

Sixth Annual State of the Industry Report

What are the hottest greenhouse trends? How well did growers do this year? All of that and more are in the *GPN*/Summit Plastics Sixth Annual State of the Industry Report.

By Catherine Evans

Year after year, the Annual *GPN*/Summit Plastics State of the Industry Report provides the most comprehensive data available about the past year in floriculture. The big question is, what has changed so much in one year? New trends, higher sales, valuable growing information — basically, how everyone in the floriculture industry is doing with their businesses and what valuable information can be shared to better each grower who reads the report.

With the help of *GPN* readers and Summit Plastics, which is now in its fourth year as a co-sponsor for this survey, we are able to bring this information to the growers to give them what they need to better their production. We want to thank all of the parties involved in supplying this information, and we appreciate the support that came along with it. And now ladies and gentlemen, The Sixth Annual State of the Industry Report.



METHODOLOGY

On approximately September 13, 2002, the *GPN* staff mailed out 1,900 surveys to growers all over the United States. The growers were chosen at random from the *GPN* subscription database of wholesale growers. In many of the cases, it was also indicated that some of the growers surveyed own one or more retail outlets and/or landscaping services. Out of the 1,900 surveys, 114 were returned and usable. They were then recorded and tabulated by the *GPN* staff.

The numbers tabulated are as accurate as possible, given the information provided. Since not every answer was usable and since numbers were averaged to the nearest round number, some of the percentages are slightly more or less than 100. Also, many of the questions required more than one answer, also adding to the margin of error.

To our greatest ability, we have tried to provide year-over-year data. This information gives the readers the ability to track certain sections of the industry, to spot trends, consumer preferences, etc. The *GPN* staff compiled all data from 1997, 2000 and 2002, and Accountability Information Management (AIM) in Palatine, Ill., tabulated data from 1998 and 1999. The Data from our First Annual State of the Industry does not appear in the comparison because the methodology used for that survey is not compatible with that of subsequent surveys.

This year is also a little different. In the past, we have presented the State of the Industry Report in the May and/or June issues. Asking the growers to give us numbers for the May/June issue was hard since the season had ended six months prior to the surveys being sent out in January. This year, we sent the surveys out as soon as the major selling season was over, allowing the numbers to be fresh in the grower's minds. Since we waited until now instead of last May or June, there is no data from 2001. The last updated data that we have is from 2000.

The data compiled by AIM and *GPN* are similar in most respects; however, readers should know that there is a degree of variance with the data. Basically, there is a margin of error, and all of the information in this report is accurate to the degree that respondents provided accurate information on the surveys.



THE RESPONDENTS

Since there are a number of regions in this country that have different growing conditions, it is important to include all of them in the survey. It is important to understand who is responding to the survey to get a better feel for what is going on with their crops.

For 2002, the West Coast gave the most responses with 24 percent of the surveys. Currently, the Midwest ties for second with the South, which both share 18 percent of the responses. The Mid-Atlantic has 13 percent, the West 11 percent, the Northeast 10 percent and the Central part of the United States comes in last with six percent of the responses. These numbers add a change from the 5th Annual State of the Industry results, which show that the Midwest had the highest number of responses in 2000 with 22 percent. Thanks again to our respondents; everyone that returned a survey did indicate where they were from, making it much easier to determine each question according to the region they grow in.

The amount of operation space was also a widely answered question with all but one of the respondents indicating their operation space. The numbers indicated that 29 percent of the respondents own between 100,001-500,000 sq. ft. in production space. The next size comes in with a close 26 percent for 50,0001-100,000 sq. ft., which makes each size only one percent less than the previous State of the Industry Report. However, the percent of respondents from the 25,000 and under category is up nine percent, giving the survey a better look at that operation size. The 25,001-50,000 production size adds up to be 12 percent, while 500,001 and above comes in last with only 11 percent of the responses.

