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Landscape Architects as Related to the Landscape/Nursery Industry: II. Selection of the Production Nursery and Plant Availability¹

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Abstract

Information concerning the role of the landscape architect in verifying plant availability and selection of the production nursery where landscape contractors obtain plants can help growers develop effective marketing plans. A survey of Georgia landscape architects indicates that about 84% of the respondents confirm availability of plant material specified. A higher percentage of large firms (about 92%) confirm availability compared to medium (85.7%) and small (79.3%) firms. The three most frequently used sources of information for landscape architects to confirm plant availability are favorite local grower, nursery catalogs, and landscape contractor likely to install plants. The top three choices are the same regardless of firm size. Survey results demonstrate that landscape architects not only confirm availability of plants but also play an important role in selecting the production nursery where landscape contractors obtain plants. Approximately 61% of all respondents indicate they determine/recommend the nursery where landscape contractors obtain plants. There is a significant difference among firm size in response to this question with large firms most active in selecting the production nursery (about 92%) followed by medium (57%) and small (50%) firms. The two factors that most influence the decision of large firms are plant quality and plant varieties. Large firms are more price conscious than medium or small firms. The results suggest that growers can enhance their sales by marketing their product directly to landscape architects.

Index words: market research, landscape contractors, nursery growers, plant specification

Significance to the Nursery Industry

Landscape architects try to confirm availability of plant material specified for a landscape project and rely heavily on direct contact with growers to determine what plants are available. The landscape architects not only try to confirm plant availability but also recommend/determine the production nursery where plants are sourced. Due to their involvement in specifying plants and selecting producers, landscape architects should be treated as important customers by growers.

Introduction

The role of the landscape architect in sourcing plant material and selection of the production nursery is very important but not well understood by growers. Growers need information on the role of landscape architects in plant sourcing in order to develop better marketing strategies (2, 3). For instance, if landscape architects instruct the landscape contractors to source plants from certain nurseries, then growers can focus more of their marketing strategy on landscape architects. The influence of landscape architects on demand for plant material was demonstrated in earlier work (1). The value of plant material specified by Georgia landscape ar-

chitects in 1990 was equivalent to 42.5% of the value of all landscape/nursery crops grown in Georgia.

This paper provides information about: (a) the involvement of landscape architects in the selection of production nurseries for landscape contractors to obtain plants, (b) factors that affect landscape architect's decision on selection of nurseries, and (c) sources of information used by landscape architects to confirm the availability of plant material.

Materials and Methods

Surveys were mailed to 168 landscape architectural firms in Georgia in May, 1991. We received 62 completed forms for a 37% response. All responses were analyzed by size of firm. The firm size was established based on 1990 wholesale value of plant material purchased or specified: large ($\geq \$1$ M), medium (\$200 K–\$999 K), and small ($< \$200$ K). Data were tabulated and analysis of response was conducted using SAS (4). Standard errors of estimate were computed by the method of Snedecor and Cochran (5).

The two survey questions discussed in this study are listed in Table 1. Landscape architects were asked, "Does your business confirm availability of plant material specified?" The firms that responded positively were then asked to rate the value of several sources of plant availability information. The landscape architect was then asked, "Do you determine/recommend the production nursery where your landscape contractor obtains plants?" The firms that responded positively were then asked to rate how important several factors were in affecting their recommendation.

Results and Discussion

Landscape architects not only specify plant material but also attempt to confirm availability (Table 2). For all firms,

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Table 1. Survey questions discussed in this study.

1) Does your business confirm availability of plant material specified? Yes ____ or No _____. If yes, please indicate how valuable each of the following sources are in confirming availability:					
	Not Available	No Value	Somewhat Valuable	Valuable	Very Valuable
Landscape contractor who is likely to do job	1	2	3	4	5
Favorite local grower(s)	1	2	3	4	5
Nursery catalogs	1	2	3	4	5
University research and extension personnel	1	2	3	4	5
Plant locators provided by producers	1	2	3	4	5
Other landscape architects	1	2	3	4	5
2) Do you determine/recommend the production nursery where your landscape contractor obtains plants? Yes ____ No _____. If yes, how important are the following factors in affecting your recommendation:					
	Not Important	Slightly Important	Important	Very Important	
Plant varieties	1	2	3	4	
Proximity to client	1	2	3	4	
Price	1	2	3	4	
Plant quality	1	2	3	4	
Available in desired size	1	2	3	4	
Nursery will hold material until job completion	1	2	3	4	

83.9% of respondent firms answered yes to the question, "Does your business confirm availability of plant material specified?" The larger firms are more likely to confirm availability (about 92%) compared to medium (about 86%) and small (about 79%) firms.

