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FROM THE AMERICAN PEOPLE



John Ogonowski
Latin America
Farmer-to-Farmer Program

Executive Summary

The research project prepared by marketing major students attending Florida International University 2007 Summer term aims to “determine the United States market potential of Ornamental Plants, Flowers and Foliage, evaluate it’s current level of market penetration and provide its findings in the farming cooperative interested as part of the John Ogonowski Latin-American Farmer to Farmer Program.”

Abundance of Ornamental Plants, Flowers and Foliage is produced and also imported into the United States from many neighboring countries. Current state of production provides consumers with abundant, various and inexpensive Ornamental, Flowers and Foliage to choose. Even though the prices are on a downward slope throughout the recent years, the possibility innovative niche market exists for new entering growers.

Cut flowers are of the major imports, and mass importation has been sighted as the main cause of recent domestic price decrease. On contrary, the import cut flower prices are on a rapid rise. With more variety, higher quality the consumers are demanding more exotic and vibrant fresh flowers. Potted plants and flowers remain fairly stable through the years with certain species doing exceptionally well in the market. Recent consumer interest on particular species has helped the livelihood of the potted plant and flower industry. Bedding, gardening and foliage plants have remained stagnant in the U.S market, with an exception of Propagative material. Recent rise of Propagative material, or not fully grown flowers and plants have exceeded the production and sales that of cut flowers.

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Introduction

Program Rationale

The John Ogonowski Farmer-to-Farmer Program, funded by the United States Agency for International Development, provides voluntary technical assistance to farmers, farm groups, and agribusinesses in developing and transitional countries to promote sustainable improvements in food processing, production, and marketing. The program relies on the expertise of volunteers from U.S. farms, land grant universities, cooperatives, private agribusinesses, and nonprofit farm organizations to respond to the local needs of host-country farmers and organizations.

To date, approximately one million farmer families (representing about five million people) have been direct beneficiaries of the FTF Program. Volunteers have provided direct hands-on training to over 80,000 people.

Winrock International and Florida International University's College of Business Administration have combined their resources and knowledge to implement the John Ogonowski Farmer-to-Farmer Program in Latin America, from 2003-2008.

The MAR 4613 course was created to add value to the Farmer-to-Farmer Program and prevent scarce volunteer resources from being diverted to requests for assistance, which are best, completed in the United States. The resulting freed up resources allow the program to fulfill requests with volunteers where an in country expert is a necessity. Of added value, hosts receive this additional US-based volunteer service at no cost to the FTF program.

Introduction

Research Objectives

The objective of this research is to analyze the US market potential of a variety of commodities. Our goal is to provide information on a variety of commodities, which can then be applied by our in-country partners to their business strategies. The primary beneficiaries of these reports are small and medium-sized farming cooperative groups which do not have the capability nor the resources to conduct these studies on their own.

It is of critical importance that while drawing conclusions to satisfy the research objective, a thorough analysis is carried out. In order to do so, some of the questions which must be analyzed are:

1. What is the demand of the product in question?
2. Who are the buyers and consumers of the product?
3. What are the quality standards and packaging requirements?
4. What is the distribution system for the product?
5. Who are the competitors?
6. What government regulations apply to the import of this product?

If it is a new product for the market, additional questions must be asked:

1. Who are the potential buyers of this product?
2. What are the potential distribution channels?
3. What are the additional important issues which must be investigated before attempting to export the product?
4. Are there any regulations which might inhibit this product from being sold in the US market?

Research Method

Given that the research objectives include getting background information of the potential market of the commodities included in the report, the research was conducted using an explorative design. Two main methods were employed: secondary data research and personal interviews. In some instances focus groups with consumers were conducted.

The secondary research was conducted by searching and interpreting existing information relevant from governmental and private electronic sources. When specific information about a commodity was not found secondary research was guided by similar commodities relevant to the information needed.

In order to complement the secondary research, personal interviews with experts were conducted. The interviewees were either academic or commercial experts in the production and commercialization of the commodities in question. In some cases, the researchers felt the need to complement this information direct input from the consumers; in those cases focus groups session were conducted.

The sources of the information are cited through out the content of the report. Contact information of the experts is provided. At the end of the report conclusions and recommendations for future action are suggested.

**Bouquets
Tropical Flowers
Latin Greens**

Product Description



Ornamentals are all the non-woody plants that can be used attractively in the landscape. Main purpose are cultivation and to enjoy the blossoms. Among the broad spectrum of ornamentals, there are annuals, biennials or perennials. Annuals are grown from seed, to produce flowers and produce new seeds in the same year of growth. Common types are calendula, cornflower, foxglove, larkspur, pansy, sweet alyssum, stocks, and viola. Biennials during first year they only produce vegetative growth and if they are hardy enough to endure the winter weather they produce flowers and seed during the second year, hence the name Biennials. Common types are hollyhock, stocks, and sweet Williams. Perennials, once grown they continue to produce new top growth and flowers each season. Common types are asters, daylies, chrysanthemums and ferns. Foliage can be both used for indoor or outdoor uses. The plants with woody stems are widely used for landscaping. Common types are ivy, cacti, ferns, palms, trees and vines. Propagative material includes cutting, liners, prefinished plants and unfinished plants sold to other growers for further growing.

Statistical Data

The total Floriculture production in the United States was valued at 2.8 billion, wholesale in 1990. All together the industry reached 13.8 billion in sales in 2002 which is slight increase from 2001, 13.7 billion.¹ Floriculture crop sales in 2005 reached 5.4 billion, making U.S consumption at \$6.2 billion. On household level, the consumption is down from \$137 per household in 2001 to \$136 in 2006.¹

California ranks number one in sales of bedding and garden annuals and perennials. Michigan, Florida and Texas follow California's lead respectively. Recently Orchids sales have been up reporting \$129 million in sales in 2004 to \$144 million in 2005. Although the orchids are experiencing high growth in sales the top selling potted plant is poinsettias at \$242.3 million.²

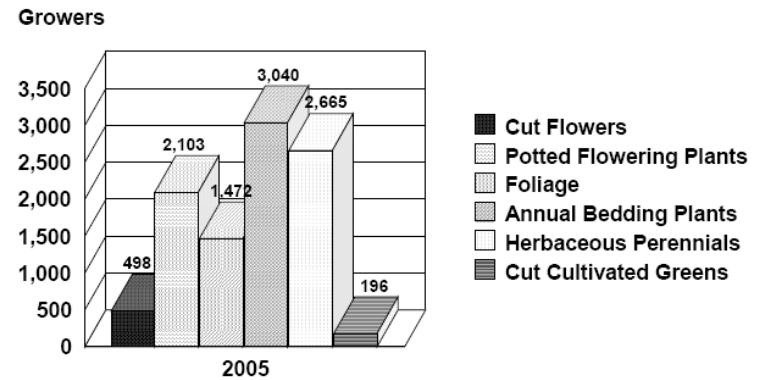
Nearly 70% of foliage sales in the U.S are earned by Florida growers, followed by 15% earning in California. Propagative material sale is now higher than that of cut flowers. The Impressive growth is lead by Florida followed by Michigan and California. These 3 states make up 56% of the total U.S propagative material in 2005.²

Ornamental Plants, Flowers and Foliage

Cut flower sales in 2005 suffered a significant drop, and it is the lowest since 1986. Except the sales of gerbera daisies, lilies, tulips and carnations all other cut flowers experienced decline in sales. Due to high importation from Columbia and Ecuador, and heighten competition among these established importers caused the prices for cut flowers to decrease.