PRODUCTION SPACE

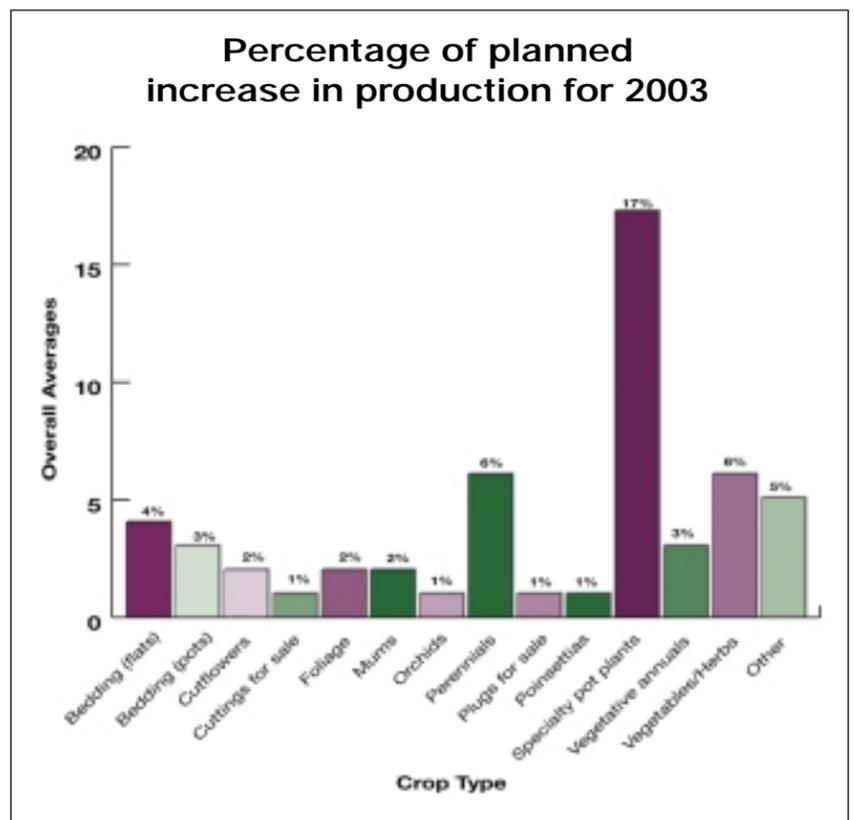
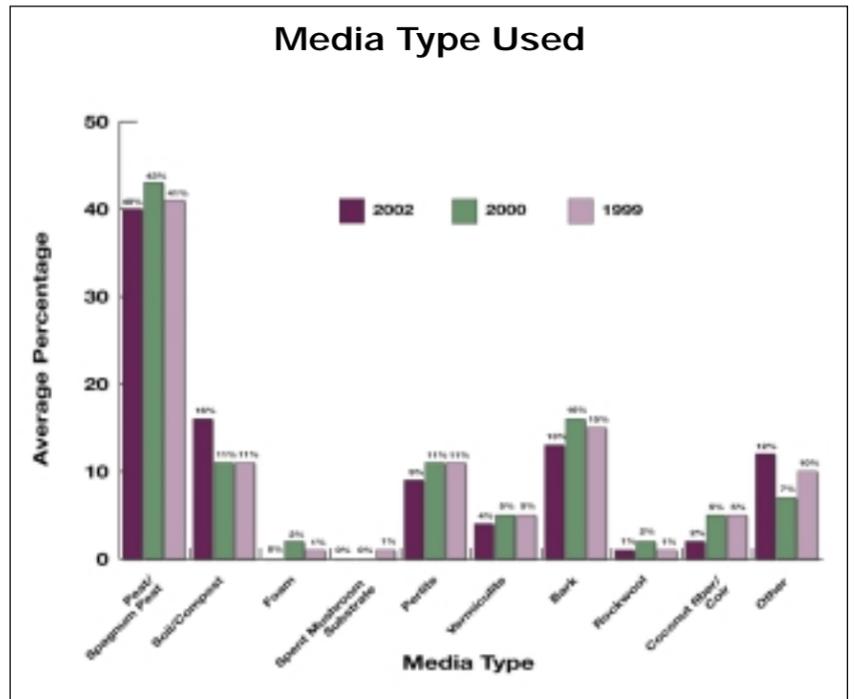
Overall, the production space in 2002 averaged out to be 294,722 sq. ft., which is only 16,290 sq. ft. less than the previous survey. Using the margin of error as a guide, there is not much of a difference in the two years, showing a consistency in growing production space. However, when the space is divided into fixed-cover greenhouse space, shade house, retractable-roof greenhouses and open fields, the number varies a little more than the previous year. The 2002 fixed-cover amount is 76,187 sq. ft., which is down by 81,820 sq. ft. However, keep in mind that the size of operation does not really lend itself to a year over year comparison — since every year a different group of people with different sizes are chosen to answer the survey — making the operation size an incomparable yearly number. Shade houses are averaging 33,778 sq. ft. overall, and open fields are at 175,136 sq. ft., which are both very different from the years past. The unsurprising statistic is that the retractable-roof greenhouses represent the least amount of production space, (an average of 214 sq. ft.) in this survey, as they have in years past. The survey results show that West Coast growers with production space between 25,001 and 50,000 are the only ones adopting open-roof structures in any number, with an average of 1,071 sq. ft.

