Professional Plant Growers Association

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Present the

1992 Season Sales Summary

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1992 Season Sales Summary

Poor weather slowed the start of the season, but once the sun appeared, so did the customers. Producers remained optimistic and reported planning an average 6.3% increase in production for 1993.

For the past 22 years, the Professional Plant Growers Association (PPGA) commissioned Alvi Voigt at The Pennsylvania State University to conduct their annual study. With his retirement in 1991, PPGA teamed with *Greenhouse Manager* magazine and commissioned Auburn University to conduct the 1992 Season Sales Summary for annual and perennial plants.

The questionnaire from previous years was modified slightly and sent to 1400 PPGA members on July 24 and August 7, 1992. Two mailings were used to improve response rate, as was an enclosed business reply envelope. Of the 1400 members requested to respond, 293 or 21% participated in this year's study.

Members from 41 U.S. states and 6 Canadian provinces responded (Figure 1). The greatest number of responses came from Michigan (39), which accounted for 13% of the total. Respondents from several states from the northeast to the Midwest

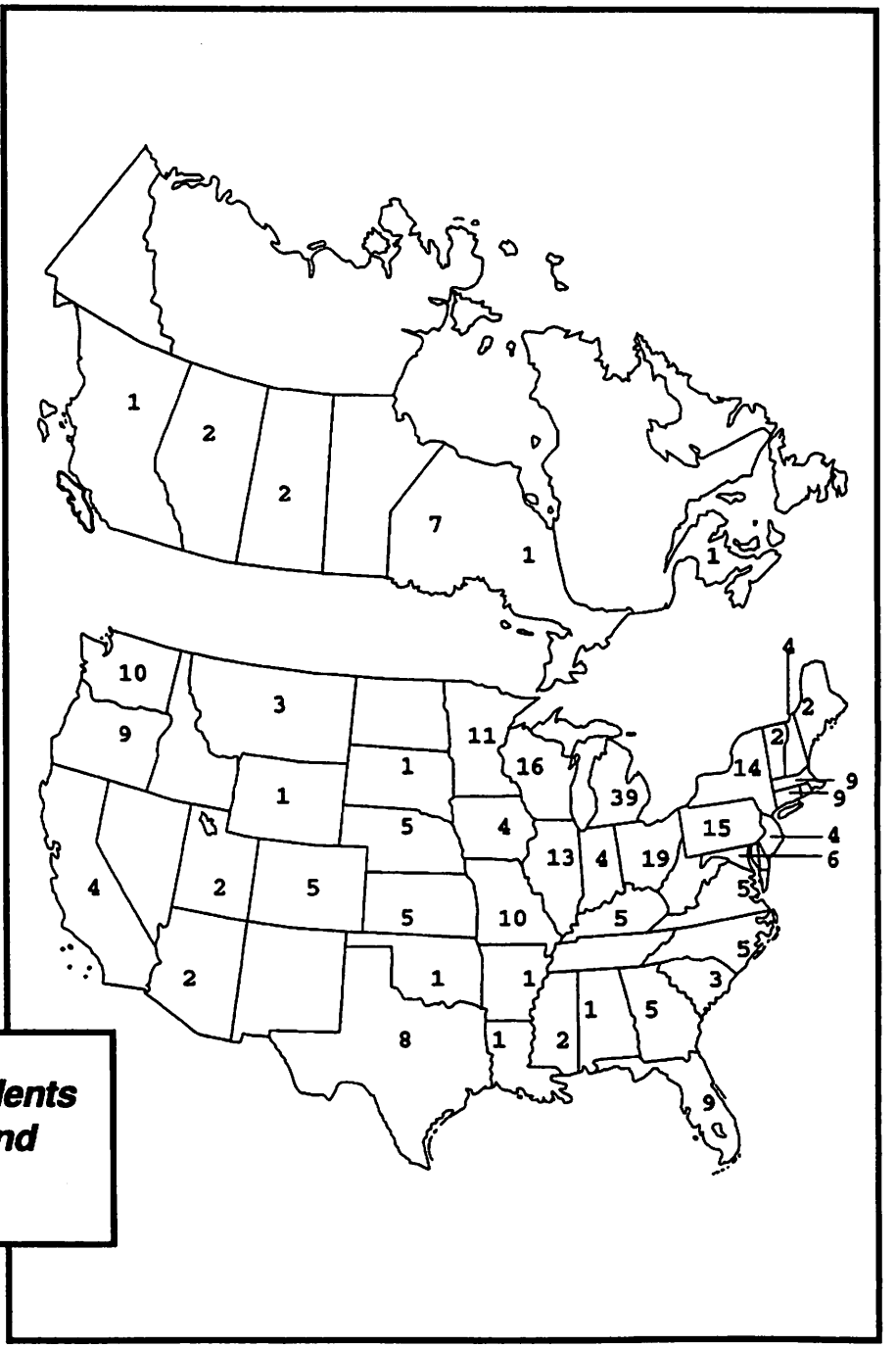


Figure 1. Number of respondents from each state in the U. S. and provinces in Canada.

