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Consumer Interest in Gardening Topics and Preferred Information Sources

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Consumer Interest in Gardening Topics and Preferred Information Sources

Abstract

A survey was conducted to quantify what gardening topics consumers were interested in learning and what sources they used to learn about these topics. Approximately half of the participants (48.2%) responded that they were currently interested in a topic. Friend/neighbor/family members (53.4%), garden center staff (51.0%), and gardening books (48.2%) were the most popular sources for this information. University Web sites, Extension offices, and Master Gardener programs were among the least five sources used. Survey results can help Extension personnel with consumer horticulture responsibilities provide appropriate information to consumers. Results can also help provide a measure of Extension impact.

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Introduction

Understanding a clientele's needs and interests can help various manufacturers develop more useful products, which in turn may help them thrive in their industries. Extension educators, specialists, and Master Gardeners can also use clientele information to develop more useful "products" by creating publications and presentations that specifically address topics of interest.

Several industries have conducted surveys to identify the goods and services their clientele would like to learn about and sources to obtain information. In an effort to understand how to best relay human health care information to consumers, a survey was conducted to quantify: a) the primary and b) the preferred source for such information (Jensen, 1989). Options included: their physician, the media (e.g., direct mail, newspapers, and television), or word of mouth. Sixty percent of respondents replied that the media, principally direct mail (28%), was their primary source for health care information, and that 42% of participants would prefer to receive information from this source (Jensen, 1989).

In addition, Edgman-Levitan and Cleary (1996) summarized a variety of consumer survey responses and focus group transcripts to determine what health care issues concerned this audience. Responses included how a plan works, the costs, and covered benefits. By collecting and analyzing responses, more detailed publications could be developed to serve as a resource for consumers.

Extension personnel have also conducted surveys to better understand consumer awareness and interest in plant health care and integrated pest management (Sellmer, Kelley, Barton, & Suchanic, 2003) and nursery and landscape companies use of integrated pest management practices (Sellmer, Ostiguy, Hoover, & Kelley, 2004a and 2004b). Results have been used in Extension presentations to educate industry audiences and are the basis for proposed Extension publications and other resources (Sellmer, personal communication).

Understanding an audience's needs, wants, and interests is one strategy that can be employed to help them achieve the level of gardening success they desire. To begin the process of supplying consumers with gardening and related Extension publications and presentations that are of interest, a study was conducted to: 1) understand what gardening topics consumers were interested in learning and 2) quantify the number of participants who used selected sources to learn about these topics.

Materials and Method

An intercept survey was conducted at the 2003 Philadelphia Flower Show, in Philadelphia, Pa. on 6 and 7 Mar. 2003. This annual event attracts gardening enthusiasts to view the newest trends in garden and floral design. The survey was administered adjacent to the Penn State Cooperative Extension "Ask the Expert" Booth, where attendees could ask Extension personnel gardening, landscape, and plant-related questions. This event was specifically chosen for the survey because the intent of the study was to specifically ask gardeners, of which eight out of 10 households in the U.S. participate in this leisure activity (Butterfield, 2003), about their interest in gardening and a desire to learn more about the activity.

Survey participants, 18 years of age and older, were self-selected and answered questions pertaining to what gardening-related topics currently interested them, if they searched for information on the topic, if they had difficulty finding information, and from what sources do they obtain their gardening information. Participants also answered demographic questions, including annual household income, age, education, state of residence, and household size. Participants were given a Yankee votive candle as an incentive for participating and completing the survey.

Responses to selected questions, based on demographic status, were analyzed using chi square (SPSS, Chicago, Ill.) at $P \leq 0.05$. Significance was tested for the following questions: 1) whether consumers were currently interested in a gardening topic and 2) sources from which consumers obtain their gardening information. Demographics tested were: age range, gender, highest level of education, number of people in the household 18 years of age or older (single adult household vs. more than one adult in the household), number of people in the household under the age of 18 (no children vs. one or more child), and 2002 annual household income.

Results

Of the 441 consumers who participated in the survey, the majority was from the Mid-Atlantic region (Pennsylvania, 56.5%; New Jersey, 20.9%; New York, 7.4%; Maryland, 4.0%; Delaware, 3.7%; and Washington D.C., 0.2%; Table 1).

Table 1.
County/State of Residence for Survey Respondents Who Participated in an Intercept Survey Conducted at the Philadelphia Flower Show

Country/State	Percent of Survey Participants Who Reside There
Canada	0.7%
Connecticut	0.2%
Delaware	3.7%
Florida	0.2%
Louisiana	0.2%
Maryland	4.0%
Maine	0.5%
New Hampshire	0.2%

New Jersey	20.9%
New York	7.4%
North Carolina	0.7%
Ohio	0.5%
Pennsylvania	56.5%
Texas	0.2%
Virginia	3.7%
Washing D.C.	0.2%

Additional demographics characteristics included:

- The average participant age was 50 years, with all participants between 18 to 84 years of age (Table 2).
- The greatest percent of participants were female (87.0%), lived in a household with at least one other adult (81.0%), but with no children (71.0%).
- Slightly over half (53.8%) of the participants obtained at least an associate degree/was a technical school graduate.
- Approximately half (51.9%) of the participants had a 2002 annual household income of \leq \$75,000 (Table 2).