The region with the largest production space is the South with 707,863 sq. ft.; second place was the West Coast, with 301,177 sq. ft. An interesting fact is that the West (226,928 sq. ft.), the Midwest (217,717 sq. ft.) and the Northeast (197,014 sq. ft.) were all within 30,000 sq. ft. of each other. That leaves the Central United States with 88,506 sq. ft. and the Mid-Atlantic with 67,128 sq. ft.

The South also has the largest number of fixed-covered greenhouse square feet (87,822 sq. ft.), shade houses (148,228 sq. ft.) and open fields (471,813 sq. ft.). The Mid-Atlantic came in with the least amount of production in each category. All of the other regions have an even number between the production categories.

Taking climate into consideration, these numbers are not surprising. The favorable climates in the South and on the West Coast allow for “less formal” production space, including outdoor and quonset production, both of which are substantially less expensive than even poly gutter-connects.

This year’s responses also showed that growers have decided to increase their indoor production space by 28 percent and their outdoor space by 21 percent. Growers in the Northwest are the ones that want to increase production the most, by 66 percent in indoor space and 109 percent in outdoor space. Also, growers in the 25,000 and under space range want to increase indoor space by 42 percent and outdoor by 55 percent. Because no explanations were given, we



can only look to the industry trend away from small, 100-percent wholesale operations as an explanation for these high numbers. Our own grower visits show price pressures affecting small growers the most.

SOURCE OF PLANT MATERIAL

Now that growers have the production space, where do they get the materials? The majority, 41 percent, said they grow the materials themselves, as opposed to getting it from a broker, 30 percent; through a plug producer, 16 percent; directly from a propagator, 11 percent; or in some other way, two percent. However, those numbers have been pretty consistent since 1998, showing that most of the material is grown by the growers themselves.

In each region and size operation, the results are almost the same as the overall, with the exception of the Midwest. The survey shows that growers getting the materials from a broker (42 percent) is a higher percentage than growing it themselves (26 percent).

Given the amount of vegetative material currently in production, we were surprised by the continuing trend of self-sourcing. With the number of vegetative varieties and patent-restricted products rising, we expected

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to see fewer people propagating their own material. We suspect that growers are simply reallocating resources. If x number of plugs and liners were bought-in and y produced in-house in years past, the number of plugs produced in-house (y) would rise to accommodate the increased number of cuttings and liners that must be purchased (x).

PRODUCTION COSTS

Producing plants is not something that just happens with a hoe and some water. There is a lot of money and effort put into making a successful crop. The overall average produc-

tion cost in 2002 was \$7.00 per sq. ft. This adds an additional \$1.17 from the 2000 total, but it is still down \$4.26 from 1999 when the average price was up to \$11.26 per sq. ft. Each year depends on the weather, the economy, possible natural disasters and any other unpredictable situations that may occur, and this year's rise seems very reasonable given labor shortages and drought.