A wet spring and sluggish economy slowed the start of a relatively good 1992 bedding plant season. Many comments came from growers who reported a modest increase in sales in spite of cool, wet weather and lagging economic conditions.

accounted for 40% of the total: MI (39), OH (19), WI (16), PA (15), NY (14) and IL (13). Thus, the results presented here are likely more reflective of the markets served by growers in the northeast, than nationwide markets in general.

Members responding included growers (21%), wholesalers (5%), retailers (5%), growers\wholesalers (18%), growers\retailers (25%), wholesalers\retailers (1%), and growers\wholesalers\retailers (23%). (Figure 2).

Looking at the businesses in terms of what activities they conducted or functions they performed, 87% grew plants or had a production function; 47% sold plants at wholesale; 53% sold plants at retail. These figures show that nearly all of the participants grew plants; about half sold plants at wholesale and half retail.

From a marketing perspective, these firms were involved in more than one activity in the channel of distribution. Since they performed more than one function, they likely had a significant influence in determining which plants consumers saw in the market.

1991 In Review

Members were asked to report their total gross sales for 1991 along with gross sales broken down by crops produced; 85% responded. The average (mean) total gross sales for 1991 was $1,157,000 (Table 1). The median gross sales for 1991 was $447,000 (gross sales reported by the firm ranked in the middle of all respondents).

The median shows that 50% of the participants had revenues of less than $447,000. The mode (most frequently reported) 1991 gross sales was $1,000,000. The mean and mode show that a number of relatively large firms participated in the study.

When categorizing these businesses by their size in terms of gross sales, the respondents varied widely. Eighteen percent reported gross sales between $0 and $100,000; 37% reported sales between $100,001 and $500,000; 23% reported sales between $500,001 and $1,000,000; while 22% reported sales over $1,000,000 (Figure 3).

Thus, 55% of the participants were smaller firms with 1991 gross sales of less than $500,000; 45% of the sample were larger firms, which increased the averages.

Most responding firms produced more than one category of plants. Annual plants were produced by 76% of the participants; perennials were produced by 50%. Blooming plants (florist crops) were produced by 49% of the participants and cut flowers by 13%. Foliage plants were produced by 35% of the respondents.

The average (mean) gross sales of foliage plants in 1991 was $91,365, annual bedding plants was $529,354, perennials was $59,415, cut flowers was $27,032, and blooming plants was $211,657 (Table 1).

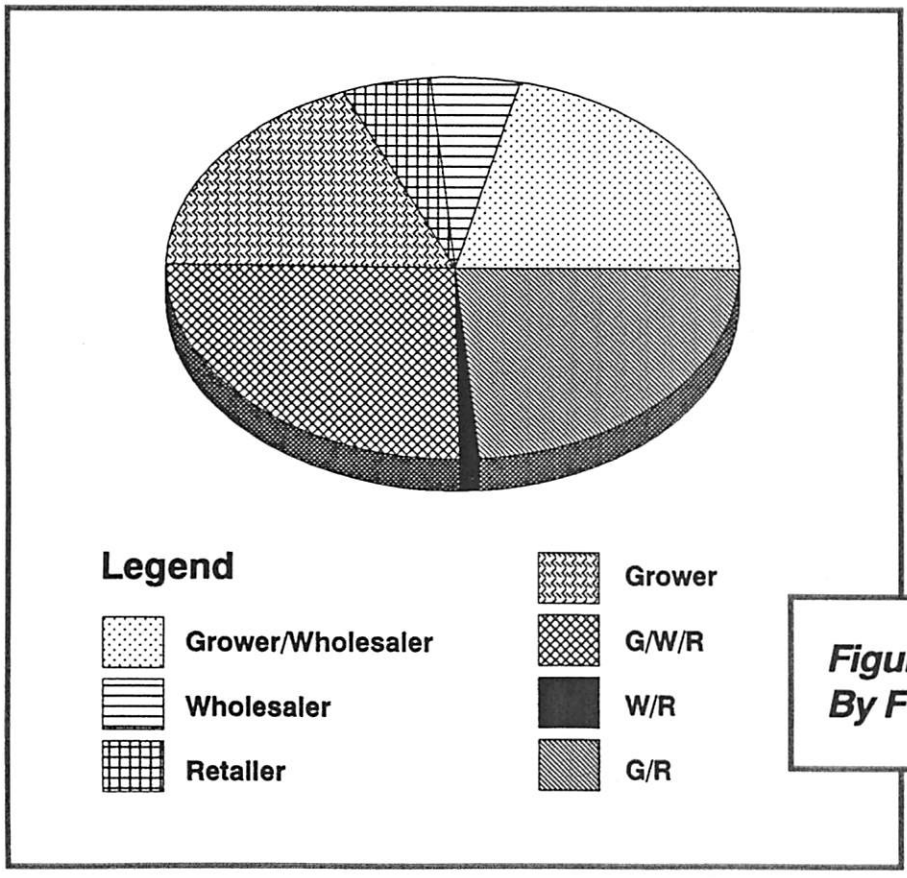


Figure 2: Respondents Defined By Function

Most responding members of PPGA produced annual bedding plants and the average gross sales for this category of plants was the largest in comparison to other types of plants produced (Figure 4).

