



This Journal of Environmental Horticulture article is reproduced with the consent of the Horticultural Research Institute (HRI – [www.hriresearch.org](http://www.hriresearch.org)), which was established in 1962 as the research and development affiliate of the American Nursery & Landscape Association (ANLA – <http://www.anla.org>).

HRI's Mission:

To direct, fund, promote and communicate horticultural research, which increases the quality and value of ornamental plants, improves the productivity and profitability of the nursery and landscape industry, and protects and enhances the environment.

The use of any trade name in this article does not imply an endorsement of the equipment, product or process named, nor any criticism of any similar products that are not mentioned.

tainers. These treatments are easier to apply than the curative Dursban or Oftanol dips, and should be pursued for certifying nursery stock for interstate or international shipment.

## Literature Cited

1. Cowles, R.S. and T.M. Abbey. 1997. Integration of biological and chemical controls is used to manage the twospotted spider mite in container-grown nurseries. *Yankee Nursery Quarterly* 7(1):18-19.
2. Cowles, R.S., S.R. Alm, and D.O. Gilrein. 1997. The Trojan Horse of the nursery industry. *Amer. Nurseryman* 186(3):51-57.
3. Cowles, R.S. and M.G. Villani. 1994. Soil interactions with chemical insecticides and nematodes used for control of Japanese beetle (Coleoptera: Scarabaeidae) larvae. *J. Econ. Entomol.* 87:1014-1021.
4. Cowles, R.S. and M.G. Villani. 1996. Susceptibility of Japanese beetle, oriental beetle, and European chafer (Coleoptera: Scarabaeidae) to halofenozide, an insect growth regulator. *J. Econ. Entomol.* 89:1556-1565.
5. Fleming, W.E. 1972. Preventing Japanese beetle dispersion by farm products and nursery stock. *USDA Tech. Bull.* 1441. 256 pp.
6. Smitley, D.R. 1994. Dealing with the Japanese beetle: a new approach. *Nursery Business Grower*, August 1994, pp. 6-7.
7. Tashiro, H. 1987. *Turfgrass Insects of the United States and Canada*. Cornell University Press. Ithaca, NY.

---

---

# Characteristics of Garden Writers and Their Information Sources<sup>1</sup>

M. P. Garber<sup>2</sup> and K. Bondari<sup>3</sup>

*University of Georgia*

*P. O. Box 1209*

*Tifton, Georgia 31793*

## Abstract

A national survey of members of the *Garden Writers Association of America* (GWAA) indicated that Garden Writers tend to distribute their gardening communications within their state of residence and to a lesser extent, nationally. The most widely used media by Garden Writers were newspapers, magazines and television. The three types of plant material information that generated greatest consumer response for Garden Writers were low maintenance plants, herbaceous perennials, and new plant varieties. The type of services or information that Garden Writers valued the most were new plant releases, current pest problems in their area, and a listing of local suppliers of new plant varieties. Garden Writers maintain home gardens (97.3%) and most evaluate new plant varieties (88.1%) in their garden.

**Index words:** consumer education, marketing, ornamentals, new plants.

## Significance to the Nursery Industry

This study characterizes Garden Writers that are members of the national association, *Garden Writers Association of America* (GWAA). Garden Writers serve the gardening public and are important conveyors of plant material information. Their information influences the purchasing decisions of consumers, especially at retail garden outlets. Plant producers can use the information in this study to develop and expand their retail marketing plans. Garden Writers would like to receive additional information from growers and other suppliers of gardening products. Garden Writers are particularly interested in new products and how to handle pest prob-

lems in their area. Providing samples of new products for use by Garden Writers in their home gardens is an important educational opportunity. The information in this study can be used to construct product catalogs and marketing communications programs for Garden Writers and consumers.

## Introduction

Greenhouse and nursery crops are distributed primarily through two distribution channels, landscape and retail, to the consumer (2). Most growers market primarily to the customer involved with the purchase of the plant material. This may be the landscape contractor in the landscape market, or the retail garden outlet in the retail market. In many markets, the purchaser of a product may not be the person making the decision on the type of product to purchase or at a minimum, purchasing decisions are influenced by other groups (1). For instance in the landscape industry the landscape architect, who generally does not purchase plant material, greatly influences which plants are purchased by landscape installers (2, 5). In the retail market, Garden Writers are one such group

<sup>1</sup>Received for publication May 15, 1998; in revised form September 24, 1998. Supported in part by **The Horticultural Research Institute, Inc., 1250 I Street NW, Suite 500, Washington, DC 20005** and The Garden Writers Association of America.

<sup>2</sup>Professor of Horticulture and Extension Horticulturist.