This year, the South had a high average of \$26.18, an unexplainable anomaly that is only \$2.82 less than the previous year. The Mid-Atlantic is at \$6.39 per sq. ft., which is down a large amount from last year's \$23.24

INTERNET USAGE FOR GROWERS

The Internet is a way to communicate, research and even shop from the comfort of your home or business. The Sixth Annual State of the Industry Report touched a little on the comfort level of growers with the Internet to see what they thought about the idea.

When asked if growers currently use the Internet for their business, 60 percent said yes. Fifty-five percent of those users said they would use it for product information, 31 percent for purchasing products, 13 percent for business tips, 40 per-

cent for company information and seven percent said they would use the Internet for other purposes. Other purposes include advertising, making payments, making a Web site, direct sales and E-mail.

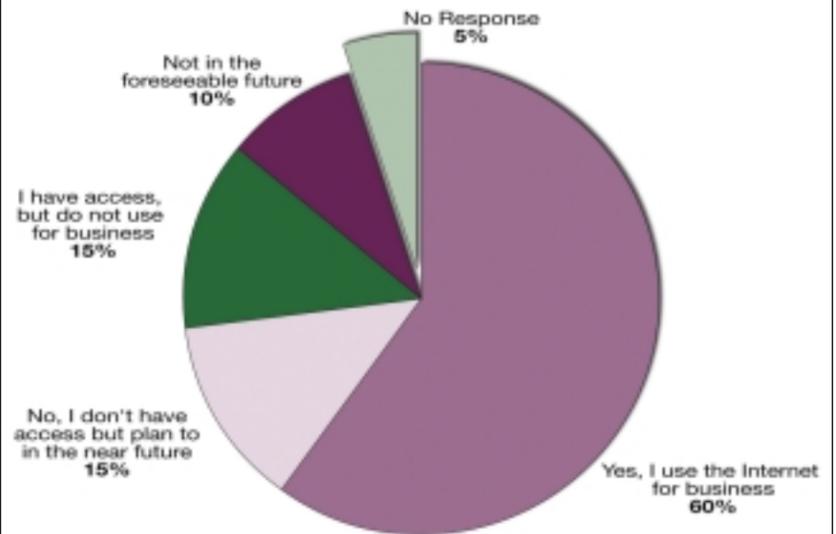
Thirteen percent of growers said they do not have the Internet but plan on getting it in the future. Four percent said they would get access within the next year, and four percent said that they would get access within three years from now. Thirteen percent also said they have access but do not plan

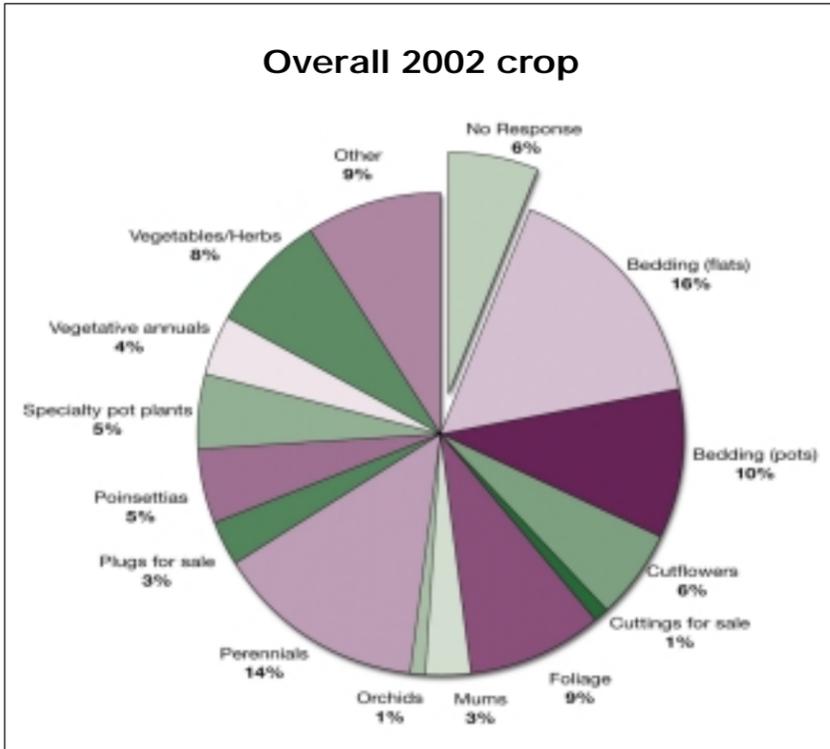
on using it for business. Only nine percent of the growers do not have access at all to the Internet.