Businesses that confirm plant availability were asked to rate several sources of plant availability information from "very valuable" to "no value" or "not available" (Table 3). For all firms, the three sources receiving the highest response as "valuable" or "very valuable" are favorite local grower (86.5%), nursery catalogs (71.2%), and landscape contractor likely to install plants (69.2%). The value of these three sources to landscape architects is significantly greater than that of the other three sources, university personnel, plant locators, and other landscape architects (Table 4, all firms). The low ratings for other landscape architects (21.1%) and university personnel (19.6%) is not surprising since neither of these groups have active programs to track availability of plants on a real-time basis. An important message for growers is that landscape architects rely heavily on direct contact with plant producers and their catalogs to determine what plants are available for a landscape project (Table 3).

Table 2. Response of landscape architects to the question: "Does your business confirm availability of plant material specified?"

Responses	Firm size ^a							
	Small		Medium		Large		All firms	
	No.	%	No.	%	No.	%	No.	%
Yes	23	79.3	18	85.7	11	91.7	52	83.9
No	6	20.7	3	14.3	1	8.3	10	16.1
Standard error ^b		7.5		7.6		7.9		4.7

^aBased on 1990 value of plant material purchased or specified: Small (<\$200 K), Medium (\$200 K–\$999 K), Large (≥\$1 M).

^bComputed as the square root of $p(1 - p)/n$, where p is the percent responded "yes", $1 - p$ is the percent responded "no", and n is the total number of "yes" and "no" responses for each firm or for all firms.

The size of the firm does not affect the top three sources of information used by landscape architects to confirm plant availability (Table 4): local grower, landscape contractor, and grower catalogs. However, "university research and extension personnel" and "landscape contractor most likely to install plants" are the only two sources whose importance varies significantly by size of firm (Table 4). The value of university research and extension personnel is rated significantly higher by small firms. The large and medium firms rate the value of landscape contractors, as a source of plant availability, significantly higher than do small firms.

The preference of different size firms for information sources to confirm availability of plants specified becomes clearer from an analysis of the percent response for "very valuable" and the combination of "valuable" and "very valuable" (Table 5). The combined response for valuable and very valuable substantiate the inclination of all size firms to use the local grower, landscape contractor most likely to install plants, and nursery catalogs to confirm availability of plants specified. However, the "very valuable" rating, for each source of plant availability, suggests a preference by size of firms. The large firms have a strong preference for local growers (54.5%) and landscape contractors (54.5%). The other four sources received about equal and very low response. The medium firms have a preference for local growers (66.7%) followed by nursery catalogs (50.0%) and landscape contractors (50.0%). The small firms prefer nursery catalogs (47.8%) and local growers (34.8%).

The results in Tables 2, 3, 4, and 5 demonstrate that landscape architects try to confirm that plant materials specified are available for the project. If landscape architects also play a role in determining where specified plants are sourced, growers could create demand for their products by marketing directly to landscape architects. To assist growers in their marketing strategy, we asked landscape architects "do you determine/recommend the production nursery where your landscape contractor obtains plants?" Results varied with firm size, but the results for all firms (Table 6) indicate that 61.4% of respondent firms determine/recommend the production nursery for plants specified. An impressive 91.7% of the large firms recommend/determine where plants are

Table 3. Relative value of information sources to confirm plant availability.

