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An economics analysis for export of fresh cut rose flowers from India

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Abstract

Rose is the most preferred flower in the international market. India has very high potential for export of cut flowers. In the present study, tabular analysis, per cent share of different countries in production, export and import of cut roses were calculated. Compound growth rates in area and production of cut roses in India and per cent share of different countries in import of Indian cut roses were calculated. It is revealed that India ranked first in area and production of cut roses and exporting only 0.20 to 0.40 per cent of global export trade. The top ten cut roses producing countries in the world are India, China, Ecuador, Colombia, Kenya, Mexico, Italy, Thailand, Japan and Netherlands. India ranks first by contributing 46.54 per cent area under cut roses in the world. India ranked 15th in the export of cut roses by contributing 0.20 per cent cut roses export in the world. India has captured only UK market by exporting 1.61 per cent of its cut Roses import. More than 45 per cent of world's area under cut roses is in India. In India, West Bengal, Karnataka, Gujarat, Chhattisgarh, Maharashtra, Uttar Pradesh, Tamil Nadu, Madhya Pradesh, Andhra Pradesh and Orissa are the states having major production of cut roses. The export of cut roses from India has increased and export price has declined during last three years. The export of cut roses from India has declined in the countries like Australia and Japan and increased in Singapore, New Zealand and Malaysia. Increase in price of cut roses was relatively more in USA, Saudi Arabia, Australia and Netherlands. This indicates the shortfall in export of cut roses. India must concentrate on untapped markets to export and also search new countries to export cut roses as production is on large scale in India.

Keywords: Cut roses, export, import, area, production and percent share

Introduction

Rose has ever been the World's most favourite and unchallenged queen of flowers is undoubtedly one of the most beautiful nature's creation. Rose is symbol of love, adoration and innocence. Rose is one of the important flowers and is used for decoration, loose flower, bouquets and for worship. The oil extracted from rose is used for preparations of perfumes and cosmetics. Rose cultivation has been followed since time immemorial in India. Rose is a popular crop for both domestic and commercial cut flowers. Generally they are harvested and cut in bud stage, and keep in refrigerated condition until ready for display at their point of sale. To encourage the floriculture sector, attention should be given equally to production/productivity factors, quality of produce and availability of quality planting material. Shaping up the growth will require highly skilled manpower at the middle and lower levels necessitating training and development. Post-harvest management systems and infrastructure need to be developed^[3]. Cut flowers are the leaders of the ornamental plants with a total sale amount of 24.7 billion dollar^[6].

Rose is the most preferred flower in the international market. India has very high potential for export of cut flowers. Its share is around 51 per cent of the whole of European markets. India has good favorable climatic conditions for production of flowers for trade in winter (October-March) when the demand in Europe is very high. India is having good scope for earning valuable foreign exchange through flower trade specifically through rose cultivated under controlled environment i.e. Poly house. Floriculture is identified as one of the potential foreign exchange earning sector as India is having comparative advantage in terms of climate (tropical), availability of labour and technical man-power etc. needed for flower cultivation. The Central Government accorded more interest on Horticulture Development in the ninth five year plan and also it has identified floriculture industry as "Extreme Focus Thrust Area" In view of this, the present study is undertaken to understand the pattern of export of cut roses in India and whether Indian cut roses has potential to export and at which destinations. The objectives of present study are to ascertain the major cut roses producing, exporting and importing countries, to study the growth in area, production and productivity of cut roses in India and to analyze the trends in country wise export of cut roses from India.

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Materials and Methods

Sources of data

The secondary data of production of cut roses in India and cut roses growing states were obtained from the period from 2013-14 to 2015-16. The data on country wise export of cut roses were obtained from Directorate General of Commerce, Industries and Statistics, Kolkata. The data of world export and import of cut roses, major cut roses growing countries, major cut roses exporting and importing countries etc. were obtained from FAO Production and FAO Trade yearbooks. The publications of National Horticulture Board "Indian Horticulture Database" were also used for obtaining relevant data.

Analysis of data

In the present study, tabular analysis was used and per cent share of different countries in production, export and import of cut roses were calculated. Compound growth rates in area and production of cut roses in India and per cent share of different countries in import of Indian cut roses were calculated.

