



Report, Part II

How did growers fare
in 2000 and what are
the trends in
greenhouse
production?
The GPN/Summit
Plastics Fifth Annual
State of the Industry
Report has the
in-depth information
no one else has.

By Bridget White specially this year, growers are all wondering how their neighbors, friends and competition are faring, what the production trends are and how the floriculture industry is progressing. For this reason, *GPN* has once again conducted its Annual State of the Industry Survey — the only truly detailed analysis of the floriculture industry that's available.

For the third year in a row, Summit Plastic Co. has stepped forward as a co-sponsor to support this effort. And, *GPN* readers have also given some of their valuable spring production time to answer the survey. Both parties should be applauded for their support. So, with our sincere thanks to the supporters of this effort, *GPN* presents the Fifth Annual State of the Industry Report.

Part I of the Annual State of the Industry Report ran in *GPN* May 2001.

### **SOURCE OF PLANT MATERIAL**

Last year, growers continued a two-year shift away from using brokers for plant material and toward going directly to the plug producer. Twelve percent of respondents, up from 7 percent in 1999 and 2 percent in 1998, said they get their plant material directly through the plug producer. Those who use a broker dropped a corresponding 4 percent to 26 percent in 2000, down from 30 percent in 1999 and 39 percent in 1998.

The largest category for plant material, however, continues to be the growers themselves, with almost twice as many growers producing their own plant material compared to those who buy through brokers. Forty-five percent of respondents, down from 47 percent in 1999 and up from 42 percent in 1998, reported that they produce their own plugs and liners in-house from cuttings or seeds.

Of the 6 percent of this year's respondents

that said they get their plant material from sources "other" than those specified, the largest portion, 50 percent get their material directly from seed companies.

Source for plant material seems fairly consistence regardless of the size of the grower but does show regional preferences. Growers in the Northeast, South, West and West Coast seem to prefer brokered material over material they produced themselves, while growers in the Mid-Atlantic, Midwest and Central Regions are evenly split between the two.

Please note that 93 percent of respondents provided complete data that was useable for calculating source of plant material.

### **TYPE OF CROPS GROWN**

With the increasing introduction of specialty crops and the diversification of plant material, the distinction between bedding plants and container crops is becoming more and more tricky. Yet many growers do still consider themselves as primarily a producer of bedding plants or of container crops. With this in mind, we continue to ask growers if they classify themselves as either a producer of bedding plants, container crops or other.

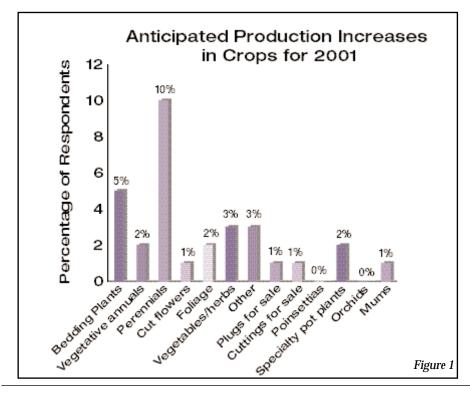
In 2000, a wide majority, 57 percent, of growers consider themselves producers of container crops, with 39 percent being bedding plant producers and 4 percent choosing the "other" category. This approximate division holds regardless of size of operation or region of production.

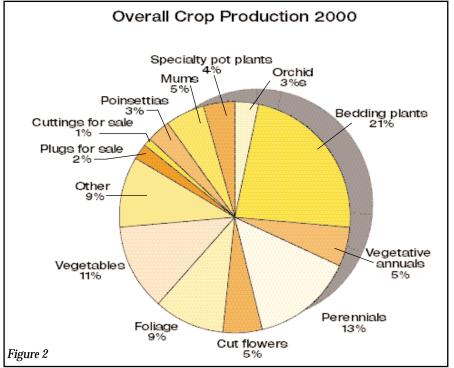
Bedding plants are, however, still the industry's major crop. When asked to divide their crop mix by percentage, growers said 21.5 percent of their crop was bedding plants, by far the largest category. Other crops that ranked high include perennials at 12.6 percent, vegetables at 10.9 percent and foliage at 9.3 percent. A complete breakdown of crops is depicted in Figure 2 on page 14.

There continues to be the expected regional trend with the types of crops produced. The largest crop grown in the Midwest is bedding plants, 35.6 percent. The majority of cut flowers are grown in the West and on the West Coast, 12.3 percent and 11.0 percent respectively. Foliage is grown primarily in the South, 18.17 percent, followed by the West Coast 13.45 percent. Growers in the South and on the West Coast continue to dominate the orchid market with 6.4 percent and 8.5 percent, respectively, of total crop grown. Other

regional links that might not be so expected include poinsettia production — which makes up 5.8 percent of production in the Central Region, almost twice the percentage of other regions — and perennial production, which makes up 20.2 percent of production in the South, six percentage points higher than the Midwest.

