



News & Views

for New Hampshire's Green Industry

March/April, 2001

2000 Poinsettia Evaluations

Alan Eaton

In November and December 2000 we conducted poinsettia evaluations, something we last tried in 1995. The purpose was to measure the incidence and severity of pest problems on the crop at the time of sale, and evaluate other characteristics of plant quality; height and plant width, number of blooms, etc. We wanted to visit every poinsettia **producer** in the state. We managed to visit 24 growers, including a couple from just outside the state line.

Incorporating measurements of plant size and width was new to me, but we decided to do so since the Society of American Florists set up standards for poinsettia, that dictated the plant height, minimum top of plant width, and minimum number of blooms. Those standards (for single pinched plants) are shown below.

<u>Pot Size</u>	<u>Height From Pot Base</u>	<u>Minimum Plant Width (Top)</u>	<u>Minimum Bloom Count</u>
4 - 4.5"	8 to 12 inches	9 inches	3
5 - 5.5"	11 to 14 inches	12 inches	4
6 - 6.5"	14 to 19 inches	15 inches	5

The biggest surprise to me was that only 54% of the plants met the SAF guidelines for quality poinsettias. There was no consistent reason. Some were too tall, some too short, some not wide enough, some with too few blooms. I was under the impression that most growers were aiming to achieve the standards (and that wholesale buyers judged quality by the standards). If that is correct, it really shows that many growers need to pay more attention to tracking the progress of the crop.

The incidence of whiteflies on plants was much lower than in the 1994 and 1995 evaluations, so it suggests that growers are doing a better job now on whiteflies. Back then, 18.9% and 34.1% of the plants had live whiteflies. This year the figure was 14.7%. The average number of live whiteflies was measured differently this year, so it is hard to compare with previous evaluations. The incidence of botrytis lesions on the leaves was much higher than before, but that probably was caused by changes in our evaluation methods (previously it was recorded only if it was significant).

If you are interested in a copy of the evaluation results, contact me at 862-1734. I'll be happy to mail them out, if you give me your mailing address.

Where Do Plants Come From?

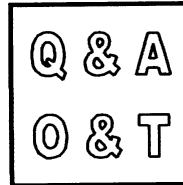
The petunias, pieris, poinsettias and other plants in your local garden center most likely were produced by other growers in New England and purchased by your garden center for resale. Most garden centers cite better efficiency and lack of growing space as the reasons why plants are bought in rather than produced on site. The plants most likely to be produced by the retailer? Chrysanthemums, with 40% of the garden centers producing their own fall mums. This crop fits in nicely because of its late growing season, after the busy spring rush. Other types of plants most often grown by the retailer are specialty annuals, cut flowers and vegetable transplants (Figure 1). Those least likely to be grown by the retailer are long-term crops like Christmas trees and landscape trees and shrubs.

Most of the plants are purchased from other New England growers, so the economic benefits stay in the local economy. Over 90% of garden centers purchase annuals, specialty annuals, vegetable transplants, poinsettias, and chrysanthemums within the region (Figure 2). Over 80% of garden centers purchase herbs, cut flowers, and perennials from other New England growers. Trees and shrubs are purchased from many sources throughout New England, New York, the mid-Atlantic states, the Midwest, and the Northwest. Christmas trees originate primarily in New England or Canada.

These results were obtained from a garden center survey conducted last fall by Cheryl Beauchamp, a student in my Nursery Crop Production class. We mailed questionnaires to 125 independent garden centers in New Hampshire, and received replies from 53 of them (43%). Data reported are the means of all usable responses for the

respective question. Additional information from the survey is published in the April/May issue of the *Plantsman*, the newsletter of the New Hampshire Plant Growers Association.

Cathy Neal



Answers To Your Questions

Q: I'm familiar with the Plant Hardiness Zone Map, but what can you tell me about the new Plant Heat-Zone Map?

A: The USDA Plant Hardiness Zone Map arrived on the scene in 1960 and was updated in 1990. It has been widely used by professionals and amateurs alike to help determine what plants will overwinter and survive in various New Hampshire locations. However, heat can also be a major factor in plant survivability particularly in years of drought.

To help address this issue, the American Horticultural Society used data from the National Climatic Data Center to develop a Plant Heat-Zone Map. The United States is partitioned into 12 Zones based on the average number of days per year the region experiences "heat days" - temperatures are above 86 degrees F. "The ratings assume that adequate water is supplied to the roots of the plant at all times." In New Hampshire, we vary from Zone 5 (>30 to 45 heat days) to Zone 2 (1 to 7 heat days). While it will take many years for trees, shrubs, annuals and perennials to be coded, the map is a first step towards this goal. For additional information visit: http://www.ahs.org/publications/heat_zone_map.htm

Nancy Adams

Figure 1. Percent of garden centers that buy in plant material of each type. Percentages are based on the total number of garden centers that carry the product type.