Results and discussions

Global scenario of cut rose production

The country wise data on area under cut roses for the year 2012-13 have been collected and percent share are worked out and are shown in Table 1. The production of flower is a profitable business as the return are double than cost, which indicate high profitability^[5]. There is problem in production, marketing and transportation of cut flowers production^[4]. The area under cut roses in the world for the year 2012-13 was 60,447 hectares. Top ten cut roses producing countries in the world are India, China, Ecuador, Colombia, Kenya, Mexico, Italy, Thailand, Japan and Netherlands. India ranks first by contributing 46.54 per cent area under cut roses and China ranks second by contributing 23.68 per cent area under cut roses in the world and it was followed by Ecuador (6.74%), Colombia (4.28 %), Kenya (3.58 %), Mexico (2.35 %), Italy (2.02 %) and the shares of remaining countries in world cut roses production were in the range of 0.14 to 0.73 per cent. The largest producers of commercial cut flowers are Holland, USA, Columbia, Kenya, Zimbabwe, Japan and Israel. Total area for production of ornamental plants in these countries is 223145 hectare. According to Rabo Bank (Holland) the total sale amount for ornamental plants is about 50 billion dollar worldwide^[1]. The shares of China and India together were 70.22 per cent in area under cut roses in the world. Netherlands ranks first in export of cut roses by exporting 52 per cent of world export and its share in area under cut roses in the world was only 0.64 per cent. However, the cut roses production in Netherlands is largely carried out in Green

houses. Also, re-export of cut roses is followed on a large scale in Netherlands. Best quality production of cut roses is carried out in Ecuador and Colombia and exported largely to USA. India is producing 50 per cent of cut roses and its export is less than 1 per cent of world export of cut roses.

Table 1: Major cut roses producing countries in the world (2012-13)

Sr. No.	Country	Area (ha.)	Per cent Share
1	India	28,130	46.54
2	China	14,316	23.68
3	Ecuador	4,073	6.74
4	Colombia	2,588	4.28
5	Kenya	2,164	3.58
6	Mexico	1,421	2.35
7	Italy	1,221	2.02
8	Thailand	439	0.73
9	Japan	409	0.68
10	Netherlands	384	0.64
11	Germany	354	0.59
12	Taiwan china	239	0.40
13	Israel	214	0.35
14	Poland	194	0.32
15	Spain	164	0.27
16	Turkey	161	0.27
17	Morocco	82	0.14
18	Other Countries	3,894	6.44
	World	60,447	100.00

Global cut roses export

The share in global exports and price received for exported quantity of top fifteen countries were estimated for the year 2014-2015 and results are shown in Table 2. Among the cut roses exporting countries of the world Netherlands ranks first with a share of 42.32 per cent in total world export of cut roses and its share was only 0.64 per cent in total cut roses production in the world. As against to this, India contributes only 0.20 per cent share in world cut roses export and ranked first by producing 46.54 per cent of the cut roses production in the world. The share of Kenya in cut roses export was 19.01 per cent and ranked second as it ranked fifth by producing 3.58 per cent of the cut roses production in the world. Ethiopia, Ecuador and Belgium ranked third, fourth and fifth in world export of cut roses with a share of 8.73, 7.26 and 4.25 per cent, respectively. The other major cut roses exporting countries are Colombia, Uganda, Zambia, Germany and Tanzania.

As regards the price realized to exported cut roses, the highest export price per kg was realized to Italy was Rs.40 followed by Colombia (Rs.37), UK (Rs.34), Ecuador (Rs.31), Spain (Rs.29) and Germany (Rs.28). Indian cut roses fetched the per kg price of Rs.12. The lowest export price per kg fetched by Zambia and Zimbabwe was Rs.5.44 and Rs.3.54, respectively.