Among the major cut flowers, roses rank number one in sale, \$660,271 of sales per grower, lilies at \$541,387 per grower and gerbera come in third at sale of \$529,738 per grower.² Cheaper imports have discouraged domestic cut flower production. California holds the highest market share at 73%, followed by Washington state at 5%, and Hawaii and Florida both at 4%.

Number of Growers by Type of Plant Produced, 2005
Operations with \$100,000+ Sales



USDA Floriculture Crops 2005 summary

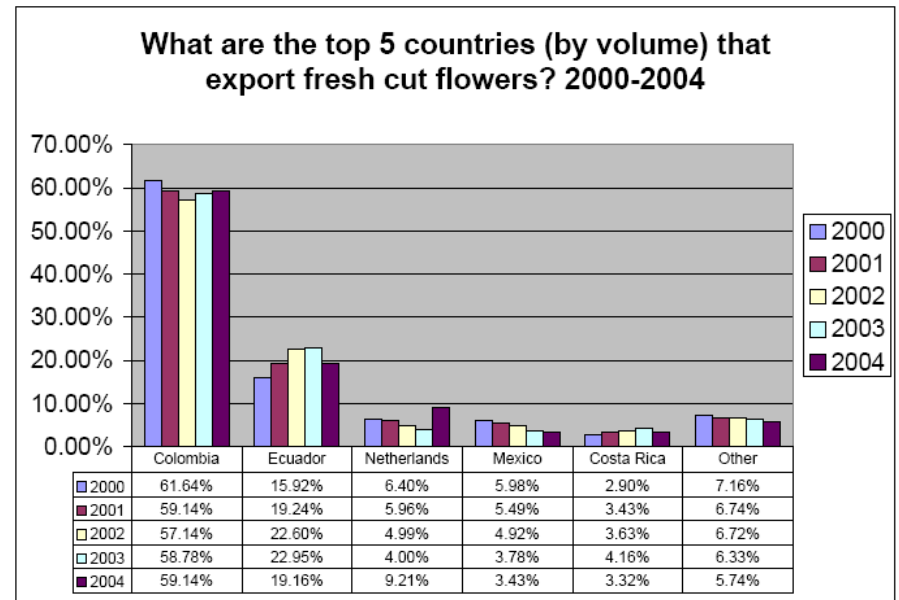
Ornamental Plants, Flowers and Foliage

Main Origin of Importations

Colombia supplies most of the imported roses, carnations and chrysanthemum while Ecuador ships more roses than other cut flowers to the U.S. Recently Ecuador has been the preferred country of importation of roses for the United States. Due to their efficient logistical abilities, they are able to deliver fresher roses than that of Columbia.

Netherlands is the prime source for tulips lilies and narcissus. Live trees, and plants mostly come from Canada including majority of the Christmas Trees. Together Canada and the Netherlands make up about two fourths of the U.S nursery stock imports.

Most of the propagative material imports of U.S comes from production areas with favorable climate and low production cost such as Costa Rica, Guatemala and increasingly in Mexico. After shipment these plants are further grown into maturity.



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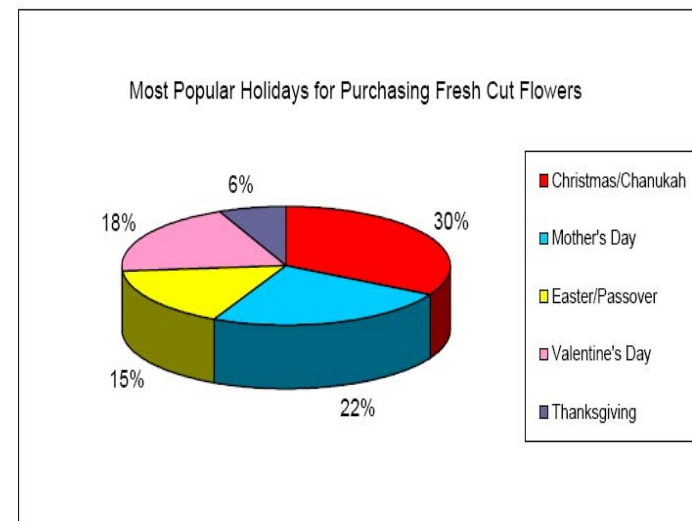
Ornamental Plants, Flowers and Foliage

Demand Tendencies

More and more U.S consumers are demanding high quality products from all levels. They seek more exotic colors, shapes and fragrances. Recently Orchids have been on the rise; It's elegant simple, yet unique characteristics make it a perfect plant for decoration resulting in high demands.

The yearly demand tendencies vary among holidays for special occasions people are celebrating. The best season for cut flower sales is Christmas which accounts for 31%, followed by Mother's day for 25%, Valentines Day at 21%, Easter/Passover at 11%, and Thanksgiving at 6%.³

Holiday	# of Transactions	Dollar Volume
Christmas/Chanukah	30%	31%
Mother's Day	22%	25%
Easter/Passover	15%	11%
Valentine's Day	18%	21%
Thanksgiving	6%	6%



(American Floral Endowments's Consumer Tracking Study 2004)

Ornamental Plants, Flowers and Foliage

Market Characteristics

Specialty Outlets	59.8%
Florist Shops	29.1
Garden Centers	19.5
Mail Catalog	2.9
Craft/Art Specialty	2.8
Other Specialty Outlets	5.7
Mass Merchandisers	35.7%
Supermarket	13.1
Home Improvement Stores	9.2
Discount Chain Stores	8.1
Other Mass Merchandisers	2.4
Others	4.5%

Market Segments

There is an enormous demand for decorative flowers in the United States and that demand is now primarily satisfied by importation.