Please note that 80 percent of respondents provided complete data that was useable for calculating type of crops grown.





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Ludy Greenhouse Mfg.

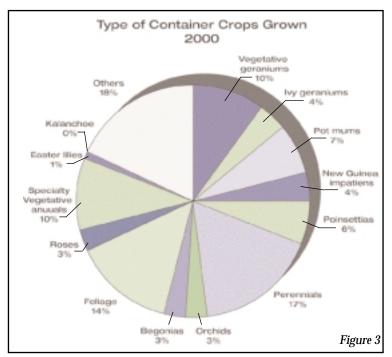
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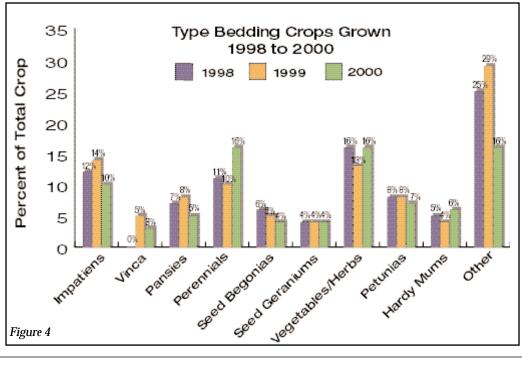
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#### **GROWING AND SELLING BEDDING PLANTS**

Over the past few years, we have been watching a trend develop in the types of bedding crops grown. Data from the 1998 and 1999 State of the Industry Reports show an increasing preference for more "non-traditional" bedding plant crops. When given the choice between a standard mix of traditional bedding plant crops, including impatiens, vinca, pansies, seed geraniums, etc., the largest category was overwhelmingly "other." In the years 1998 to 1999, the percentage rose from 25 to 29 percent, well ahead of the second closest category by almost 10 percentage points. The data for 2000 show that this trend is starting to reverse itself, though the more "traditional" bedding plant crops are still not the category leaders (See Figure 4, below for complete year over year comparison of bedding plant crops).

In 2000, "other" crops totaled 16 percent of bedding plant crops, as did vegetables/herbs and perennials. The more "traditional" bedding plant crops all fall in line after these three: impatiens 10 percent, petunias 7 percent, hardy mums 6 percent, pansies 5 percent, seed begonias 4 percent, seed geraniums 4 percent and vinca 3 percent.





Tabloid 1/2 Horizontal

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LUDY GREENHOUSE

Growers in the Northeast accounted for the majority of impatiens (13.4 percent), perennial (15.5 percent), vegetable/herb (16.2 percent) and hardy mum (16.6 percent) production.

Growers in the Mid-Atlantic States produced perennials (14.5 percent), vegetables/herbs (13.2 percent) and impatiens (10.2 percent). The Mid-Atlantic States also produced the largest proportion of vinca

(4.2 percent), pansies (7.0 percent) and seed begonias (5.4 percent).

Growers in the Midwest produced primarily vegetables/herbs (15.5 percent), perennials (14.9 percent) and impatiens (12.9 percent). Midwestern growers also produced more seed geraniums than any other region, totaling 5.7 percent of total production.

The largest bedding plant crops in the

Southern Region were perennials (16.9 percent) and vegetables/herbs (10.3 percent). The Southern Region had a larger proportion of perennial production than any other region.

The vast majority of crops grown in the Central, West and West Coast regions fall under the "other" bedding plants category. Other bedding plants totaled 11.0 percent of production in the Central Region, 21.3 percent in the West and 20.1 in the West Coast. Growers in the West Coast Region also produced a large number of vegetables/herbs, 12.1 percent.

Please note that 74 per-

cent of respondents provided complete data that was useable for calculating type of bedding plants grown and sold in 2000.

## GROWING AND SELLING CONTAINER CROPS

"Non-traditional" crops have also been the trend in container crops the past few years, where "other" container crops have been the largest segment of the market the past three years. In 1998, "other" container crops comprised 23 percent of total production; in 1999, 22 percent; and in 2000, 33 percent (See Figure 3, page 15 for a complete breakdown of container crops grown in 2000). A variety of crops are listed by growers when responding to this question, including trees, azaleas, double impatiens, orchids, baskets and bedding plants.