Table 2: Major cut roses exporting countries of the world (2013-2015)

Sr. No.	Country	2013	2014	2015			
		Export value (Rs. Crores)	Export value (Rs. Crores)	Ex. Quantity (Lakh stems)	Export value (Rs. Crores)	Percent Share	Price/ Stem
1	Netherland	5290.93	6011.70	26093.16	5958.73	42.32	22.84
2	Kenya	2098.29	2647.06	28824.75	2676.81	19.01	9.29
3	Ethiopia	954.91	1253.86	17034.42	1229.27	8.73	7.22
4	Ecuador	729.32	1073.08	3276.35	1022.22	7.26	31.20
5	Belgium	258.52	515.60	7309.32	599.02	4.25	8.20
6	Colombia	204.57	269.41	764.17	284.07	2.02	37.17
7	Uganda	197.56	208.69	2438.21	200.83	1.43	8.24
8	Zambia	114.89	113.75	2015.56	109.62	0.78	5.44

9	Germany	49.04	68.55	286.04	80.70	0.57	28.21
10	Tanzania	35.73	37.41	374.17	29.65	0.21	7.92
11	Zimbabwe	28.72	30.22	660.71	23.53	0.17	3.56
12	UK	23.11	36.11	108.36	36.69	0.26	33.87
13	Italy	16.11	30.13	93.26	37.34	0.27	40.04
14	India	14.01	23.46	228.57	27.83	0.20	12.18
15	Spain	11.20	37.52	118.21	34.73	0.25	29.39

Table 3: Changes in share of major cut roses exporting countries in the world

Sr. No.	Country	Share in global exports in 2003 (%)	Share in global exports in 2013 (%)
1	Netherlands	58	52
2	Columbia	14	15
3	Ecuador	6	9
3	Israel	3	1
4	Kenya	3	7
5	Spain	2	---
6	Italy	2	1
7	USA	1	---
8	Thailand	1	--
9	Belgium	1	3
10	Ethiopia	---	2
11	Germany	---	1
12	Malaysia	---	1
13	Others	9	8

The changes in share of major cut roses exporting countries in the world has been worked out for two point of times i. e. in the year 2003 and 2013 and given in Table 3.

Table 4: Major cut roses importing countries of the world (2014-2015)

Sr. No.	Country	Import Value (Rs. Crores)	Per cent Share
1	Netherlands	2916.60	20.72
2	USA	2494.80	17.72
3	Germany	2034.54	14.45
4	United Kingdom	1386.49	9.85
5	Japan	831.65	5.91
6	France	831.61	5.91
7	Belgium	775.56	5.51
8	Switzerland	684.10	4.86
9	Italy	445.58	3.16
10	Denmark	231.90	1.65
11	Poland	230.50	1.64
12	Austria	214.38	1.52
13	Spain	200.37	1.42
14	Sweden	177.95	1.26
15	Czech Republic	101.59	0.72
16	Finland	85.47	0.61
17	Ireland	72.16	0.51
18	Lithuania	72.16	0.51
19	Others	291.45	2.07
	World	14078.86	100.00

The sales volumes and prices for cut roses in International markets in the year 2012 given in Table 5 indicated that the highest price was fetched in USA Wholesale markets

Among the top three cut roses exporting countries, the share of Netherland had decreased and shares of Colombia and Ecuador had increased. Also, export of cut roses increased in Kenya and Belgium. Ethiopia, Germany and Malaysia have been emerged as new exporters of cut roses in the year 2013.

Global cut roses import

It is important to identify the reliable and higher price fetching destinations for Indian cut roses for that purpose the share in global imports of cut roses of top 18 countries for the year 2014-2015 are shown in Table 4.

Among the cut roses importing countries of the world Netherlands ranks first with a share of 20.72 per cent in total world import of cut roses. USA is second largest importer of cut roses wherein India's share is negligible. The share of Germany in cut roses import was 14.45 per cent and ranked third in the world during the year 2014-15. UK and Japan ranked fourth and fifth in world import of cut roses with a share of 9.85 and 5.91 per cent, respectively. The other major cut roses importing countries are France, Belgium, Switzerland, Italy and Denmark.

followed by Flora Holland, Netherlands and Veiling Rhein-Maas, Germany

Table 5: Sales volumes and prices for cut roses in International markets in 2012

Sr. No.	Market	Sales volume (Pieces in Lakh)	Price (Rs./Piece)
1	Flora Holland, Netherlands	23,360	17.51
2	Plantain, Netherlands	920	11.21
3	Wholesale Market, USA	330	25.92
4	Veiling Rhein-Maas, Germany	1,480	16.11
5	Taiwan China Auctions	704	8.72

Domestic scenario of cut Roses production

Among the flowers, rose is an important cut flower grown in India. In terms of area under roses, India ranks first with a share of 46.54 per cent to the world area under cut roses grown in the year 2012-13 is depicting its importance.

