

A RESEARCH ON THE AREA UNDER CULTIVATION OF CUT FLOWERS IN INDIA WITH EMPHASIS ON FLORICULTURE TRADE WITH BELGIUM, FRANCE, SPAIN, NEW ZEALAND AND SINGAPORE

Kirandeep Kaur Anand & Imran Saleem

Abstract: *Flowers are an integral part of the Indian society. The flower industry (floriculture industry) is dynamic and growing at neck-breaking speed, reflecting the dynamics of this business globally.*

The floriculture industry comprises of cut flowers (modern flowers) and traditional flowers. Modern flowers comprise of roses, carnations and orchids while the traditional flowers comprise of jasmine, tuberose and marigold.

Post-globalization, flower industry is recognized as a sunrise industry. The floral industry (traditional and cut flowers) has achieved a significant growth rate during the past decade. To elaborate further, in recent years the business of cut flowers has increased in India.

This research paper aims at understanding the growth of cut flowers in India and their trade (export-import) with countries across the world. Further, an attempt is made to study the area under cultivation of modern flowers in India in the states like Andhra Pradesh, Uttarakhand, Konkan, Karnataka and Northeast regions. The paper also deals with the export-import of modern flowers with the countries Belgium, France, Spain, New Zealand and Singapore. The source of data is secondary for export-import, which is taken from APEDA (Agricultural and Processed food products Export Development Authority). Graphs are used as the statistical tool for the interpretation of the data.

Keywords: *Floriculture, Cut flowers, export-import, area under cultivation, APEDA.*

INTRODUCTION

The significance of flowers and the love for them has not been any less in our country. The production, cultivation and marketing of flowers is done in India. The traditional flowers like jasmine is grown in open areas while the modern flowers like roses are grown under proper and controlled conditions. These areas are provided with regular pest control, proper soil supplements and controlled temperature.

It is found that the production of cut flowers is more than the production of loose flowers. In 2004-2005 the cut flower production was 1952 million and loose flower production was 655 ('000 Mt)

In India the cut flowers are grown in the following states:

Table 1
State and Area Under Flower Crops

States	area (ha)
Karnataka	19161
Tamilnadu	14194
West Bengal	12285
Andhra Pradesh	5933
Maharashtra	3356
Rajasthan	1985
Delhi	1878
Haryana	1540
Madhya Pradesh	1270
Uttar Pradesh	1000

OBJECTIVES OF THE STUDY

- (1) To understand the role of cut flower in the world trade.
- (2) To study the comparative analysis of export-import of cut flowers in India with top 5 floriculture countries in the world.
- (3) To find out the area under cultivation of cut flowers in India.

STATE AND AREA UNDER CULTIVATION OF CUT FLOWER CROPS:-

Floriculture in Andhra Pradesh

Andhra Pradesh is considered an ideal state for the business of flowers.

Flowers worth crores of rupees are traded alone in the tirupati temple. The state government has initiated various ideas to promote the flower business in Andhra Pradesh:

- (a) availability of nurseries
- (b) development of agri-export zones for promoting exports
- (c) proper irrigational techniques
- (d) emphasis on post-harvest technology

Flowers like rose, carnations, orchids and anthuriums are selected for this region. The Government is planning following things:

- (a) To set-up various floriculture units in Hyderabad.
- (b) To provide subsidy to the farmers and entrepreneurs
- (c) To develop various cooperative societies to prevent the exploitation of farmers by the traders.

Floriculture in Konkan

It is said that the farmers of the Konkan have a dream of making this region a floriculture hub of the country. They want to transform it into "California of India".

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This region has good climatic conditions:

- (a) red laterite soil
- (b) high number of sunny days
- (c) good approach to the domestic market
- (d) humid climate

Some of the farmers of Konkan have established a cooperative named as "Chiplun Parisar Swayamrojgar Sanstha". They have made a slogan "India - the land of farmers".

This cooperative is set-up with the collaboration of:

- (a) private consultants
- (b) financial help from Ratnagiri District Cooperative Bank.

This cooperative is located near the bank of the river chiplun.

Various greenhouses have been constructed for the cultivation of flowers. The society aims at reducing the marketing cost by decreasing the transportation cost. Also, it promotes the export of cut flowers like carnations, anthuriums.