Source	Value				
	Not available	No value	Somewhat valuable	Valuable	Very valuable
	----- Percent response -----				
Landscape contractor likely to do job	0.0	9.6	21.2	32.7	36.5
Favorite local grower(s)	1.9	1.9	9.6	36.5	50.0
Nursery catalogs	0.0	1.9	26.9	30.8	40.4
University research and extension	11.8	41.2	27.5	9.8	9.8
Plant locators provided by producers	9.8	27.5	35.3	21.6	5.9
Other landscape architects	5.8	34.6	38.5	19.2	1.9

Table 4. Average score for sources of information used by landscape architects to confirm availability of plant material specified.

Source	Firm size ^{a,z}			All firms	
	Small	Medium	Large	Mean ^w	SE ^x
Landscape contractor likely to do job	3.5 b	4.3 a	4.3 a	4.0 b	0.14
Favorite local grower(s)	4.1	4.4	4.5	4.3 a	0.12
Nursery catalogs	4.1	4.3	3.7	4.1 ab	0.12
University research and extension	3.2 a	2.2 b	2.4 b	2.6 c	0.16
Plant locators provided by producers	2.9	2.7	2.9	2.8 c	0.15
Other landscape architects	2.8	2.8	2.6	2.8 c	0.12

^aMean within a row, bearing different letters differ at the 5% probability level. Scores were: 1 = not available, 2 = no value, 3 = somewhat valuable, 4 = valuable, and 5 = very valuable.

^bBased on 1990 value of plant material purchased or specified: Small (<\$200 K), Medium (\$200 K–\$999 K), Large (≥\$1 M).

^cComputed as the square root of $p(1 - p)/n$, where p is the percent responded "yes", $1 - p$ is the percent responded "no", and n is the total number of "yes" and "no" responses for each firm or for all firms.

^wMean within a column, bearing different letters differ at the 5% probability level.

sourced. These large firms represent 66.8% of the total value of plant material specified in Georgia in 1990 (1). In contrast, 57.1% of medium firms and 50.0% of small firms influence where plants are sourced. The results demonstrate that landscape architects influence both plant selection and where specified plant materials are sourced and that larger firms are very active in determining the production nursery where landscape contractors purchase plants.

Before growers develop a marketing program directed to landscape architects, it will be necessary to understand what factors influence their decision making in selecting production nurseries. The data in Table 7 summarize the response of landscape architects to several factors that might influence their decision. For all firms, independent of size, the response in the "very important" column suggests that plant quality (89.7%), plants available in the desired size (64.1%), and the desired varieties (56.8%) are the three most im-

portant factors in selecting a production nursery. The average score for all responses (Table 8) demonstrates that plant quality and availability in desired sizes are significantly more important than the other factors in determining which nursery is recommended by landscape architects. Factors such as price and appropriate plant varieties are important but were rated significantly lower than plant quality and desired sizes. The landscape architects appear divided over the importance of price and a nursery's ability to hold plant material until the job is complete (Table 7). For both factors, the response is essentially similar for slightly important, important, and very important. The landscape architects generally agree that proximity of the nursery to the client is not a very important factor (15.4%).

The importance of the two highest rated factors, plant quality and availability in desired size, in selection of the production nursery by landscape architects varies with size

Table 5. Information sources to confirm plant availability that were rated "valuable" or "very valuable" by landscape architects.

Source	Firm size ^a					
	Small		Medium		Large	
	----- Percent response -----					
	Very valuable	Valuable & very valuable	Very valuable	Valuable & very valuable	Very valuable	Valuable & very valuable
Landscape contractors likely to do job	17.4	56.5	50.0	83.3	54.5	72.7
Favorite local grower(s)	34.8	78.3	66.7	88.9	54.5	100.0
Nursery catalogs	47.8	69.5	50.0	77.8	9.1	63.6
University research & extension personnel	13.6	31.8	5.6	5.6	9.1	18.2
Plant locators provided by producers	9.1	36.4	5.6	22.3	0.0	18.2
Other landscape architects	4.3	26.0	0.0	22.2	0.0	9.1

^aBased on 1990 value of plant material purchased or specified: Small (<\$200 K), Medium (\$200 K–\$999 K), Large (≥\$1 M).

Table 6. Response of landscape architects to the question: "Do you determine/recommend the production nursery where your landscape contractor obtains plants?"