Specialty Outlets and Mass Merchandisers are the largest segment. Majority households purchase their flowers and plants from Garden Centers and Home Improvement Stores. Should the European trend follow suit in the United States, we can expect that the market share of the supermarkets will experience tremendous growth. In the U.K. the supermarkets supply 40% of the country's cut flowers⁵ and chains worldwide are looking to follow their lead and expand their presence in the market.

Online Merchant component seems to have been omitted from the table, although we may hypothesize that those merchants have otherwise been included in the other segments.

Ornamental Plants, Flowers and Foliage

Consumer Preferences

Roses account for almost 40% of total cut flower imports and more than 85% of all the Roses purchased by consumers in the United States were grown outside the country.⁶

A similarly high percentage of imports is the norm for Carnations (95%), Alstroemereia (95%), Chrysanthemums (76%) and Orchids (53%).⁶

Many domestic growers have resorted to a strategy wherein they have all but ceased production of many cut flower varieties, choosing to concentrate on those flowers which offer a significantly higher rate of return – cut Anthuriums and cut Orchids, for example, averaged 84 cents per stem⁵ - in order to compete with foreign importers who in general tend to have significantly lower labor costs.

Sales trends for the past 5 years indicate that a slow but constant growth in the total amount of cut flowers imported into the United States. California, Washington, Hawaii and Florida are the leading states in terms of floriculture sales⁵ and the trend seems to be that those states with warmer climates tend to show a higher volume of floral sales.

The amount of flowers imported can give us some indication as to the consumer preferences for flowers and as expected, the top imports are Roses and Carnations.

Cut Flowers: Quantity of U.S. Imports, by flower variety⁶
Year 2005, Import quantity: 1,000 stems

All Roses, fresh	1,348,096
All Carnations, fresh	598,390
All Chrysanthemums, fresh	500,494
Alstroemeria, fresh	258,787
All Orchids, fresh	52,701
All cut flowers, fresh	2,895,246

Ornamental Plants, Flowers and Foliage

Apparent Consumption

Cut Flowers: US Consumption by flower variety⁷
Year 2005, Value at Wholesale in 1,000 dollars

Roses	313,692
Chrysanthemums	72,593
Carnations	35,448
Gladioli	24,057
Orchids	14,852
Alstroemeria	49,299
Delphinium and Larkspur	7,824
Gerbera Daisy	32,314
Iris	20,008
Lillies	98,469
Lisianthus	4,890
Snap Dragons	14,338
Tulips	39,147
Other Cut Flowers	313,975

The United States total consumption of flowers appears to be declining somewhat even as imports increase at a steady rate. Domestic production has been reducing dramatically due to the tremendous competition from importation. Domestic Rose production, for example has fallen from 533 million units sold in 1992 to 99 million sold in 2005. In contrast, over the same period imports of Roses increased from 520 million units to almost 1.35 billion units.⁷

It is somewhat difficult to forecast whether the current downward trend will continue or whether it will experience an upward correction in the future, but signs point toward continued growth of the industry albeit at a slow pace. It is interesting to note, however, that many mass merchandisers are either entering the market or taking more aggressive positions in the market and thus must clearly see this market as an area of opportunity for them.

Ornamental Plants, Flowers and Foliage

Competition

Cut Flowers: US Consumption by selected countries⁸
Year 2001 Value in 1,000 dollars

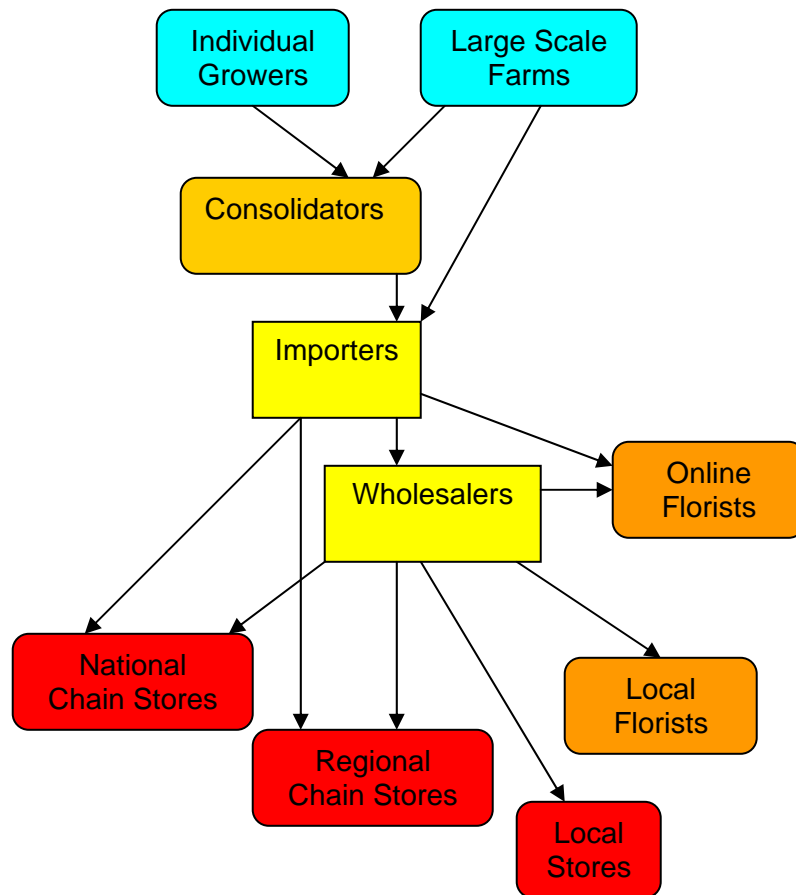
Colombia	302,412
Ecuador	99,745
Mexico	67,097
Canada	29,421
Costa Rica	17,953
Israel	14,705
Chile	6,891
Guatemala	3,396
New Zealand	3,373
All other	3,165
Total	565,471

As of the year 2001, more than 50% of the United States cut flowers were supplied by importers. That percentage has continued to grow and will continue to do so as long domestic producers are unable to compete with the prices that importers are able to offer. As such, the competition in the marketplace is largely going to come from other importers – many of whom have well established positions within the market.

Of the nine major floral importing nations, six of those are in either South or Central America. One can hypothesize that the proximity to the United States allows for certain advantages, not the least of which are a number of trade allowances which confer tariff waivers upon certain countries. For any country's farmers to seriously consider the possibility of actively competing in an arena where many concessions have already been granted to other nations, they must address at least the possibility of leveling the playing field by negotiating similar free trade agreements with the U.S government.

