PRODUCTION AND MARKETING OF FLORICULTURE IN HIMACHAL PRADESH: A PARADIGM SHIFT

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Abstract: In this changing scenario, people of hilly areas especially Himachal Pradesh are shifting their cultivation pattern from Horticulture to Floriculture as the agro-climatic conditions of Himachal Pradesh are best suited for the development of floriculture both to serve the internal off-season market and also for exports in the later stages. This research paper tries to examine the infrastructural and marketing facilities for floricultural products and highlights the Problems and prospects of floriculture in Himachal Pradesh. This paper also studies the inter-temporal growth of floriculture in Himachal Pradesh. The study reveals that there is immense scope of floriculture in Himachal Pradesh, but need is to provide the basic infrastructure, marketing, transportation with cold chain facilities and proper post harvest management.

Key Words: Floriculture, Export, Marketing, Employment, Post Harvest Management, Productivity.

1. INTRODUCTION:

Our society has custom of using flowers in various forms to perform our basic rituals. Principally, floriculture is the art and knowledge of growing flowers to excellence and perfection [1]. Due to changes in seasons, horticulture products are recording low production and productivity trends, which further, reduce the revenue of the farmers. Prior to the declaration of floriculture as an area of focus by the Government of India, scope of floriculture was very narrow, and only confined to production of loose flowers typically for worshipping, decoration and garland making. This section of horticulture acquired special status in the early nineties when commercial floriculture was taken up both for domestic as well as international markets [2].

India is the second largest growers of flowers after China. With urbanization and increase in disposable income level, the demand for floriculture products has increased extensively. As a result, there has been an increasing demand for cut flowers like rose, gladiolus, carnation, gerbera, orchid, carnation, gerbera, lilium, etc. There is an equally good demand for the traditional flowers like jasmine, marigold, chrysanthemum, tuberose, etc. This has led to the transformation of floriculture sector from household activity to a commercial venture [3]. It is one of the fastest growing segments of horticulture, having potential for providing enhanced returns to the farmers, besides providing employment opportunities to the unemployed youth. Therefore, the Government of India has been paying close attention for development of floriculture in the country [4].

2. HISTORY OF FLOWER CULTIVATION:

The origin of flower and ornamental plant growing is contemporary with agricultural crops. In the beginning their use was exclusively for aesthetic and religious purposes are celebrated, using flowers in various ways [5]. References to this are found in ancient Sanskrit classics like the Rig Veda (3000-2000 BC), Ramayana (1200-1300 BC), Mahabharata (prior to 4th Century BC), Shudraka (100 BC), Ashvagodha (100 AD), Kalidasa (400 AD) and Sarangdhara (1200 AD). Due to changes in life styles, living standards and increased urban affluence; floriculture has gained commercial status in recent times. Along with that the steady increase of population virtually has created huge domestic demand for floricultural products in India as well as in the state [6].

The commercial activity of production and marketing of floriculture products is foundation of profitable and excellence employment opportunities to the people of hilly states like Himachal Pradesh [7]. After liberalization, the Govt. of India identified floriculture as a sunrise industry and accorded it 100 percent export oriented status. Exports business generates huge revenues for the market [8]. Consequently commercial floriculture has emerged as scientific activity emerging under controlled climatic conditions. Floriculture products mainly consist of cut flowers, pot plants, cut foilage, seeds bulbs, tubers, rooted cuttings and dried flowers or leaves. [9].



Figure-1: Potential Flowers and Foliage Plants for Cultivation in Himachal Pradesh

Though floriculture trade is in infancy, yet it is being viewed as a high growth Industry. Liberalization of industrial and trade policies cleared path for development of production of cut flowers. The new seed policy had made it possible to import planting material of international varieties [10]. In India, floriculture is emerging as an important economic activity and foreign exchange earner. In Himachal Pradesh, the per capita cultivated land is only 0.12 hectares while per capita irrigated land is a meager 0.02 hectares. This situation necessitates a cropping pattern that would ensure highest income per unit area/ labour/ investment [11]. Commercial floriculture perfectly caters to this necessity. The agro-climatic conditions of Himachal Pradesh are best suited for floriculture and government is also paying attention by giving incentives to the farmers so that they can adopt floriculture to strengthen their economy [12].