<sup>3</sup>Professor, Department of Experimental Statistics, Coastal Plain Experiment Station, Tifton, Georgia.

**Table 1. Geographic distribution of gardening communications by Garden Writers (GW).**

Distribution	Percentage of all GW communications			
	< 25%	25–49%	50–75%	> 75%
	Percent response			
Same state as business residence	15.3	7.9	15.5	61.3
Same region as my Garden Writer region	29.1	18.2	11.8	40.9
National distribution	34.8	8.1	12.4	44.7

who strongly influence purchase decisions for gardening products. The impact of Garden Writers is through their influence on the consumer, which affects purchasing decisions at retail garden outlets. This in-turn affects the purchasing decisions of retail garden outlets for plant material and hardgoods.

A literature search revealed no information on the relationship between plant producers and other garden suppliers and the Garden Writers, information sources used by Garden Writers, or the basis for Garden Writers to select plant material and gardening information to publish.

This paper discusses the results of a recent national survey of members of the *Garden Writers Association of America*. The objectives of this study were to: (a) characterize Garden Writers as a population with strong impact on consumer education, (b) evaluate methods of distribution and collection of information by Garden Writers, (c) determine Garden Writer preferences for services and information sources, and (d) determine the type of plant material information provided by Garden Writers that generates the greatest consumer response.

## Materials and Methods

Surveys were mailed to all members (1359) of the *Garden Writers of America Association* (GWAA) that resided in the United States. The survey contained a cover letter jointly signed by the Executive Director of GWAA and the senior author of this paper highlighting the goals of the survey. The initial mailing was sent in February 1997, with a follow-up mailing to non-respondents in March 1997. The members were asked to return the survey marked NA (not applicable) if they were not currently active writers.

Garden Writers were asked to identify: (a) the geographic distribution of their gardening communications, (b) the number of people reached by each type of communication medium, (c) the type of plant material information that generated the greatest consumer response, (d) how much they valued several potential services and types of information in the preparation of their gardening-communications, and (e) their views and practices on several items relating to the conduct of their business. Data were tabulated and analysis of response conducted using PROC FREQ of SAS (7). To further assess the value of potential services and information (Table 4) as viewed by Garden Writers, the four levels of value were assigned the following scores: 1 = no value, 2 = somewhat valuable, 3 = valuable, 4 = very valuable. The mean and standard error of the mean was determined for each service/type of information. The score analysis allows an overall assessment of value. The open-end question was analyzed as previously described (3). Categories of response were developed, each answer was assigned a category number, and the frequency of response determined for each category.

## Results and Discussion

Total surveys returned were 691 for a 50.8% response rate. There were 177 surveys marked 'NA' resulting in 514 completed surveys used for analysis. When inactive members were removed from the total membership count, the response rate changed to 43.5%. The large number of respondents and the completeness of the surveys provided a solid sample of the Garden Writer population in the United States from which to draw conclusions regarding Garden Writers activities and impact on plant and hardgood suppliers.

The gardening communications produced by Garden Writers are widely distributed in the United States (Table 1). Over 60% of the Garden Writers distribute greater than 75% of their communication within their state of residence and about 45% of Garden Writers experience national exposure of more than 75% of their communications. The survey indicates that most gardening communications are distributed on a state, regional, and national basis. The wide geographical distribution of gardening communications (Table 1) suggests that Garden Writers may require: (a) information with broad appeal across a diverse audience, (b) recommended geographic distribution of plants, and (c) the timing of seasonal gardening activities by region of the country. The broad geographic dissemination of information and influence by Garden Writers is dissimilar to landscape architects, who tend to specify or influence plant selection primarily for local projects in their state of residence (2).

Garden Writers were asked to identify the communication media used to disseminate information and the estimated number of people reached by each media (Table 2). Newspaper was the most widely used media for garden communi-

**Table 2. Population reached by each Garden Writer communications medium.**

Communications medium	Respondents <sup>a</sup>		Audience <sup>b</sup>
	No.	%	
Newspaper	264	51.4	283,536
Magazine	226	44.0	262,160
Books	116	22.6	127,948
Television	76	14.8	281,656
Radio	69	13.4	58,443
Web page	52	10.1	48,984
Video	19	3.7	2,660
Other	93	18.1	12,834

<sup>a</sup>Number of respondents that use each type of communication medium, total respondents = 514. Percentages are expressed as (No. of respondents × 100) / 514. The total for all categories exceed 100 percent due to use of multiple media by Garden Writers.

