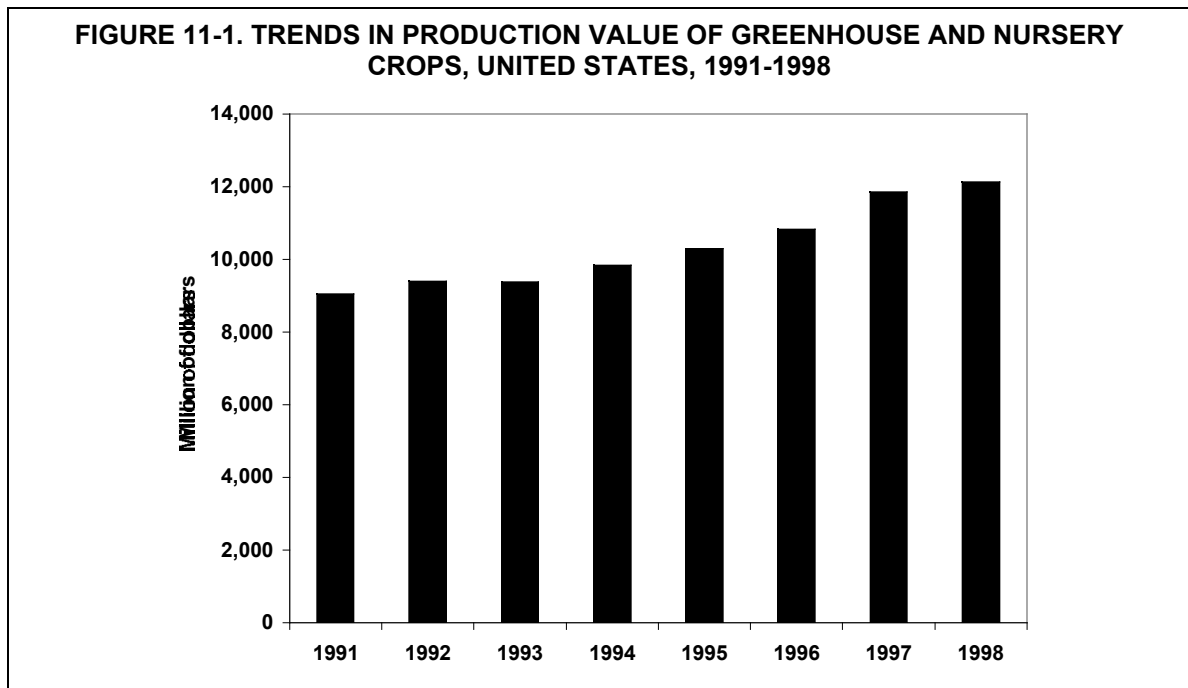


# Chapter 11. Ornamentals

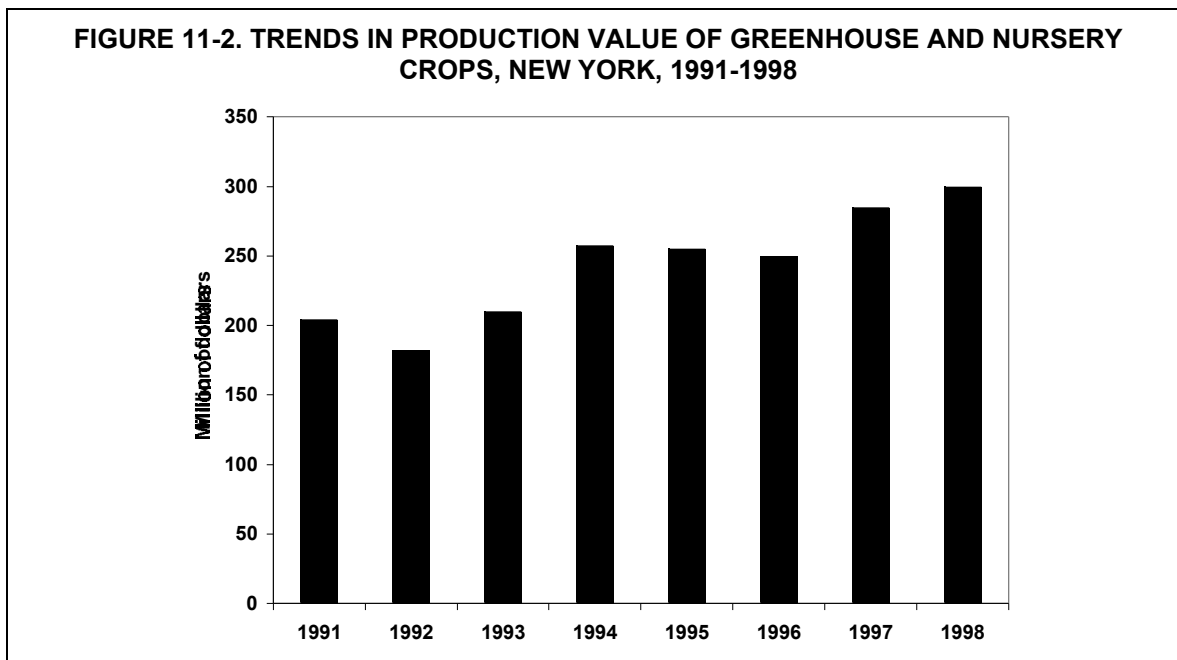
Wen-fei L. Uva, Senior Extension Associate

Consumer confidence in a robust U.S. economy, along with relatively high disposable income and low unemployment, helped stimulate the remarkable growth of flower and plant product sales. Low interest rates spurred new housing and business start-ups, further helping fuel the demand for landscaping products and service. Grower cash receipts for U.S. greenhouse and nursery crops (including Christmas trees and food crops), as estimated by USDA's 1998 Census of Horticultural Specialties, reached \$10.6 billion or 11 percent of total crop sales in the nation. The ornamental horticultural industry – or nursery and greenhouse sector – includes floriculture (cut flowers and cultivated greens, potted flowers, foliage plants, and garden/bedding plants) and environmental horticulture (trees, outdoor plants, bulbs, turfgrass, and ground covers **except** bedding and garden plants). Forty-two percent of grower receipts in the ornamental horticultural industry were from floriculture crops, and 29 percent were from nursery plants. The top five leading states, ranked by their share of grower receipts in 1998, were California (21 percent), Florida (13 percent), Oregon (6 percent), Pennsylvania (6 percent), and Texas (4 percent). The top two marketing channels used by U.S. ornamental horticulture growers are re-wholesalers (25 percent of total sales) and retail garden centers/nurseries (18 percent). The industry had a total payroll of \$3.6 billion in 1998 from about 20,000 operations with more than \$10,000 annual sales.



Source: USDA, Floriculture and Environmental Horticulture – Situation and Outlook Yearbook

The New York greenhouse and nursery crop production (including food crops grown in greenhouses and Christmas trees) in 1999 was estimated to be \$294 million in New York, up 2 percent from \$288 million in 1998. This value was about 10 percent of total grower receipts from agricultural commodities in the nation or 28 percent of total crop receipts in the state. New York greenhouse and nursery production ranked tenth in the nation with 2 percent share of total commercial sales. According to the 1998 Census of Horticultural Specialties, the annual bedding/garden plant category had the highest production value (47 percent of total grower receipts) among all ornamental crops produced in 1998 in New York, followed by nursery plants (19 percent). The most important marketing channels used by New York growers are retail garden centers/nurseries (31 percent of total sales) and direct sale to consumers (20 percent). The New York greenhouse and nursery industry had 805 operations with annual sales over \$10,000 in 1998, and they had a total payroll of \$88 million and employed 8,818 laborers (year-round and seasonal).