Ornamental Plants, Flowers and Foliage

Distribution Channels



The distribution chain can be quite a complex one and may even vary depending on the particular flower or plant being sought in a particular instance. In general, however, the distribution chain is similar to the one depicted at left. It is interesting to note that the National Chain Stores, Regional Chain Stores, and Online Florists are all able to deal directly with the actual importers of the flowers because of the tremendous volume of their orders. In effect, they have some measure of control over the distribution channel. The Local Stores and Florists, on the other hand, simply cannot order in the quantities required to command the reduced pricing available when purchasing directly from the importers.

According to Shawn Horan, Manager of Publix Supermarket Store #00084 in Coral Gables, Florida - the pricing advantage his store has over a small florist is tremendous. The typical florist simply doesn't have the storage space necessary to accommodate a large enough supply of flowers to adjust their economies of scale. Their position in the marketplace allows Publix to select the most appropriate route in the supply chain that will give them the best price and product combination – thus assuring the organization the greatest likelihood of financial success.

Ornamental Plants, Flowers and Foliage

Procedures to Make Orders

Order placement procedures vary depending on the user's position in the supply chain.

Andrew Bynum of Home Depot Store #6856 in Coconut Grove, Florida says that the plant and floral orders for the Nursery Department are placed on a monthly basis by Home Depot's regional headquarters. Each individual store does have some control over the variety and quantities ordered if they so choose, but typically those decisions are made on a regional basis. In the event that a Nursery or Store Manager recognizes a localized need, they do have the authority to effect a change in the supply on a temporary basis, but ultimately the final decision always remains with their headquarters.

Preston Scott Design with Flowers in Coral Gables, Florida places orders with suppliers that vary widely depending on the special events that they see on their calendar. Although their January order, for example, may remain similar from year to year it is not as likely to be similar to their February order. The company has a small group of wholesalers that they have dealt with for years and they remain faithful to them because of the high quality of both service and product even though better pricing may be available elsewhere.

Systems and Terms of Payment

Current information on the Payment Terms and Systems is incomplete, but I am confident that we will be able to secure accurate details from a reputable source shortly and will include those details in the final version of this report.

Transportation

The floral distribution network typically uses two main forms of transportation¹.

Air transport is used for the exportation of flowers from South and Central America to the United States. The flying time from most locations is not too long and this allows many of the flowers to be shipped without refrigeration – thus reducing the shipping cost without any significant risk to the cargo.

Domestic transportation is effected through the use of refrigerated trailers. Some of these trailers are customized with the addition of installed shelving which allows the flowers to be separated and stacked without fear of damage. Unfortunately, many of these trailers must be loaded with mixed loads, and the temperature requirements for flowers vary quite widely. Although pains are taken to avoid combining flowers that are incompatible, sometimes it cannot be avoided and this does affect the quality of the landed product.

Ornamental Plants, Flowers and Foliage

Packing, Types Used: Crates and Labels

Due to the perishable nature of the merchandise, the packing and storage of the flowers is extremely important. The USDA has outlined a series of highly detailed suggestions to assure that the flowers arrive at their destination in the best possible condition². Due to their delicate nature, individual flowers will require a variety of different specialized packaging – orchids are usually packed in shredded fiber with their stems in small vials filled with a preservative while bird-of-paradise and freesias have their flowers covered with a plastic netting or sleeve.

There are specific industry standards for cut flower boxes that have been recommended by both the Society of American Florists and the Produce Marketing Association. These standards have been determined to be the best fit for the standard shipping pallet and thus allow for better stacking and space use. Ultimately, these standards are likely to result in less product damage along the distribution chain.

Market Access

Acceptance Conditions

Due to the globalization, the market for ornamental plants, flowers and foliage has expanded beyond Asian, Hispanic, and other ethnic communities. Many of these products are in consumers hands within 2 days of harvest in another part of the world. Transportation and packaging are key to this success. Advances in transportation and packaging also have helped to increase the availability of potted plants and exotic cut flowers. Consumers now purchase these items from roadside vendors and in food stores as well as traditional flower shops and nurseries. Plants and flowers are increasingly used to brighten up businesses and homes.

In an effort to boost agricultural markets in developing countries as well as providing American producers greater opportunities to grow and develop their business, the United States has proposed changes in its agricultural trade reforms and policies. "The U.S. proposal is clearly focused on the elimination of huge disparities in tariff levels, domestic support, and export competition that plague global markets today."⁹ Agricultural policy reform will benefit the United States as well as developing country consumers, since there will be more diverse products and a fair competition in the agricultural market.

Ornamental Plants, Flowers and Foliage

Quality Standards

Consumers demand high quality of plants and cut flowers in return for the high prices they pay. Under the best circumstances, the quality of live plants and cut flowers can only be maintained, not improved, during transportation. Most of these products are high-value and very perishable. Therefore product quality should be the highest possible to ensure time for distribution, consumer acceptance, and repeat purchases. Careful handling from harvest to consumer's home needs to be maintained to ensure the quality of the plants.

Cut flowers are harvested at various stages of maturity, depending on the cultivar and buyer specifications. Asters, bird-of-paradise, carnations, chrysanthemums, gladioli, iris, roses, and snapdragons are harvested in the tight-bud stage to extend shelf life. Damaged and diseased flowers must be immediately discarded as they produce ethylene and spread decay, ruining healthy flowers.

Products in top quality condition:

- Have a longer shelf life.
- Allow more time for transportation, storage, and marketing.
- Satisfy importers, brokers, and consumers.
- Increase repeat sales and profits.
- Help expand markets.

Bruised, decaying, or overripe products can ruin an entire shipment and reduce importers confidence in the grower and shipper. Products in this condition:

- Spread decay to other products in the load.
- Produce more ethylene gas which causes further ripening and decay.
- Produce more heat (respiration) which causes further ripening and decay.
- Lose more water which results in shriveling and wilting.
- Discourage repeat sales.
- Reduce profits.

During transportation, storage, and marketing, products may be exposed to:

- Rough handling during loading and unloading.
- Compression from the overhead weight of other containers of products.
- Impact and vibration during transportation.
- Loss of moisture to the surrounding air.
- Higher than recommended temperatures.
- Lower than recommended temperatures.
- Ethylene gas from vehicle exhaust or product ripening.
- Odors from other products or residues.

By selecting and packing only top quality products, shippers can help ensure good arrival condition of plants, and cut flowers transported over long distances. Grading, good packaging, pre-cooling, and proper transportation equipment are essential to maintaining product quality from the field to the consumer.

Ornamental Plants, Flowers and Foliage

Growers and shippers should use the buyer's specifications for grading to monitor quality, condition, size, and maturity. While not all products have official grade standards, common sense techniques can be used to ensure the packing and transportation of only high quality items.

