A STUDY ON ROSE CULTIVATION AND MARKETING PATTERN IN HOSUR TALUK

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INTRODUCTION

Flowers are inseparable from the social fabric of human life. Flowers being adorable Creation of God befits all occasions be it at birth, marriage or death. In the past, flowers were not of much economic importance. One would grow flowers to fulfill his or her aesthetic desire. At times, flowers were offered for sale to meet the special requirements of people. With the passage of time drastic changes have come about in the life style of people leading to commercialized cultivation of flowers. Today, flower plants are no longer meant for only window garden but play an important role in the decoration of the living houses and office establishments. Floriculture is a fast emerging and highly competitive industry. With the continuous introduction of new cultivators and new crops, cultural techniques are changing and hence new products are developing. Ornamental crop culture technology is improving with the availability of equipment and there is a sea change in the trend of consumers. A new generation of growers is coming forward to employ modern technology for maximizing production and offer quality produce for consumer acceptability, thus fetching a better price.

PRESENT SITUATION OF ROSE CULTIVATION

In spite of the long and close association with floriculture, the records of commercial activity in the field are very few. The information on the area under floriculture and the production generated is highly inadequate. As commercial floriculture is an activity which has assumed importance only in recent times, there are not many large farms engaged in organized floriculture. In most part of the country flower growing is carried out on small holdings, mainly as a part of the regular agriculture systems.

RESEARCH SUPPORT

Research work on floriculture is being carried out at several research institutions under the Indian Council of Agricultural Research and Council of Scientific and Industrial Research, in the horticulture/floriculture departments of State Agricultural Universities and under the All India Coordinated Floriculture Improvement Project with a network of about twenty (20) centres. The crops which have received larger attention include rose, gladiolus, chrysanthemum, orchid, jasmine, tuberose, aster, marigold etc. The thrust till recently had been on crop improvement, standardization of agro-techniques including improved propagation methods, plant protection and post harvest management. In view of the fact that most of the cut flower production is being done under open field conditions, the research efforts generally relate to open cultivation. In recent years, however, technologies for protected cultivation and tissue culture for mass propagation have also received attention. A large number of varieties suitable for cut flower use, as well as garden display have been developed. Production technology, particularly the agronomic requirements and control methods for important diseases and insect pests have also been developed. Contribution by the private sector in research activities in floriculture is negligible.

MARKETING

Marketing of cut flowers in India is very unorganized at present. In most metropolitan cities, with large market potential, flowers are brought to wholesale markets, which mostly operate in open yards. A few large flower merchants generally buy most of the produce and distribute them to local retail outlets after significant mark up. The retail florist shops also usually operate in the open on-road sides, with different flowers arranged in large buckets. In the metros, however, there are some good florist show rooms, where flowers are kept in controlled temperature conditions, with considerable attention to value added service. The government is now investing in setting up of auction platforms, as well as organized florist shops with better storage facilities to prolong shelf life.

The packaging and transportation of flowers from the production centres to the wholesale markets at present is very unscientific. The flowers, depending on the kind, are packed in old gunny bags, bamboo baskets, simple cartons or just wrapped in old newspapers and transported to markets by road, rail or by air. The mode of transportation depends on the distance to the markets and the volume. Mostly, flowers are harvested in the evening time and transported to nearby cities by overnight trains or buses. In recent years, the government has provided some assistance for buying refrigerated carriage vans. A large number of export oriented units have built up excellent facilities of pre-cooling chambers, cold stores and reefer vans and their produce coming for domestic market sales are thus of very good quality and have longer vase life and command higher price. The government programs for floriculture development include creating common facilities of cool chain in large production areas to be shared on cooperative basis. Formations of growers' cooperatives/associations are being encouraged.

In view of the unorganized set up, it is difficult to estimate the size of flower trade, both in terms of volume and value. A study conducted in 1989 estimated the trade to be worth Rs. 2050 million. It is in the period of the last five years or so that this business has really boomed in India, which is reflected in the number of new florist outlets in all cities and increase in the public's purchase of flowers as gifts. This would put the current trade at several times the earlier estimate. A recent study of Delhi market alone put the value of flowers traded on wholesale as Rs. 500 million.

The loose flowers (traditional crops like marigold, jasmine etc.) are usually traded by weight. The average price of different flowers in major markets varies considerably depending on the period of availability (Table 1.1).