Source: USDA, Floriculture and Environmental Horticulture – Situation and Outlook Yearbook

Marketing channels	U.S.	% of total sales	New York	% of total sales
	\$ million		\$ million	
Direct sale to consumers	1,381.5	13%	52.9	20%
Retail florists	260.3	2%	8.2	3%
Retail garden centers/nurseries	1,892.8	18%	82.1	31%
Supermarkets/groceries	800.9	8%	5.8	2%
Other mass marketers	1,414.9	13%	43.7	16%
Landscape contractors	1,478.3	14%	27.3	10%
Re-wholesalers	2,679.5	25%	33.1	12%
Others	682.3	6%	12.1	5%
<b>Total</b>	<b>10,590.5</b>	<b>100%</b>	<b>265.2</b>	<b>100%</b>

<sup>a</sup>Wholesale value of sales as reported by growers with sales of \$10,000 or more during 1998.  
Source: USDA, 1998 Census of Horticultural Specialties.

Commodity	U.S.	% of total sales	New York	% of total sales
	<i>\$ million</i>		<i>\$ million</i>	
Annual bedding/garden plants	1,840.0	17%	123.9	47%
Potted flowering plants	615.8	6%	13.2	5%
Foliage plants	517.9	5%	0.7	0%
Cut flowers and cultivated greens	639.1	6%	8.2	3%
Unfinished plants, propagative materials & transplants	579.7	5%	12.9	5%
Herbaceous perennial plants (inc. bulbs etc.)	313.4	3%	9.3	3%
Nursery plants	3,155.1	30%	49.6	19%
Turfgrass sod, sprigs or plugs	841.4	8%	20.3	8%
Greenhouse produced food crops	220.1	2%	2.3	1%
Cut Christmas trees	246.1	2%	3.2	1%
Cultivated mushrooms	861.5	8%	2.4	1%
Others	769.2	7%	20.1	8%
<b>Total</b>	<b>10,599.4</b>	<b>100%</b>	<b>266.1</b>	<b>100%</b>

<sup>a</sup> Wholesale value of sales as reported by growers with sales of \$10,000 or more during 1998.

Source: USDA, 1998 Census of Horticultural Specialties.

### **Floriculture Crop Production**

Floriculture crops are very important for the New York ornamental horticulture industry. It accounted for 55 percent of the total greenhouse and nursery crop production value in New York in 1999. New York floriculture production value ranked sixth in the nation. The production value reached \$160 million in 1999, up 1 percent from \$158.8 million in 1998, although the number of commercial growers of floriculture crops decreased for the second consecutive year. Value of sales in 1999 increased for bedding/garden plants and foliage plants and decreased for potted flowering plants and cut flowers, compared with a year earlier. There were 689 operations reporting production of floriculture crops in 1999. Both New York and the United States reported decreased grower numbers for the two smaller size groups - \$10,000 to 19,999 and \$20,000 to 39,999 - and also the \$100,000 to 499,999 group.

The 1999 wholesale value of floriculture crops for growers in the U.S. with sales of \$10,000 or more is estimated at \$4.10 billion, up 4 percent from 1998. California was again the leading state with crops valued at \$796 million, up 1 percent from a year earlier. Florida was up 7 percent from 1998 with \$671 million in wholesale value. Bedding/garden plants saw another large increase in production value during 1999 to \$1.95 billion, up 4 percent from 1998. Within the bedding/garden plant category, potted bedding/garden plants totaled \$824 million, a 4 percent decrease for the year, and the value of bedding/garden flats rose 12 percent from 1998 to \$901 million in 1999. Of the specified bedding plants in the USDA survey of Floriculture Crops, potted geraniums (from cuttings and seed) returned the highest value to growers, \$148 million, about the same as the year before. Impatiens flats provided the second largest amount at \$115 million.