Since most of these products are new to many people, uniform high quality in appearance is essential to increasing importer and consumer willingness to try the products and buy them again. Packing, pre-cooling, refrigerating, transporting, storing, and selling poor quality products wastes time, money, and materials.

The Society of American Florist (27) recommends the following temperature, relative humidity, and approximate transit and storage period for cut flowers and florist greens to ensure quality.¹⁰

	Commodity	Storage Temperature		Approximate storage period
		C	F	
Cut Flowers	Anthurium 4	13	56	2-4 weeks
	Bird -of-paradise	7-8	45-46	1-3 weeks
	Ginger	13	55	4-7 days
	Heliconia	12	54	10 days
	Rose (in preservative)	0.5-2	33-35	4-5 days
	Rose (dry pack)	-0.5-0	31-32	2 weeks
Florist Greens (decorative foliage)	Asparagus (plumosa) 6	2-4	35-40	2-3 weeks
	Chamaedorea	7	45	2-3 weeks
	Leatherleaf (baker fern)	1-4	34-40	1-2 months
	Magnolia	2-4	35-40	2-4 weeks
	Philodendron	2-4	35-40	-
	Staghorn fern	13	55	-

Source: Hardenburg, Watada, Wang (7), and Society of American Florists (27)

Ornamental Plants, Flowers and Foliage

Tariff Measurements

The tariff schedule of the United States gives detail information about all the fees that are charged to each product that is imported in the U.S. As you may see on the charts, the goods are categorized according to the commodity classification. Many countries are exempt from such duties as well as many commodities.

Harmonized Tariff Schedule of the United States (2007) (Rev.1)
Annotated for Statistical Reporting Purposes

Heading/ Subheading	Stat Suf- fx	Article Description	Unit of Quantity	Rates of Duty	
				General	Special
0802		Other live plants (including their roots), cuttings and slips; mushroom spawn:			
0802.10.00	00	Unrooted cuttings and slips	No.	4.8%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
0802.20.00	00	Trees, shrubs and bushes, grafted or not, of kinds which bear edible fruit or nuts	No.	Free	25%
0802.30.00	00	Rhododendrons and azaleas, grafted or not	No.	1.9%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
0802.40.00	00	Roses, grafted or not	No.	Free	4¢ each
0802.90		Other:			
0802.90.20	00	Herbaceous perennials:			
0802.90.30	00	Orchid plants	kg	Free	25%
		Other:			
		With soil attached to roots		1.4%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
	10	Chrysanthemums	No.		
0802.90.40	00	Other	No.	3.5%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
		Other:			
0802.90.50	00	Mushroom spawn	kg	1.4¢/kg	Free (A+,AU,BH,CA,CL,D,E,IL,J,JO,MA, MX,P,SG)
		Other:			
0802.90.60		With soil attached to roots		1.9%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
	10	Trees and shrubs	No.		
	20	Poinsettias	No.		
	90	Other	No.		
0802.90.90		Other		4.8%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
	10	Trees and shrubs	No.		
	90	Other	No.		

Source: USITC. Harmonized Tariff Schedule of the United States

Harmonized Tariff Schedule of the United States (2007) (Rev.1)
Annotated for Statistical Reporting Purposes

Heading/ Subheading	Stat Suf- fx	Article Description	Unit of Quantity	Rates of Duty	
				General	Special
0603		Cut flowers and flower buds of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated or otherwise prepared:			
		Fresh:			
0603.11.00		Roses		6.8%	Free (BH,CA,CL,D,E,IL,J,JO,MA, MX,P,SG) 4.7% (AU)
	10	Sweetheart	No. 1/		
	30	Spray	No. 1/		
	60	Other	No. 1/		
0603.12		Carnations:			
0603.12.30	00	Miniature (spray) carnations	No. 1/	3.2%	Free (A*,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
0603.12.70	00	Other	No. 1/	6.4%	Free (A,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
0603.13.00		Orchids		6.4%	1.6% (AU) Free (A*,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)
	50	Dendrobium	No. 1/		
	60	Other	No. 1/		
0603.14.00		Chrysanthemums		6.4%	Free (A*,BH,CA,CL,E,IL,J,JO,MA, MX,P)
	10	Chrysanthemums:			
	20	Pom Pom	No. 1/		1.6% (SG) 1.6% (AU)
		Other	No. 1/		
0603.19.00		Other		6.4%	Free (A*,BH,CA,CL,E,IL,J,JO,MA, MX,P)
	05	Anthuriums	No. 1/		1.6% (SG) 1.6% (AU)
	10	Astroemeria	No. 1/		
	20	Cyrtanthus	No. 1/		
	30	Lilies	No. 1/		
	40	Snapdragons	No. 1/		
	60	Other	X		
0603.90.00	00	Other	X	4%	Free (A,AU,BH,CA,CL,E,IL,J,JO,MA, MX,P,SG)

Source: USITC. Harmonized Tariff Schedule of the United States

Ornamental Plants, Flowers and Foliage

Restrictions and Regulations

The market for flowering potted plants and potted foliage plants has grown rapidly. These plants are often imported from many parts of the world, for eventual placement in shopping malls, restaurants, offices and homes. During transportation, plants need protection from temperature extremes, moisture loss, bruising, insects, disease, and ethylene.

Rooted and uprooted cuttings are imported for potting and growing in greenhouses and then transported for sale. Cuttings should be washed, sprayed with a U.S. approved fungicide and insecticide when necessary, and coated with a preservative wax based solution to retard moisture loss. The purpose of importing this plant material in the form of cuttings is to comply with buyer specifications or, in the case of the United States, restrictions on the importation of soil under Quarantine 37. The restrictions are necessary to prevent harmful insects and diseases from entering the United States. Shippers and importers should check with APHIS for current information that may apply to their products.

Almost all plant material requires a permit to enter the United States. Plants must enter the United States through only certain ports of entry where the U.S. Department of Agriculture (USDA) have plant inspections stations to insure that the plants are free from pest, diseases and are not on the endangered species list.