While half of the respondents to the study produced perennial plants, the gross sales generated by this product category were relatively low.

1991 versus 1992

Members were asked to compare the 1991 and 1992 seasons in terms of gross sales and the number and price of packs and flats produced. Reported increases in gross sales for 1992 compared to 1991 outnumbered decreases, and those reported were substantial, with 49% of the total participants reporting increases of more than 6% (Figure 5).

Eighty percent of the members surveyed had an increase in their gross sales while 11% reported a decrease in gross sales. Nine percent of the members said that their gross sales had changed less than 1%. Thirty-one percent reported a 1 to 5% increase, 24% reported a 6 to 10% increase, and 25% reported an increase of more than 10%. Five percent reported a decrease of 1 to 5%, 5 percent indicated a decrease of 6 to 10%, and 1% indicated a decrease of more than 10 percent.

Reviewing the sales trends over the past 22 years, 80% of the respondents rated the 1992 season as having better sales than the 1991 season (Table 2). Eleven percent reported a worse year compared to 1991. It appeared that, for most respondents, 1992 sales were slightly better than 1991 sales.

Over the past four years, sales have continued to improve slowly. However, the percentage of respondents having a worse year in 1992 was very high compared to sales of other years.

Minimal changes in prices of flats and packs were made from 1991 to 1992 (Figure 6). Forty-five percent of the respondents changed flat and pack prices by less than 1%. Forty-eight percent raised prices while 6% of the respondents lowered prices. Thirty-nine percent raised prices 1 to 5%, 8% raised prices 6 to 10%,

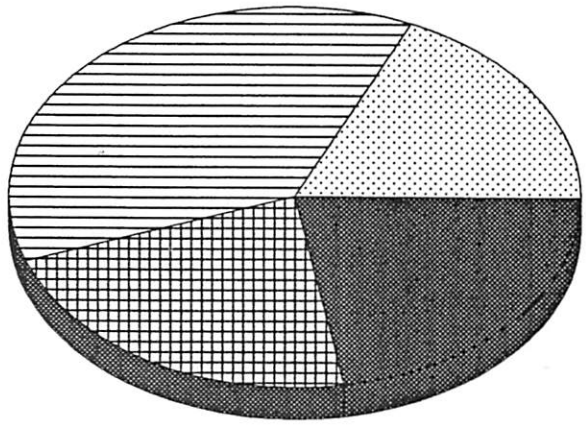


Figure 3. Respondents Defined By Total Gross Sales

Table 1. Mean, median and mode of respondents total gross sales, gross sales by crop categories and number responding.

Category	Mean	Median	Mode	N
Foliage	$ 91,365	——	0	228
Annuals	$ 529,354	$ 192,000	$ 400,000	229
Perennials	$ 59,415	$ 8,000	0	229
Cut Flowers	$ 27,032	——	0	225
Blooming Plants	$ 211,657	$ 20,000	0	226
Total Gross Sales	$1,157,000	$ 447,000	$1,000,000	242

and 1% raised prices more than 10%. Four percent lowered prices 1 to 5%, 1% lowered prices 6 to 10%, and 1% lowered prices more than 10%.

Alvi Voigt reported last year that the "1992 general economy will likely be weak, indicative of continued unemployment, slow sales and lower inflation." His prediction appeared to come true.

Consumer prices rose less than 3% in 1992, lower than in many previous years. Prices of flats and packs were relatively consistent from 1991 to 1992. While the economy was in recession in most areas of the country, annual plant sales did increase somewhat.

Since gross sales reportedly increased, and prices reportedly did not, an increase in volume likely accounts for the increase in gross sales. Modest increases were reported in the number of flats produced from 1991 to 1992 with over 40% of participants reporting increases of 6% or more.

1992 increases were much higher than predicted in 1991. Seventy-three percent of the growers produced more flats and packs while only 7% produced fewer flats and packs. Twenty-one percent produced the same amount within 1%.

Thirty-two percent increased production 1 to 5%, 21% increased production 6 to 10%, and 20% increased production more than 10%. Four percent decreased production 1 to 5%, 1% decreased produc-