Flowering hanging baskets accounted for \$221 million in 1999, a 7 percent gain over 1998, mainly due to higher prices for all crops. Value of potted flowering plants totaled \$765 million, up 4 percent from 1998. The value of foliage plant production recorded a 1 percent gain, totaling \$509 million. The wholesale value of domestically produced cut flowers gained 3 percent in 1999, totaling \$426 million, and cut cultivated greens gained 8 percent in value to \$127 million in 1999.

Gross value of sales	U.S. <sup>a</sup>				New York			
	1997	1998	1999	Change 98-99	1997	1998	1999	Change 98-99
	# of growers				# of growers			
\$10,000 – 19,999	1,700	1,686	1,377	-18%	140	107	75	-30%
\$20,000 – 39,999	2,038	2,209	1,664	-25%	176	193	119	-38%
\$40,000 – 49,000	920	755	847	12%	65	52	58	12%
\$50,000 – 99,000	2,804	2,410	2,795	16%	201	161	190	18%
\$100,000 – 499,000	3,415	3,643	3,204	-12%	248	239	184	-23%
\$500,000 or More	1,829	1,556	1,593	2%	67	50	63	26%
<b>Total</b>	<b>12,717</b>	<b>12,259</b>	<b>11,480</b>	<b>-6%</b>	<b>897</b>	<b>802</b>	<b>689</b>	<b>-14%</b>

<sup>a</sup> From 36 states surveyed by USDA Floriculture Crop Summaries  
Source: USDA Floriculture Crops 1999 Summary.

Plant Category	Producers Reporting			Quantity Sold			Value of Production		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
	-- (# of producers)--			---(1,000 flats, pots, or baskets)---			---(\$ million)---		
<b>Bedding/Garden Plants</b>									
Geranium, Flats	60	39	45	248	130	173	2.23	1.50	1.63
Impatiens, Flats	198	176	161	1,659	1,244	878	11.55	6.66	5.94
Petunia, Flats	196	180	162	457	504	422	2.88	2.93	3.11
Other Flowering & Foliar, Flats <sup>2</sup>	211	204	211	2,394	2,960	2,591	14.24	17.97	17.75
Vegetable, Flats	179	114	153	634	925	665	4.60	4.73	4.61
Garden Chrysanthemums, Potted	158	133	151	3,606	2,555	4,802	5.47	6.52	8.03
Geranium, Potted - Cuttings	202	188	172	5,194	5,014	5,157	7.49	8.21	8.40
Geranium, Potted - Seed	47	44	39	3,747	3,159	3,240	2.89	2.61	2.73
New Guinea Impatiens, Potted	162	163	159	1,424	2,347	2,515	2.24	4.00	4.20
Other Flowering & Foliar, Potted <sup>3</sup>	178	193	165	7,762	13,584	10,536	11.13	22.40	18.85
Geranium Hanging Baskets	190	140	164	252	278	376	1.79	1.93	2.32
Other Flowering Hanging Baskets <sup>4</sup>	202	165	193	713	971	932	4.06	5.88	6.70
<b>Potted Flowering Plants</b>									
African Violets	16	16	15	1,276	1,358	1,644	1.29	1.31	1.62
Finished Florist Azaleas	47	30	35	3,923	1,867	1,878	8.14	5.30	5.52
Easter lilies	79	59	70	3,383	678	706	10.33	2.32	2.40
Poinsettias	135	119	124	3,131	3,104	3,392	8.58	8.76	10.757
Other Potted Flowering Plants <sup>5</sup>	87	96	74	1,261	5,241	4,134	3.24	10.86	8.83
<b>Foliage Plants</b>									
Potted Foliage	42	33	30	N/A	N/A	N/A	1.37	0.93	0.84
Foliage Hanging Baskets	51	28	40	126	300	351	0.55	1.26	1.42
<b>Cut Flowers</b>				1,000 stems					
Gladioli	8	4	9	106	61	92	0.04	0.03	0.02
Other Cut Flowers <sup>6</sup>	28	22	23	N/A	N/A	N/A	1.86	3.09	2.78

<sup>1</sup> For growers with sales of \$100,000 or more.