Himachal Pradesh, popularly known as *Dev Bhumi*, located in North Western part of India between latitude 30° 22' 40" N to 33° 12' 20"N and longitude 75° 45' 55" E to 79° 04' 20" E. To the East, it form India's border with Tibet, to the North lies state of J&K, Uttaranchal in the South-East, Haryana in the South and Punjab in the West[13]. Himachal Pradesh is endowed with a wide range of agro-climatic conditions due to which a large number of horticultural commodities like fruit crops, flowers, vegetables, mushrooms, hoops, tea, medicinal and aromatic plants etc. are successfully grown [14].

3. ADVANTAGES OF FLORICULTURE IN HIMACHAL PRADESH:

- The Agro climatic conditions prevailing in the State of Himachal Pradesh offer excellent opportunities for the development of floriculture both to serve the internal off-season market and also exports.
 - A large variety of floriculture products, viz., cut flowers, bulbs, seeds, live plants, etc. can be produced.
- The natural agro climatic conditions offer ideal production environment for flowers and the planting material i.e., expensive heating and cooling systems in the greenhouses are not required
- Power required for running the greenhouses is charged at domestic rates in the State.
- Flowers from different agro climatic zones of the State can be made available from open field cultivation all through the year for domestic market, however, export quality flower produce can be ensured only by cultivation under controlled environmental conditions of greenhouses [15].

Table-1 Agro Climatic Zones for Floriculture in Himachal Pradesh

Zone description	Elevation range (Meters)	Rainfall (cms)	Suitable Flower Crops
Low Hill and Valley Areas near the plains	350 - 900	60 - 100	Gladiolus, Carnation Lilium, Marigold, Chrysanthemum, Rose
Mid Hills (Sub Temperate)	900 - 1500	90 - 100	Carnation, Gladiolus, Lilium, Marigold, Chrysanthemum, Alstroemeria, Rose
High Hills and Valleys in the interiors (Temperate)	1500 - 2750	90 - 100	Gladiolus, Carnation Lilium, Marigold, Chrysanthemum
Cold and Dry Zone (Dry Temperate)	2750 - 3650	24 - 40	Seed/ Corm/ Bulb production

Source: State Department of Horticulture, Navbahar, Shimla, Himachal Pradesh.

Although flowers from different agro climatic zones of the State can be made available all through the year for domestic market, export quality flower produce can be ensured only by cultivation under controlled environment conditions of greenhouses [16].

4. COMMERCIAL FLORICULTURE IN HIMACHAL PRADESH:

Commercial floriculture started picking up in the State during VIII Five Year Plan Period. Initially, the flower production was confined to Solan & Kangra Districts, where growers would undertake cultivation of gladiolus, carnation and some traditional flowers. Thereafter, exotic flowers like gladiolus, carnation, lilium, tulip, iris, chrysanthemum, calla lily, etc. were introduced in the state from countries advanced in floriculture. As a result, area under floriculture in the state was 30 hectares during 1992-93 [17], which increased to 812.904 hectares on 31st March 2011 and some decrease in the area has been noticed in 2015-16 i.e. 719.05 hectares [18]. The major flower growing districts in the State are Sirmaur, Kangra, Mandi, Chamba, Shimla, Solan, Bilaspur and Kullu [19].

5. OBJECTIVES OF THE RESEARCH PAPER:

- 1. To study the inter-temporal growth of floriculture in Himachal Pradesh.
- 2. To study the infrastructural and marketing facilities for floricultural products.
- 3. To highlights the Problems and prospects of floriculture in Himachal Pradesh.

6. RESEARCH GAPS:

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At present, no comprehensive research seems to have been done in this field; hence the study acquires more importance. This study will make the people aware about the floricultural cultivation and help them to generate more income and increase their standard of living. The present study is the modest attempt to analyze the development of floriculture in the Pradesh and its contribution to the state economy.

7. SELECTION OF THE PROBLEM:

The researcher has selected the topic in view of the fact that no systematic study has been conducted on the floricultural development in Himachal Pradesh. Secondly, to make a comparison between the areas under cultivation of flowers, production, productivity trends in various districts of the state. Thirdly, people are not much aware about new advancement and technological development in this segment of horticulture. Therefore, this study is relevant and may be benefited to the people and all other concerned.

8. AREA AND PRODUCTION OF DIFFERENT FLOWER CROPS IN HIMACHAL PRADESH:

Table 2 shows that the area under production of different flowers. In 2015-16 the total area under floriculture in Himachal Pradesh stands at 719.050 hectares. After a deep look into the table-2, we can say that the area under

different flowers crops in the state has been increasing and it has shown great source of inspiration for the flower growers in the country. Sirmaur district having the maximum area under floriculture i.e. 377.55 ha and out of this maximum area (174.13 ha) is comes under the Chrysanthemum (Loose) flowers. After Sirmaur, Second place is occupied by the Kangra District, which has 117.80 ha area under floriculture and Marigold (43.63 ha) is the flower which is preferred in this district.