Area, production and productivity of cut roses in India

The information on area, production and productivity of flowers in country as a whole during the different time periods is presented in Table 6.

Table 6: Area, production and productivity of flowers in India

Sr. No.	Year	Area ('000'ha)	Production ('000' tons)	Productivity (tons/ha)
1	2001-02	106	535	5.0
2	2002-03	70	735	11.0
3	2003-04	101	580	5.7
4	2004-05	118	659	5.6
5	2005-06	129	654	5.1
6	2006-07	144	880	6.1
7	2007-08	166	868	5.2
8	2008-09	167	987	5.9
9	2009-10	183	1021	5.6
10	2010-11	191	1031	5.4
11	2011-12	254	1652	6.5
12	2012-13	233	1729	7.4
13	2013-14	255	2297	9.0
14	2014-15	249	2143	8.6
15	2015-16	278	2184	7.9
16	2016-17	309	2246	7.3
	CGR	8.9	11.1	

The area under flowers was 1.06 lakh ha. productivity per ha was 5.00 tons and production of flowers was 5.35 lakh tons in India during 2001-02. In 2016-17, the area under flowers was 3.09 lakh ha. and the productivity was 7.30 tons./ha. and total production of flowers was 22.46 lakh tons. The compound growth rates in area and production of flowers in India were 8.9 and 11.1 per cent per annum, respectively during the period of last 16 years.

State wise production of cut roses in India

The information on production of cut roses in major fifteen cut rose growing states and country as a whole during 2013-14 to 2015-16 is presented in Table 7.

The production of cut roses in 2013-14 was 2.55 lakh tonnes

and it increased to 3.01 lakh tonnes in 2015-16. The production of cut roses has increased by 0.46 lakh tonnes during the period of last three years. The state wise picture of production of cut roses revealed that the West Bengal ranked 1st with a production of 63.32 thousand tonnes in the year 2015-16. Cut roses production in the states like Karnataka, Gujarat, Chhattisgarh, Maharashtra, and Uttar Pradesh was 50.72, 39.10, 37.90, 30.65 and 27.11 thousand tonnes, respectively in the year 2015-16. The production of cut roses in the states of Andhra Pradesh and Orissa declined during the last three years. However, the production of cut roses in the states like Maharashtra and Chhattisgarh has increased drastically.

Table 7: State wise production of roses in India ('000' Tonnes)

Sr. No.	States	Period		
		2013-14	2014-15	2015-16
1.	Karnataka	50.56	57.02	50.72
2.	Andhra Pradesh	30.00	28.31	2.87
3.	Orissa	27.54	27.67	----
4.	Uttar Pradesh	39.04	27.13	27.11
5.	Haryana	3.22	2.14	2.46
6.	Arunachal Pradesh	0.72	0.72	0.03
7.	West Bengal	----	----	63.32
8.	Gujarat	37.36	36.74	39.10
9.	Chhattisgarh	2.57	2.90	37.90
10.	Maharashtra	15.00	6.99	30.65
11.	Tamil Nadu	----	----	19.79
12.	Madhya Pradesh	13.26	14.00	14.00
13.	Assam	5.90	5.98	8.00
14.	Rajasthan	---	---	2.45
15.	Himachal Pradesh	1.98	----	2.05
	India	255.07	212.69	301.93

Export of Cut roses from India

India is leading cut roses producing country and ranks first in cut roses production. However, the export of cut roses from India is less than 1.00 per cent of global export. India is exporting cut roses to the more than 55 countries.

Country wise export of Cut roses from India

The country wise data on export of cut roses from India from the year 2015-16 to 2017-18 have been collected. The shares of each country in import and price fetched are calculated and are shown in Table 8.

