

## Production Constraints of Export Floriculture Industry in Sri Lanka

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### Abstract

Floriculture is a profitable export venture which at present characterized with poor export performances. This study was conducted to find the reasons behind the production inefficiencies of floriculture industry in Sri Lanka focusing on the constraints faced by the growers at production level. Large scale growers and small and medium scale growers producing floriculture products for export market were interviewed using a structured questionnaire. Significant constraints on production for large scale growers were; inadequacy of lands (t=3.27), trained labor shortage (t=4.09) and inadequacy of locally produced basic inputs (t=2.8), lack of capital (t=2.19), high operating cost (t=8.07), lack of financial support from banks (t=1.72), high interest rates of loans (t=3.73), lack of research activities (t=9.26) and improper flow of knowledge from researcher to producer (t=7.92), price volatility (t=2.81), poor market intelligence (t=4.45) and strict quality parameters (t=1.98). Significant constraints on production for small and medium scale growers were; inadequacy of lands (t=3.78), lack of technical knowledge (t=3.56), lack of quality planting materials (t=8.82) and other basic inputs (t=11.24), inadequacy of post harvest infrastructure (t=3.41), lack of capital (t=21.26), high operating cost (t=17.26), lack of financial support from banks (t=4.34), high interest rates (t=8.56), lack of market oriented researches (t=10.53), less exposure to research findings (t=10.51), lesser prices (t=4.67), less availability market information (t=5.86), limited access for information sources (t=3.71), and less awareness of quality requirements by international market (t=3.06). Therefore, an efficient private public partnership is required to overcome production inefficiencies of the floriculture industry.

**Keywords:** Floriculture, Constraints, Production

### Introduction

Floriculture is a non-traditional agricultural export venture in Sri Lanka with a high potential for foreign exchange generation. The foreign exchange earning capacity of this sector is in between 85% - 90% and the sector has a unique feature of generating a high turnover per unit area of land (Export Development Board, 2011). For the last ten years, Sri Lanka could only maintain an average of 0.08% of world market share for floriculture exports (International Trade Center, 2012). The average growth of the export turnover from 2002 to 2011 was 6.1% while the world floriculture exports expand at 10% per annum (Export Development Board, 2012). Export

revenue from floriculture only represents 0.19% of the total export earnings and 0.87% of the total agriculture export revenue from 2001 to 2011. Thus, Sri Lanka still has not optimally utilized floriculture as an export venture. Therefore, the study focused on: "why the export performance of the floriculture sector is stagnating over the years, although the world market for floriculture keeps on increasing?"

Main factors contributed for the poor export performance are inefficiencies in local production environment and productivity improvement of foreign competitors (EDB, 2012 and Central Bank Report,

2012). Therefore, this study attempted to identify the reasons behind local production inefficiencies regarding floriculture industry in Sri Lanka focusing on the constraints faced by the growers at production level.

### Methodology

Two target populations as "large scale growers" and "small and medium scale growers" of floriculture products were selected. Large scale floriculture producers registered in Export Development Board were considered as the first target population. Small and medium scale growers registered under "Suwasas Mal-National floriculture development program" at National Botanical Gardens, Gampaha were the second target population. Purposive sampling technique was applied to select 30 respondents from "large scale growers" and 38 respondents from "small and medium scale growers".

Primary data were collected through a field survey using structured questionnaires for two target groups. Likert scale was used in the questionnaire to locate each respondent at an appropriate point on the scale for each measure. Data were analyzed using descriptive statistics and one tail hypothesis testing of population mean was applied to test the hypothesis which indicates that constraint identified, has a significant negative impact on floriculture production using one sample test at 5% significance level.

### Results and Discussion

Constraints were classified into four categories as; resource, research and knowledge dissemination, economic and financial and marketing constraints related to floriculture production.

Resource constraints were mainly due to inadequacy of basic inputs and infrastructure. Large scale growers (70%) and 71% of small and medium scale growers were unable to expand their production due to

inadequacy of lands. Large scale growers (57%) were equipped with adequate technical knowledge while 74% of small and medium scale growers did not have sufficient technical knowledge to achieve necessary bulk in required quality. Many of the small and medium scale growers (90%) mentioned that less availability of quality planting materials has negatively influenced their production. Large scale growers (77%) mentioned that trained labor shortage has been a problem. Lack of skills and trainings on floriculture production was a problem for 66% of small and medium scale growers.

Large scale growers (74%) were well equipped with adequate cold storages, refrigerated vehicles to facilitate better post harvest management while 73.7% of the small and medium scale growers did not have these post harvest infrastructure at farm gate. Inadequacy of locally produced inputs; specially construction materials for net houses was an issue for 73% of large scale growers and 94.8% of small and medium scale growers to expand their production. Results revealed that inadequacy of lands, trained labor shortage and inadequacy of locally produced basic inputs have significantly limited the capacity of large scale growers to expand their production. Inadequacy of lands, lack of technical knowledge and skills, lack of quality planting materials and other basic inputs and inadequacy of post harvest infrastructure were identified as significant constraints which limits the production capacity of small and medium scale growers (Table 1).