Sr. No	Distri ts	Gladi olus	Carna tion	Mari gold	Lili um	Alst ro- eme ria	Ro se	Ge rbe ra	Chr ysan the mu m (Loo se)	Chr ysan the mu m (Cut)	Seaso nal Flow ers	Othe r Flow er	Flow er Seed s	Pott ed Plan ts	Tot al
1	Bilasp	0.00	3.60	0.00	0.3	0.00	0.1	0.1	0.00	0.00	0.00	0.00	0.00	0.0	4.18
	ur				0		7	1						0	
2	Cham	0.95	1.00	10.5	1.0	0.02	3.5	0.0	4.00	0.65	13.37	3.15	0.00	2.3	40.5
	a			6	0		0	2						0	2
3	Hamir	1.20	1.16	2.81	0.0	0.00	0.1	0.0	0.00	0.00	0.00	0.00	0.00	0.0	5.29
	pur			1.0.6	0		0	2						0	
4	Kangr	2.90	2.50	43.6	4.1	0.00	11.	2.9	0.00	3.43	21.20	15.20	0.00	10.	117.
~	17 11	2.00	2 70	3	0	0.00	/0	0	5.00	0.00	1.00	1.40	0.00	24	80
3	Kullu	3.80	2.70	7.00	3.6	0.00	1.5	0.0	5.00	0.00	4.00	1.40	0.00	1.0	30.0
6	Vinno	0.00	0.00	0.00	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0	
0	r Kiilla	0.00	0.00	0.00	0.0	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.0	0.00
7	1 & S	1 50	0.00	0.60	2.0	0.00	0.0	0.0	0.00	0.00	0.50	0.00	0.00	0.4	5.00
,	Lab	1.50	0.00	0.00	0	0.00	0.0	0.0	0.00	0.00	0.50	0.00	0.00	0	5.00
8	Mand	2.00	6.70	2.50	0.6	0.00	0.1	0.0	0.03	0.04	0.00	0.00	0.00	0.0	12.0
					2		0	4						0	3
9	Shiml	0.59	2.91	6.00	0.1	0.00	0.4	0.0	1.00	16.0	3.50	2.00	0.00	3.5	36.1
					5		0	0		5				0	0
10	Sirma	36.21	8.15	90.3	1.5	0.00	<i>13</i> .	0.0	174.	53.5	0.00	0.00	0.00	0.0	377.
	ur			9	0		60	0	13	7				0	55
11	Solan	15.60	15.15	9.76	0.3	0.60	2.7	0.2	0.50	12.3	0.01	0.82	0.00	1.2	59.3
					5		9	3		4				0	5
12	Una	1.00	0.20	6.00	0.0	0.00	2.0	1.0	6.00	0.00	3.00	5.00	3.00	4.0	31.2
				1-2	0		0	3						0	3
	Total	65.75	44.07	179.	13.	0.62	35.	4.3	190.	86.0	45.58	27.57	3.0	22.	719.
				25	62		86	5	66	8			U	64	05

 Table-2: Districts Wise Area under Flower Crops in H.P. 2015-16 (Hectares)

Source: Department of Horticulture, H.P. 2015-16.

Other flowers include Dahlia, Statice, Godetia, Tuberose, Amaryllis, Agapanthus, Nerene, Day Lily etc.

 Table -3: Area, Production and Productivity under different flower crops in Himachal Pradesh from 1993-94 to 2010-11

Ye	ar	2000	-01		2005	5-06		2010-	·11		2015-16		
Sr.	Flower	Α	Р	Y	Α	Р	Y	Α	Р	Y	Α	Р	Y
No	Crops												
1	Gladiolu	74.	11,116,	15000	114.	17,203,	15000	177.6	34,632,	1950	65.75	12,492,5	312.3
	S	11	500	0	69	500	0	04	780	00		00	1
2	Carnatio	9.4	7,117,5	75000	22.3	16,732,	75000	73.76	71,916,	9750	44.07	42,747,9	1,282.
	n	9	00	0	1	500	0		000	00		00	44
3	Marigold	36.	451,125	12500	237.	2,973,	12500	337.3	30,365,	9000	179.2	15,774,0	2,366.
	*	09			84	000		9	100	0	5	00	10
4	Lilium	5.8	1,754,8	299979	5.54	1,662,	30000	8.72	1,962,0	2250	13.62	2,996,40	299.6