INDIAN SCENARIO AND TRADE

India is bestowed with diverse agro-climatic and ecological conditions, which are favorable to grow all types of commercially important flowers generally found in different parts of the world. It also enjoys the best climate in selected pockets for floriculture during winter months. India is in an enviable position to become a leader in the world floricultural trade because of the prevailing congenial location, overall favorable climate of liberalization and globalization and also specific incentives by the government and floricultural development. Specific and authentic quantitative data are not available for existing production and area under floriculture in India. According to the horticulture production year book 2001 of national horticultural board, an area of 88,600 ha during 1999-2000 was under floriculture in India with production of 5.09 lakh MT of loose flowers and 680.6 million numbers of cut flowers. Loose flowers were grown in 73,536 ha of land. Flowers are grown under open cultivation and also under protected cultivation. In the polyhouses, mainly roses are grown for export. Other exotic flowers like carnations, rose, orchids, lilium and other bulbous flowers are now increasingly produced commercially both for export and domestic market. Floricultural exports from India during 1997-98 was Rs. 81.20 crore, Rs. 96.60 crore in 1998-99, Rs. 105.15 crore in 1999-2000 and Rs. 190.63 crore in 2000-01. In spite of this increase in India exports, its share in the international flower trade has not increased during 1995 to 2000 and has remained at around 0.35 per cent. The main importing countries of Indian floricultural products in order are The Netherlands, USA, Japan, Germany, Italy, Denmark, Egypt, Singapore, Switzerland, France, Australia, UAE, Belgium and Sri lanka. During the year 1999-2000, Indian floricultural products were exported to 75 different countries.

STATUS OF FLORICULTURE IN HOSUR TALUK

Hosur is a leading area and production of rose flowers in the country. The area under flower crops was 20,801 ha and the production was 1.24 lakhs million tones of loose flowers during 2011-2012. A large number of flowers like jasmine, tuberose, rose, chrysanthemum, marigold, crossandra, barleria, lily, limonium, alsteoemeria, liatris, freesia, iris, lisianthus, calla, carnation, rose and anthurium are commercially cultivated in the state. Many hi-tech units with export tie-ups are there in the Karnataka state. There are several commercial tissue culture laboratories. The daily average trade of cut flower is over Rs. 2 lakh and loose flower over Rs. 5 lakh in Hosur itself.

Area under rose cultivation in Hosur Taluk is estimated at 25 ha with production of 53 lakhs cut flowers at an estimated value of Rs. 15 lakh. In recent years the area under rose and carnation is fast increasing around Hosur Taluk and Bangalore because of high profits. As far as the productivity is concerned there is a lot of scope for increasing the productivity and profit through adoption of the latest improved production and marketing technologies. There is a need to generate information regarding production and marketing aspects, the profile of cut flower growers and the constraints in production and marketing of cut flowers. Therefore, a study of this nature was very much required to understand and obtain suitable feedback which will be useful to cut flower growers, extension workers, scientists, administrators and planners. Hence, the study was conducted with the following objectives;

SCOPE OF THE STUDY

Cut flower (rose and carnation) cultivation is highly profitable in India compared to other countries in the world and more so in Hosur Taluk. There is bright prospect for the expansion of area under cut flowers in the coming years. Therefore, it is pertinent and appropriate to study the knowledge level, adoption level and marketing problems of these crops, since there are no scientific enquiries in these aspects. The results will be useful to all the concerned for developing strategies to increase area, productivity of crop, profit and export earnings.

OBJECTIVES

1. To study the knowledge and adoption of recommended cultivation practices of rose Flowers by farmers.

2. To study the marketing pattern of rose flowers by farmers

3. To study the profile of rose flower growers

4. To find out the factors motivating the farmers to grow rose flowers

5. To identify the constraints in cultivation and marketing of rose flowers

LIMITATIONS OF THE STUDY

Due to limitation of time and other reasons, the study was restricted to Hosur Taluk. Generalization of result may not be possible for different cut flower growing areas. Further, the findings of the study were based on the responses of the respondents and hence the objectivity is limited to the honesty and memory power of the respondents.

METHODOLOGY: The study was conducted in the Hosur Taluk of Krishnagiri district in Tamil Nadu. This area deals about the material and methodology followed in conducting the research under the following sub headings.