Lack of capital, high operating cost, lack of financial support from banks and high interest rates of loans were identified as significant economic and financial barriers to increase the floriculture production by both large scale growers and small and medium scale growers (Table 1). Ninety three percent of large scale

growers and 97% of small and medium scale growers could not bear the high operating cost. Lack of capital has been a barrier for 67% of large scale growers and 66% of small and medium scale growers to invest in new projects on their own. Lack of financial institutes to support new projects has been an issue for 60% of the large scale growers and 71% of the small and medium scale growers. Large scale growers (70%) and 86.8% of small and medium scale growers mentioned that high interest rates for business loans have restricted their access for credits.

Lack of research activities to develop new varieties, production technologies and improper flow of knowledge from researcher to producer were identified as constraints significantly affect on production (Table 1). Large scale growers (93%) and 85% of small and medium scale growers mentioned that many researches are not market oriented. Large scale growers (83%) mentioned that agriculture extension service is not connected with their production. Small and medium scale growers (95%) were less exposed to research findings.

**Table 1. Mean score of responses and results of one sample T test on constraints faced by growers.**

Constraint	Large Scale Growers		Small and Medium Scale Growers	
	Mean score	Calculated T Value**	Mean score	Calculated T Value**
<b>Resource Constraints</b>				
1. Inadequacy of lands	3.73	3.27*	3.74	3.78*
2. Inadequacy of technical knowledge	3.13	0.51*	3.58	3.56*
3. Quality planting materials	2.83	-0.74	4.34	8.82*
4. Lack of trained labor and skills	3.83	4.09*	3.32	2.02*
5. Cold storage, refrigerated vehicles	2.43	-2.81	3.53	3.41*
6. Other basic inputs - Fertilizers, pesticides, construction materials	3.70	2.8*	4.37	11.24*
<b>Research and Knowledge Dissemination Constraints</b>				
1. Lack of research and development activities to develop new varieties and production technologies	4.37	9.26*	4.08	10.53*
2. Poor Extension	4.33	7.92*	4.16	10.51*
<b>Economic and Financial Constraints</b>				
1. Lack of capital	3.53	2.19*	4.66	21.26*
2. Lack of financial support	3.40	1.72*	3.87	4.34*
3. High interest rates	3.90	3.73*	4.34	8.56*
4. High Operating Cost	4.37	8.07*	4.71	17.26*
<b>Marketing Constraints</b>				
1. Price volatility	3.57	2.81*	3.95	4.67*
2. Poor information availability	3.97	4.45*	3.84	5.86*
3. Limited access for information source	3.34	1.65	3.63	3.71*
4. Strict quality parameters	3.50	1.98*	3.50	3.06*

\*\* - T values of one tail, one sample T test

\* - Significant at 5%

Price volatility, poor market intelligence and strict quality parameters were recognized as significant marketing aspects which limits the production potential (Table 1). Large scale growers (70%) and 74% of small and medium scale growers mentioned that prices received were highly volatile. Poor market information availability was a problem for 77% of large scale growers and 84% of small and medium scale growers in satisfying market requirement. Many of the small and medium scale growers (74%) did not have sufficient access for information sources. Strict quality parameters demanded by the importers was a barrier for 57% of large scale growers as production according to these quality standards are costly. Small and medium scale growers (71%) mentioned that they were unable to meet required quality due to less awareness on quality parameters expected by the international market.

### Conclusion

It is evident from the survey, inadequacy of basic inputs and infrastructure, undesirable economic conditions and financial support, poor focus on market oriented research activities and efficient extension to facilitate knowledge dissemination at producers' level, price volatility, poor market information availability and

growing concerns over strict quality standards have limited the capacity of the floriculture growers to expand their production in required quality and quantity. Therefore, an efficient private-public partnership is required to overcome production inefficiencies of the floriculture industry.

### References

- Central Bank of Sri Lanka 2012 Economic and Social Statistics of Sri Lanka. From [www.cbsl.gov.lk/pics\\_n\\_docs/10.../statistics/.../econ & ss 2012.pdf](http://www.cbsl.gov.lk/pics_n_docs/10.../statistics/.../econ & ss 2012.pdf) Retrieved 15/7/2012]
- Export Development Board 2011 Floriculture Industry. from <http://www.srilankabusiness.com/tradeinfo/srilankaproduct/foilage.htm> Retrieved March 24, 2012
- Export Development Board 2012 Export Performance Indicators 2002 -2011. SEDB Sri Lanka 10-15
- International Trade Center 2012 Trade Map - Trade Statistics for Business Development from <http://www.trademap.org/> Retrieved December /22/2012]
- Sri Lanka Export Development Board 2004 National Export Strategy 2004-2008. SEDB Sri Lanka:16