PRODUCTION AND MARKETING CONSTRAINTS OF HI-TECH CUT FLOWER GROWERS IN TAMIL NADU

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ABSTRACT

Production and marketing constraints of Hi-tech cut flower growers in Tamil Nadu were analyzed. A survey was conducted among of 100 carnation flower growers under Hi-tech cultivation from Tamil Nadu. Growers were selected randomly from flower units of three regions. Results revealed that major production constraints were the incidence of pests and diseases, water scarcity, high labor cost and scarcity of labor. Price fluctuation, late payment, low price for the flower, lack of market information and intelligence and high transport cost were major marketing constraints.

KEYWORDS: Cut Flowers, Production And Marketing, Constraints & Hi-Tech Cultivation

Received: Apr 25, 2018; **Accepted:** May 16, 2018; **Published:** May 28, 2018; **Paper Id.:** IJASRJUN201811

INTRODUCTION

India is one of the largest producer and consumer of flowers in the World which ranks second in the area and production of flowers among the countries next to China; Production and marketing of cut flowers under Hitech cultivation has assumed greater importance in recent years due to their increasing export demand. Therefore, production and marketing of cut flowers are of most importance and also cut flowers demands special attention specially under hi-tech cultivation.

According to a database of NHB 2017, the total area under flower crops in 2014-15 was 249 thousand hectares. Total area under floriculture in India is second largest in the world and only next to China. The production of flowers was estimated to be 1729.2 MT of loose flowers and 76731.9 million (numbers) of cut flowers in 2012-13. Fresh and Dried cut flowers dominate floriculture exports from India. Among states, Tamil Nadu is the leading state in floriculture which ranks first with production of 416 MT along with the states of Karnataka and Andhra Pradesh in the South, West Bengal in the East, Maharashtra in the West and Rajasthan, Delhi and Haryana in the North are the leading producers in India.

Government of India initiatives for promotion of export oriented floriculture units has identified Bangalore, Pune, New Delhi and Hyderabad as the major areas suitable for export oriented cut flower business.

After the liberalization floriculture industry was accorded as 100 percent export oriented industries apart from local consumption. The liberalization of industrial and trade policies paved the way for the development of export oriented production of cut flowers. The new seed policy has already made it feasible to import plant material of international varieties. Floriculture products mainly consist of loose flowers, cut flowers, pot plants, cut

foliage, seeds, bulbs, tubers, rooted cuttings and dried flowers or leaves. The important floricultural crops in the local consumption and international cut flower trade are rose, carnation, jasmine, chrysanthemum, Gerbera, gladiolus, orchids, Anthurium, tulip and lilies.

METHODOLOGY

The Ooty Taluk of Nilgris District, Kodaikanal Taluk of Dindigul district and Hosur Taluk of Krishnagiri district were selected for the study due to the presence of Hi-tech cut flower units. For the study, 100 growers were randomly selected from the Hi tech units growing carnation under protected cultivation. 40 growers from The Nilgris, 40 growers from Kodaikanal and 20 growers from Krishnagiri District resulting in a total size of 100 farmers.

The primary data for the study was obtained from the growers/managers of the unit through the personal interview method with the help of a pre-tested structured schedule. The survey was undertaken during February to May of 2017.

Garrett's Ranking Technique

In this study, Garret's ranking technique was used to analyze the constraints faced by the growers of Hi tech units in production and marketing of cut flowers from Hi tech units. The respondents were asked to rank (in order of priority) the constraints and issues prolonging in the cultivated areas, these were then converted into scores by referring to garrets table.

The order of the merit given by the respondents was changed into ranks by using formulas,

$$\text{Percent position} = 100(R_{ij} - 0.5)$$

N_j

Where,

R_{ij} = Rank given for ith item by jth individual

N_j = Number of items ranked by jth individual

The percent position of each rank was converted to scores by referring to tables given by Garrett and Woodworth (1969). Then for each factor, the scores of individual respondents for whom scores were gathered. The mean scores for all the factors were ranked, following the decision criterion that the higher the value, the more important is the constraint to farmers.

RESULTS AND DISCUSSIONS

The constraints experienced by the growers in Hi-tech cultivation of cut flowers were categorized into production and marketing as separate functions are presented in the table

Table 1: Production Constraints of Hi-Tech Floricultural Units

Sl. No	Production Constraints	Flower Growers	
		Respondents (n=100)	
		Garrett's Score	Rank
1.1	Incidence of pests	68.47	I
1.2	Lack of adequate rainfall and water resources	67.97	II
1.3	Disease Infestation	62.29	III
1.4	Scarcity of labours to carryout farm operations	59.96	IV
1.5	High wages for labours	49.27	V
1.6	Lack of institutional support	46.14	VI
1.7	Non availability of quality seedling materials	37.67	VII
1.8	High cost of institutional credit to meet working expenses	36.42	VIII
1.9	Non-availability of inputs(Pesticides, fungicides, growth regulators ,etc.) at right time	25.77	IX
1.10	Non availability of suitable harvesting tools and storage facilities to reduce losses	15.7	X

Table 2: Marketing Constraints of Hi-Tech Floricultural Units

Sl. No	Marketing Constraints	Marketing Constraints	
		Respondents (N=100)	
		Garett Score	Rank
2.1	Price fluctuation	78.8	I
2.2	Late payment by market intermediaries	68.12	II
2.3	Low price due to cartel among traders	61.01	III
2.4	Lack of market intelligence and information	52.79	IV
2.5	High cost of transport	45.74	V
2.6	Non availability of suitable market	42.66	VI
2.7	Distance to market	37.47	VII
2.8	Lack of cold storage facilities to enhance the shelf life	34.85	VIII
2.9	Logistical support and services	22.03	IX

The responses and opinions of growers were analyzed using Garrett ranking technique and the results shows that the major constraints in the production of cut flower under Hitech cultivation were incidence and damage by pests, water scarcity, disease, infestation, high cost of labor and labor scarcity ranked as I, II, III, IV and V respectively.