Table 8: Country wise export of cut roses from India (2015 to 2018)

(Quantity in metric tons)

Country	2015-16			2016-17			2017-18		
	Qty.	% share	Price/Kg	Qty.	% share	Price/Kg	Qty.	% share	Price/Kg
UK	701	35.42	319	804	39.58	297	724	28.74	290
Malaysia	277	14.01	212	311	15.31	257	535	21.25	172
New Zealand	94	4.73	437	142	7.01	321	234	9.29	336
Australia	269	13.58	285	137	6.76	364	107	4.23	430
Japan	308	15.57	235	269	13.24	232	118	4.68	263
Singapore	98	4.94	214	119	5.86	231	558	22.17	55
Netherland	21	1.08	260	73	3.61	273	43	1.71	450
Lebanon	69	3.48	388	30	1.48	363	55	2.17	346
Kuwait	5	0.26	299	16	0.78	263	28	1.13	367
UAE	24	1.21	240	23	1.15	278	20	0.81	345
Jordan	7	0.36	380	15	0.72	380	11	0.45	431
USA	5	0.23	384	14	0.67	152	8	0.33	561
Saudi Arabia	8	0.42	282	13	0.62	298	7	0.26	585
Egypt	11	0.54	197	18	0.91	123	15	0.59	207
Oman	16	0.82	259	7	0.33	229	12	0.47	246
Maldives	6	0.28	289	7	0.36	319	9	0.34	331
Others	61	3.07	228	33	1.61	347	35	1.37	380
Total	1978	100.00	284	2030	100.00	283	2518	100.00	230

India's cut roses export increased from 1978 tonnes (2015-16) to 2518 tonnes (2017-18) and registered 27.30 per cent increase. United Kingdom ranked first in cut roses import from India and account 28.74 per cent in total cut roses export from India. Followed to UK, Singapore (22.17%), Malaysia (21.25%) and Newzealand (9.29%) were the major destinations for the export of Indian cut roses in 2017-18. These four countries accounts 81.45 per cent share in total cut roses export from India. Cut roses export from India to Singapore, Newzealand and Malaysia has shown marked increase. Highest increase has been registered by Singapore. However, cut roses exports to Australia and Japan has been declined. UK, Japan and Australia were major destinations for Indian cut roses in the year 2015-16 and these three countries accounting to 35.42, 15.57 and 13.58 per cent share in total cut roses export from India and it was declined to 28.74, 4.68

and 4.23 per cent, respectively in the year 2017-18.

As regards the price realized to exported cut roses in the year 2017-18 from India, the highest export price per kg was realized in Saudi Arabia and it was Rs.585 followed by USA (Rs.561), Netherlands (Rs.450), Jordan (Rs.431), Australia (Rs.430), Kuwait (Rs.367) and UAE (Rs.345). Indian cut roses fetched the per kg price of Rs.230 in the year 2017-18. The lowest export price per kg fetched by Singapore and Malaysia was Rs.55 and Rs.172, respectively.

Country wise export of Floriculture from India

The country wise data on export of flowers from India from the year 2015-16 to 2017-18 have been collected and shares of each country in import and price fetched are calculated and are shown in Table 9.

Table 9: Country wise export of Floriculture from India (2015 to 2018)

(Quantity in metric tons)

Country	2015-16			2016-17			2017-18		
	Qty.	% share	Price/Kg	Qty.	% share	Price/Kg	Qty.	% share	Price/Kg
USA	5,166	22.77	187	3,763	17.09	263	3,489	16.85	301
Netherland	1,884	8.30	296	1,809	8.22	318	1,855	8.42	354
UK	2,200	9.70	255	2,458	11.16	278	2,117	9.61	251
Germany	2,339	10.31	243	2,440	11.08	256	1,348	6.51	272
UAE	1,550	6.83	180	1,439	6.53	240	1,211	5.85	242
Canada	944	4.16	184	749	3.40	240	1,133	5.47	188
Italy	445	1.96	255	555	2.52	290	522	2.52	318
Singapore	1,177	5.19	121	1,347	6.12	123	1,957	9.45	79
Japan	422	1.86	378	365	1.66	405	284	1.37	479
Malaysia	420	1.85	212	521	2.37	231	793	3.83	167
Australia	397	1.75	351	250	1.14	523	199	0.96	661
Spain	175	0.77	226	186	0.85	355	250	1.21	412
New Zealand	115	0.51	416	152	0.69	347	266	1.28	321
Poland	383	1.69	211	329	1.49	275	342	1.65	228
China	335	1.47	324	495	2.25	256	267	1.29	256
Saudi Arabia	413	1.82	158	529	2.40	142	379	1.83	156
Others	4327	19.07	171	4634	21.05	201	4290	20.72	198
Total	22692	100.00	213	22020	100.00	248	20703	100.00	245