<sup>b</sup>Estimated number of people reached by Garden Writers for each communication medium, expressed as (000).

cations (51.4%, based on 514 respondents) followed by magazines (44.0%) and books (22.6%). Three other categories of communications media, television (14.8%), radio (13.4%), and world wide web sites (10.1%), were used by a similar percentage of respondents. Video (3.7%) was used by the smallest percentage of respondents. According to this survey, the mean number of communication media used by Garden Writers was 1.8, showing that an average Garden Writer uses two types of communication media.

The population audience estimated to have been reached by each communications medium (Table 2) provides insight into the importance of each medium in reaching the general public. The top three media categories, based on population reached, were newspapers (283.5M), television (281.6M) and magazines (262.1M). Television was used by a relatively small portion of Garden Writers (14.8%) but reached the second highest number of people (Table 2) due to the high average audience reached by each Garden Writer using this media (3.7M for television vs. 1.1M for newspaper). The population estimates for each communications medium should not be used to estimate the portion of the U.S. population reached since multiple Garden Writers may cover one audience and Garden Writers use more than one medium. However, with approximately a 50% response rate in this survey and a mean of about two communication media types used per Garden Writer, it appears that Garden Writers are reaching the greater portion of the population with newspaper, magazine or television. Nurserymen, university personnel, and other groups that wish to disseminate gardening information for print medium could mail to all Garden Writers and expect reasonable use of the information since a high percentage of Garden Writers use media such as magazines (44%) or newspapers (51%). However, since a smaller percentage of Garden Writers use television (14.8%), to reach a large segment of the population it would be easier and perhaps more economical to identify this subgroup as a separate mailing list.

The type of plant material information that in the opinion of Garden Writers has generated the greatest consumer interest (Table 3) varied substantially and a total of 21 categories of information were identified. The top ten categories of information presented in Table 3 accounted for 75.3% of the responses. The top three categories of plant material infor-

**Table 3. Type of plant material information reported by Garden Writers that generate the greatest positive consumer response.**

Category <sup>a</sup>	Response	
	No.	%
Low maintenance, easy to grow and maintain	60	11.9
Perennials	54	10.7
New plants, new items from seed	53	10.5
Color, flowering shrubs, flowering gardens, flowers	43	8.5
'How to' or 'What to do now' including fertilization, irrigation, pest control, pruning	41	8.1
'What goes where', appropriate plants for 'our' area	32	6.3
Personal experience stories	32	6.3
Good photos	25	5.0
Historic plants, heirloom plants, natives	20	4.0
Lawn care, turf	20	4.0

<sup>a</sup>Total of 21 categories identified, the top ten categories in this table represent over 75% of responses. Percentages are computed as (No. of respondents × 100) / 504. The total number of respondents for the plant material information portion of the survey was 504.

mation identified by more than 10% of respondents, were low maintenance plants (11.9%), perennials (10.7%), and new plant varieties (10.5%). This suggests that information on new varieties of perennials that are low maintenance would be well received by the Garden Writers and there may be substantial interest in purchase of these plants by the public.

The category of plant material information relating to 'color' in the landscape (8.5%) was also well received by the public (Table 3). This included description of flowering gardens, individual flowering shrubs, and emphasis on flowers. Plant color in the landscape continues to be of interest to the gardening public and would be an important component of any plant material communication including description of new plant varieties.

Other categories of plant material information that received positive response from consumers (Table 3) were: articles on 'how to' or 'what to do now' regarding plant care and management (8.1%), 'what goes where' or appropriate plants for 'our' area (6.3%), personal experience stories (6.3%), good photos (5.0%), historic, heirloom, or native plants (4.0%), and lawn (turf) care (4.0%). The public response to

**Table 4. Value placed on potential services and information by Garden Writers.**

Service/Information	Value			Score <sup>a</sup>
	Not/somewhat valuable <sup>c</sup>	Valuable	Very valuable	
	Percent response			
New plant releases	19.5	36.1	44.4	3.2 ± 0.03
Current pest problems in your area	23.8	33.1	43.1	3.1 ± 0.04
List of local suppliers of new plants	25.6	37.5	36.9	3.1 ± 0.04
Grower tours, open house	30.0	36.7	33.3	3.0 ± 0.04
Monthly IPM tips for pest control	31.9	37.5	30.6	2.9 ± 0.04
Photographs, slides, and camera ready artwork	42.0	23.2	34.8	2.8 ± 0.05
Regular news releases	41.8	36.2	22.0	2.7 ± 0.04
Availability of grower/university personnel for interviews	49.6	29.2	21.2	2.6 ± 0.04
Monthly suggestions for landscape maintenance	51.0	30.7	18.3	2.5 ± 0.04
Monthly vegetable gardening tips	49.3	34.4	16.3	2.5 ± 0.04
Regular fax describing new plant material	53.8	26.8	19.4	2.4 ± 0.05
Information provided to Garden Writers by growers via Internet web page	60.3	23.9	15.8	2.3 ± 0.05

<sup>a</sup>Combined response for 'no value' and 'somewhat valuable'.