When asked if growers would use the Internet for purchases, the numbers were a little closer together. Forty percent said they would purchase items off the Internet because it is faster, easier and convenient. However, 50 percent of the growers said they would not purchase anything off of the Internet because they either did not have access, did not have the need or did not trust the security.

Now that it is established that growers are buying products off the Internet, which products are they buying? Containers and tags/labels seem to be the highest-ranking, each with 31 percent of the items chosen. Containers are not far behind with 30 percent, and they are also the highest-rated item to have already been purchased from the Internet by 16 percent of the growers. Greenhouse structures and equipment came in as the lowest-purchased item at 12 percent each.

Do you use the Internet for business?





per sq. ft. The variance in production costs year over year is dramatic. At first, it was enough to make us question our data. After closer examination, we attributed the inconsistency to a fluctuation in the response pool, and viewed it as an unfortunate side effect of our methodology. But we can't just write off this data, and we shouldn't. These are the respondents' best estimates of their production costs. We all know growers whose input costs are extremely inflated — newly mortgaged greenhouses, extra staff and high shrink. When we see production costs like in those from the South, at \$26.18 per sq. ft. in 2002 and \$29.00 per sq. ft. in 2000, we know that some of these high-risk growers were in the survey pool. Instead of inferring that the average cost of production in the South is three times that of the Mid-

Atlantic, we should see this as an indication that some growers continue to flout sound business practices.

TRENDS IN AUTOMATION

With the advances in greenhouse technology, there is a greater number of products that can help growers with economical crop production. The survey showed that growers already owned the following automated devices: 36 percent own environmental controls; two percent flood floors; 11 percent sub-irrigation benches; 25 percent root-zone heating; 12 percent floor heating; 35 percent moveable benches; 17 percent automated seeders; 23 percent automated flat fillers; nine percent automated transport systems; and five percent automated transplanters. Compared to the last State of the Industry Report, the amount of automated systems that are currently owned by growers is down by approximately 10 percent. Because of the economy being down this past year, automated systems are less popular. Next year's numbers should show if this is a new trend or the result of sampling.

The region that owns the most automated helpers is the Northeast. The most commonly owned product is environmental controls, with 55 percent of respondents. Another 45 percent goes to automated flatfillers. The interesting fact arose that many of the regions bordering Mexico seem to use less automated systems. The less expensive labor becomes an issue because Mexicans enter the country through border states looking for work, and many of the regions in that area hire them instead of purchasing automation. With more physical labor help, there is less of a need for automated help.

Another fact that came up was that growers owning 100,001-500,000 sq. ft. were the ones to use the most automated labor. In the previous State of the Industry report, the growers with more than 500,000 sq. ft. production space held the most automation, which this year is significantly less. One reason is that the report showed that a majority of the larger growers are in the West Coast region, which is closer to the Mexican border. It all depends on the area and the amount of labor that is available.

TYPES OF CROPS

The types of crops that are grown every year are what can make or break a sale. The results showed that 32 percent of the respondents grow bedding

flats, while 62 percent grow container crops. Traditionally, bedding flats have been considered the industry's major crop; however, the 2002 results show that container crops are growing more and more popular. Since the last State of the Industry, container crops have gone up from 57 percent and bedding flats have actually decreased from 39 percent.