India's floriculture export decreased from 22,692 tonnes (2015-16) to 20,703 tonnes (2017-18) and registered 8.76 per cent decline. USA ranked first in floriculture import from India and account 16.85 per cent in total floriculture export from India. Followed to USA, UK (9.61%), Singapore (9.45%) and Netherlands (8.42%) were the major destinations for the export of Indian flowers in 2017-18. These four countries accounts 44.33 per cent share in total floriculture export from India. Floriculture export from India to Singapore, Canada and Malaysia has shown marked increase. Highest increase has been registered by Singapore. However, floriculture exports to USA and Germany has been declined. USA, Germany and UK were major destinations for Indian flowers in the year 2015-16 and these three countries accounting to 22.77, 10.31 and 9.70 per cent share in total

floriculture export from India and it was declined to 16.85, 6.51 and 9.61 per cent, respectively in the year 2017-18.

As regards the price realized to exported flowers from India, the highest export price per kg was realized in Australia and it was Rs.661 followed by Japan (Rs.479), Spain (Rs.412), Netherlands (Rs.354), Newzealand (Rs.321) and Italy (Rs.318). Indian flowers fetched the per kg price of Rs.245. The lowest export price per kg fetched by Singapore and Saudi Arabia was Rs.79 and Rs.156, respectively.

Share of cut roses in export of floriculture from India

The country wise data on export of floriculture and cut roses from India for the year 2017-18 have been collected. The shares of cut roses export in floriculture export from India to different countries are calculated and are shown in Table 10.

Table 10: Share of cut roses in export of floriculture from India in 2017-18

(Quantity in metric tons)

Country	Floriculture		Cut Roses		Share of Cut Roses (%)
	Qty.	Price/qtl	Qty.	Price/qtl	
USA	3,489	301	8	561	0.23
Netherland	1,855	354	43	450	2.32
UK	2,117	251	724	290	34.20
Germany	1,348	272	4.34	200	0.32
UAE	1,211	242	20	345	1.65
Canada	1,133	188	1.26	292	0.11
Italy	522	318	1.03	285	0.20
Singapore	1,957	79	558	55	28.51
Japan	284	479	118	263	41.55
Malaysia	793	167	535	172	67.47
Australia	199	661	107	430	53.77
Spain	250	412	7.64	162	3.06
New Zealand	266	321	234	336	87.97
Poland	342	228	0.4	172	0.12
China	267	256	0.6	293	0.22
Saudi Arabia	379	156	7	585	1.85
Others	4290	198	148.59	205	3.46
Total	20703	245	2517.5	230	12.16

An attempt has been made to work out what is the share of cut roses in the export of flowers to different countries from India in order to know in which countries there is potential for increasing export of cut roses where India is already exporting flowers. The export of floriculture from India was 20,703 tonnes and share of cut roses was only 12.16 per cent in the year 2017-18.

Country wise picture shows that the highest share of cut roses was in the countries like New Zealand, Malaysia, Australia, Japan and UK which indicated that in these five countries India is mainly exporting cut roses. However, the export of cut roses was observed very less in major flower importing countries like USA, Netherlands, Germany, UAE and Canada. Hence, there is a need to find out the reasons for less export of cut roses from India to these five countries wherein cut roses are fetching higher prices than other countries.

Prospect's for export of cut roses from India

India's share in cut roses import of different countries for the year 2014-15 has been calculated in order to know potentials for increasing export of cut roses from India and is given in Table 11.

Top ten cut roses importing countries *viz*; Netherlands, USA, Germany, UK, Japan, France, Belgium, Switzerland, Italy and Denmark contributed together 89.74 per cent of world import in the year 2014-15. Out of these ten countries India has exported cut roses in negligible quantities i.e. to the extent of less than 1 per cent of these countries import value.

The largest importer of cut roses is Netherlands (20.72 % share) and India's share in Netherlands cut roses import was only 0.02 per cent because Indian cut roses had an import

duty which our competitors from Africa didn't have to suffer from. So, they had a 9 per cent cost advantage. Freight costs were also lower. They were paying 25 per cent to 30 per cent lower airfare than what Indians are paying to Europe. India couldn't compete with Africa.