The floriculture trade in konkan has improved the living conditions of the farmers and has increased the employment opportunities for them. The success of the project has motivated the farmers to increase the trade of flowers and this in turn has increased the chances of making Konkan a major floriculture centre in the country in the future.

Floriculture in North-East Region

All the states in the north-east region are suitable for flower cultivation. The states like nagaland and sikkim have a bright future in the floriculture industry.

Various efforts are made by APEDA to develop the flower trade. It has provided them with floriculture machinery, warehouses, pre-coolers, refrigerated trucks, chemicals and fertilizers.

Floriculture in Karnataka

According to Debashish Sengupta and Raj Kamal in "floriculture marketing in India", Karnataka has the largest area under cultivation of modern cut flower crops. It holds 60-70% of the india's total flower production. It has been over 300 years that Karnataka is in the floriculture.

Table 2
Area and Production of Horticulture Commercial Flower Crops in Karnataka

Sl. No.	Name of the Crop	Area in hectares	Production in tons	Yield in tons/ hectare	Value in lakh rupees
1.	Aster	710	6857	10	526
2.	Crossandra	1624	7669	5	1882
3.	Marigold	4583	49777	11	2222
4.	Jasmine	3451	20244	6	8265
5.	Chrysanthemum	2964	36294	12	3931
6.	Tube rose	925	8122	9	1557
	(a) Single				
	(b) Double (lakh spikes)	121	996	8265	

Contd...

Sl. No.	Name of the Crop	Area in hectares	Production in tons	Yield in tons/hectare	Value in lakh rupees
7.	Gladiolus (lakh spikes)	135	307	2	360
8.	Rose (lakh flowers)	1530	3628	2	3041
9.	Bird of paradise (lakh flowers)	27	85	3	39
10.	Golden rod(lakh flowers)	27	85	3	39
11.	Calla lily (lakh flowers)	9	14	2	3
For Sl. No. 12 to 14		Area in	Units		
12.	Orhids (lakh spikes)	2002	12	0.01	12
13.	Carnation (lakh cut flower)	38	186	5	1376
14.	Anthurium (lakh cut flower)	40	96	106	15

The above table gives the details about the total commercial flower crops grown in Karnataka.

The state of Karnataka has an operating company controlled by growers called "Karnataka agro industries corporation". In 2007, it announced the acquisition with Kenya based sher agencies. With this acquisition the company is hoping to achieve a turnover of Rs.1000 crore by 2010.

Floriculture in Uttrakhand

This state is also in the race to join the other states in the growth of flower industry in India. Government is taking various steps to initiate the flower business. Government has taken many initiatives to promote flower industry. These are:

- Development of DIVERSIFIED AGRICULTURAL SUPPORT PROJECT (DASP) in collaboration with the world bank so as to concentrate on the flower business using proper technology.
- It has also made efforts to promote exports by setting up argi-export zones.
- Various floriculture parks have been set up to boost the flower industry.
- Encouraging private entrepreneurs.
- Contacting international leaders in flower industry to gain technological knowledge and to market the flower globally.
- A high level bio-technology board is also being set up under the chairmanship of the hon'ble CHIEF MINISTER.

TRADE OF CUT- FLOWERS IN INDIA (EXPORT-IMPORT)

The research paper aims at studying the growing business of cut flowers in India. This is done by analyzing the imports and exports of cut-flowers to and from India respectively. According to a recent research by APEDA, India's share in the world market is less than 1%.

Exports from India

The cultivation of flowers especially cut flowers is quite popular all over the world. Flowers have a huge demand in the global market. Many countries export flowers and India is one of them.

According to APEDA , India has exported to 139 countries from 2009-10. it has exported to the countries like BELGIUM, FRANCE, SINGAPORE etc.

Product Wise

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6012090	Othe
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6012022	Chic
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6022010	Edit
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6031300	Orel
	Tot:

Source: DGCI

Product Wise Export

Based on the data by APEDA, the qty and value for cut flowers i.e roses, carnations have increased but the exports for fresh cut flowers and flower buds for bouquets and orchids have decreased to zero.

India Export of Agro Food Products Product Group Report/Item Wise

Value in Rs. Lacs
Qty in Mt.