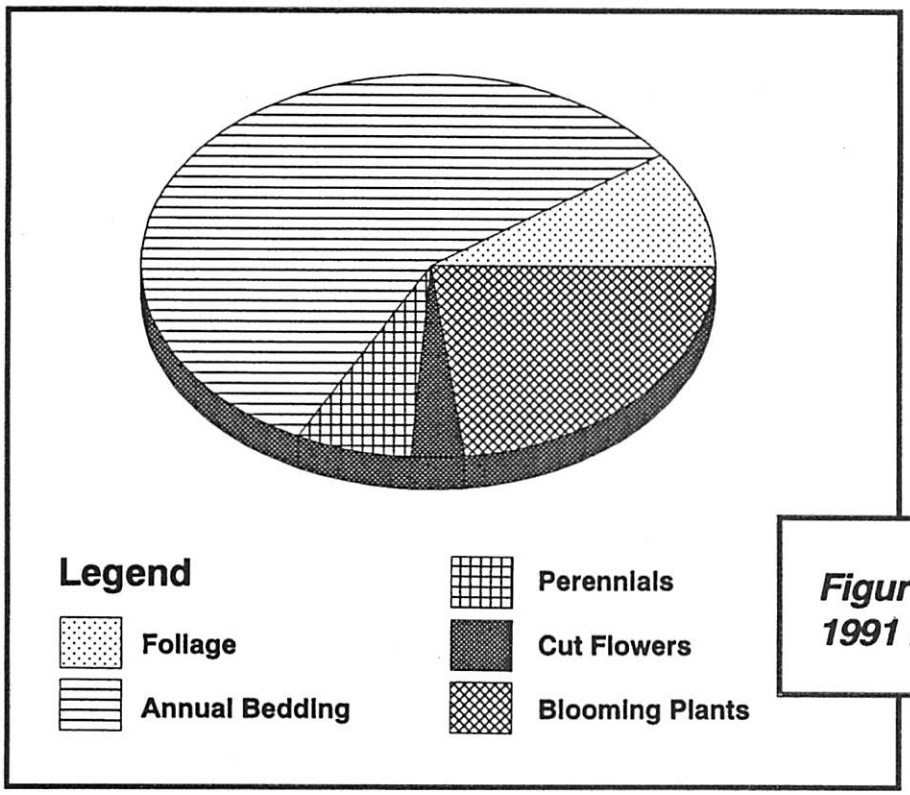
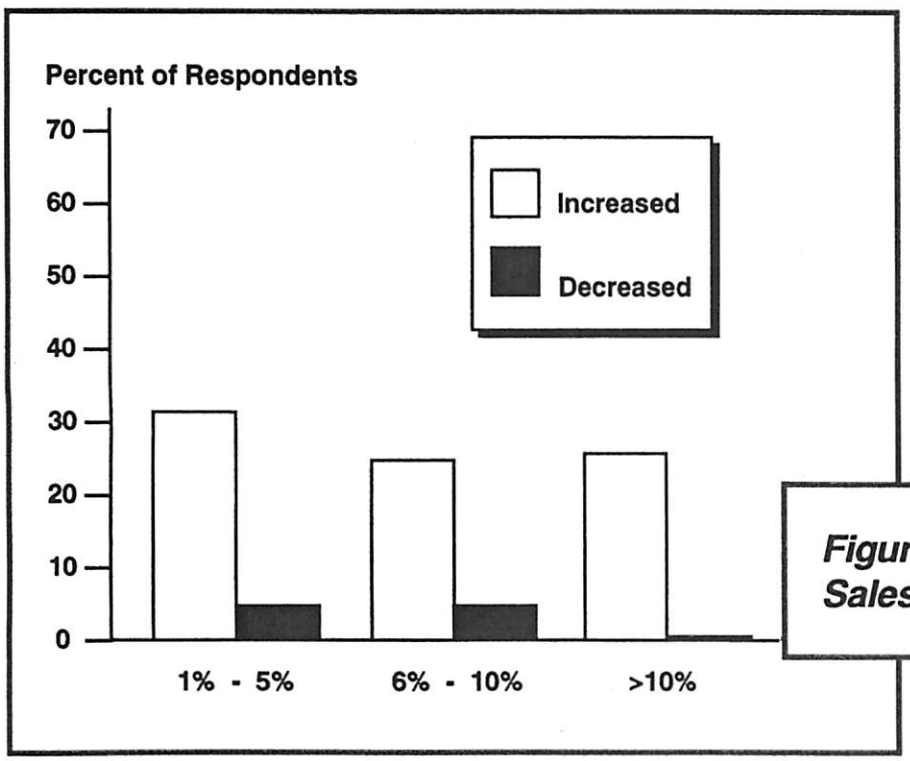


Figure 4. Mean Gross Sales for 1991 by Product Category.



Respondents were asked to compare their Gross Sales and indicate percent change from the previous year. Nine percent reported a less than 1% difference in their gross sales.

Figure 5. Comparison of Gross Sales: 1991 versus 1992.

Table 2. This year's sales versus last year's sales.

Year	Better Sales	Same Sales	Worse Sales	Year	Better Sales	Same Sales	Worse Sales
1970	78%	15%	7%	1982	82%	11%	7%
1971	88%	10%	2%	1983	62%	24%	14%
1972	89%	8%	3%	1984	85%	10%	5%
1973	86%	9%	5%	1985	90%	8%	2%
1974	95%	3%	2%	1986	74%	20%	6%
1975	92%	6%	2%	1987	73%	21%	7%
1976	88%	10%	2%	1988	81%	15%	4%
1977	81%	14%	4%	1989	62%	28%	10%
1978	73%	17%	11%	1990	79%	17%	5%
1979	86%	11%	3%	1991	77%	14%	5%
1980	84%	11%	5%	1992	80%	9%	11%
1981	75%	17%	8%				

tion 6 to 10%, and 2% decreased production more than 10%.