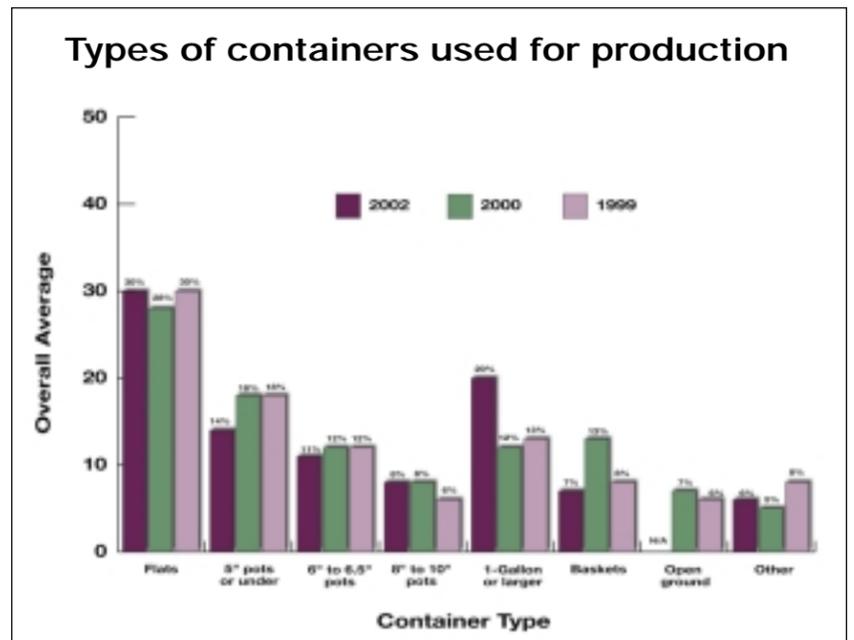
When looking at the results according to region, it shows that the South is growing approximately 77 percent container crops, leaving only 18 percent for bedding flats; the West Coast is not far behind at 74 percent in container crops and 17 percent in bedding flats. The other regions are not straggling; they too are strongly growing their container crops market.

The 25,000 and under group is the production size that seems to be planting the most bedding flats (45 percent). However, they still grow container plants as 50 percent of their crop. Without a doubt, Wal-Mart's \$6 flat and the consumer demand for instant gratification are the causes behind this container crop shift.

Another aspect we can't overlook is the demand for new, new, new. In the past few years, consumers have begun looking for a different, "non-traditional" plant to spruce up their

homes. They've grown tired of impatiens and geraniums, and we're seeing this more and more in the State of the Industry. Out of the 18 choices of bedding flat crops, the majority of the sales went to the "other" category, with 24 percent, an 11-percent jump from the last State of the Industry's totals. Instead of the traditional impatiens, perennials, mums and marigolds, consumers are more interested in buying plants such as shrubs and trees, foliage, tropicals, etc., giving growers something new to consider. The West Coast has the highest number of people producing in the "other" category, with 41 percent. However, the South is not far behind with 38 percent. Growers with more than 500,000 sq. ft. in production have also embraced the "other" category, with 37 percent of their sales in the category. Overall, the "other" category may soon be the talk of the industry.

The second most popular category is vegetables and herbs, 13 percent of sales. You might be surprised to know that vegetables/herbs have been slowly gaining production space, and this year the popularity is peaking. Next in line is the traditional perennial (11 percent) that will always be close to the top because of its variety and easily recognizable



plants. Even though the trend shows that more consumers want something different, there are still a lot of consumers out there that enjoy tradition in their plants.