Product: Floriculture

HsCode	Product	2007-2008		2008-2009		2009-2010	
		Qty	Value	Qty	Value	Qty	Value
6049900	Not Fresh foliage, branches and other parts of plants without flowers or flower buds and grasses for bouquets or for ornamental purpose	19,509.45	15,790.13	19,167.77	18,082.07	15,660.67	13,584.02
6039000	Dried, Dyed, Bleached, impregnated or otherwise prepared Cut flowers and flower buds for bouquets or for ornamental purpose	9,177.58	7,031.57	7,473.54	7,108.66	6,247.31	5,933.26
6029030	Tissue Culture Plants	234.45	2,852.08	94.79	3,807.47	270.1	2,770.05
6031900	Other Cut flowers and flower buds	0	0	2,424.22	3,898.55	1,740.33	2,368.97
6031100	Roses	0	0	176.53	326.3	1,004.23	1,658.62
6024000	Roses, grafted or not	51.76	59.96	24.45	257.24	505.91	1,181.40
6029090	Other	644.83	539.82	366.63	966.53	204.54	595.39
6029020	Flowering plants (excl Roses and Rhododendrons)	972.7	1,427.84	148.56	1,333.30	71.61	342.7
6011000	Bulbs, tubers, tuberous roots, corms, crowns & rhizomes, dormant	129.38	183.95	130.99	256.06	129.54	241.18
6012021	Chicory Plants	164.49	194.27	122.62	163.79	317.06	178.24
6022090	Other Trees, shrubs and bushes	74.74	114.99	100.48	77.76	413.46	137.42
6049100	Fresh foliage, branches and other parts of plants without flowers or flower buds and grasses for bouquets or for ornamental purpose	216.66	238.42	54.15	100.88	48.99	119.96
6012090	Other than Chicory Plants and Roots	269.57	159.28	76.7	149.43	81.7	95.65
6012010	Horticultural Bulbs	13.02	23.26	10.86	29.93	22.63	61.7
6023000	Rhododendrons and azaleas, grafted or not	0	0	0	0	1.14	49.75
6021000	Unrooted cuttings and slips	8.83	17.86	9.5	57.25	5.71	43.98
6031200	Carnations	0	0	1.08	3.63	20.19	27.1
6012022	Chicory Roots	18.72	83.79	350.04	179.4	21.27	19.74
6041000	Mosses and Lichens for Bouquets or for ornamental purpose	203.28	406.21	32.77	38.72	13.44	18.87
6022010	Edible fruit or nut trees, grafted or not	31.63	5.91	1.37	4.14	33.2	16.09
6022020	Cactus	0	0	0	0	0.91	1.43
6031400	Chrysanthemums	0	0	0.04	0.14	0.58	0.81
6029010	Mushroom spawn	3.75	9.83	0.3	0.29	0.01	0.03
6031000	Fresh Cut flowers and flower buds for bouquets or for ornamental purpose	4,515.86	4,875.24	0	0	0	0
6031300	Orchids	0	0	30.96	39.86	0	0
	Total	36,240.70	34,014.41	30,798.35	36,881.40	26,814.53	29,446.36

Source: DGCIS Annual Export

IMPORTS OF CUT FLOWERS TO INDIA

Based on the research made by APEDA, there are 26 countries which have exported cut flowers to India. In 2009, the total import qty is 4060 mt with a value of 12\$US Million. It is researched that the maximum export is from Netherlands with a qty of 11176 mt and a value of 4 US\$ Million. In 2008, the total import was 5627 mt with a total value of 17 US\$ Million, which means that the import of floriculture products including cut flowers has decreased.

From this we can say that both import and export have decreased which is not good for the growth of flower business.

RELATED RESEARCHIES

Research by floriculture today magazine under the heading "Indian floriculture awaits a serious action plan to take growth targets forward" states that the imports are rising and exports are decreasing and soon India will become a regular importer of flowers. It says china looks like an emerging significant supplier. But he says that the despite of falling export and rising import the domestic demand is rising.

Also, the government of India is taking steps to provide support to the sector. Corporate houses are encouraged to set up units with global scale and size so that they can meet global quantity demands.

A comprehensive study on the packaging of flowers to get a price is made by Dr. Sangita Ladha & Dr. Surya Gunjal in the paper "floriculture international markets". The researchers have conducted a survey on the world market size of the cut flowers and plants, world wide area under floriculture & cut flower export and import countries.