Alvi Voigt reported last year that "for over two decades, bedding plant market expansion continued unabated — except for 1987 (7.2%), 1989 (7.4%), and earlier poorer-weather years. The 1990 and 1991 seasons can be classified as poorer-weather years; however, most respondents overcame both years' weather adversity." 1992 could also be classified as a poorer-weather year in which most growers overcame the adverse effects.

With the markets evidently unable to tolerate an increase in price, the market did absorb an increase in volume. The annual plant market remains resilient, even in tough economic times. The average of predicted increases in production units for the 1993 season is 6.3%. This is an optimistic sign by growers that this market will continue to steadily increase.

Crystal Ball Gazing to the 1993

Growers detailed adjustments they are planning to make in the number of units and the types of plants they will produce in 1993. They also gave information on their "best selling" species including container sizes, price and purchasing market.

Respondents were asked to compare the price of flats and packs and indicate the percent change from the previous year. Forty-five percent reported a less than 1% difference in their prices.

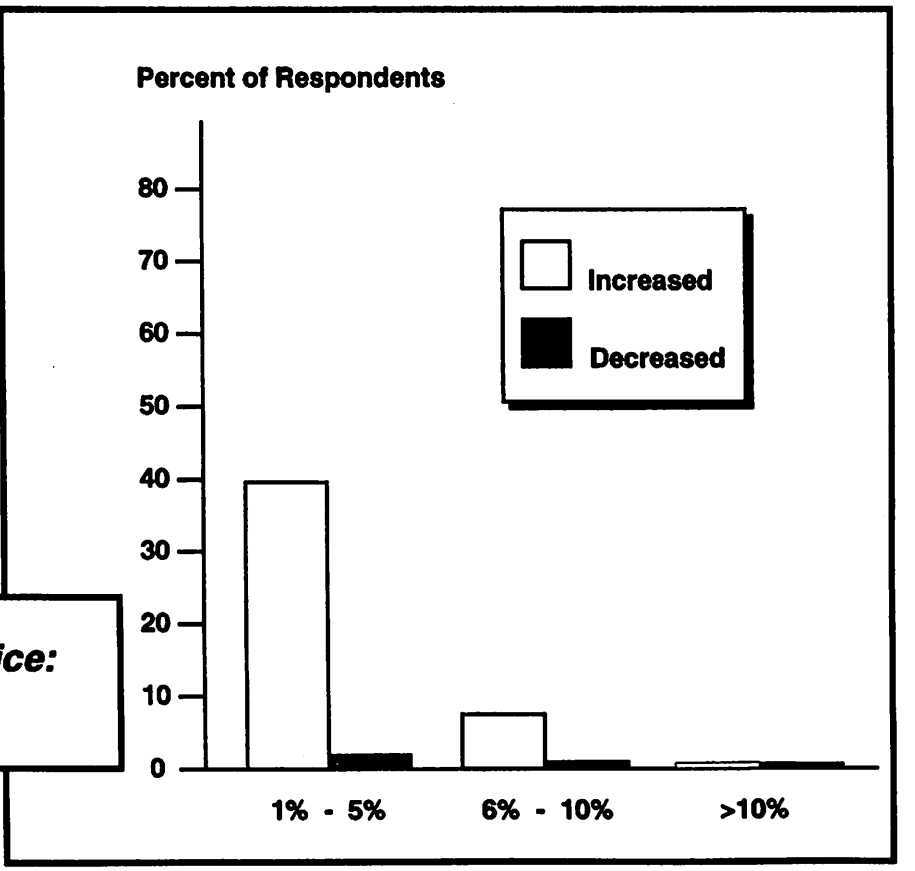


Figure 6. Comparison of Price: 1991 versus 1992.

For one more year, survey participants reported they are planning to increase production of annual bedding plants (Figure 7). Sixty-five percent of the participants said they plan to produce more flats and packs for the 1993 season while only 7% reported they plan to decrease production. Twenty-eight percent told us they will adjust production less than 1%.

Thirty-three percent plan to increase production 1 to 5%, 19% will increase production 6 to 10%, and 13% will increase production more than 10%. Five percent will decrease production 1 to 5%, 1% will decrease production 6 to 10%, and 1% will decrease production more than 10%.