1. LOCALE OF THE STUDY: In Tamil Nadu state, Hosur is having maximum area under Rose cultivation and ranks first in area and production. The growers are scattered throughout the Hosur Taluk. So, the areas Berikai, Bagalur, Zeemangalam, Dasarapalli, Udanapalli, Swanipura, Eluvapalli, Karapalli, was selected purposively as locale of the study.

2 Selection of Respondents: In Hosur taluk, a list of one hundred farmers cultivating Rose flowers was selected for the present study.

3 Marketing pattern followed by the Respondents: The marketing pattern of the respondents was studied by asking them to indicate then nature of marketing, which included where, when, to whom and through which channel, they sell their produce of Rose flowers. Responses obtained from the farmers were expressed in frequencies and percentages.

.4 Constraints faced by the Respondents: The constraints faced in cultivation and marketing of Rose flowers by the farmers of the study area were listed out during pre-test and also in consultation with the extension personnel of State Department of Horticulture. Based on the responses obtained from the Rose growers, frequency and percentages were calculated for each constraint faced by the growers.

REVIEW OF LITERATURE

Karpagam (2008) conducted a study on turmeric growers in Erode district of Tamil Nadu state and found that, majority (70.00 per cent) of respondents had medium level of knowledge about turmeric cultivation practices followed by high (20.83 per cent) and low (9.17 per cent) knowledge respectively. Kubde *et al.* (2000) in their study on knowledge and adoption of cultivation and storage protection of potato in Pune district of Maharashtra revealed that, majority of the potato growers had complete knowledge about recommended varieties (100 per cent), time of sowing (95.50 per cent), soil type required for cultivation of potato (79.00 per cent), seed rate (67.50 per cent), name of pests of potato and their control measures (54.00 per cent).

Kubde *et al.* (2008) in their study in Pune district of Maharashtra reported that, the potato growers had partially adopted recommended spacing (97 per cent), plant protection measures (82.0 per cent) manures (64.5 per cent) and fertilizers (55.5 per cent).

Babanna (2009) in his study on training needs of arecanut farmers in Shimoga district of Karnataka reported that, 35 per cent of the respondents belonged to medium adoption category followed by 33.4 per cent and 31.6 per cent of the respondents belonging to high and low adoption category.

Vedamurthy (2009) in his study on arecanut growers of Shimoga district reported that, majority of the arecanut growers adopted cultural practices (90.66 per cent) while 68.00 per cent of the growers adopted age of the seedlings, 73.00 per cent adopted the advocated spacing and 59.33 per cent of growers fully adopted the recommended practices of harvesting and processing. To summarize, most of the studies reported that, majority of the farmers had medium level of adoption of cultivation practices.

Shashidhara (2010) in his study on socio-economic profile of drip irrigation farmers in Shimoga and Davanagere district of Karnataka state revealed that, comparatively more number of farmers (46.67 per cent) belonged to semi medium category followed by medium (32.22 per cent) and small land holding categories (18.89 per cent). From the above studies, it could be concluded that, majority of farmers had semi medium land holding.

Shashidhara (2010) conducted a study on drip irrigation farmers in Bijapur district of Karnataka and reported that, 49.17 per cent of the farmers belonged to medium income category followed by low (26.67 per cent) and high (24.16 per cent) income category, respectively. The above studies revealed that, majority of farmers belonged to medium income category followed by low income category.

Natikar (2011) in his study on attitude and use of farm journals by the farmers found out that, majority of the respondents (65.0 per cent) had medium economic motivation. While 18.75 per cent and 16.25 per cent of the respondent's belonged to high and low level of economic motivation, respectively.

Natikar (2011) conducted a study on attitude and use of farm journal by the subscriber farmers and their profile North Karnataka and revealed that, 73.75 per cent of the subscriber farmers belonged to medium innovativeness category followed by low (15.63 per cent) and high (10.62 per cent) innovativeness categories.

Shashidhara (2011) in his study on socio-economic profile of drip irrigation farmers in Shimoga and Davanagere district of Karnataka found out that, majority of the farmers belonged to medium innovativeness category (47.50 per cent) followed by low (31.66 per cent) and high (20.83 per cent) innovativeness category, respectively.