Table 2.

Selected Demographics (Age Range, Education Level, and 2002 Annual Household Income) for Survey Respondents Who Participated in an Intercept Survey Conducted at the 2003 Philadelphia Flower Show

Demographic Characteristic	Percent of Participants in Each Category
Age range (yr.):	
18 - 25	5.6%
26 - 37	12.1%
38 - 56	49.9%
57 - 69	26.0%
70 - 84	6.3%
Education level:	
High school graduate or less	19.3%

Some college/technical school	24.1%
Associate degree/technical school graduate	10.4%
Bachelor's degree	26.0%
Master's degree or greater	20.2%
2002 annual household income:	
\$25,000 or less	6.5%
\$25,001 - \$50,000	22.8%
\$50,001 - \$75,000	22.6%
\$75,001 - \$100,000	21.0%
\$100,001 - \$125,000	11.0%
\$125,001 - \$150,000	6.5%
\$150,001 - \$200,000	6.5%
\$200,001 or greater	3.2%

The mean number of years participants reported that they had been gardening was 19.9 years. Only four (0.7%) of those who responded to this question indicated that they had been gardening for less than one year (Table 3).

Table 3.

Number of Years (Range) Survey Respondents Who Participated in an Intercept Survey Conducted at the 2003 Philadelphia Flower Show in Philadelphia Reported That They Had Been Gardening

Number of Years (Range) Participants Had Been Gardening	Percent of Participants in Each Group
Less than one year	0.7%
One to five years	20.2%
Six to ten years	15.4%
Eleven to Twenty years	24.4%
Twenty-one to Forty years	32.1%

Forty-one to sixty years

7.2%

Almost all of the participants had an area in their yard that they used as a garden and had purchased landscape plant material (annuals, perennials, woody shrubs and trees) in 2002 (94.2 and 98.4%, respectively). A majority of participants responded that they were the primary decision maker when they purchased landscape plant material for their garden and that others seek them out for gardening advice (84.1 and 66.4%, respectively).

Participants responded to several other questions:

1. Whether they were interested in a gardening topic;
2. If yes, what topic interested them;
3. If they looked for and were able to find information about the topic; and
4. What sources they obtained the information from.

Approximately half of the participants (48.2%) responded that they were currently interested in a topic. No significant differences were found between those who were interested in a topic and those who were not, based on demographic status (data not shown). More popular topics included: water gardening and adding water features to their gardens (24 responses), plants for shady areas (20 responses), and herbs (12 responses; Table 4).

Table 4.

Gardening Topics That Were of Interest to Survey Respondents Who Participated in an Intercept Survey Conducted at the 2003 Philadelphia Flower Show

Topic	Number of² Responses	Topic	Number of² Responses
Water gardening and adding water features	24	Plants for shady areas	20
Herbs	12	Bulbs	11
Ornamental grasses	11	Perennials	9
Theme gardens	7	Roses	6
Fruit/vegetables	6	Houseplants	6
Container gardening	6	Landscape design	5
Organic/sustainable agriculture/companion planting	5	Deer and rodent resistant plants	4
Building retaining walls/hillside gardening	3	Drought resistant/tolerant plants	3
Shrubs	2	How to manage soil	2

Gardening in small spaces	2	Pruning	2
Gardens that attract butterflies and hummingbirds	2		
Each of the following topics were suggested only once by survey participants:			
Annuals	Arboriculture	Bonsai	Clematis
Eradicating weeds	Flower arranging	Heirloom plants	Horticulture therapy
Low maintenance gardens	Medicinal plants	Outdoor living space with plants	Plants for the seashore
Planting to attract wildlife	Water conservation	Wildflowers	Xeriscaping
z More than one response per participant was accepted.			

Of these participants, 94.4% responded that they looked for information that would help them learn about the topic of interest, and 89.1% responded that they were able to find the information they were looking for. Participants also looked at a list of sources that provide gardening information and indicated which ones they use. Of the choices available, friend/neighbor/family member received the greatest percent of responses (53.4%), followed by garden center staff (51.0%), and gardening books (48.2%; Table 5). University Web sites, Extension offices, and Master Gardeners were among the least five sources used.

Table 5.

