



Department of Extension Specialists  
Rutgers Cooperative Extension  
New Jersey Agricultural Experiment Station  
Martin Hall, Cook Campus  
New Brunswick, New Jersey 08901

March 4, 2003

Re: 2003 Survey of the Greenhouse Industry in New Jersey

Dear New Jersey Greenhouse Grower,

This spring, Rutgers Cooperative Extension is conducting a NJ greenhouse industry survey. The purpose of the survey is to provide information about the economic situation of NJ growers, as well as to determine what important issues are impacting the greenhouse industry. After evaluation of the data collected through the survey, we plan to organize an extension meeting where growers and extension agents will be presented with useful information to help them address the most pressing industry challenges. We plan on inviting several experts and ask them to present workable solutions. Funding for this survey was provided by a grant from Rutgers Cooperative Extension through the Department of Extension Specialist.

Please take a few minutes to complete the enclosed questionnaire and mail your answers back to us. Your answers will help us plot directions for future research and outreach activities, and therefore, by completing the survey you will have a voice in deciding these future activities. Your cooperation is much appreciated! We want to thank you in advance for your collaboration. If you have any questions, please do not hesitate to contact us.

Sincerely,

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Enclosure



## 2003 SURVEY OF THE GREENHOUSE INDUSTRY IN NEW JERSEY

1. In what county is your business located? \_\_\_\_\_
2. What year was your greenhouse business established? \_\_\_\_\_
3. What is the legal structure of your firm? (Check one)
 

|  |  |
|--|--|
| <input type="checkbox"/> Sole Proprietorship             | <input type="checkbox"/> C Corporation             |
| <input type="checkbox"/> Partnership                     | <input type="checkbox"/> Sub-chapter S Corporation |
| <input type="checkbox"/> Limited Liability Company (LLC) |  |
| <input type="checkbox"/> Other (please specify) _____    |  |
4. Are you involved in other farming operations besides greenhouse production?  Yes  No
5. If yes, please list them: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
6. You would describe sales from your greenhouse operation as \_\_\_\_% retail, \_\_\_\_% wholesale
7. The total size of your production greenhouse(s) is \_\_\_\_\_ square feet
8. Since 2000, your greenhouse operation has:
 

|   |
|---|
| <input type="checkbox"/> Remained the same size         |
| <input type="checkbox"/> Increased by _____ square feet |
| <input type="checkbox"/> Decreased by _____ square feet |
9. Do you anticipate expanding your operation within the next five years?  Yes  No
10. If yes, will you be expanding in your:
 

|   |   |   |
|---|---|---|
| <input type="checkbox"/> Retail operation | <input type="checkbox"/> Wholesale operation          | <input type="checkbox"/> Production greenhouses |
| <input type="checkbox"/> All three        | <input type="checkbox"/> Other (please specify) _____ |   |
11. The approximate percentage (growing area) of total sales for the following crops are:
 

|                                    |                   |                       |                           |
|------------------------------------|-------------------|-----------------------|---------------------------|
| ____% bedding plants               | ____% perennials  | ____% hanging baskets | ____% cut flowers         |
| ____% flowering bulbs              | ____% poinsettias | ____% geraniums       | ____% other potted plants |
| ____% field grown cuts             | ____% hardy mums  | ____% herbs           | ____% vegetables          |
| ____% other (please specify) _____ |                   |                       |                           |

12. Do you (please check all that apply):

- Produce your own plugs     Buy in plugs     Buy pre-finished plants  
 Sell pre-finished plants     Sell plugs

13. Please indicate the number of full-time, part-time, and seasonal employees (including family members) you employ each month:

|      | <b>Full-time</b> | <b>Part-time</b> | <b>Seasonal</b> |      | <b>Full-time</b> | <b>Part-time</b> | <b>Seasonal</b> |
|------|------------------|------------------|-----------------|------|------------------|------------------|-----------------|
| Jan  | _____            | _____            | _____           | July | _____            | _____            | _____           |
| Feb  | _____            | _____            | _____           | Aug  | _____            | _____            | _____           |
| Mar  | _____            | _____            | _____           | Sept | _____            | _____            | _____           |
| Apr  | _____            | _____            | _____           | Oct  | _____            | _____            | _____           |
| May  | _____            | _____            | _____           | Nov  | _____            | _____            | _____           |
| June | _____            | _____            | _____           | Dec  | _____            | _____            | _____           |

14. Since 2000, the number of your employees:  increased     decreased     stayed the same

15. If increased or decreased by how much? \_\_\_\_\_%

16. What percentage of your business' total annual sales occurs during each month?

|     |        |      |        |      |        |     |        |
|-----|--------|------|--------|------|--------|-----|--------|
| Jan | _____% | Apr  | _____% | Jul  | _____% | Oct | _____% |
| Feb | _____% | May  | _____% | Aug  | _____% | Nov | _____% |
| Mar | _____% | June | _____% | Sept | _____% | Dec | _____% |