Dhamodaran and Vasanthakumar (2012) in their study on adoption of improved sugarcane cultivation practices revealed that, majority of the respondents (52.50 per cent) had low level of extension agency contact, followed by 47.50 per cent of the respondents had medium level of extension agency contact.

Sunilkumar (2012) revealed that, 40.83 per cent of the respondents belonged to medium extension contact category followed by 30.00 per cent and 29.16 per cent belonging to high and low categories of extension contact, in Belgaum district of Karnataka state, respectively.

Sunilkumar (2012) revealed that, nearly 23.00 per cent of respondents participated regularly in agricultural exhibition followed by 20.83 per cent in demonstrations. Majority of them never attended in activities like training (66.67 per cent), educational tour (94.17 per cent) and field visits (92.05 per cent).

DATA ANALYSIS AND DISCUSSION

TABLE 7.3 SHOWING NATURE OF MARKETING.

SL.NO	Particulars	No. of respondents
1.	Direct marketing	42
2.	Local retailer	54
3.	Commission agents	4
4.	Others	-
	Total	**100**

Data source: Primary data

From the above table 7.3 shows that the 42% of the respondents are involved direct marketing, 54% of the respondents are depend on local retailers and 4% of the respondents are depend commission agents.

TABLE 7.4 SHOWING THE PRODUCTION PROBLEMS

SL.NO	Particulars	No of respondents
1.	Problem of pests	8
2.	Problem of diseases	10
3.	High cost of fertilizers	16
4.	High cost of plant protection chemicals	8
5.	Limited &irregularity of power supply	28
6.	High investment in establishing a polyhouse	20
7.	All the above	10
	Total	**100**

Data source: Primary source

From the above table 7.4 shows that the 8% of the respondents are affected the problem of pests, 10% of the respondents are affected problem of diseases, 16% of the respondents are affected with high cost of fertilizers, 8% of the respondents are affected with high cost of plant protection chemicals, 28% of the respondents have only limited & irregularity of power supply, 20% of the respondents are highly invested in a polyhouse and 10% of the respondents faced all the above problems.

TABLE 7.5 SHOWING THE MARKETING PROBLEMS

SL.NO	Particulars	No of respondents
1.	Poor transportation facilities	4
2.	Low price for the flowers	28
3.	Fluctuations in the price	40
4.	Exploitation by the middleman	24
5.	Lack of exclusive markets for flowers	-
6.	Lack of storage facilities	2
7.	All the above	2
	Total	**100**

Data source: Primary source

From the above table 4.10.1 shows that the 4% of the respondents are affected poor transportation facilities, 28% of the respondents are faced by low price for the flowers, 40% of the respondents problem faced by fluctuations in the prices, 2% of the respondents exploitation by the middle man, 24% of the

respondents are problem faced by the lack of storage facilities and 2% of the respondents are faced all the problems.

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

New technology in agriculture has widened the horizons of productivity contours of various crops. Now-a-days there is a shift towards commercialization of agriculture and farmers are giving importance to commercial crops rather than other food crops. Floriculture is one such commercial field, which yields more income to the farmers.

Rose and carnation are important commercial cut flower crops grown in Karnataka particularly around big towns and cities. The area is increasing every year in view of high profit, good market and favorable agro climatic condition congenial for the crop. Large number of traditional farmers have switched over to cultivation of these cut flowers.

Inspite of all its advantages, cultivation has not spread over to all parts of Karnataka. Hardly any research pertaining to these crops has been done and it was felt that the findings with respect to the level of knowledge and adoption regarding the recommended cultivation practices and constraints faced by the farmers would focus light on those area where the cultivators were found to be lacking. This will also enable the Horticulture Department in planning appropriate strategies to rejuvenate cut flowers cultivation.

The present study was conducted during the year 2012-2013 in Hosur Taluk. 100 rose cultivators were selected for the study, which constituted the total sample of 100 rose flower growers. The Krishnagiri district was purposively selected as it ranks first in area and production of cut flowers in Hosur taluk. The data was collected by using structured interview schedule developed for the study. The data was analyzed by using frequency and percentage.

THE MAJOR FINDINGS OF THE STUDY ARE AS FOLLOWS

• Forty per cent of rose growers possessed high level of knowledge about recommended cultivation practices

• Forty per cent of rose growers belonged to medium adoption category.