Harmonized Tariff Schedule of the United States (2007) (Rev.1)
Annotated for Statistical Reporting Purposes

Heading/ Subheading	Stat But- fix	Article Description	Unit of Quantity	Rates of Duty		
				1		2
				General	Special	
0604		Foliage, branches and other parts of plants, without flowers or flower buds, and grasses, mosses and lichens, being goods of a kind suitable for bouquets or for ornamental purposes, fresh, dried, dyed, bleached, impregnated or otherwise prepared:				
0604.10.00	00	Mosses and lichens	X	Free		Free
		Other:				
0604.91.00		Fresh		Free		Free
		Evergreen Christmas trees:				
	20	Douglas-fir	No.			
	40	Fir except Douglas-fir	No.			
	60	Other	No.			
	80	Other	X			
0604.99		Other:				
0604.99.30	00	Dried or bleached	X	Free		Free
0604.99.60	00	Other	X	7%	Free (A,CA,BH, CL,E,IL,J,JO,MA, MX,P,SG) 1.7% (AU)	50%

Source: USITC. Harmonized Tariff Schedule of the United States

Ornamental Plants, Flowers and Foliage

List of Plant Inspection Station Addresses and Contact Information ³

ARIZONA

USDA, APHIS, PPQ
Plant Inspection Station
9 North Grand Avenue, Room 120
Nogales, AZ 85621
Phone (520) 287-6463 - Fax (520) 397-0138

CALIFORNIA

USDA, APHIS, PPQ
Plant Inspection Station
11840 S. La Cienega Blvd.
Hawthorne, CA 90250
Phone (310) 725-1910 - Fax (310) 725-1925

USDA, APHIS, PPQ
Plant Inspection Station
389 Oyster Point Blvd., Suite 2
South San Francisco, CA 94080
Phone (650) 876-9093 - Fax (650) 876-9008

USDA, APHIS, PPQ
Plant Inspection Station
9777 Via de la Amistad, Room 140
San Diego, CA 92154
Phone (619) 661-3316 - Fax (619) 661-3047

FLORIDA

USDA, APHIS, PPQ
Plant Inspection Station
3500 NW 62nd Avenue
Miami, FL 33122
Phone (305) 526-2825 - Fax (305) 871-4205

USDA, APHIS, PPQ
Plant Inspection Station
9317 Tradeport Drive
Orlando, FL 32827
Phone (407) 648-6856 - Fax (407) 648-6859

Ornamental Plants, Flowers and Foliage

Technical Procedures

Flowers are very perishables and the in an effort to prolong the life of the plants there are some technical procedures such as harvesting treatments, hormones, growth regulators, and solutions given to the plants.

One of the most important steps in postharvest treatment of cut flowers is to re-cut the flower stems at an angle under warm of 38 to 44 C (100-110 F) water and place them in a plastic container filled with 100-150 mm (4-6 in) of floral preservative solution of the same temperature. At least 25 mm (1 in) of stem should be removed as well as foliage that would be below the water line in the container. Foliage in water will decay, causing damage to the flowers. Typical solutions contain 1% sugar, a biocide (200 ppm 8-HQC, 8-HQS, or Physan-20; or 50 ppm silver nitrate) and an acidifier (200-600 ppm citric acid or aluminum sulfate; 10-20 ppm when silver nitrate is used). The sugar replaces the flowers' stored foods consumed by respiration, while biocides limit bacteria which plug up flower stems. Acidifiers aid in the uptake of water by reducing the pH to 3.5-4.5.

The water used in the solutions must be high quality, low in alkalinity and salinity or total dissolved solids (less than 200 ppm). Demineralized water is recommended. Fluoride found in most tap water will damage gladioli and gerbera.

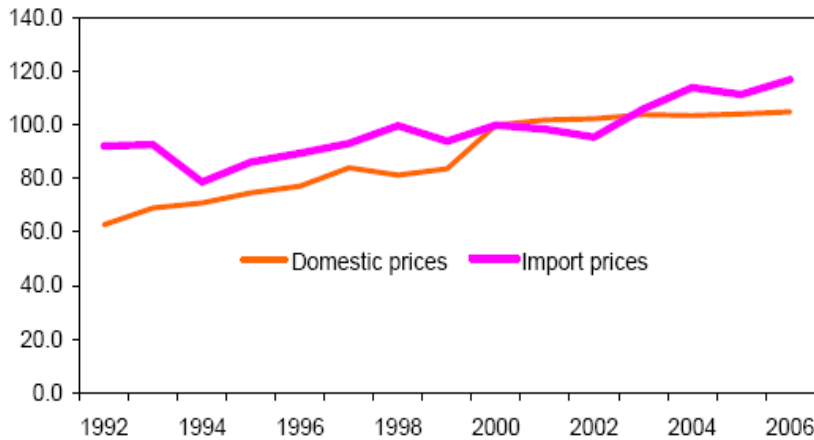
Hormones and growth regulators, such as N-6 benzyl adenine at 10-20 ppm, are occasionally added to floral preservative solutions. Wetting agents to aid in water uptake, such as sodium hypochlorite at 4 ppm or 0.1% bleach also may be added.

Floral preservative solutions should be used at each stage of distribution; by the grower, after storage and prior to shipment, and by the wholesaler, retailer, and consumer after the flowers are received. The solutions can either double or triple the shelf life of many flowers.¹⁰

Ornamental Plants, Flowers and Foliage

Prices

Figure 1
Floriculture import prices rise faster than domestic prices
 2000=100



Source: USDA, NASS, *Floriculture Crops*; U.S. Census Bureau.

While domestic floriculture prices are stagnant from year 2002, the import floriculture prices continue to rise from 2003. Unlike the cut flowers, the potted flower plants have a increase price projections for the upcoming years. Average price received for Western growers are up by 17% and 11% for the Northeastern growers compared to 2000.

Among the major cut flowers lilies continue to have highest prices per household at 66 cents in 2006 compared to 34 cents each for roses and tulips. Poinsettias generate the highest volume of sales but Orchids plants are growing rapidly; charging premium prices to accommodate heighten demands. Northeast and Midwest sells for the highest prices were over \$15 and \$10 per pot.

Average Western growers received higher prices at \$5 per pot compared to South at \$4.62 per pot. Midwest received \$4.06 per pot and Northeast at \$3.32 per pot. On the household level U.S consumers spent about \$10 per purchase of cut flowers which is a \$1 increase from \$9 purchase in 2003. U.S consumers also spent about \$46 for potted plants in 2006, a \$2 increase from \$44 spend in 2003. U.S prices for bedding and garden annuals more than double the herbaceous perennials at \$17 versus \$6.50.

Ornamental Plants, Flowers and Foliage

Import prices are rising as domestic prices are stagnant or rising very slowly. High percentage of importation in the industry lead the growers in the United States stop or decrease their production and to focus on other markets. This allows imports to gauge prices and charge the going industry rate instead. The exporter gets to set the prices rather than the importer.