<sup>2</sup> Excluding geraniums, impatiens, New Guinea impatiens, and petunia flats.

<sup>3</sup> Excluding hardy/garden chrysanthemums, geraniums (cuttings and seed), impatiens, New Guinea impatiens, and petunia pots.

<sup>4</sup> Excluding geranium, impatiens, New Guinea impatiens, and petunia hanging baskets.

<sup>5</sup> Excluding blooming annuals, African violets, florist chrysanthemums, finished florist azaleas, Easter lilies, poinsettias, cyclamen, and Kalanchoe.

<sup>6</sup> Excluding cut chrysanthemums (standard and pompon), gladioli, and roses (hybrid tea and sweetheart).

N/A: Data not available.

Source: *New York Agricultural Statistics*, 1999-2000.

## Consumption

Retail expenditures for nursery and greenhouse products (excluding Christmas trees, seeds, and food crops) reached \$54.6 billion, or \$203 per capita, in 1998, up \$2.9 billion (5.5 percent) from 1997. This value included retail sales value of green goods and associated products and accessories through all marketing channels including delivery, installation, landscaping, and related service. Environmental horticulture products generated \$38 billion in retail sales (\$141 per capita) while floriculture product sales totaled \$16 billion (\$61 per capita). Extrapolating the total retail expenditure from the New York population (18.2 million in 1998) as estimated by U.S. Census Bureau, the total retail expenditure on floriculture and environmental products are \$3.7 billion in New York. Based on the 1998-1999 National Gardening Survey, about half (47 percent) of U.S. households participated in lawn care activities in 1997, followed by flower gardening (39 percent), and raising indoor houseplants (29 percent).

	Per capita (\$ dollars)			NY total retail expenditure (\$ million) <sup>a</sup>
	1996	1997	1998	1998
Cut flowers and cultivated greens	30.05	30.67	31.61	575.19
Bedding/garden plants	20.11	21.88	23.48	427.26
Potted flowering plants	14.1	14.18	14.55	264.76
Potted foliage plants	12.07	12.46	13.05	237.47
Environmental horticulture	109.23	120.38	119.99	2,183.41
<b>Total</b>	<b>185.56</b>	<b>199.57</b>	<b>202.68</b>	<b>3,688.09</b>

<sup>a</sup> Based on U.S. Bureau of Census resident population estimates as of July 1, 1998.

Source: USDA, Floriculture and Environmental Horticulture – Situation and Outlook Yearbook.

Activity <sup>a</sup>	% of households participating		Per household expenditure (\$)	
	1996	1998	1996	1998
Lawn Care (D-I-Y)	47	47	154	190
Flower Gardening	37	39	82	102
Indoor Houseplants	31	29	31	46
Vegetable Gardening	26	24	53	84
Shrub Care	25	25	63	93
Insect Control	24	22	75	77
Flower Bulbs	21	21	29	33
Tree Care	20	18	105	145
Landscaping	22	22	223	337

<sup>a</sup> Additional segments not included in the table: fruit trees, raising transplants, container gardening, growing berries, ornamental gardening, herb gardening, and water gardening.

Source: National Gardening Survey, various years.

## Trade

Overall, U.S.-grown products accounted for 91.5 percent of domestic sales of nursery and greenhouse products in 1998. Foreign competition is the strongest in floriculture, where the U.S. share of 1998 domestic sales was 72.8 percent (down 1.3 percent from 1997). Cut flowers accounted for 60 percent of the \$1.1 billion imports of floral and nursery products in 1998. U.S. growers scaled back the area planted to production of cut flowers and cultivated greens because of competition from imports. The U.S. share of sales of domestic retail cut flower and cultivated greens dropped to 45 percent. Nevertheless, grower sales of U.S.-grown cut flowers and cultivated greens were up 4 percent in 1998. Despite modest gains in grower cash receipts in 1998, grower sales of the major cut flowers, including roses, carnations, chrysanthemums, and gladioli, were lower. Production of specialty cut flowers (such as snapdragons, baby's breath, statice, gerbera daisies, sunflowers, and asters) continues to increase. Many of these crops are field-grown rather than greenhouse-grown.