• Cent per cent of rose growers had knowledge about soil sterilization practice, digging of trench, use of suitable soil, type of bed preparation, use of planting material, spacing between row and plants, raking of soil, removal of old leaves, leaves to be retained, removal of suckers, pest and diseases and harvesting of flowers and treatment of flowers

• Cent per cent of carnation growers had knowledge about soil sterilization practice, digging of trench, use of suitable soil, type of bed preparation, use of planting material, spacing between row and plants, pinching, disbudding, use of support system pest and diseases and harvesting of flowers and treatment of flowers.

• Cent per cent of rose growers adopted recommended practices such as soil sterilization practice, digging of trench, use of suitable soil, type of bed preparation, use of planting material, spacing between row and plants, raking of soil, removal of old leaves, leaves to be retained, removal of suckers and harvesting of flower and treatment of flowers.

• Sixty three per cent of rose growers adopted recommended varieties

• Cent per cent of carnation growers adopted recommended practices such as soil sterilization practice, digging of trench, use of suitable soil, type of bed preparation, use of planting material, spacing between row and plants, pinching, disbudding, use of support system and harvesting of flower and treatment of flowers.

• With respect to FYM application, chemical fertilizer dosage, application of micro and macro nutrients, control measures recommended for pests and diseases and use of preservatives, considerable percentage of farmers were having less knowledge and low adoption of these practices.

• Majority of the respondents (82.81%) belonged to middle age group

• With respect to educational status of the respondents 52% of them were educated up to High School.

• In case of annual income 36% of the respondents belonged to 1000 income category (1 to 10 lakhs)

• Cent per cent of the respondents owned radio and television of which 46.87 per cent had regular television viewing behaviour.

• More number of respondents belonged to high risk orientation category (42.18%) and medium economic motivation category (43.75 %) and high innovativeness category (45.31%).

• Fifty Two per cent of the respondents sold their flowers to local retailers while, Four per cent sold through commission agents.

• Majority 80% of the respondents graded their flowers

• Majority of respondents expressed production problems like limited and irregularity and high investment 20% of power supply (28%).

• Majority expressed the marketing problems like exploitation by the middleman (24%), fluctuation in price (40%) and low price for flowers (28%).

• Cent per cent of the respondents expressed that high profit is the motivational factor to take up cut flower cultivation.

SUGGESTIONS

Implications and Recommendations

In the light of findings of the study and researchers own observations while personally interviewing respondents, following implications are made for effective cut flower cultivation, to the concerned policy makers and cut flowers growers.

Regarding the important cultivation practices of cut flowers, such as FYM application, chemical fertilizer dosage, application of micro and macro nutrients, control measures recommended for pests and diseases and use of preservatives, comparatively farmers were having less knowledge and low adoption of these practices. The information about these practices should be provided from a credible source like the scientists working on cut flower cultivation or the subject matter specialists, who are more knowledgeable about the crop through powerful extension methods like training, field days and conducted tours.

Cut flowers are high value crops and demand more precise information about cultivation practices. So, arrangement should be made to provide printed materials to supplement the information, since most of the cut flower growers are educated and are going to make use of the information to a great extent. This necessitates the need for organizing intensive educational activities such as training, demonstrations, seminars, field days and field visits to successful farms to provide information on technologies not practiced/partially practiced by them.

The demand for good planting material is on the increase. Hence, the production of quality planting material and supply at a reasonable price assumes greater importance.

The absence of organized market emerged as the most important bottleneck in cut flower production. Establishment of an exclusive flower market with required infrastructure to handle the exchange of cut flowers is thus essential. State Government should provide the necessary support in this direction.

The absence of refrigerated infrastructure for transportation and sale of flowers affected the quality of flowers resulting in realizing lower returns by the producers. The provision of cold chain facilities thus assumes great importance. The needed infrastructure for these purposes could be established by forming a viable growers association which in turn could mobilize the needed resources from national Horticulture Board and state Government. Promotion of scientific grading, packing and storage by developing the adequate infrastructural facilities is essential for a sustained growth of the cut flower industry.

CONCLUSION

India has a long floriculture history and flower growing is an age old enterprise. What it has lacked is its commercialization. The growing demands of flowers in the domestic as well as the export market will require a concerted effort on the part of the government as well as the private entrepreneurs to develop floriculture on scientific lines. Paying attention to the input needs, better resource management and making various policies entrepreneur friendly would lead to a balanced growth of the industry.

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