Table 3--Import prices rise faster than domestic prices since 2003

Year	Composite prices			Floriculture import prices	Floriculture domestic prices 3/
	Floriculture prices 1/	Cut flowers	Flowering plants 2/		
<i>2000 = 100</i>					
2006f	113.5	107.7	117.5	116.9	104.9
2005p	110.7	107.7	112.8	111.4	104.1
2004	110.7	110.2	111.1	113.9	103.5
2003	106.2	104.2	107.6	105.9	103.9
2002	101.7	96.9	104.5	95.5	102.4
2001	101.5	98.8	103.2	98.5	101.9
2000	100.0	100.0	100.0	100.0	100.0
1999	73.8	56.0	92.8	94.0	83.7
1998	76.5	63.0	91.3	99.7	81.3
1997	70.3	55.2	88.6	93.2	84.1
1996	68.5	55.0	84.3	89.5	77.2
1995	67.1	48.7	87.6	86.2	74.7
1994	60.5	39.2	84.3	78.6	70.9
1993	64.4	45.9	83.2	92.7	69.0
1992	60.2	41.8	80.3	92.2	62.7

Sales Promotion

Ornamental plants, flowers, and foliage are promoted in a similar way. Discounts and coupons are the most popular ways to promote these products. However, flowers, particularly cut flowers and bouquets, are exposed to more promotion due to all the special occasions that they are part of. For instance, a few days before Valentine's Day and Mother's Day the promotion and advertising given to flowers is bigger than the rest of the days. Flowers are also promoted for birthdays, weddings, funerals, anniversaries, baby showers, get well messages, thank you notes, graduations, and even for "just because" occasions.

Florists and companies selling Latin greens and tropical flowers usually give coupons, discounts, same day delivery, and free shipping as part of their sales promotion strategy. For example, 1-800-Flowers has very distinctive specials during this month. One of them is a discount of up to \$40 on their roses and it is advertised in the first page of their website as follows:

Ornamental Plants, Flowers and Foliage



Other types of promotion include commercial events and trade shows offered by the industry. However, this type of promotion is usually to advertise the whole market as opposed to a specific company.

Importers List and Distribution Networks

- **SUN GRO HORTICULTURE DISTRIBUTION INC.**
15831 NE 8th St., Ste. 100
Bellevue, WA 98008
Phone: (425) 641-7577
Fax: (425) 641-0138
cindyr@sungro.com
- **UNITED AGRI PRODUCTS**
7251 W 4th Street
Greeley, Colorado 80634
Phone: 970-356-4400
- **GARD N'WISE DISTRIBUTORS**
9622 Alden
Lenexa, KS
Phone: 913-894-6994
Fax: 913-894-6996
- **CUT FLOWER WHOLESALE, INC.**
2122 Faulkner Rd, NE
Atlanta, GA 30324
Phone: 404-320-1619
Toll Free: 1-888-99-STEMS
Fax: 404-634-7922
- **FEDEX CORPORATION**
Headquarters 942 South Shady Grove
Road Memphis, Tennessee 38120
Phone: 901.369.3600

Importers Lists and Distribution Networks

- **DHL GLOBAL MAILUSA HEADQUARTERS**
2700 South Commerce Parkway
Suite 400
Weston, FL 33331
Phone: 1-800-345-2727
- **FLORALIFE, INC.**
751 Thunderbolt Drive
Walterboro, S.C. 29488
Phone: 800-538-3320
800-471-4248 fax
- **LCT TRANSPORTATION**
7979 NW 29th Street
Miami, FL 33122
Phone: 305-594-3923
305-594-3948 fax
- **PRIME, INC.**
3000 NW 74th Avenue
Miami, FL 33122
Phone: 305-477-6474
305-477-6373 fax
- **SYNDICATE SALES, INC.**
2025 N. Wabash St.
Kokomo, IN 46901
Phone: 305765-457-7277
765-454-2288 fax
- **TAMPA CARGO S.A.**
1650 N.W. 66th Avenue
Building 708 Ste. 206
Miami, Florida 33122
Phone: 305-526-6720
305-894-1632 fax
- **TEMKIN INTERNATIONAL, INC.**
302 West 900 North
Springville, Utah 84663
Phone: 801-489-8234
801-489-8218 fax
- **UPS AIR CARGO**
3401 NW 67th Avenue Building 805
Miami, FL 33122
Phone: 305-869-8333
305-869-8390 Fax
- **WEST COAST**
1836 NW 82nd Avenue
Miami, FL 33126
Phone: 305-594-0117
305-594-2177 Fax
- **AGRIFLORA CORPORATION**
9475 N.W. 13th Street
Miami, Florida 33172
Phone: 305-477-0291
305-593-7042 fax

Importers Lists and Distribution Networks

- **AMERICAN FLOWER GROUP, INC.**
8410 NW 17th Street
Miami, Florida 33126
Phone: 305-513-0713
305-513-0763 fax
- **CHOICE FARMS CORP.**
3309 N.W. 97th Avenue
Miami, Florida 33172
Phone: 305-513-9977
305-513-4115 fax
- **CONTINENTAL FARMS, LLC**
1800 N.W. 89th Place
Miami, Florida 33172
Phone: 305-591-8886
305-591-0615 fax
- **CONTINENTAL FLOWERS INC.**
8175 N.W. 31 Street
Miami, Florida 33122
Phone: 305-594-4214
305-594-4215 fax
- **DOLE FRESH FLOWERS, INC**
10055 NW 12th Street
Miami FL 33172
Phone: 305-594-4300
305 925-7500 fax
- **EDEN FLORAL FARMS, INC.**
2153 N.W. 86th Avenue
Miami, Florida 33122
Phone: 305-591-3024
305-591-8767 fax
- **EQUIFLOR CORPORATION - RIO ROSES**
4405 N.W. 97th Avenue
Miami, Florida 33178
Phone: 305-594-4445
305-594-0924 fax
- **ESMERALDA FARMS**
1800 N.W. 89th Place
Miami, Florida 33172
Phone: 305-629-4000
305-592-7544 fax
- **ESPRIT MIAMI, INC.**
3043 N.W. 107th Avenue
Miami, Florida 33172
Phone: 305-591-2244
305-591-2603 fax
- **FALCON FARMS**
2330 N.W. 82nd Avenue
Miami, Florida 33122
Phone: 305-477-8088
305-477-5524 fax