The largest changes in container crop production in 2000 were in perennials, production of which rose from 10 percent in 1999 to 17 percent in 2000; poinsettias, production of which dropped from 10 percent in 1999 to 6 percent in 2000; and vegetative geraniums, production of which dropped from 14 percent in 1999 to 10 percent in 2000.

Probably the most notable trend in container crop production has been its volatility. Over the past three years, it has not been unusual for survey respondents to change production levels on a crop 5-10 percentage points a year. In fact, if you

Average Dollars Spent on Chemicals
1998 to 2000

\$10,000
\$9,000
\$8,000
\$8,000
\$7,000
\$5,978
\$5,495
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eliminate the "other" category, no crop has had the highest production levels two years in a row. Growers of container crops seem to readily adapt their crop mixes to changing demands, perhaps being more market driven, perhaps being better suited to responding to internal changes.

One of the changes container crop growers are responding to is the increased consumer demand for specialty vegetative annuals. Products like the increasing popular Bacopa (Sutera) or vegetative petunias. These kinds of specialty vegetative annuals accounted for 10 percent of total container crop production last year and 8 percent of production in the Mid-Atlantic States, 7.7 percent in the Northeast and 7.6 percent in the South.

Despite the widespread use of specialty and other "non-traditional" container crops, the main crops for growers in the Northeast were vegetative geraniums, pot mums and perennials. Growers in the Northeast produced the vast majority of pot mums, averaging 15.5 percent of production, compared to 5.4 percent in the second highest location. Northeastern growers also produced the second highest number of New Guinea impatiens, 4.7 percent of total production.

In 2000, growers in the Mid-Atlantic States produced mainly vegetative geraniums, 9.1 percent of production; perennials, 9 percent of production; and specialty vegetative annuals, 8 percent of production. Though not one of the top three crops, growers in the Mid-Atlantic Region produced the majority of poinsettias last year, at 8.5 percent of total production. The next highest poinsettia producing regions were the Midwest and the Central Regions, each allocating 4 percent of production to poinsettias.

Midwestern growers produced two main crops in 2000 — vegetative geraniums, 10.7 percent of total production, and perennials, 10 percent of total production. Midwestern growers also produced more ivy geraniums, 5.4 percent of total production; New Guinea impatiens, 4.8 percent of total production; and potted begonias, 3.94 percent of total production, than any other region.

Perennials continue to be a major container crop, especially in the South, where they account for 19.6 percent of total production. Southern container crop growers also produced a large proportion of foliage plants, 13.5 percent of total production, and "other" types of container crops, 12.7 percent of total production.

Growers in the Central Region produce a very mixed crop, as evidenced by the "low" numbers of their highest product categories. The largest crops for Central growers last year were "other" container crops, 9.2 percent of production; roses, 5.9 percent of production; and perennials, 5.0 percent of production. Growers in the Central Region also produced the largest proportion of Easter lilies last year, 2.1 percent of total production.

Western Growers produced two main crops last year — "other" container crops, 12.5 percent of total production; and vegetative geraniums, 10.3 percent of total production.

Given that the West Coast is known as the nation's trend setter, it's no surprise that the largest category of crops produced on the West Coast is the "other" category, 16.2 percent of total production. West Coast Growers also produced

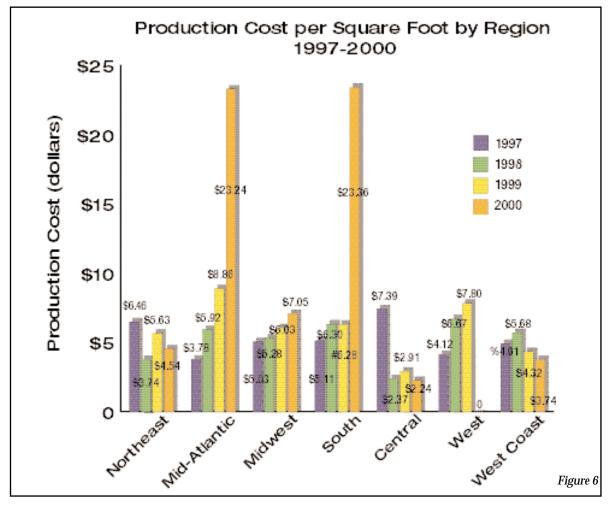
the majority of potted foliage plants, 14.3 percent of total production, and orchids, 4.3 percent of total production.

Please note that 74 percent of respondents provided complete data that was useable for calculating type of container crops grown and sold in 2000.