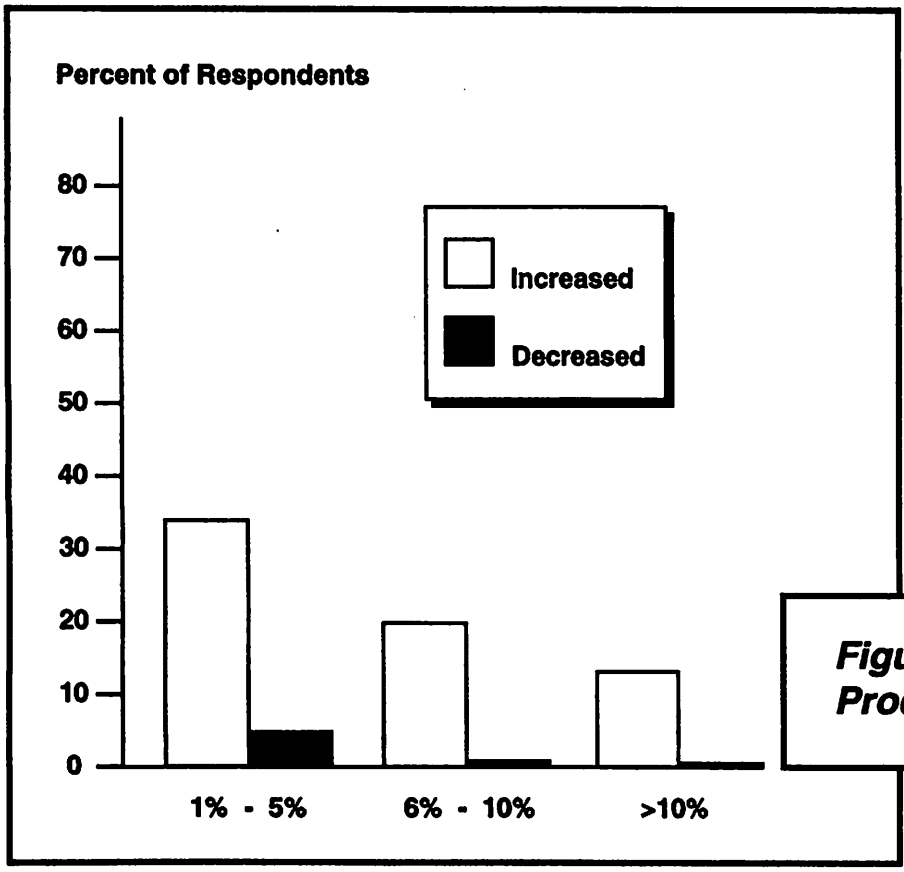
Optimism for the economy next year, given ample sales in a recession, likely fuels these expansion plans.

Growers were asked to supply the names of three bedding plants they plan to produce in greater quantities next season. Impatiens heads the list of plants for which producers plan an increase in 1993.

Petunia, vinca, begonia, cutting geranium, marigold, pansy, seed geranium and dianthus were crops for which more than 10% of the participants reported plans to increase production in 1993 (Tables 3A-3B).

Table 3A. The top bedding plants that growers plan to produce more of in 1993 and percentage of growers planning increase (No. responding = 245).

Bedding Plant	% Growers Planning Increase	Bedding Plant	% Growers Planning Increase
Impatiens	53	Vegetables	5
Petunias	36	Portulaca	4
Vinca	24	Tomatoes	4
Begonias	22	Zinnias	4
Geraniums (cutting)	18	Phlox	3
Marigolds	15	Verbena	3
Pansy	12	Perennials	3
Geraniums (seed)	11	Ageratum	3
Dianthus	10	Herbs	3
New Guinea Impatiens	9	Dahlias	2
Alyssum	9	Nicotiana	2
Salvia	9		
Lobelia	8		



Respondents were asked to indicate their plans for an increase or decrease in 1993 production. Twenty-eight percent planned a less than 1% change.

Figure 7. Adjustments in Production Planned for 1993.

Table 3B: Additional bedding plants that growers plan to produce more of in 1993 and percentage of growers planning increases (N=245).

Bedding Plant	% growers Planning Increase	Bedding Plant	% growers Planning Increase
Aquilegia	.4	Hollyhock	.4
Aster	1.3	Ivy Geranium	.4
Browallia	.4	Ivy	.4
Caladium	.4	Lantana	.4
Calendula	.4	Lavender	.4
Campanula	.4	Lisianthus	.9
Celosia	.4	Mandavilla	.4
Cleome	.4	Morning Glory	.4
Coleus	.8	Moss Rose	1.2
Color Bowls (Mixes)	.4	Mums	.8
Coreopsis	.8	Nasturtium	.4
Cosmos	1.2	Ornamental Cabbage	.4
Daylilies	.4	Peppers	.4
Dried Flowers	.8	Primrose	1.2
Ferns	.8	Purple Basil	.4
Fuchsia	.4	Snapdragon	1.6
Gazania	.8	Strawberries	.4
Gerbera Daisy	.4	Torenia	.9
Gomphrena	.8	Viola	.4

Table 4. Best selling bedding plant item named by respondents (number responding = 277).

Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992[1]
Impatiens	27%	35%	29%	36%	43%	44%	45%	48%	54%	59%	77%
Petunias	22%	19%	22%	18%	13%	15%	14%	16%	17%	15%	53%
Geraniums (cutting)	16%	12%	21%	21%	23%	22%	20%	17%	12%	11%	37%
Marigolds	6%	14%	7%	5%	4%	2%	2%	1%	3%	1%	27%
Begonias	3%	4%	3%	2%	4%	2%	2%	4%	2%	3%	26%
Vinca	1%	2%	1%	0%	2%	3%	3%	2%	3%	3%	12%
Geraniums (seed)	3%	4%	4%	4%	4%	3%	4%	5%	2%	1%	11%
New Guinea Impatiens	—	—	—	—	—	—	—	—	—	—	10%
Pansies	2%	1%	3%	2%	2%	2%	4%	3%	1%	3%	9%
Tomatoes	16%	7%	5%	5%	1%	1%	2%	1/2%	1%	2%	5%

[1] Responses totaled 300% for 1992 as participants were asked to report their top 3 best selling plants.

Trends

Members reported their top three best selling annual plants (Table 4). Alvi Voigt can sigh again... impatiens leads the list. Seventy-seven percent of the respondents reported that impatiens were one of their top three best selling annual plants, followed by petunia and geranium (cutting). Although the question format changed this year, the top 10 best selling bedding plants have not changed much in order over the last decade.

Members were asked to rate the trends of annuals on a scale of 1 to 4; the average rating was best for impatiens (Table 5). A rating of 1 was excellent, 2 was good, 3 was fair, and 4 was poor. The percentage of respondents that did not produce a species is indicated in the table along with the number of respondents that provided ratings and crop percentage figures for each species.

Highly rated annual plants were impatiens (1.4), geranium (cutting) 1.5, petunias (1.7), begonia (1.8), alyssum (1.8), marigold (1.8) and pansies (1.9). These are followed by many that were rated good (2.0) including geranium (seed), lobelia, portulaca, salvia, snapdragon and vinca (Table 5).

Table 5. Respondents average rating of popular annuals on a scale of 1 (excellent) to 4 (poor), average percentage of total crop each species represents and percentage of growers that did not produce each species.

Species	1991 Mean Rating	1992 Mean Rating	1992 Mean % Crop	1992 % Did Not Grow
	(No. Responding in parens.)			
Ageratum	2.0 (197)	2.2 (268)	2 (122)	2.6
Alyssum	1.8 (195)	1.8 (264)	3 (115)	3.0
Asters	2.4 (171)	2.9 (249)	1 (75)	20.5
Begonias	1.8 (197)	1.8 (269)	8 (127)	1.1
Browallia	2.0 (162)	2.8 (238)	1 (57)	32.8
Celosia	2.4 (191)	2.6 (259)	2 (105)	5.0
Coleus	2.7 (193)	2.6 (264)	2 (106)	3.4
Dahlias	2.3 (195)	2.2 (263)	2 (97)	7.2
Dianthus	1.9 (189)	2.0 (265)	3 (104)	4.9
Dusty Miller	2.0 (196)	1.9 (267)	3 (116)	0.7
Geranium (seed)	1.4 (171)	2.0 (243)	9 (86)	18.9
Geranium (cuttings)	1.6 (188)	1.5 (251)	13 (88)	5.2
New Guinea Impatiens	1.6 (193)	1.7 (252)	4 (87)	6.0
Impatiens	1.3 (197)	1.4 (268)	18 (133)	0.7
Lobelia	1.9 (194)	2.0 (254)	2 (98)	7.5
Marigolds	2.0 (196)	1.8 (266)	8 (122)	1.9
Pansies	1.9 (194)	1.9 (266)	2 (112)	2.6
Petunias	1.7 (154)	1.7 (211)	11 (103)	1.4
Phlox	2.0 (161)	2.8 (222)	1 (59)	31.5
Portulaca	2.0 (194)	2.0 (261)	2 (107)	4.6
Salvia	2.0 (197)	2.0 (264)	3 (113)	1.1
Snapdragon	2.0 (195)	2.0 (258)	2 (105)	3.1
Verbena	2.1 (190)	2.3 (256)	2 (100)	6.2
Vinca	1.7 (187)	2.0 (258)	4 (113)	5.0
Zinnias	2.3 (178)	2.5 (249)	2 (89)	12.4
Cabbage	2.7 (182)	2.8 (253)	1 (93)	11.1
Peppers	2.1 (180)	2.1 (254)	3 (108)	8. 3
Tomatoes	1.9 (180)	1.8 (258)	5 (110)	7.0
Other Bedding Plants	2.1 (107)	2.2 (147)	10 (67)	1.4
All Perennials	1.6 (149)	1.8 (221)	17 (80)	7.7

Table 6. Top three container sizes in order named by respondents and number responding.