Source That Survey Respondents Who Participated in an Intercept Survey Conducted at the 2003 Philadelphia Flower Show Used to Find Gardening Information

Source	Percent of Participants Who Use the Source
Friend/neighbor/family member	53.4%
Garden center staff	51.0%
Gardening books	48.2%
Public television gardening programs	39.5%
Gardening magazines	34.2%
Cable television gardening programs	31.1%
Home improvement store staff	24.4%
Garden Radio programs	18.3%

County Cooperative Extension offices	17.1%
Websites created by home gardeners	15.5%
University Web sites	11.9%
Horticultural company Web sites	9.6%
Master Gardeners	7.1%

Based on demographic status, only a few significant differences were apparent for the sources consumers accessed for information:

- Fewer female participants (16.6%) used garden radio programs as a source for information than males (29.1%).
- Participants with at least one child in the household (29.5%) were less likely to cite public television gardening programs as a source than participants with no children (44.9%).
- Use of Web sites created by home gardeners was significantly different among the age ranges tested. More participants age 18 to 25 accessed this source (29.2%) compared to participants age 70 to 84 (0%).
- Participants with \leq high school education (8.4%), were less likely to use their county Extension office than those with at least a Master's degree (26.4%).

Differences were apparent for use of garden center staff as a source of information, based on annual household income. Of the differences:

- Participants with an income \leq \$25,000 were less likely to use garden center staff as a source (29.2%) than those in each of the other income categories.
- Participants in the \$25,001-\$50,000 and \$50,001-\$75,000 categories were less likely to use this source (42.2 and 51.8%, respectively) than participants in the two highest income ranges: \$150,001-\$200,000 and \geq \$200,000 (79.2 and 75.0%, respectively).
- Participants with an income of \$25,001-\$50,000 were also less likely to use this source than those in the \$125,001-\$150,000 (65.2%) category.
- Finally, participants with an income of \$75,001-\$100,000 and \$100,001-\$125,000 were less likely to access this source (53.8 and 53.7%, respectively) than those in the \$150,001-\$200,000 category.

Discussion

With almost all of the participants responding that they had an area in their yard that they use as a garden and that they purchased landscape plant material in 2002, it can be inferred that these participants were active gardeners. Thus, information obtained from these individuals is valuable, because they may either currently be pursuing a new gardening activity or considering one. Another factor that demonstrates participants were likely to be active gardeners is that they paid an admission fee to attend the flower show where the survey was conducted. Based on this, it can be further deduced that survey participants had a considerable interest in gardening and were willing to pay the fee to look at landscape and floriculture displays.

Research results can help Extension personnel focus efforts to provide information based on topics active gardeners are most interested in, rather than develop and distribute materials that would create minimal interest. With the continual decline in resources available, and in some cases increased level of responsibility or programming areas, it is necessary for educators, specialists, and Master Gardeners to create publications and other educational materials that would best serve their clientele. Topics proposed for fact sheets, newspaper articles, presentations at gardening schools, and other education materials can be narrowed down to a few selections from a comprehensive list.

It is important to note that while over half of the participants were from Pennsylvania, the sample included participants from several other surrounding states. Thus, Extension personnel, especially those in the Mid-Atlantic region, who do not feel comfortable conducting a survey or do not have the resources to do so, can use the data to help prepare publications and presentations.

Survey results are meant to inform Extension personnel that among the gardening public, certain gardening topics were of interest, and that a majority of these gardeners actively searched for information and were successful at doing so. Though Extension strives to meet the needs of consumers and some promotional efforts have focused on acquainting consumers with how Extension can serve as a resource for them, these sources were used by only a minority of participants. The next step of this research should focus on how consumers interact with their Extension service and if they are aware that this resource is available to them.

Perhaps survey respondents choose information sources that are easy to access: friends/neighbors/family members, who participants socialize with frequently; garden center staff, who are conveniently available when plant material is purchased; gardening books and magazines, which participants own and use regularly as references; and public and cable television gardening programs, another resource that consumers can access and that is readily available in their own home.

To better understand why consumers select the information sources that they rely on, they should be surveyed as to what factors prompt their decision: convenience, previous usage, trust, reliability, or other reasons. To determine how Extension can be a more prominent information source, future research should focus on how consumers are first introduced to Extension, if they understand what Extension resources are available to them, and if programming meets their needs.

References

- Butterfield, B. 2003. National gardening survey 2002. *The National Gardening Association, Inc.* South Burlington, Vt.
- Edgman-Levitan, S., & Cleary, P. D. (1996). What information do consumers want and need? *Health Affairs*, 15(4), 42-56.
- Jensen, J. (1989). Direct mail the primary, preferred source of healthcare information. *Modern Healthcare*, 19(37), 94-95.
- Sellmer, J. C., Ostiguy, N., Hoover, K., & Kelley, K. M. (2004a). Assessing the integrated pest management practices of Pennsylvania landscape companies. *Journal of Arboriculture* 30(4):253-259.
- Sellmer, J. C., Ostiguy, N., Hoover, K., & Kelley, K. M. (2004b). Assessing the integrated pest management practice of Pennsylvania nurseries. *HortScience* 39(2):297-302.
- Sellmer, J. C., Kelley, K. M., Barton, S., & Suchanic, D. J. (2003). Assessing consumer knowledge and use of landscape plant health care and integrated pest management practices through a computer-based interactive survey. *HortTechnology*, 13(3), 556-561.

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