In contrast, U.S.-grown environmental horticulture products accounted for 97.3 percent of the U.S. retail sales market. The relatively fast growth of domestic grower receipts for bedding and garden plants has occurred partly because imports are generally restricted for phytosanitary reasons, and international shipments of plants in growing media is costly. Therefore, these products have little or no import competition.

**TABLE 11-7. U.S. GREENHOUSE AND NURSERY CROP PRODUCTION RECEIPTS AND TRADE, 1996-1997**

	Production and trade			Retail expenditures <sup>1</sup>	
	U.S. grower receipts	Imports	Exports	Total	Domestic Share
	<i>\$ million</i>			<i>\$ million</i>	%
Floriculture indoor products <sup>2</sup>					
1996	2,245.7	692.7	106.0	14,911.2	75.3
1997	2,268.0	753.9	106.8	15,572.6	74.1
1998	2,345.1	830.0	124.0	16,411.4	72.8
Environmental horticulture <sup>3</sup>					
1996	8,660.0	257.5	119.4	34,534.0	97.1
1997	9,125.3	248.6	130.0	36,167.5	97.3
1998	9,654.9	260.0	140.0	38,185.0	97.3
Total nursery and greenhouse products					
1996	10,875.8	950.2	225.4	49,445.2	91.8
1997	11,393.3	1,002.6	236.8	51,740.1	91.8
1998	12,000.0	1,090.0	264.0	54,596.4	91.5

<sup>1</sup> Includes services such as landscaping, installation, and maintenance.

<sup>2</sup> Includes cut flowers and cultivated greens, and potted plants.

<sup>3</sup> Includes bedding/garden plants, nursery stock, turfgrass, bulbs, and groundcovers.

Source: USDA, Floriculture and Environmental Horticulture – Situation and Outlook Yearbook.

## **Outlook**

The growth in “big box” mass marketers is driving the merger trend in the industry. The independent marketers and small/medium producers need to be more market-oriented and offer more products to remain competitive and profit from the niches that consolidators and non-domestic growers ignore. Increased service and quality are the keys. The industry is making great strides in two key areas – technology and consumer relationship. E-commerce initiatives are on the rise. Based on a survey conducted by *Garden Center* magazine, 36 percent of retail garden centers surveyed offered on-line shopping in 2000, doubling from 18 percent in 1999. The business-to-business e-commerce activities are expected to expand as well. Almost half of retail garden centers plan to adopt web-based electronic data interchange (EDI) within two years, and 23 percent are implementing extranet in 2000. More retailers (florists and garden centers) will seek more direct relationships with growers in pursuit of better service, perceived higher quality and lower prices.

Despite increasing competition from imports, greenhouse and nursery industry sales will likely continue to grow with strong demand from consumers, businesses, and institutions for flowers, indoor greenery, and outdoor plants. Bedding plants will continue to dominate the industry in the foreseeable future and will continue to displace cut-flower production. According to the Census of Retail Trade, between 1992 and 1997 the number of retail florists declined for the first time in 25 years, and this decline will continue. Gardening is on the rise as baby boomers age and adopt this hobby. Demand for floral and nursery-related products generally links closely to the health of the general economy. In nominal terms, producer prices for most greenhouse and nursery crops have been fairly stable; volume increases will continue to push grower sales upward in most crop categories.

More growers will provide on-site service to mass-market garden center departments in order to monitor inventory, boost sales and ensure that the grower’s product is handled properly. Flowers are no longer the only gift available for delivery across the country within 24 hours. The increasing complexity of the marketplace due to internet access, 800 numbers and overnight delivery combined with the strategic efforts of consolidators in the ornamental horticulture industry will force all businesses to increase their production efficiencies and adopt more sophisticated marketing and financial management practices.