To be in detail the overall results of the constraints in the production side from the respondents revealed that the incidence of pests as a major constraint which was quoted as one of the major risks in hi-tech cultivation caused by red spider mites, aphids and thrip in flowering stage of the plant. These pests are controlled by the application of pesticides with maximum dosage which costs more. The cost of management to control pest incidence was one of the main factors increasing operational cost which increases the expenses of cultivation. Lack of irrigation water for cultivation was another main constraint which was found as a main issue in Kodaikanal and Hosur taluks. The cost spent on water supply in elevated areas of the cultivation and the costs spent in plains to get the ground water were found to be higher in an initial investment of the unit. Incidence of diseases like Fusarium wilt, stem rot and rust were the major diseases affecting the plants and quoted as one prime constraint which increases the operating cost for its control and management. The high cost of wages for labor was one of the main constraints along with scarcity of labors such that skilled labor for hi-tech cultivation quoted as a main constraint by the growers of all regions. Somehow the growers manage the labor problem by engaging family labor and hiring skilled labors from other parts of the country.

There was some lack of institutional support for the growers from supporting institutions like a department of horticulture and state agricultural university in technical and moral support to them. There was no link between the growers and institutions' regarding cut flower cultivation under Hitech conditions since the focus was given by private entities on flower cultivation in the study area mostly. There was a lack in getting quality seed materials for the cultivation reported by the growers as a constraint since the mortality of seed materials ranging from 10-15% reported in every unit. High operating cost and support of financial institutions in lending, credit for operations was reported as constraint by the growers. Apart from this non-availability of inputs and harvesting tools were reported at least important constraints since all the growers were provided and facilitated with these things at nearby market locations in the study area. Apart from the above mentioned production constraints, there are certain factors which diversely affected the cut flower units over the years like soil erosion and wind flow, which may damage the unit and cause severe loss to the growers.

The major marketing constraints in this hi-tech cultivation of flowers are priced fluctuation, late payment, low price due to the cartel, lack of market intelligence and high transportation cost were ranked as I, II, III, IV and V respectively. But somehow there were variations in ranking of constraints by the respondents on the hi-tech cultivation of cut flowers from the three different regions of study.

Regarding the marketing constraints and problems related to the growers after production where price fluctuation, the first ranked constraint in marketing the flower, this flower particularly has no standard or certain market price and have a high risk in price. As we observed the price of flowers varies mostly each and every arrivals. Late payment of traders to the growers was the next ranked constraint which was found predominantly all over the study area. The traders or exporters to whom the flowers transported are taking too much time for the payments; in some cases some growers directly export their products. Low price for the flowers due to the cartel between traders was found as another major constraint since this flower gets transported to the market through intermediaries who procure the flowers like traders in farm level but there was some cartel happens among them which ultimately reduces the price of the flower in the market. But the growers were the persons affected directly through this action.

Lack of market intelligence, information and knowledge details were found as a major constraint in the study area, the growers in the study area's except Hosur region were distantly connected with the market (Bengaluru) so that they may not have the advantage of visiting market frequently and the dealings and transactions were done over the phone or intermediaries. So their lack of knowledge of market status and happenings in the market, this was found as a main drawback for the growers of cut flowers in the hill region.

High cost of transportation of flowers has been another constraint in marketing since as mentioned earlier, two regions of cultivation in the hills were located about more than 500Km from the market than Hosur region, which located 45Km from the market, so the cost of transportation of harvested flowers found as a major constraint which increases the marketing cost directed in such a way with the need of more care and cost on handling and packing the flowers for transportation.

The non-availability of local market or an organized selling place or organization for cut flowers in the region of production itself in the hills was quoted as a constraint next to the above. Lack of cold storage facilities for flowers was found as another least ranked constraint along with logistics since the growers in the hills were already having a temperate climate which was an advantage in storage of flowers or any agricultural produce. There were enough logistical services available in the regions of study so it was ranked as the last ranked constraint but the only issue was cost on transport due

to distance factor. These type of market related problems or constraints can be solved either by the government or by collective social linkage between the growers like planning a local organized market or monitoring the existing market, collect the information, and handle the pricing decisions or exporting the product directly to the end users etc. similarly these type of collective or organized social linkage between the producers to overcome production and marketing constraint were reported on many studies related with farm production and marketing.

CONCLUSIONS

Constraints ranked like incidence of pests and diseases, water scarcity, wage problem and labor scarcity were most ranked among production operations and price fluctuation, payment delay, lack of market intelligence and transportation and cost involved due to distance were most ranked among marketing operations were the noted and most ranked constraints addressed by the growers relation with the study on cut flower cultivation in Hitech condition. Hence suitable and applicable policies should be formulated by the government and related institutions to promote the cut flower industry and to safeguard the growers from financial sickness and business failures.

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