METHODOLOGY

A comparative analysis of export and import is to be studied based on the secondary data collected from APEDA, Floriculture Marketing in India by Dr. Debashish Sengupta and Raj Kamal and from a magazine called "Floriculture today" for the years 2007, 2008, 2009.

Analysis is done using graphs and trend. The sample size is five counties of the world under the cut flower trade.

Data of Export of Cut Flowers From India

Sl. No.	Countries	2007-08		2008-09		2009-10	
		Qty. (MT.)	Value (Lacs)	Qty. (MT.)	Value (Lacs)	Qty. (MT.)	Value (Lacs)
1.	Belgium	496.18	491.99	1084.26	845.45	470.18	484.12
2.	France	581.45	542.71	400.04	464.59	385.88	414.67
3.	Spain	803.17	809.59	671.26	612.44	356.07	392.17
4.	New Zealand	148.47	199.28	120.60	414.23	86.05	230.62
5.	Singapore	154.61	138.23	104.84	153.39	154.84	180.15

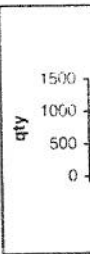
Data of Import of Cut Flowers to India

Sl. No.	Countries	2007		2008		2009	
		Qty. (MT.)	Value (US\$MIL)	Qty. (MT.)	Value (US\$MIL)	Qty. (MT.)	Value US\$MIL
1.	Belgium	-	-	-	-	1.00	0.00
2.	France	72.00	0.00	93.00	1.00	66.00	0.00
3.	Spain	10.00	0.00	4.00	0.00	4.00	0.00
4.	New Zealand	-	-	15.00	0.00	1.00	0.00
5.	Singapore	-	-	3.00	0.00	-	-

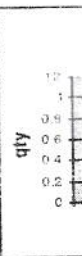
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(a) Qty



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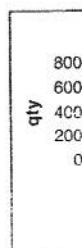


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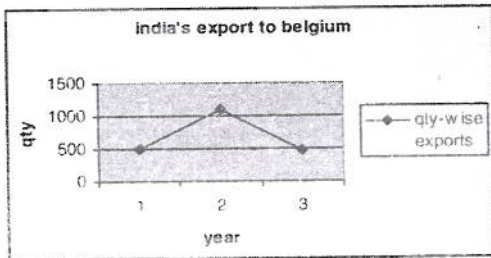


GRAPHICAL REPRESENTATION OF EXPORT & IMPORT OF CUT FLOWERS BETWEEN INDIA AND FIVE COUNTRIES OF THE WORLD

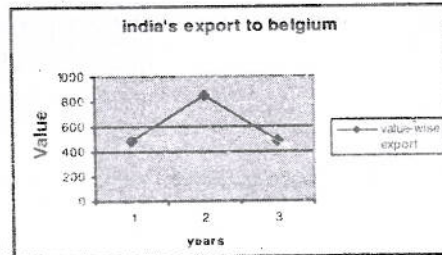
Trade of Cut Flowers with Belgium

India's Export of Cut Flowers to Belgium

(a) Qty-wise export of cut flowers

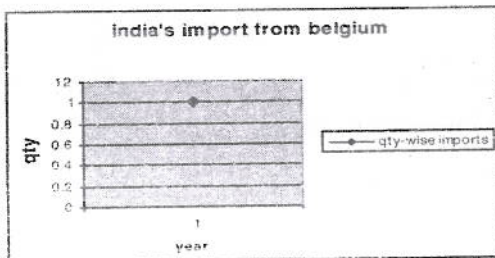


(b) value-wise exports of cut flowers

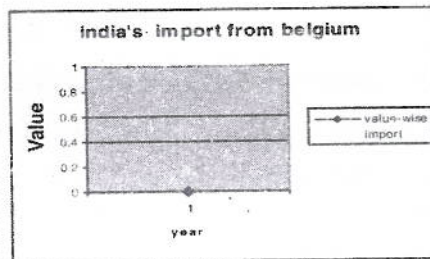


India's Import of Cut Flowers From Belgium

(a) qty wise import of cut flowers



(b) value wise import of cut flowers



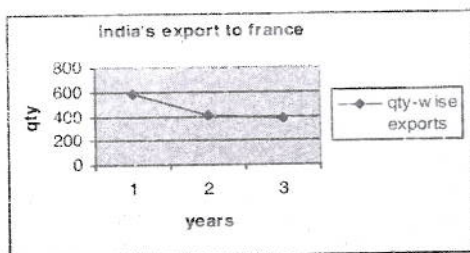
INTERPRETATION OF THE ABOVE GRAPH (BOTH EXPORT AND IMPORT)

The exports of cut flowers from India to Belgium have decreased both quantity and value wise. While, the import of cut flowers from Belgium to India have started only quantity wise. Therefore, the efforts must be made to improve the exports by increasing the production of cut flowers in India.