European countries like Germany, UK, France, Belgium, Italy and Denmark these six countries together have 40.53 per cent share in world cut roses import and India's share in the import of these six countries was only 1.65 per cent. This might be due to 40 per cent cost advantage to competing African countries. The shares of African countries like Kenya and Ethiopia in the import of cut roses in Europe were 21.60 and 9.92 per cent, respectively of total imports of cut roses in Europe in the year 2015-16. Also, shares of Latin American countries like Ecuador and Colombia in the import of cut roses in Europe were 8.25 and 2.17 per cent, respectively of total imports of cut roses in Europe in the year 2015-16.

The export of Indian cut roses to USA (which is having 17.72 per cent share in world import) is difficult because of NAFTA countries like Ecuador and Colombia as free trade facility has been availed by these two countries. About 80 per cent share in USA cut roses import has been captured by these two countries.

India has not yet captured the markets from countries like Czech Republic, Finland, Ireland and Lithuania for the export of cut roses which are having 2.35 share in world import of cut roses. However, India has captured markets from Lebanon, Australia, Malaysia and Newzealand to the extent of 50.48, 49.60, 46.48 and 26.88 per cent of their total imports which needs to be maintained by having consistency in export of cut roses to these countries.

Table 11: India's share in cut roses import of different countries (2014-15)

Sr. No.	Importing Country	Imported Value (Rs. Lakh)	Export Value of India (Rs. Lakh)	India's share
1	Netherlands	2,91,660	55	0.02
2	USA	2,49,480	19	0.01
3	Germany	2,03,454	9	0.004
4	United Kingdom	1,38,649	2236	1.61
5	Japan	83,165	724	0.87
6	France	83,161	2	0.002
7	Belgium	77,556	11	0.01
8	Switzerland	68,410	0.10	0.0001
9	Italy	44,558	2.75	0.006
10	Denmark	23,190	2.71	0.012
11	Poland	23,050	0.69	0.003
12	Austria	21,438	2.88	0.013
13	Spain	20,037	12.39	0.06
14	Sweden	17,795	0.85	0.005
15	Czech Republic	10,159	----	0.00
16	Finland	8,547	----	0.00
17	Ireland	7,216	----	0.00
18	Lithuania	7,216	----	0.00
19	Malaysia	1262	586.58	46.48
20	New Zealand	1523	409.39	26.88
21	Australia	1544	765.9	49.60
22	Singapore	2278	208.47	9.15
23	Lebanon	530	267.56	50.48
24	Kuwait	398	15.45	3.88
25	UAE	1250	57.62	4.61
26	Saudi Arabia	266	23.28	8.75
27	Israel	318	0.70	0.22
28	Turkey	1936	13.95	0.72
29	Bahrain	1593	17.81	1.12
30	Oman	1272	42.04	3.31
31	Others	14,975	127.72	0.85
	World	14,07,886	5,614.84	0.40

World's largest exporter of roses

The efforts were made to collect information of world's largest exporter of roses as a success story in order to know which techniques he has used which will be helpful for increasing export of cut roses from India. The brief success story is as under.

Sai Ramakrishna Karuturi from Bengluru is the world's largest exporter of roses. After completing his engineering and MBA, after trying with various options he finally settled for floriculture and he decided to cultivate and export roses. He purchased 10 hectares of land near Bengluru and constructed green houses for cultivation of cut roses. But cultivating flowers in India is an expensive affair. After a chance meeting with a former colleague he moved to Africa, where the seeds of his fortune were sown. With 15 per cent of the global market in his grasp, Karuturi, today, is the world's largest exporter of roses. His company has leased 3,000 sq km of land in Ethiopia. The company's turnover in 2009 was Rs 650 crores and 239 hectares of land for rose cultivation

In 1994, he has started the flower business. He was immensely influenced by management guru Michael Porter's theory of 'Sustainable Competitive Advantage' He found that Indians were not competitive in Europe because they had an import duty on Indian products which our competitors from Africa didn't have to suffer from. So, they had a 9 per cent cost advantage. Freight costs were also lower. They were paying 25 to 30 per cent lower airfare than what Indians are paying to Europe. India couldn't compete with Africa. So, in 2000, He decided to move to Africa. When he went to Africa, he was astounded by the scale, the profitability and the sustainability of the business. He realized he had a 40 per cent

cost advantage there.