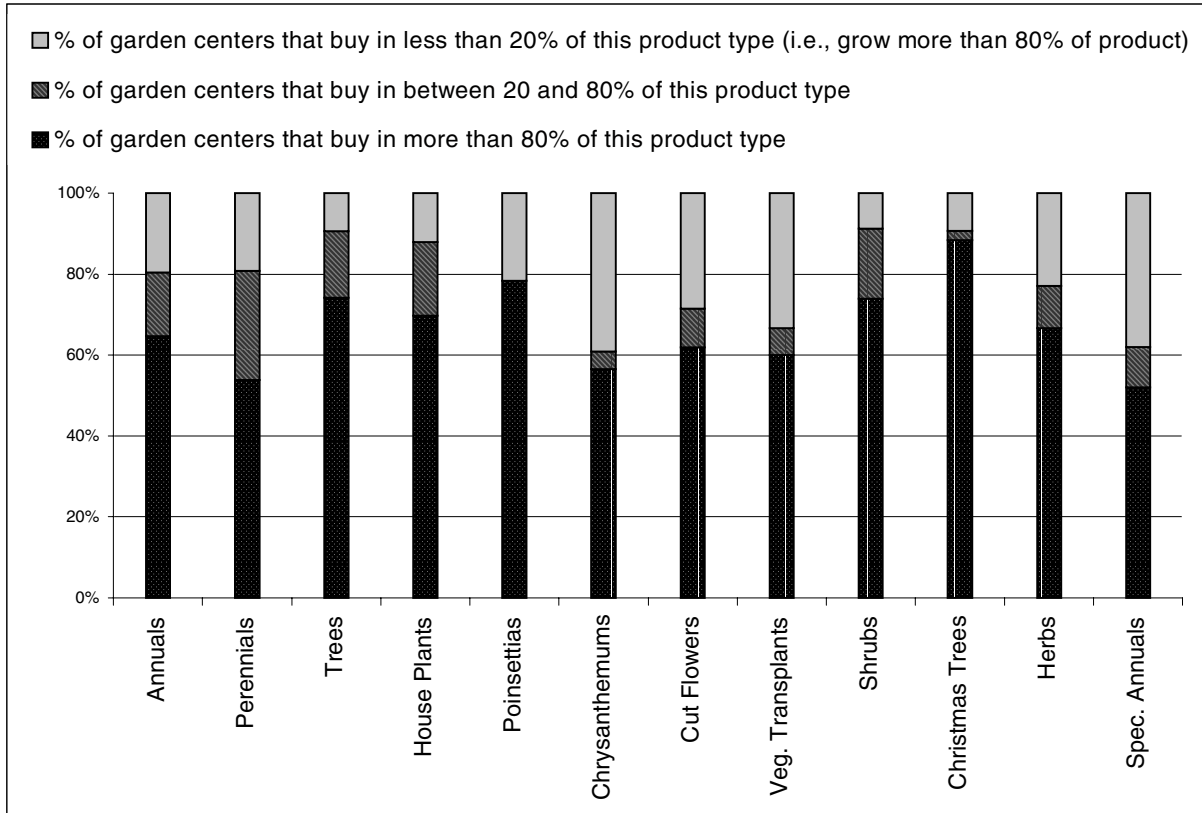
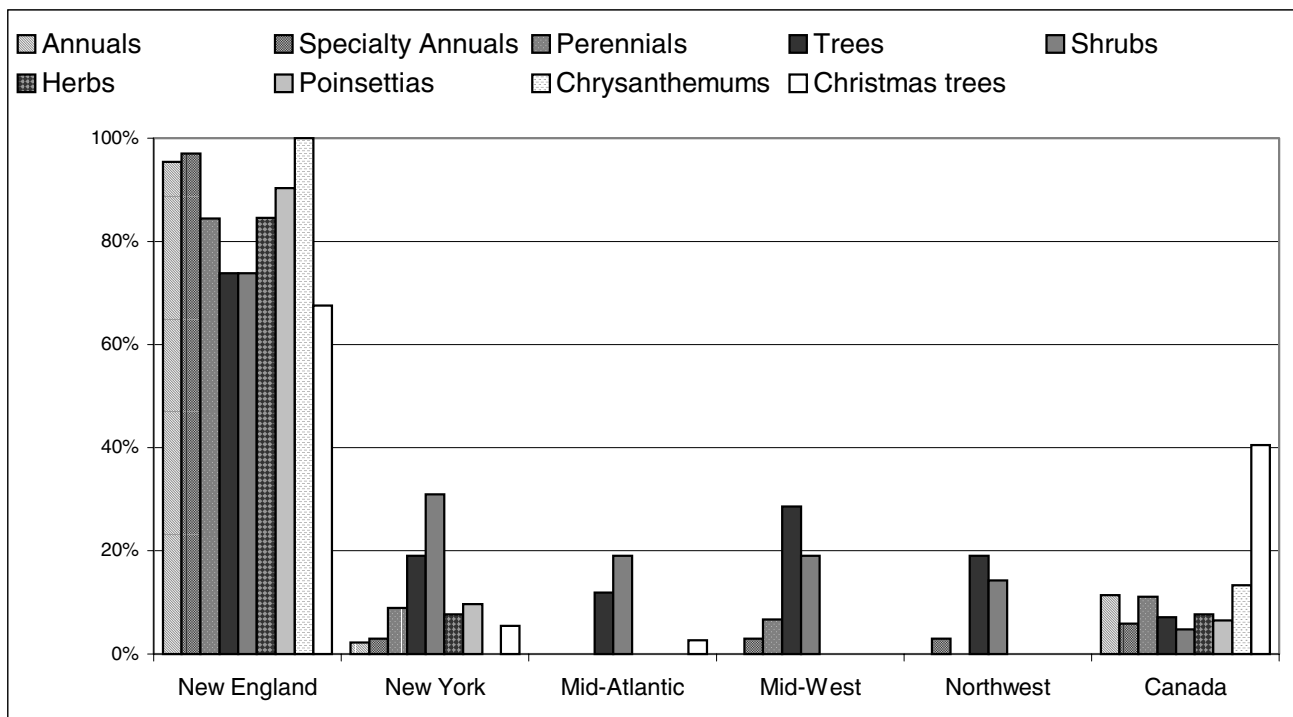