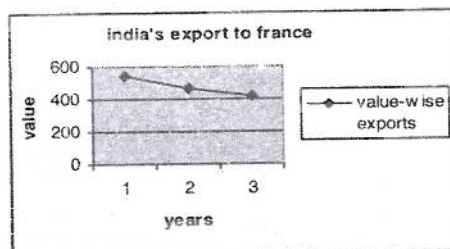
Trade of Cut Flowers with France

India's Export of Cut Flowers to France

(a) qty-wise export of cut flowers

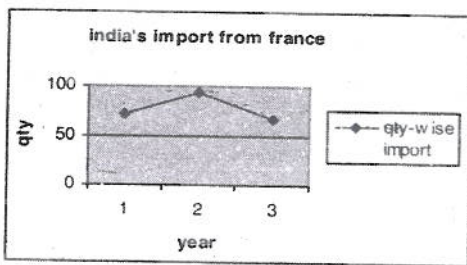


(b) value-wise export of cut flowers

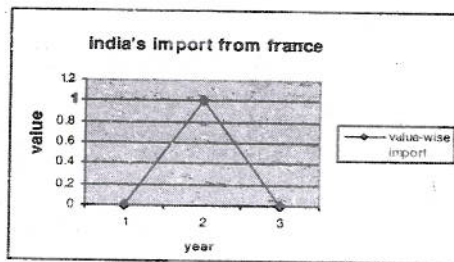


India' Import of Cut Flowers From France

(a) qty-wise import of cut flowers



(b) value-wise import of cut flowers



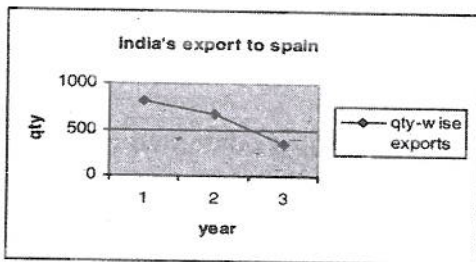
INTERPRETATION OF THE ABOVE GRAPHS (BOTH EXPORT & IMPORT)

The above graphs show that the trade of India with France has declined. The exports of cut flowers from India to France have declined both quantity and value wise. Therefore, the efforts must be made to increase the exports. In addition, the imports have declined which is better for the growth of Indian economy in the world trade of cut flowers.

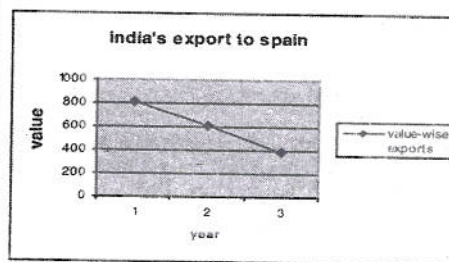
Trade of Cut Flowers with Spain:

India's Export of Cut Flowers to Spain

(a) qty-wise export of cut flowers

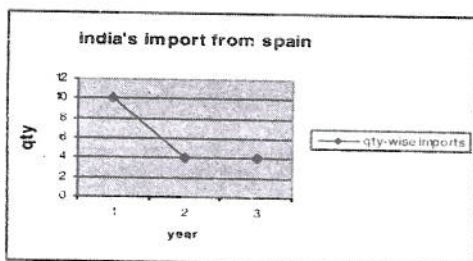


(b) value-wise export of cut flowers

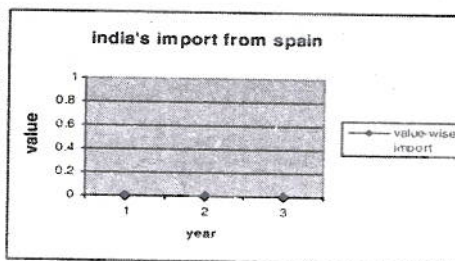


India's Import of Cut Flowers From Spain

(a) qty-wise import of cut flowers



(b) value-wise import of cut flowers

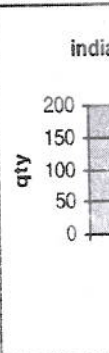


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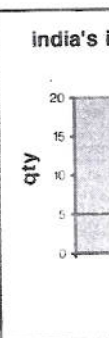
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Trade of Cut