He decided to set up a unit in Ethiopia in 2004. By the end of the first year, he had invested Rs 7 crores. Over the years he went on investing in land and today, he had close to \$170 million invested there. His company is now the world's largest rose company which produces one-and-a-half million stems of roses every day in Ethiopia and Kenya together and employed about 9,000 people. Today, he had a 9 per cent market share in Europe and heading for a 15 per cent market share as he is doing a lot of expansion. Today, his company produces 650 million roses a year, which are about 2 million roses a day. His company is looking for a billion rose stem capacity. Every day, his company sends one charter flight from Africa to Europe. Today, 95 per cent of this company's production is in Africa. This company harvest roses five times a day and process them the same day. They are dispatched early next morning, and they reach the destination by the end of the day. They are sold on the third day.

Conclusions

1. Top ten cut roses producing countries in the world are India, China, Ecuador, Colombia, Kenya, Mexico, Italy, Thailand, Japan and Netherlands. India ranks first by contributing 46.54 per cent area under cut roses in the world
2. Top ten cut roses exporting countries in the world are Netherlands, Kenya, Ethiopia, Ecuador, Belgium, Colombia, Uganda, Zambia, Germany and Tanzania. India ranked 15th in the export of cut roses by contributing 0.20 per cent cut roses export in the world.
3. Top ten cut roses importing countries in the world are

Netherlands, USA, Germany, UK, Japan, France, Belgium, Switzerland, Italy and Denmark. Out of these ten countries, India has captured only UK market by exporting 1.61 per cent of its cut roses import.

4. More than 45 per cent of world's area under cut roses is in India. In India, West Bengal, Karnataka, Gujarat, Chhattisgarh, Maharashtra, Uttar Pradesh, Tamil Nadu, Madhya Pradesh, Andhra Pradesh and Orissa are the states having major production of cut roses.
5. In the world cut roses trade main competitors for Indian cut roses are Ecuador and Colombia both in USA and Europe and Kenya, Ethiopia, Uganda, Zambia, Tanzania and Zimbabwe in Europe. Major destinations for the export of Indian cut roses are UK, Singapore, Malaysia, New Zealand, Australia, Japan, Netherlands and Lebanon. Kuwait, UAE and Jordan are other importers of Indian cut roses.
6. Indian cut roses fetches price lower than at world average and reasons behind this is India's export to the countries those paid less price per kg (Singapore and Malaysia) and not to those paid higher price (USA, Jordan and Saudi Arabia). This is the area of concern to increase the earnings from the cut roses export.
7. The export of cut roses from India has increased and export price has declined during last three years. The export of cut roses from India has declined in the countries like Australia and Japan and increased in Singapore, New Zealand and Malaysia. Increase in price of cut roses was relatively more in USA, Saudi Arabia, Australia and Netherlands.

Suggestions

1. India ranked first in area and production of cut roses and exporting only 0.20 to 0.40 per cent of global export trade. This indicates the shortfall in export of cut roses. Thus, attention should be paid to enhance the export.
2. Export oriented production of cut roses especially Dutch Roses needs to be enhanced with consistency, so that export of cut roses can be made on regular basis. Because, exporting on regular basis helps in increasing volumes and rose growers also get remunerative prices.
3. India has exported the larger quantities of cut roses to the countries where minimum price is fetched and on the other hand the countries in which highest prices were fetched, the cut roses exports were marginal in these countries. Thus, there is a need to divert the cut roses exports to other countries paying high price.
4. India must concentrate on untapped markets to export and also search new countries to export cut roses as production is on large scale in India. New international markets have to be identified through planned strategies in different countries as per their Quality specification, Phytosanitary measures, Codex standards and Market preferences. The constraints in increasing the export to major cut roses importing countries needs to be solved. Netherlands, USA, Germany UK and Japan markets ranks first, second, third, fourth and fifth, respectively among the top importers in the world and contribute 68.65 per cent imports in the world so that exporters of cut roses from India may concentrate on these five countries.

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