Container Size	1 Percent of Respondents (N=283)	2 Percent of Respondents (N=273)	3 Percent of Respondents (N=261)
Cell Pack	6.7	7.3	6.9
Flat	60.4	59.7	56.7
2.25" Pot	—	—	0.8
3" Pot	0.4	2.6	0.8
3.5" Pot	0.7	0.7	1.9
4" Pot	13.1	13.2	15.3
4.5" Pot	10.2	5.9	6.5
5" Pot	0.7	0.7	0.4
5.5" Pot	—	—	0.4
6" Pot	0.7	1.5	1.5
6.5" Pot	—	0.7	—
8" Pot	—	0.4	0.4
1 Gallon Tub	1.4	1.1	1.1
8 Quart Tub	—	0.4	—
3 Gallon Tub	0.4	—	0.4
Basket	—	0.4	0.8
8" Basket	1.4	1.5	1.5
9" Basket	—	—	0.4
10" Basket	3.5	4.0	3.8
12" Basket	0.4	—	0.4

Table 7. Top three markets in order named by respondents (and number responding).

Market	1 Percent of Respondents (N=274)	2 Percent of Respondents (N=265)	3 Percent of Respondents (N=250)
Garden Centers	21.5	19.2	21.6
Supermarkets	2.6	2.6	2.8
Multiple Retailers	16.8	18.1	14.8
Brokers	2.6	2.6	3.2
Direct To Consumer	45.3	43.8	45.2
Mass Merchandiser	2.2	2.3	2.0
Retail and Wholesale	6.2	7.5	7.6
Landscaper	1.8	2.6	1.6
Golf Course	1.1	1.1	1.2

In terms of the percentage of each annual grown to make up a production mix, impatiens is in the lead, accounting for an average 18% of the crop. Impatiens was followed by geranium cuttings (13%), petunias (11%) and geraniums from seed (9%).

Members were asked to indicate their top three selling container sizes, in order of sales (Table 6). The flat, regardless of insert size, was the top selling container for 60% of the respondents. Four-inch and 4.5" pots were also popular with 13% and 10% of the respondents listing these containers as their top sellers.

Survey participants were asked to indicate their top three markets, in order (Table 7). For 45% of the respondents, selling direct to the consumer was their best market. This was followed by garden centers (21%) and multiple retail outlets (17%).

Supermarkets, brokers, mass merchandisers, landscapers and golf courses appear to be minor markets for the average responding PPGA member.

Perennial Plant Sales

Seventy-five percent of the respondents reported an increase in their perennial sales in 1992 while only 6% experienced a decrease in perennial sales. Twenty percent had a change in sales of less than 1%. Twenty-one percent had an increase of 1 to 5%, 23% had an increase of 5 to 10%, and 31% had an increase over 10%.

Two percent had a decrease of 1 to 5%, 1% had a decrease of 5 to 10%, and 3% had a decrease of over 10%. Perennial plant sales continue to grow significantly (rates over 10%), and become an increasingly important component of the industry.

Perennial sales accounted for 17% of the total production for 40 respondents (Table 8). They had a very good rating in terms of the future outlook (1.8). Only 7.7 of the study's participants did not produce perennial plants.

The mix of perennial species produced by commercial growers is relatively large. This is reflected in the low percentage of sales accounted for by any one perennial type. Chrysanthemum was the perennial that accounted for the largest percentage of any producer's crop: 17%. Hemerocallis, hosta, primula and phlox were other perennial types which accounted for a large portion of any producer's crop.

Increases are planned for individual types of perennials, although none stands out

as a perennial type which will be increased more than 11%.

Perennials, as a diverse category of flowering plants, have steadily increased in demand over the last decade. Unlike annual plants, perennials have no one species that is very popular among producers and/or consumers (like the impatiens).

The number of perennials produced by growers is larger than the number of annuals produced, creating unique challenges for the perennial producer.

The Long View

Participants who had been in business, helped to create the long term picture (Figure 8). The last ten years of wholesale and retail bedding plant sales were defined by dollar sales.

Figures provided by members concerning their wholesale and retail bedding plant sales show a steady, substantial growth trend over the last ten years at the wholesale level and steady, but less substantial, growth in the retail market.

Table 8. The percent of sales selected perennials represented, the increase or decrease over 1991 sales and the number of respondents.

Perennial	% of Sales (N)	% Increase (N)	% Decrease (N)
Achillea	2.3 (83)	9.4 (36)	4.7 (6)
Aquilegia	3. 0 (82)	8.1 (35)	0. 3 (4)
Chrysanthemum	16. 8 (92)	9. 7 (41)	8. 7 (6)
Dianthus	5. 0 (88)	10. 3 (43)	10. 6 (5)
Hemerocallis	6.6 (79)	18.1 (32)	0.0 (2)
Hosta	7.9 (78)	20.5 (45)	1.7 (3)
Ornamental Grasses	1.9 (67)	10.0 (25)	6.7 (3)
Phlox	5. 8 (75)	18. 4 (35)	1. 5 (4)
Primula	6. 6 (69)	4. 0 (32)	3. 2 (5)
Salvia	3.0 (71)	12.7 (36)	0.0 (2)

Figure 8. Ten Years of Wholesale and Retail Bedding Plant Sales.