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INTERPRETATION OF THE ABOVE GRAPH (BOTH EXPORT & IMPORT)

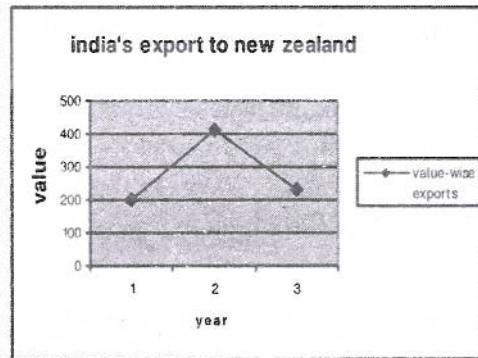
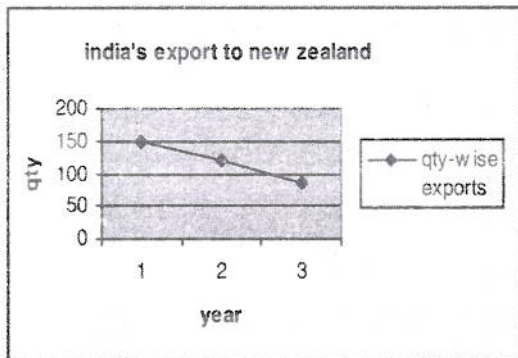
From the above graphs, we interpret that the export of cut flowers from India to Spain has decreased both quantity and value wise. While the import of cut flowers (quantity-wise) from Spain to India is constant and the value wise import is null and constant. This implies government of India should make efforts to improve the exports.

Trade of Cut Flowers with New Zealand

India's Export of Cut Flowers to New Zealand

(a) qty-wise export of cut flowers

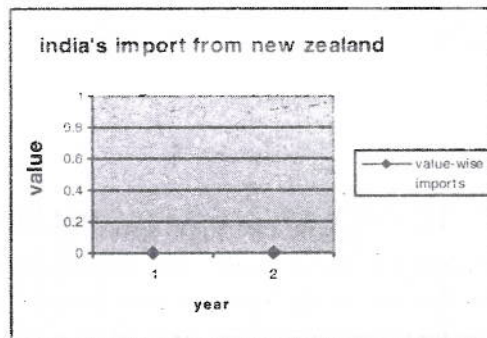
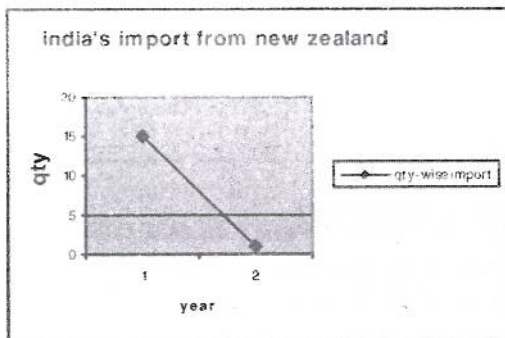
(b) value-wise export of cut flowers



India' Import of Cut Flowers from New Zealand

(a) qty-wise import of cut flowers

(b) value-wise import of cut flowers



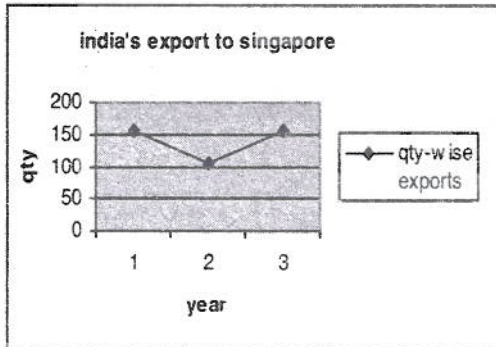
INTERPRETATION OF THE ABOVE GRAPH (BOTH EXPORT & IMPORT)

From the above graphs, we interpret that the quantity and value wise export of cut flowers from India to New Zealand has decreased. In addition, the import (both quantity and value wise) of cut flowers from New Zealand to India has decreased. Therefore, the overall flower trade between India and New Zealand is not good and improvements must be made by using new techniques of production of cut flowers in India for export promotion.