		5	80	.49		000	0		00	00		0	4
5	Daffodil	1.1	245,920	21200	1.07	226,84	21200	3.52	1,056,0	3000			
		6		0		0	0		00	00			
6	Rose*	4.1	12,360	3000	13.7	41,202	3000.8	14.1	10,575,	7500	0.62	26,715,7	1,068.
		2			3		73		000	00		00	63
7	Alsroem							0.09	67,500	7500	35.86	461,900	9.24
	eria									00			
8	Tulip	1.0	637,500	62500	0.06	37,500	62500	0.1	37,500	3750			
		2		0			0			00			
9	Gerbera							2.02	2,424,0	1200	4.35	5,220,00	208.8
									00	000		0	0
1	Seasonal	6.7	670,000	10000	8.46	845,80	99976.	37.32	3,732,0	1000	45.58	4,558,00	
0	Flowers#			0		0	359		00	00		0	
1	Chrysant	7.6	951,250	12500	46.1	5,767,	12499	144.	20,384,	140842.			
1	hemum	1		0	4	250	4.58	73	175	776			
1	Chrysant	Th	is classifi	cation o	of Chr	ysanther	num in (cut flov	wers and	loose	190.6	68,864,0	1,721.
2	hemum	flo	owers is i	mpleme	ented	from the	2011 or	iwards	in Hima	chal	6	00	60
	(2015-					Prades	h.						
	16(Cut)												
1	Chrysant										86.08	7,626,40	1,525.
3	hemum											0	28
	(2015-												
	16(Loose												
)			1.70			1		100	1.70		170	1.50
1	Flower	4.1	615	150	4.0	614	150.1	1.2	183	150	3.00	450	4.50
4	seeds*	0.10			9		22	2					1.5.5.0
1	Potted	0.18	9,000	5000	6.9	345,50	5000	6.4	320,00	5000	22.64	1,132,00	452.8
5	Plants			0	1	0	0		0	0		0	0
1	Other	3.22	321,50	99844	6.1	614,00	1000	5.9	593,00	1000	27.57	2,757,00	
6	Flowers^		0	.72	4	0	00	3	0	00		0	0.0.7.7
	Total	53.64	2,28,36,		466.	4,34,7		812.9			719.0	159,498,4	9251.
			410 +		98	6,092		04			50	00 (Nos.)	34
			4,51,740			+						+	
						29,73,						23,400,40	
1		I				614						U(Kg.)	

Source: Department of Horticulture, H.P. 2015-16.

* The Estimated Production of marigold and Flower Seeds in Kgs; the rest are in Numbers/Stems. #Seasonal Flowers (Godetia, Aster, Statice, Gypsophylla etc.) ^Other Flowers (Narcissus, Iris, Tuberose, Amaryllis, Agapanthus, Nerene etc.) Area- Hectares A-Area P-Production Y-Yield (Productivity)

In table-3 are, production and productivity of the different flowers in the Himachal Pradesh has been calucaled in the case of cut and loose flowers for different time intervals viz. from 1993-94 to 2015-16. From the above table it has been seen that area and production of different flowers has shown the increasing trends. Marigold is a type of flower under which the maximum area has been increased from 1993-94 till 31st March 2011 from 3.50 hectares to 337.39 hectares. But in 2015-16 area under Chrysanthemum (Cut flowers) is more than any other flower crop i.e. 190.66 ha with the production of 68,864,000 in nos. And revenue of Rs. 1,721.60 lakhs. Nowadays new and hybird flowers has been inttroduced in the state to increase the production of flower cultivation.

10. INFRASTRUCTURAL AND MARKETING FACILITIES FOR FLORICULTURAL PRODUCTS:

In Himachal Pradesh, floriculture has evoked keen interest amongst farmers to grow a wide variety of cut flowers. The existence of off-seasonal production advantages coupled with market advantages provides a great scope for remunerative prices. The exiting marketing system consists of first assembling of flowers at the central places on the main road/highways. This is followed by the dispersion of flowers to the consuming centres like Delhi, Chandigarh, Ludhiana, Jallandhar and other North Indian markets. Flower consumers, which are located far off from producing areas, have little direct contact with producers. This gap is filled by various intermediaries working between producers and consumers including forwarding agents, cooperative societies, District Rural Development Authority (DRDA), wholesalers/ commission agents and retailers. They interact with each other to provide different marketing channels.