## PRODUCTION INCREASES FOR 2001

As the consumer demand for perennials continues to rise, growers will be planting an increasing number of perennials.

percent in vegetables/herbs, with very little increase in any other area. Growers 50,001-100,000 sq. ft. indicated an anticipated increase of 12.6 percent in perennials and 10.9 percent in bedding plants, and growers of 500,000 sq. ft. or more indicated the largest anticipated increase of 30.7 percent in perennials. Could this be an indication that growers at the three main points in the position are trying to reposition themselves to follow current trends or to create niches for themselves? Data from next year's survey should provide a platform from which to make more definitive remarks.



Perennials are, by a margin of two to one, the area where growers are anticipating the highest production increases in 2001. Growers indicated a 10 percent increase in perennial production, from 2000 numbers, in 2001 planting year (See Figure 1, page 14 for a complete listing of anticipated crop increases). This increase shows through most dramatically in Midwestern growers, who are anticipating production increases in perennials 23.3 percent in 2001.

Regionally, there are a few trends with anticipated production increases, but nothing out of the ordinary. Growers in the South, Central and West Coast Regions indicated that they will keep essentially the same crop mix in 2001. Western Growers indicated an anticipated increase of 12.5 percent in cut flowers; all other regions showed less than 1 percent anticipated increase in cut flower production, continuing the trend to concentrate the cut flower industry on the West Coast.

Also interesting are three areas of anticipated increase by size of operation. Respondents in the smallest size category, 25,000 sq. ft. and under indicated an anticipated increase of 13.2

Please note that 78 percent of respondents provided complete data that was useable for calculating anticipated production increases for 2001.

### **SELLING THE PRODUCT**

Following a well-documented trend in the greenhouse industry, the largest segment of growers sold their product through their own retail outlet in 2000. Approximately 30 percent of respondents, up from 23 percent in 1999, had a retail center through which they sold the bulk of their product. This means that fewer and fewer growers are selling to other garden centers. In 1999, respondents reported selling 23 percent of their crops to independent garden centers, the same amount they sold through their own retail outlets. In 2000, as the number of growers selling through their own retail center increased, the number selling to independent garden centers decreased to 18 percent.

Other major outlets for sales in 2000 included wholesalers, 15 percent of total production; landscapers, 10 percent of production; grocery stores/supermarkets, 7 percent

of production; retail florists, 6 percent; mass merchandisers, 6 percent; and plant brokers, 5 percent.

The fear that mass merchandisers were going to dominate the market has not yet come to fruition. A year over year comparison of the amount of product sold to mass merchandisers shows a three-year decrease. In 1998, 11 percent of total production was sold to the big boxes; in 1999, that number fell to 8 percent; in 2000, it fell again to 6 percent.

The remainder of the 2000 crop was sold to government/institutional sources, mail order outlets, specialty stores and other growers.

Production Cost per Square Foot by Size of Operation 30 1997-2000 \$27,03 Production Cost (dollars) 25 20 \$18.72 15 1997 1998 10

Please not that 94 percent of responses provided complete data that was useable for calculating percentage of crop sold to each outlet.

#### THE COST OF FIGHTING PESTS AND DISEASES

The price tag on the war against pests and diseases in the greenhouse is showing mixed results, with two of the major chemical classes rising in cost and two decreasing.

Continuing a three-year trend (See Figure 4, page 16), the average dollars spent on insecticides in the greenhouse dropped to \$5,214 in 2000, down from \$5,978 in 1999 and \$8,070 in 1998.

It might make sense to point to the higher profile of biologicals as a reason for the decrease in the dollars spent on insecticides, since there are many more biologicals in this area than there are in diseases. Data from this year's survey, however, shows a continuing decrease in the use of biological controls. In 2000, \$1,384 was spent on biological controls, down from \$1,600 in 1999 and \$6,206 in 1998.

The other main chemical category showing a decrease in 2000 was growth regulators. The average greenhouse spent on \$656 on PGRs in 2000, down from \$1,923 in 1999 and \$6,450 in 1998. This dramatic decrease is most likely attributed to a combination of factors, including plants with better, more uniform habits; increased education about controlling height with other methods; and more cost effective PGRs.

Now for the bad news, the average amount spent on fungicides and herbicides rose in 2000. Perhaps with the tightening of FQPA restrictions, eliminating the registration of some products, the cost of the remaining products has risen. Perhaps with growers trying to squeeze every inch of production space out of their greenhouses they are increasing the incidence of diseases and the use of fungicides and herbicides.

1999

2000

Figure 7

After a two-year decline, the average amount spent on fungicides rose to \$5,495 in 2000, up from \$4,562 in 1999 but down from a three-year high of \$9,112 in 1998.