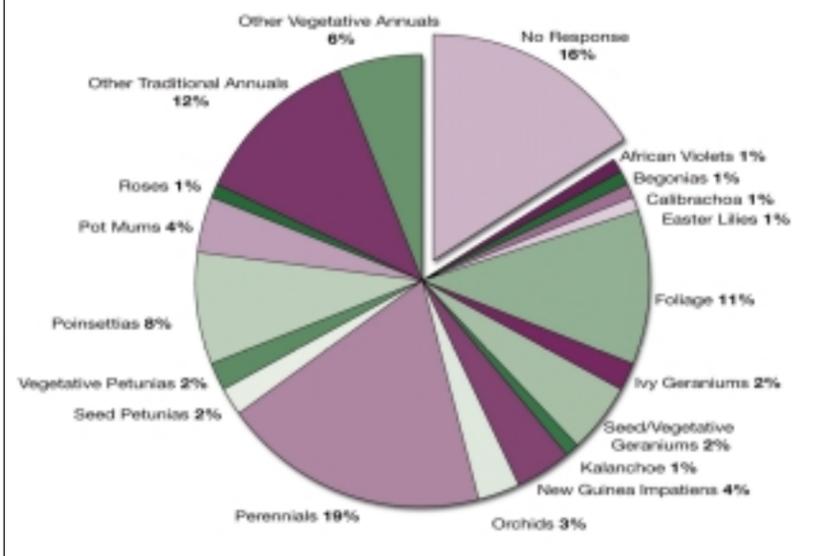
The rest of the 18 choices run in the 0-7 percent range. Most of the traditional bedding flats are just not as widely grown as the more exciting, non-traditional crops. Impatiens have risen about three percent since last year; however, mums have dropped two percent from last year's 4-percent total, and everything else stayed virtually the same.

CONTAINER CROPS

Even though perennials might be slipping in bedding flat production, they are thriving in the container crop department. Perennials outsell any other container crop by approximately seven percent, at 19 percent of container production, and are up 11 percent over last year's production. Other traditional annuals are 12 percent of the growers' sales. Most popular in the Midwest (30 percent) and in operations over 500,000 sq. ft. (31 percent), perennials are one trend that seems to

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Types of container crops sold in 2002



keep going in all regions and sizes as each year goes by.

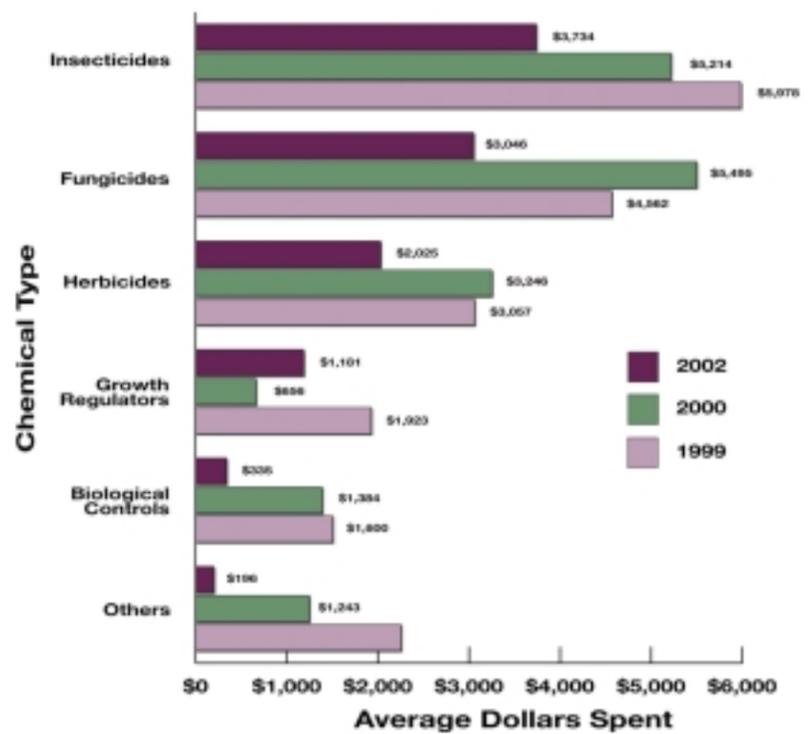
The second trend that seems to be popping up is foliage, with an overall 11 percent in sales, up two percent from the previous State of the Industry Report. Growers in the West (21 percent) and the West Coast (20 percent) are neck and neck when it comes to foliage sales. With the growing trend in bedding flats and now in container crops, the foliage market will be in full bloom in the coming years.

Poinsettias are up from two percent to eight percent, as are gerani-

ums. Each year, the trends change and growers must adapt their space allocations, but with survivors like perennials, poinsettias, geraniums and other popular traditional plants, no small fluctuation will stop the demand.

