in the production of Lemon, it is suggested that the Tamil Nadu Agricultural University could develop new Lemon varieties with a high level of resistance to pests and diseases. For immediate efforts fungicides and pesticides could be supplied by the Government of Tamil Nadu to the Lemon farmers at subsidized prices. It is recommended that the Farmers should be trained to apply fungicides and pesticides at the prescribed levels of their use and this could be done through the Agricultural Development Offices attached to the Panchayat Unions.

Conclusion

It is clear that the present marketing system for Lemon had not been an efficient one. Lack of organization, inadequate transport facilities, heavy commission charges and many other problems faced by growers had made this very obvious. If the measures suggested were adopted by the policy makers, the Government and the farmers, it is hoped that the future of Lemon marketing and the economic conditions of both farmers and traders would flourish. To conclude, it could be said that by framing the proper regulations for Lemon marketing and by providing adequate institutional credit, the performance and efficiency of Lemon marketing in the Dindigul District could be improved.

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