These agencies constitute the important part of the system, whose activities evolve the mechanics of establishing the prices, various arrangements and contacts and ensure the flow of goods and services. The channels adopted by the sample respondents for the marketing of flowers of Himachal origin are:-

- a. Producer \rightarrow Forwarding Agent \rightarrow Wholesaler \rightarrow Retailer \rightarrow Consumer.
- b. Producer \rightarrow DRDA \rightarrow Wholesaler \rightarrow Retailer \rightarrow Consumer.
- c. Producer \rightarrow Cooperative Society \rightarrow Wholesaler \rightarrow Retailer \rightarrow Consumer.
- d. Producer \rightarrow Wholesaler \rightarrow Retailer \rightarrow Consumer.
- e. Producer \rightarrow Retailer \rightarrow Consumer.



Figure-2: Flow Diagram of marketing Channel of Flowers in Himachal Pradesh.

The individual grower generally uses either of these channels depending upon the size of business, stability of the marketing agency, economic position, monetary needs and producers engagement in work on and outside the farm.

11. MARKETING EFFORTS:

No special marketing efforts are employed by the florists as the larger ones are popularly known by virtue of word-ofmouth publicity within the city. However, emerging internet based orders requires web-advertising. Although, efforts at advertising or other marketing aspects are minimal, it is observed that tie-ups with marriage halls, hotels and corporate offices are frequently employed to maintain the service-oriented and bulk business among the larger florists.

12. STORAGE REQUIREMENTS/ CONDITIONS:

The flowers are generally kept in normal room conditions with 2 days of shelf-life with small florists. Within this period, the flowers doesn't experience appreciable price fall owning to oldness. However, large florists also see the stock remaining for 6-7 days at times and it see the price depreciation of almost 50%.

13. MARKET CONDUCT AND PERFORMANCE:

Market conduct refers to the pattern of behaviour of firms (participants) in relation to pricing and practices in adjusting and adapting to the market in which they function. Whereas, market performance refers to the end result which flow from the structure and its conduct. A progressive marketing system would require the application of different set of criteria for studying the behaviour pattern of enterprises. A list of suitable criterion for defining an adequate cut flower market included:-

- Pricing practices which encouraged picking, pre-cooling, pulsing, grading, packing, transport, storage and market intelligence etc.
- Policies which encouraged quality of product.
- Pricing practices free of collusion and unfair or exclusionary tactics as well as black marketing.

Profit in marketing is directly related to the efficiency of various channels and marketing functions. Imperfections are performing various function results in huge losses. It is true, important to use best method of handling and preparing the marketable surplus for successful marketing. Cut flowers also move through different operating stages in the marketing channels. It will be appropriate to discuss marketing functions performed at various stages in the channels of trade before considering operational efficiency of the marketing system.

• Stage-I Harvesting and Assembling

- Stage-II Pre-Cooling
- Stage-III Pulsing
- Stage-IV Storage Conditions/ Cool Chamber Facilities
 - Refrigerated Transport
 - o Terminal/Holding Cold Storages
 - o Floral/Retail Outlets
- Stage-V Grading
- Stage-VI Packing
- Stage-VII Transportation
- Stage-VIII Handling of Flowers in the Market

14. EFFICIENCY OF MARKETING CHANNELS OF CUT FLOWERS:

High returns to the producers depend to a great extent on marketing of the produce through low cost and efficient channels of trade. Most of the growers in Himachal Pradesh sold their flowers in Delhi market and Chandigarh market. There exists a different profit margin for producers in each channels of trade for each flower. It is observed that the net price received by the growers was highest in direct sale to retailers, followed by sale through Co-operative Societies, sale through DRDA, sale through Forwarding agents and sale through wholesaler's channels. The direct sale to retailers seemed to be more advantageous and paying as compared to the other channels. The sale through the retail shops was the best channel, seemed to be both paying and practical. There appeared some economics in labour cost and bulk marketing for Forwarding Agents, DRDA and Co-operative channels. Among these three channels, there was not much significant difference in the profit margin of producers, Co-operative Societies and DRDA channels were both more efficient than Forwarding Agent channel. Among all the channels in each flower, wholesaler channel was found most inefficient for reasons of high commission charged from the producers.

15. PROBLEMS OF FLOWER GROWERS IN HIMACHAL PRADESH

Himachal Pradesh offers vast scope for the commercialization of cut flowers by the virtue of its agro-climatic condition. Nevertheless, the low performance in this area may be attributed to production, marketing, infrastructural and policy constraints.