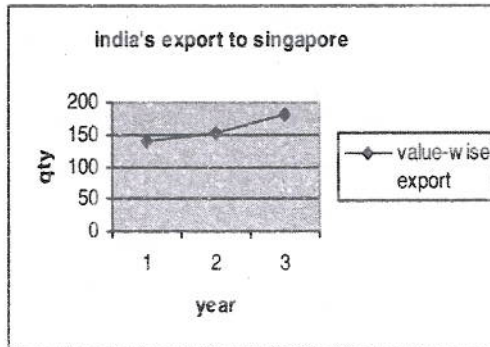
Trade of Cut Flowers with Singapore

India's Export of Cut Flowers To Singapore

(a) qty-wise export of cut flowers

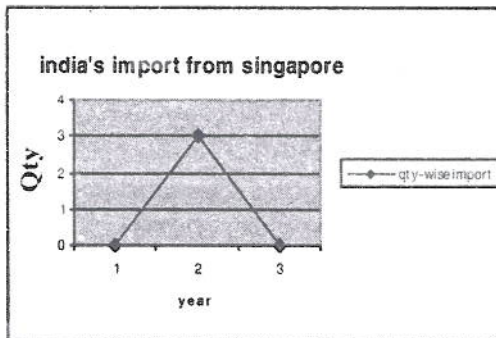


(b) value-wise export of cut flowers

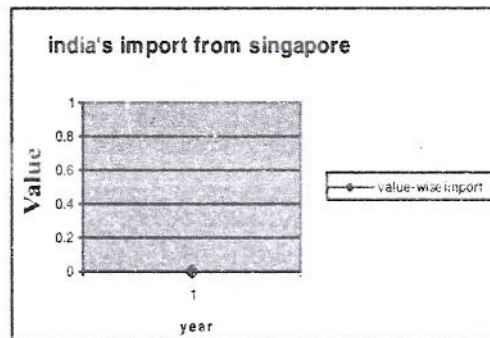


India's Import of Cut Flowers from Singapore

(a) qty-wise import of cut flowers



(b) value-wise imports of cut flowers



INTERPRETATION OF THE ABOVE GRAPH (BOTH EXPORT & IMPORT)

According to the above graphs, India's trade with Singapore is better than the other five countries. The export of cut flowers to Singapore is more than the import of cut flowers from Singapore. Therefore, the Indian government should keep the trade stable and make efforts to increase it.

RECOMMENDATIONS FOR THE STUDY:

1. Government of India should make efforts to increase the area under the cultivation of cut flowers to increase exports and decrease imports.
2. Proper training, skills and knowledge should be provided to the growers for the production of cut flowers.

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3. Good quality seeds should be used for the cultivation of cut flowers.
4. New export promotion policies of cut flowers should be introduced in India. With increased globalization, it has become an important part of the growth of cut flower business in India.

LIMITATIONS OF THE STUDY

1. The study is limited to the export and import of cut flowers in India.
2. The export and import is studied only for five countries.
3. A small sample size may have affected the results obtained.
4. Lack of sufficient research in this area made it difficult to investigate.

CONCLUSION

As the Indian economy is changing, the government of India should initiate the growth of cut flower industry. Efforts should be made by government of India to increase the export of cut flower. In today's scenario, the dealers of the cut flowers i.e. growers, retailers etc must have full knowledge about the flower trade.

The cut flower business is in its growth stage and it can be increased by the efforts made by government of India through various seminars, conferences, floricultural journals etc.

New irrigational techniques should be introduced to increase the production of cut flowers to improve the exports.

In addition, India's trade with Singapore is better among five countries studied in the research paper. Therefore, efforts should be made to keep the trade stable and improve the trade with the remaining countries.

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THE HOUSING CORPORATION

*P. M. Murali**

*Abstract: Housing
governance rating
deposit program
India - Credit qu
fetch on bond deri
advantages inve:
visa-mastercarda*

Keywords: Inter-

INTRODUCTION

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* Research Scholar, V