17. Is your greenhouse business a  part-time business, or  full-time business?

18. Is your greenhouse business your major source of income?  Yes  No

19. Do you sell your finished products  in state  to neighboring states  
 (please check all that apply)  to distant states  out of the country

What percentage of your total sales is to out-of-state customers? \_\_\_\_\_%

What percentage of your total sales is to out-of-country customers? \_\_\_\_\_%

20. If your business sells mostly retail, where does most of your competition comes from?

|  |                              |                             |
|--|------------------------------|-----------------------------|
| Large retail chains – Mass Merchandisers | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Retail firms – Garden Centers            | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Retail firms – Supermarkets              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Other, please specify: _____             | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

21. If your business sells mostly retail, what percentage of your retail sales is:

On site (farm stand) \_\_\_\_\_%

In a flower shop (florist) \_\_\_\_\_%

Through a farmer's market \_\_\_\_\_%

Other, please specify: \_\_\_\_\_%

22. If your business sells mostly wholesale, where does most of your competition comes from?

Growers in New Jersey  Yes  No

Growers in other states  Yes  No

Other, please specify: \_\_\_\_\_  Yes  No

23. If your business sells mostly wholesale, what percentage of your wholesale sales is to:

- Large retail chains – Mass Merchandisers \_\_\_\_\_ %
- Retail firms – Garden Centers \_\_\_\_\_ %
- Retail firms – Supermarkets \_\_\_\_\_ %
- Other, please specify: \_\_\_\_\_ %

24. Are you aware of plans for expansion by your competition?  Yes  No

25. Do you plan to expand into a niche market?  Yes  No

If yes, what is this niche market? \_\_\_\_\_

If yes, how long do you expect it to remain in this niche market? \_\_\_\_\_

26. What is the greatest challenge to expanding your operation? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

27. What is the greatest challenge for greenhouse industry expansion in your county? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

28. How do you think future expansion of the greenhouse industry in New Jersey will affect you?

- positively                       negatively                       no effect

29. Please rate each of the factors listed below according to how much they were a challenge to the successful operation of your business. Use a 1 to 5 scale with 1 = very minor, 2 = minor, 3 = neutral, 4 = major, 5 = very major. Please insert a check mark in the appropriate cell.

| Factor   | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| Ability to attract and retain competent management |   |   |   |   |   |
| Ability to attract and retain competent employees  |   |   |   |   |   |
| Your own management expertise                      |   |   |   |   |   |
| Your own marketing expertise                       |   |   |   |   |   |
| Availability of capital (cash and/or loans)        |   |   |   |   |   |
| Production costs                                   |   |   |   |   |   |
| Competition  |   |   |   |   |   |
| Zoning regulations                                 |   |   |   |   |   |
| Environmental regulations                          |   |   |   |   |   |
| Other governmental regulations                     |   |   |   |   |   |
| Weather uncertainty                                |   |   |   |   |   |
| Other, please specify:                             |   |   |   |   |   |

30. Please rate each of the factors listed below according to the degree they created a challenge for growing high quality plants. Use a 1 to 5 scale with 1 = very minor, 2 = minor, 3 = neutral, 4 = major, 5 = very major. Please insert a check mark in the appropriate cell.

| <b>Factor</b>                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|------------------------------------|----------|----------|----------|----------|----------|
| Greenhouse environment control     |          |          |          |          |          |
| Insect control                     |          |          |          |          |          |
| IPM program (when applicable)      |          |          |          |          |          |
| Disease control                    |          |          |          |          |          |
| Weed control                       |          |          |          |          |          |
| Crop irrigation                    |          |          |          |          |          |
| Water quality                      |          |          |          |          |          |
| Weather (including drought)        |          |          |          |          |          |
| Cultural requirements of new crops |          |          |          |          |          |
| Scheduling crops in the greenhouse |          |          |          |          |          |
| Incorporating new technologies     |          |          |          |          |          |
| Other, please specify:             |          |          |          |          |          |

31. Please rate how much of the factors listed below contributed to your finished product pricing. Use a 1 to 5 scale with 1 = very minor, 2 = minor, 3 = neutral, 4 = major, 5 = very major. Please insert a check mark in the appropriate cell.

| <b>Factor</b>             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|---------------------------|----------|----------|----------|----------|----------|
| Cost of production        |          |          |          |          |          |
| Labor cost                |          |          |          |          |          |
| Other growers' prices     |          |          |          |          |          |
| Quality of plant material |          |          |          |          |          |
| Market demand             |          |          |          |          |          |
| Product uniqueness        |          |          |          |          |          |
| Inventory levels          |          |          |          |          |          |
| Last year's price         |          |          |          |          |          |
| Other, please specify:    |          |          |          |          |          |