Overall, which crops are the growers going to be adding to their production in 2003? Specialty pot plants are the surprise trend that will be added to more schedules next year. The 17 percent total is up from only two percent from the last report, giving the specialty pot plant a 15-percent jump. Last year's

Amount spent on chemicals by category



highest increase came from perennials at 10 percent, but this year the category is down to six percent. Growers are becoming increasingly comfortable with the variety of container crop possibilities.

GREENHOUSE CHEMICALS

Greenhouse chemicals are what

help make the plants grow stronger, longer, healthier, more colorful and so on. However, since 1998 the amount spent on greenhouse chemicals has decreased from \$24,128 to \$10,517 in 2002. Which chemicals have been making a difference? Insecticide prices were at \$5,214 in 2000, and now they have dropped to \$3,734. Fungicides are down to \$3,046

CHEMICAL SPENDING: WHY IT'S DOWN

According to the figures documented in this year's State of the Industry Report, our respondents' use of greenhouse chemicals has decreased by \$14,000 over the past four years, down from \$24,128 in 1998 to \$10,517 in 2002. Why is this happening? We turned to some of our experts for their seasoned insights.

Jim Barrett of the University of Florida says that growers are having to become wiser with regard to their pesticide use, and there are also fewer chemicals available than in previous years. "There are fewer growers doing indiscriminate, routine sprays; more often, growers are spraying on an as-needed basis. In the past, growers would have a pest problem and spray and spray and spray. Now, more growers are spending more time making sure they are matching the right chemical to the right pest."

Steve Nameth of The Ohio State University agrees. "Growers are becoming more educated in regards to pesticide use. They no longer have a 'spray and pray' mentality. They are scouting for diseases and insects, which helps them catch problems early and prevents severe outbreaks. They are working more with cultural controls (sanitation, environmental modification, etc.) to prevent disease and pest outbreaks. And they are much more educated in the area of pathogen, insect and weed resistance; before they apply anything, they make sure they are applying the correct product at the correct rate at the correct time. All of this adds up to less chemical use."

Overall, Barrett believes there are two major reasons for the decrease: 1) Chemicals today are more effective and offer better pest control, and 2) there is less expense involved in spraying fewer chemicals. Another factor that could be involved in the decrease is the increase in herb production; because these crops are edible, very few pesticides can be used.

And how much of the decrease might be due to an increase

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from \$5,495; herbicides are also at \$20.25, a \$1,221 decrease; and biological controls are down the most from \$1,384 to \$335 from last year's totals.

Not surprisingly, the region that is using the highest amount of greenhouse chemicals is the South, with an average cost of \$14,335 on all greenhouse chemicals. There is a large population of growers in the South, as well as a warmer climate, and growing seasons tend to last a little longer in that area. When crops are in warmer climates, diseases, pests and weeds become more prevalent, which is why more chemicals are purchased in the South as opposed to anywhere else.

With decreased insecticide and fungicide use, you might expect to see increased biological use, but this is not the case. Biological use has, in fact, decreased substantially from last year's numbers, the exception being the West Coast, which continues to spend twice as much on biologicals as any other region.

The chemical that is being spent the most on in greenhouses all across the country is insecticides. There are so many new species of insects that are being discovered and invading crops that it is no wonder more money needs to be spent on trying to get rid of them. The regions with the most insecticide spending are the South with \$5,104 and the Northeast with \$5,059.

WHERE THE PLANTS GO

The plants are grown, look like a million dollars, and it is time to present them to the consumer. Since last asked in 2000, there has not been much of a change as to where growers send their crops to be sold. Overall, growers tend to sell the majority of their crops through their own retail centers, at an average of 38 percent, which is up from 30 percent in 2000. Cut that number in half and that slides the garden centers into position with an average of eleven percent. Eleven percent also goes to wholesalers, which is down from 15 percent in 2000. Landscapers are down one percent at nine percent while retail florists are up one percent at seven percent. Grocery stores and chain stores are only down by one percent at six percent, probably due to the fact that a number of chain stores decreased their garden centers in the past year. Plant brokers are down from five percent in 2000 to three percent this year. The only two categories that have stayed consistent are the mass

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