<sup>c</sup>Mean scores for 1 = no value, 2 = somewhat valuable, 3 = valuable, 4 = very valuable; ± S.E. of the mean.

information on 'how to'/'what to do now' and appropriate plants for 'our' area suggests a desire for specific information that applies to a local situation. For instance, a gardening communication that promotes a specific plant would be better received by the public if the preparer identifies specific areas of the country and locations in the landscape for best performance. This suggestion is further supported by the positive response to personal experience stories (6.3%, Table 3). The personal experience stories convey success or failure under specific conditions which allows the public to increase their chance of success. A broad interpretation of personal experience stories might include documented performance in local landscapes (homeowner and commercial) and botanical and public gardens. Good photos (5.0%, Table 3) appear to increase consumer response and could be an important part of other types of communications. Historic/native plants (4.0%, Table 3) are of interest to consumers as is the care of the home lawn (turf). These ten categories of consumer interest in plant material could be used to (a) develop better gardening communications by addressing one or more categories, as appropriate, in a single communication and, (b) influence the type of plant material that is made available to the public by growers.

The Garden Writers were asked to assess the value of several potential services and types of information for their gardening communications (Table 4). These findings could help groups that supply services and information to set priorities and focus on high value activities. The four most valued services, with a mean score between 'valuable' and 'very valuable' were new plant releases (3.2), current pest problems (3.1), list of local suppliers of new plants (3.1), and grower tours and open-house (3.0). The other eight service options were all rated between 'somewhat valuable' and 'valuable' (Table 4). It appears that Garden Writers place a high value on staying current on the release of new plants since the first and third rated services in Table 4 were related to identification of new plant varieties and suppliers of these new varieties in their locale. This may be related to the fact that new

plant information (Table 3) was the third highest rated type of plant material information that generated positive consumer response.

Two other highly rated services (Table 4) that over 30% of the respondents rated as 'very valuable' were photography, slides, and camera-ready artwork (34.8%) and monthly IPM tips for pest control (30.6%). The Garden Writers appear to place a high value on information related to pest identification and IPM methods of pest control as these two areas were rated second in value (Table 4) and fifth in plant information (Table 3) out of the twelve options provided (Table 4). The information on pest control would need to be specific for a particular geographic area.

Many Garden Writers (49–60%) placed little or no value (Table 4) on five services, monthly vegetable gardening tips (49.3%), availability of growers/university personnel for interviews (49.6%), monthly suggestions for landscape maintenance (51.0%), regular fax describing new plants (53.8%), and internet web sites (60.3%). The low response to grower web sites (Table 4) is probably due to the low level of availability of web pages by growers and the current low level of use of such media (Table 2) by Garden Writers. However, web page technology is relatively new and usage in the near future is likely to increase. Garden Writers place a relatively low value on routine monthly maintenance tips (16.3%, very valuable) but a high relative value (30.6%, very valuable) on monthly IPM tips (Table 4). This could be due to higher public interest in IPM pest control, lack of knowledge of IPM practices by Garden Writers, and a higher level of familiarity of Garden Writers with routine landscape maintenance. The low rating (11th of 12 categories) for a monthly fax describing new plant material, but the high rating for new plant releases (1st of 12 categories) suggests that Garden Writers want more than a listing of new plant varieties. They also need detailed cultural information, a list of suppliers and photography or artwork usually associated with new plant release packets.

Development of an educational or marketing communications program directed to Garden Writers would benefit from

**Table 5. Characteristics of Garden Writers.**

Area	Response type	
	Yes	No
----- Percent response -----		
<b>Do you as a Garden Writer:</b>		
<b>Information</b>		
Currently receive all the plant material information needed	45.1	54.9
Receive regular correspondence from growers	64.3	35.7
Receive regular correspondence from your land grant university	50.0	50.0
Distribute information on the World Wide Web	29.8	70.2
Coordinate your information release on new plants with plant availability	70.4	29.6
<b>Plant Material</b>		
Have college level training in horticulture	58.4	41.6
Prefer strictly organic gardening to other methods	41.9	58.1
Feel that herbaceous perennials are low maintenance plants	45.9	54.1
Believe that native plants are preferable to introduced cultivars	29.5	70.5
Feel that sod/turf is a high maintenance plant	76.6	23.4
<b>Exposure to New Plants</b>		
Attend retail flower or home and garden shows	90.1	9.9
Attend trade shows sponsored by plant producers	66.1	33.9
Maintain a home garden (vegetable, herb, ornamental)	97.3	2.7
Test new plants in your home garden	88.1	11.9