The amount spent on herbicides, however, has been on a three-year increase. In 1998, the average greenhouse operation spent \$2,632 on herbicides; in 1999, they spent \$3,057;

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\$7.22

\$4.90

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and in 2000, \$3,246.

No one will be surprised to learn that the Southern Region spends more on greenhouse chemicals than any other region, \$602,150, with the majority of that amount spent on fungicides, \$380,320.

Growers in both the Central and West Regions spend the majority of their chemical dollars on insecticides, \$47,300 and \$131,200, respectively.

Midwestern growers, spend most of their chemical dollars on herbicides, \$162,835, more than twice as much as any other region.

On the West Coast, the biggest problem seems to be with insects, as growers there are spending and average of \$110,250 on insecticides. With more stringent environmental laws in the region, West Coast growers also spend the most money on biological controls, \$70,950.

When asked about increasing their use of biologicals and other reduced-risk pesticides, the majority of growers indicated an increase of less than 10 percent, with 26 percent of respondents not planning to use more reduced-risk pesticides in the future. However, there were a few respondents, 23 percent, who are considering using at least twice as much reduced-risk as they used in 2000.

Please note that 75 percent of respondents provided complete data that was useable for calculating cost of chemicals and 50 percent of respondents provided complete data that was useable for calculating use of reduced-risk pesticides.

## THE COST OF DOING BUSINESS

Growers of all sizes and over half the regions surveyed experienced production cost increased in 2000 (See Figures 5 and 6, pages 18 and 20).

With labor shortages and heating oil price skyrocketing, it's no surprise that the greenhouse business is getting more and more expensive.

It is also not surprising that the smallest and the largest growers are the •

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101

ones hardest hit. Small growers, who are not privy to volume discounts and can't afford "money saving" automation, have seen the largest increases over the past three years. From \$4.61 per sq. ft. in 1998 to \$6.25 per sq. ft. in 1999, production cost for small growers took a leap in 2000 to

\$27.03 per sq. ft. Even accounting for the limited pool of respondents for this question, this is a troublesome jump in cost for small growers.

Large growers also saw a significant rise in cost in 2000. Up from \$3.61 per sq. ft. in 1998 and \$4.90 per sq. ft. in 1999, large growers reported

spending an average of \$18.72 per sq. ft. Perhaps having such large ranges to heat last winter took its toll on production cost in the largest greenhouses, those with at least 500,000 sq. ft. of production space.

A regional breakdown of cost shows figures a little less consistent.

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GOLDEN PINES GARDEN

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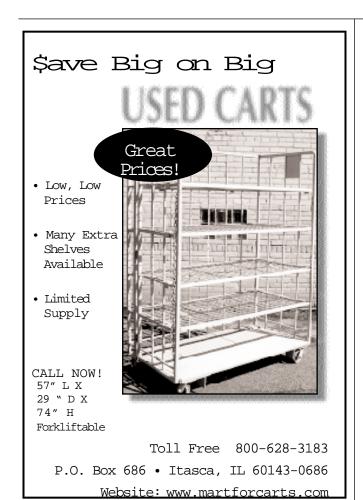
Growers in the Northeast, Central and West Coast Regions saw slight decreases in production costs from 1999 to 2000. No region, however, showed a decrease of more than a dollar per square foot.

Unexpectedly, the Mid-Atlantic and Southern Regions showed the largest increases in production costs in 2000. Cost per square foot jumped from \$8.86 in 1999 to \$23.24 in 2000 in the Mid-Atlantic Region; cost per square foot in the Southern Region jumped from \$6.23 in 1999 to \$23.36 in 2000. Given that the main cost increase for most growers in 2000 was heating oil, it is surprising to see a large increase like this in the Southern states, though winter 2000 was particularly harsh there as well as up North.

Please note that 40 percent of respondents provided complete data that was useable for calculating average production cost per square foot.

### HOW TO OBTAIN A COPY OF THE 2000 STATE OF THE INDUSTRY FINDINGS

GPN's report on the State of the Industry will continue next month, and we will also be providing additional information gleaned from this survey in upcoming articles and news items. However, space does not permit us to include all of the information from our survey. We do offer a publication that includes all data.



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This publication offers breakdowns by size of operation and region for all categories covered in this and other articles. Included are the specific numbers of respondents who submitted information for each category. Also included are additional comparisons between data from the 1997 -1999 surveys.

The cost of the complete survey is \$100. Please submit your order to Bridget White, GPN, 380 E. Northwest Hwy., Suite 200, Des Plaines, IL 60016, or email your request to bwhite@sgcmail.com.

Editor's Note: Please see GPN May 2001 for information about the methodology used in the survey and for information about the people who responded to the survey.

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