15.1 PRODUCTION PROBLEMS

In the area of production, more the 60 percent growers reported lack of knowledge of latest production techniques. Inadequate supply of reliable plant material and that too in time, especially in case of lilium and gladiolus was another important production problem reported by the growers. The growers reported that the private sellers generally deceive them by providing poor quality corms and bulbs of these crops. Besides, non-availability of skilled labour, especially during times of specific operations hinders the production performance. Most of the growers are not performing the adequate crop rotation, especially in case of carnation, as a result the low yields are experienced due to incidence of serious disease and insect pest infestation. Most of the growers do not plan their crops in accordance with the festive seasons and requirements of target markets hence, remain deprived of remunerative prices. Majority of the growers are not following recommended package of practices as a consequences of the gap in the adoption of production technology which results into low production performance. In addition to this, the capital intensive nature of flowers cultivation, increases the dependence on external financial small ones, are unable to arrange. Financial problems not only restrain the growers to grow flowers under controlled conditions but also affect the marketing process. Besides, the lack of assured markets for the flower produce renders the production activity to perform at low levels, effecting income status of producers adversely.

15.2 CONSTRAINTS FACED AT THE PRODUCTION LEVEL

- Availability of basic inputs, including seeds and planting materials
- Growing conditions and crop management
- Shortage of Skilled Manpower and Training
- Aged Plantation

15.3 MARKETING PROBLEMS

Marketing is the process of physical transfer of ownership of the produce from producer to consumers in exchange of money. Thus, every producer needs a person who will agree to buy his produce. The latter type of persons is known in various terms such as traders or market functionaries or middlemen or intermediaries or direct consumers. Immediately after harvest when arrival in the markets increases sharply, the growers do not find a buyer of their produce in all the markets in Himachal Pradesh because of limited number of local market functionaries and non-

participation of outsider intermediaries known as flying intermediaries in large scale mainly because of inaccessibility of upper hill areas due to its locational disadvantages and transportation problems.

As a result, the growers have to depend totally on the local intermediaries. The markets fail to absorb the entire arrival at competitive price or remunerative price. The growers, therefore, suffer most in the process.

15.4 PROBLEM OF FLORICULTURE MARKETING IN HIMACHAL PRADESH

Apart from the general problems stated earlier, the floricultural marketing suffers in the region from several problems. These problems may be divided into following groups-

- Market-yard related problem.
- Marketing problem.
- Infrastructural problem.
- Pricing problem resulting in distress sale.
- Transportation problem.
- Problem of market regulation.
- Availability of labour
- Sources of finance
- Wastage and risk

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- Infrastructural problem
- Poor transportation network
- Problem of market regulation
- Availability of labour
- Sources of finance
- Wastage and risk
- exports constraints
 - Insufficient and insufficient cold stores in major air-ports.
 - Lack of sufficient air cargo space.
 - High freight rates.
 - High imports duties.
 - Lack of quality and quantity of produce.
 - Lack of proven methods for prolonging post-production life of cut flowers.

16. CONCLUSION:

Floriculture in the Himachal Pradesh is being undertaken by individual growers on small scale primarily because of the high cost of production inputs, particularly of imported plant material and due to scattered and small land holdings. The flower produce from the State is being sold in domestic markets, the major consumption centres being Delhi, Chandigarh, Lucknow and Amritsar. But the small scale of flower production by individual growers has led to their exploitation by the middle men involved in flower marketing resulting in the withdrawal from this activity by quite a few growers. However, with the formation of associations/co-operatives/ federations of the flower growers, exploitation has been curtailed to a certain extent. These grower's cooperatives have proved that cooperative marketing is a good solution to strengthen the marketing muscles of the growers. At production level, the greenhouse cultivation, technical guidance and infrastructural facilities are not timely provided to the flower growers. Relatively low share of producers in consumer rupee is due to poor marketing practices adopted by growers. The farmer's knowledge about the right post-harvest treatment, packaging, storing and transport has not attained sophistication as yet. They are unaware of modern marketing methods. Very few farmers were following scientific pre-cooling and pulsing practices for reasons of lack of technical knowhow. Large majority of growers were not using the packaging technology and standard grade specifications as prescribed by extension officers, marketing managers and horticultural scientists. Government support and cooperation is the main underlying factor in boosting the floriculture industry. Though, recent policy changes has made many provisions to benefit the flower grower in many ways, yet lot needs to be done in simplifying the procedures and streamlining them in right perspectives.

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