a basic understanding of: (a) their current level of communications with different groups, (b) their view of current gardening practices and plant material, and (c) how Garden Writers are exposed to new plant varieties. Less than half of the Garden Writers (45.1%) currently receive all of the plant material information needed (Table 5). There appears to be a substantial opportunity for various expert groups to supply additional information. It appears from this survey (Table 5) that growers are more active in communicating with Garden Writers than are university personnel. Approximately 64% of Garden Writers receive regular correspondence from growers compared to 50% that receive regular correspondence from land grant institutions (Table 5). Both groups have considerable information of benefit to Garden Writers and should increase their outreach efforts. About 30% of Garden Writers are using the world wide web to distribute their information (Table 5), which is impressive for this new technology. University personnel should make a greater effort to inform Garden Writers of their web site, available publications, and seminars/symposia. Garden Writer should be included in university trainings and publication distribution lists. A rather high percentage of respondents (70.4%, Table 5) indicated they try to coordinate release of information on new plant varieties with plant availability. Growers and other suppliers who are not communicating with Garden Writers may be able to better plan production and release of new items if a two-way communication is established.

A substantial number of respondents (58.4%) have at least some college level training in horticulture (Table 5). A positive response to this question could imply a few courses to a Bachelor of Science (B.S.) degree. The question did not address college level training in other disciplines such as journalism.

Garden Writers were queried regarding their views on gardening practices and plant material. Approximately 42% of respondents indicated that they prefer strictly organic gardening to other methods (Table 5). This suggests a substantial interest in organic gardening but that as a population, Garden Writers have a fairly balanced view toward strict organic gardening and traditional gardening techniques. Other clues about Garden Writers' views of plant material were: (a) approximately one-half (45.9%) of the Garden Writers feel that herbaceous perennials are low maintenance plants, (b) approximately one-third (29.5%) believe that native plants are preferable to introduced cultivars, and (c) approximately three-fourths (76.6%) feel that sod/turf is a high maintenance plant (Table 5). The results suggest that Garden Writers are a

discerning group as related to generalizations in the gardening field. For instance, a little over one-half of the writers did not feel that herbaceous perennials were low maintenance plants (Table 5). Certain segments of the landscape trade (4, 6) associate herbaceous perennials with low maintenance plants whereas at least half of the Garden Writers have experiences that suggest otherwise. There appears to be relatively little acceptance of the generalization that the gardener is assured of better performance with native species (Table 5). Perhaps the Garden Writers' experience in their home gardens has demonstrated good performance with introduced species. On the topic of the relative maintenance requirements of turf grass (Table 5), Garden Writers as a group lean toward the view that turf is a high maintenance item (76.6%).

Garden Writers make extensive use of garden shows and home gardens to gather information on plant material (Table 5). A high percentage of Garden Writers attend retail flower or home and garden shows (90.1%) to obtain information on plant material and to a lesser extent attend trade shows sponsored by plant producers (66.1%). Perhaps plant producers could increase Garden Writer attendance by targeted advertising, tailored educational sessions, and free passes for the press. Essentially all Garden Writers (97.3%) maintain a garden at home and most (88.1%) test new plant varieties in their home garden (Table 5). This suggests that the home gardening experience would be influential in the gardening communications of Garden Writers.

## Literature Cited

1. Boone, L.E. and D. Krutz. 1986. *Contemporary Marketing*. Fifth Edition. The Dryden Press. Chicago, IL.
2. Garber, M.P. and K. Bondari. 1992a. Landscape architects as related to the landscape/nursery industry: I. Impact on demand for plant material. *J. Environ. Hort.* 10:69-72.
3. Garber, M.P. and K. Bondari. 1992b. Landscape architects as related to the landscape to the landscape/nursery industry: II. Selection of the production nursery and plant availability. *J. Environ. Hort.* 10:73-77.
4. Garber, M.P. and K. Bondari. 1993. Trends in plant material requirements of landscape architects. *J. Environ. Hort.* 11:110-115.
5. Garber, M.P. and K. Bondari. 1995a. Landscape installation firms: I. Business characteristics and trends affecting industry performance. *J. Environ. Hort.* 13:31-34.
6. Garber, M.P. and K. Bondari. 1995b. Landscape installation firms: II. Source of plant material. *J. Environ. Hort.* 13:35-39.
7. SAS Institute, Inc. 1989. *SAS/STAT User's Guide*. Version 6, 4th edition, Cary, NC.