Importers Lists and Distribution Networks

- **FARM FRESH FLOWERS, INC.**
1760 N.W. 96th Avenue
Miami, Florida 33172
Phone: 305-594-1038
305-594-1711 fax
- **FLOWER TRANSFER, INC.**
1480 NW 94th Avenue
Miami, Florida 33172
Phone: 305-593-9808
305-593-1053 fax
- **FOLIAGE IMPORTS, C.A.**
PO BOX 567
Astor, Florida 32102
Phone: 877-546-2316
386-749-1636 fax
- **FRESCA FARMS, LLC**
3095 NW 77th Avenue
Miami, Florida 33122
Phone: 305-591-1990
305-591-1991 fax
- **GALLERIA FARMS**
1500 N.W. 95th Avenue
Miami, Florida 33172
Phone: 305-591-0045
305-591-0177 fax
- **GARDENS AMERICA, INC.**
1665 NW 102 Avenue
Suite 103
Miami, Florida 33172
Phone: 305-640-2390
305-640-2397 fax
- **GEMS GLOBAL, INC**
79325 NW 12th Street
Suite 122
Miami, Florida 33126
Phone: 305-468-3636
305-403-4130 fax
- **GOLDEN FLOWERS**
2600 NW 79th Ave.,2nd Floor
Miami, Florida 33122
Phone: 305-599-0193
305-477-0616 fax
- **GROWER 2 BUYER**
2761 NW 82th Avenue
Miami, Florida 33122
Phone: 305-718-9971
305-718-9730 fax
- **MELODY FARMS, LLC**
3403 N.W. 82 Avenue Ste 270E
Miami, Florida 33122
Phone: 305-406-9010
305-406-9070 fax

Importers Lists and Distribution Networks

- **MIRAFLOR**
1440 Stirling Rd
Southwest Ranches, Florida 33330
Phone: 954-434-1749
954-434-9736 fax
- **MULTIFLORA CORPORATION**
7200 Corporate Center Dr. Ste 402
Miami, Florida 33126
Phone: 305-593-7073
305-592-2053 fax
- **NATURAL FLOWERS, INC.**
3095 NW 77th Avenue, Suite 100
Miami, Florida 33122
Phone: 305-477-9044
305-477-8969 fax

Upcoming Commercial Events

Upcoming Commercial Events

- **Millersville Native Plant Symposium:** June 07-09, 2007. Millersville University, Millersville, PA. Contact: Brandy Kline, Phone: 717.872.3030
- **ASHS 2007 Annual Conference:** July 16–19, 2007. Westin Kierland Resort and Spa, Scottsdale, Arizona. Contact: ASHS, 113 South West Street, Suite 200, Alexandria, VA 22314-2851; Phone: 703.836.4606 ; fax, 703.836.2024
- **Eastern Region International Plant Propagator's Society Area Meeting:** July 23-24, 2007. Yew Dell Gardens, 5800 North Camden Lane, Crestwood, KY. Contact: Amy Fulcher, 859.257.1273 , afulcher@uky.edu; Paul Cappiello, 502.241.4788 , paulc@yewdellgardens.org; or Win Dunwell, 270365,7541 x 209, wdunwell@uky.edu
- **UKREC All-Commodity Field Day:** July 26, 2007. UKREC, Princeton, KY. Contact: Don Hershman, P.O. Box 469, Princeton, KY 42445; 270.365.7541 x 215, Fax 270.365.2667; e-mail, dhershma@uky.edu
- **International Society for Arboriculture:** July 28 - August 1, 2007. Honolulu, HI. Contact: Jessica Marx, 888.472.8733 ; e-mail, jmarx@isa-arbor.com

Upcoming Commercial Events

- **Perennial Plant Symposium:** August 05 -12, 2007. Hyatt Regency Hotel, Columbus OH. Contact: Steve Still, 614.771.8431 ; e-mail, ppa@perennialplant.org
- **SNA 2007 - Southern Nursery Association Researcher's Conference and Trade Show:** August 9-11, 2007. Georgia World Congress Center, Atlanta, GA. Contact: SNA; 770.953.3311 ; Fax, 770.953.4411; e-mail, mail@mail.sna.org
- **The Farwest Show:** August 23-25, 2007. Portland, Oregon, Oregon Convention Center. Contact: Aimee Schendel, Oregon Association of Nurserymen, 29751 SW Town Center Loop West, Wilsonville, OR 97070; 800.342-6401; 503.682.5089 x 2006; Fax, 503.682.5099; e-mail, info@farwestshow.com
- **Kentucky Nursery and Landscape Association's 8th Annual Summer Outing:** September 5, 2007. Yew Dell Gardens, Crestwood, KY. Contact: Betsie A. Taylor, KNLA Exec. Dir., 216 Pendleton Lane, Frankfort, KY. 40601, Frankfort, KY 40601; 502.848.0055 , 800.735.9791 ; Fax, 502.848.0032; e-mail, KNLA@mis.net
- **IPPS Eastern Region: 57th Annual:** September, 16-19, 2007. Hyatt Regency Montréal, 1255 Jeanne Mance, Montréal, QC, H5B 1E5, Canada. Contact: Margot Bridgen, IPPS Executive Secretary/Treasurer, 1700 North Parish Dr., Southold, NY 11971; 631.765.9638 ; Fax, 631.765.9648; e-mail, ippser@earthlink.net
- **Tropical Plant Industry Exhibition:** Held in Ft. Lauderdale in January 17- 19, 2008. 1533 Park Center Dr.Orlando, FL 32835-5705 Toll-Free: 800.375.3642 Phone: 407.295.7994 Fax: 407.295.1619
- **Florida Nursery and Allied Trade Show:** Held in Orlando October 4 – 6, 2007. 2502 Lake Orange Dr. Orlando, FL 32837 407-851-0261; Fax 407-859-3904
- **Super Floral Show:** Friday June 15, 2007; Tel: 201.842.5508 Fax: 207.842.5509 e-mail: superfloralshow@divcom.com

Conclusions and Recommendations

As domestic floral production declines in the face of inexpensive imports, it is easy to make a snap judgment that the market is ripe for new entries. But while there are many potential opportunities, there are quite a few barriers to entry. Not the least of which is the tremendous level of competition in the industry not only from other South and Central American nations, but also from the Caribbean, Canada, and Europe.

Competition aside, the industry standard for packaging is quite sophisticated and this added cost does require large volumes in order to truly be profitable. There is also a time element involved in the shipping process which must be adhered to in order for the flowers to get to market in top condition – again requiring a certain level of sophistication to remain successful

When entering into existing market of cut flower, foliage or potted plants, efficiency, quality and diversity is of great importance. More and more wholesalers, retailers, and the end consumers are expecting exotic, never before seen flowers. They demand high quality, flowers and plants without any apparent damage. It will be recommended that new entrants find a particular niche within the market to target; almost creating the new demand for a type of flower like the recent growth in Orchids. Countries such as Nicaragua, El Salvador should use their location as an advantage to export to markets near or with in Florida and the southern states of the United States.

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