32. Please rate to what extent the factors listed below pose a challenge to the potential expansion of your business. Use a 1 to 5 scale with 1 = very minor, 2 = minor, 3 = neutral, 4 = major, 5 = very major. Please insert a check mark in the appropriate cell.

| <b>Factor</b>                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|------------------------------------|----------|----------|----------|----------|----------|
| Availability of capital            |          |          |          |          |          |
| Availability of qualified labor    |          |          |          |          |          |
| Marketing opportunities            |          |          |          |          |          |
| Availability of usable land        |          |          |          |          |          |
| Availability of high quality water |          |          |          |          |          |
| Transportation challenges          |          |          |          |          |          |
| Novel crop selection               |          |          |          |          |          |
| Other, please specify:             |          |          |          |          |          |

33. Please indicate the annual gross sales for your greenhouse operation last year (2002):

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$100,000-\$199,999 | <input type="checkbox"/> \$500,000-\$999,999     |
| <input type="checkbox"/> \$10,000-\$24,999  | <input type="checkbox"/> \$200,000-\$299,999 | <input type="checkbox"/> \$1,000,000-\$1,999,999 |
| <input type="checkbox"/> \$25,000-\$49,999  | <input type="checkbox"/> \$300,000-\$399,999 | <input type="checkbox"/> \$2,000,000-\$3,999,999 |
| <input type="checkbox"/> \$50,000-\$99,999  | <input type="checkbox"/> \$400,000-\$499,999 | <input type="checkbox"/> \$4,000,000 and above   |

34. Please indicate the average wage per hour you pay your:

seasonal employees \$ \_\_\_\_\_ full-time employees \$ \_\_\_\_\_

35. Are you planning on hiring more employees the next couple of years?  Yes  No

36. Which production practices do you use?  Conventional  IPM  Mixture

37. If using IPM, are you satisfied with the results?  Yes  No

38. If applicable, are you considering organic production?  Yes  No

39. In your opinion, what are the challenges for organic production? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

40. Are you considering automation for labor savings purposes?  Yes  No

41. If yes, what type of equipment are you considering? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

42. Are you considering updating your nutrient delivery system?  Yes  No

43. If yes, what type of equipment are you considering? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

44. Are you considering installing a rainwater collection system?  Yes  No

45. Are you concerned about water use restrictions and regulations?  Yes  No

46. Do you plan on using a water recirculation system?  Yes  No

47. Are you concerned about disease issues in recirculation systems?  Yes  No

48. Are you considering energy saving technologies?  Yes  No

49. Are you considering alternative energy sources (e.g., wind, geothermal)  Yes  No

50. Are you considering co-generation (electricity and heat)?  Yes  No

51. Do you have a computer-operated environment control system?  Yes  No

52. If yes, are you satisfied with its capabilities and operation?  Yes  No

53. If not, are you considering installing one in the near future?  Yes  No

54. Are you considering constructing additional greenhouses?  Yes  No

55. If not, are you considering renovating/upgrading existing ones?  Yes  No
56. If yes, what type of new greenhouse structure are you considering? (please check all that apply)
- High tunnel  Double poly hoop house  Glass greenhouse
- Open-roof greenhouse  Retractable roof greenhouse  Single-span greenhouse
- Gutter-connected greenhouse
57. Do you have difficulty complying with Worker Protection Standards?  Yes  No
58. How do you get help with your business related questions? Do you contact or consult (please check all that apply):
- Local extension agent  Extension specialist  Rutgers University fact sheets
- Equipment manufactures  Colleague growers  Other references (e.g., books)
- Internet
- Other (please specify) \_\_\_\_\_
59. Which of these reference sources do you find most useful (please check only one)?
- Local extension agent  Extension specialist  Rutgers University fact sheets
- Equipment manufactures  Colleague growers  Other references (e.g., books)
- Internet
- Other (please specify) \_\_\_\_\_
60. Do you own a computer?  Yes  No
61. Do you use the Internet?  Yes  No
62. Do you use the Internet for business?  Yes  No
63. Do you have your own web site?  Yes  No
64. If not, would you like to have your own web site?  Yes  No
65. If yes, do you sell your products on your web site?  Yes  No
66. Are you familiar with the following Rutgers Cooperative Extension web sites:
- <http://aesop.rutgers.edu/~farmmgmt/>**? (Economics)  Yes  No
- <http://aesop.rutgers.edu/~floriculture/>**? (Crop Production)  Yes  No
- <http://aesop.rutgers.edu/~horteng/>**? (Engineering)  Yes  No
67. What additional types of information would you like to see available on these web sites that would be helpful to your business? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

68. Please indicate all methods of advertising you use.

- Internet                       Television                       Radio                       Newspapers  
 Brochures                       Direct Mail                       Signs, Posters, Banners, etc.  
 Other (please specify) \_\_\_\_\_

**Thank you very much for taking the time to provide information about your business!!!!**

Please feel free to use the remainder of this page to list any additional comments and return your completed survey to:

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