Figure 2. Percent of garden centers that purchase plant material from each region. A small amount of material (<4%) also comes from the south or southwest. Data not shown for house plants, cut flowers, or vegetable transplants, due to space limitations. Percentages are based on the total number of garden centers that carry the product type. Totals may exceed 100% since garden centers may order from more than one region.



Ten Reasons for a Media Checkup

Monitoring media pH and EC is like taking your pulse and blood pressure. They are indicators that things are in the right range—or not, in which case you need to follow up with more extensive testing to identify specific problems. Here are ten situations which warrant a media checkup:

New Media... You are starting to pot from a new batch of media. It's always a good idea to check the pH and soluble salts of a new batch of potting media so you know the starting point and can make adjustments if needed...before plants start to look sickly!

Different Fertilizer... The source of nitrogen in a fertilizer can cause pH to drift upwards or downwards. Exactly how much depends on other factors as well, such as your water and media. So if you're using a different fertilizer than previously (or if you don't know how the fertilizer affects your pH), check it out.

Good management... Monitor media pH and soluble salts on a frequent basis to assure that the root zone characteristics are within the optimal range for your crops. Track the measurements over time so you can see when something's headed in the wrong direction and make adjustments accordingly.

Finicky crops... Finicky crops like marigolds, petunias, and geraniums need more attention than others. A pH that is slightly too high or too low will cause nutrient deficiencies or toxicities on these plants. Problems are easier to prevent than to cure.

Change in Water source... Water has a big influence on pH and soluble salts, so a new well or change in the water table can drive the media in a different direction than you anticipated.

Change in irrigation management... Are you keeping your plants wetter or drier than previously? Salts become more concentrated in drier media, or are leached out by excess watering.

Injector questions... Not sure your fertilizer injector has been working properly? Check both the fertilizer solution being delivered to the plants, and the media to see if salts have become excessive or deficient.

Purchased plants... Run a test on plants obtained from other growers to find out what the starting point is before adding fertilizer.

Stock plants... Excess salts or a pH out of whack in pots or benches used for stock can reduce productivity. Maybe they need to be leached? Don't guess, soil test...

New meters... Don't wait to use the meters until a problem shows up; you won't feel confident that your meter is operating properly unless you've gained some experience with it.

Cathy Neal

This newsletter is a cooperative effort of the Ornamentals Extension Educators and Specialists at the University of New Hampshire. It is published quarterly. It's purpose is to inform and update industry members on issues and research relevant to the production, use and maintenance of ornamentals and turf in New Hampshire. Contributors for this issue:

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