Response	Firm size ^c						All firms
	Small		Medium		Large		
	Percent response						
	No.	%	No.	%	No.	%	
Yes	12	50.0	12	57.1	11	91.7	61.4
No	12	50.0	9	42.9	1	8.3	38.6
Standard error ^y		10.2		10.8		7.9	6.4

²Based on 1990 value of plant material purchased or specified: small (<\$200 K), medium (\$200 K–\$999 K), large (≥\$1 M).

³Computed as the square root of $p(1 - p)/n$, where p is the percent responded "yes", $1 - p$ is the percent responded "no", and n is the total number of "yes" and "no" responses for each firm or for all firms.

of the firm (Table 8). Plant quality is significantly more important in the decision making of large firms than it is for small firms. Medium firms rate the importance of available in desired size significantly higher than do large or small firms.

The importance of different nursery factors to different size landscape architectural firms is more evident from analysis of the "very important" rating (Table 9). The large firms (100%) rate plant quality as "very important", followed by plant varieties (66.7%) in distant second. For medium firms, 91.7% rate plant quality and available in desired size as very important. Small firms also rate plant quality as the top factor (75.0%), followed by available in

desired size (58.3%), and plant varieties (58.3%). Of special interest to growers is that the importance of price of the plants increases as the size of the firm increases. Price of plants is rated as "very important" by 16.7% of small firms, 33.3% of medium firms, and 45.5% of large firms.

The results reported in this paper could affect how nurserymen market their product. Landscape architects are very involved in trying to confirm availability of plants specified for a project. Approximately 84% of all firms attempt to confirm availability, while 95% of large firms do so. The landscape architects rely heavily on growers for availability information, mainly through direct contacts with local growers and use of nursery catalogs. The involvement of landscape architects does not stop with confirming that specified plants are available. Approximately 60% of all firms either determine or recommend the production nursery where landscape contractors obtain plants. Large firms are much more active in determining the source of plants (92%), compared to medium (57%) and small (50%) firms. Plant quality and plant varieties available are the two most important factors affecting nursery selection by the landscape architect. It is important to note that large firms are more price conscious than medium or small firms.

The results suggest that growers can benefit from developing a marketing program targeted to landscape architects. Although landscape architects generally are not the immediate customer, they are involved in making decisions on specifying plants and selecting nurseries. Based on the survey results, we recommend that growers: (a) revise their catalogs with the landscape architect in mind and add more information on varieties available, mature size of plants,

Table 7. Factors that affect selection of production nurseries where landscape architects source plants.

Factor	Value			
	Not important	Slightly important	Important	Very important
	Percent response			
Plant varieties	5.4	10.8	27.0	56.8
Proximity to client	10.3	41.0	33.3	15.4
Price	7.7	25.6	33.3	33.3
Plant quality	0.0	0.0	10.3	89.7
Available in desired size	0.0	2.6	33.3	64.1
Nursery holds material until job completion	12.8	25.6	33.3	28.2

Table 8. Average score for factors that affect the landscape architect's recommendation of the production nursery where landscape contractors obtain plants.

Factor	Firm size ¹			All firms	
	Small	Medium	Large	Mean ²	SE ³
Plant varieties	3.4 ^{a,x}	3.1	3.3	3.3 b	0.16
Proximity to client	2.5	2.7	2.5	2.6 c	0.14
Price	2.7	3.0	3.2	2.9 b	0.15
Plant quality	3.7 b	3.9 ab	4.0 a	3.9 a	0.06
Available in desired size	3.5 b	3.9 a	3.5 b	3.6 a	0.09
Nursery holds material until job completion	2.8	2.6	3.1	2.8 bc	0.17

¹Computed as the square root of $p(1 - p)/n$, where p is the percent responded "yes", $1 - p$ is the percent responded "no", and n is the total number of "yes" and "no" responses for each firm or for all firms.

²Based on 1990 value of plant material purchased or specified: Small (<\$200 K), Medium (\$200 K–\$999 K), Large (≥\$1 M).

³Mean within a row, bearing different letters differ at the 5% probability level.

⁴Scores were: 1 = not important, 2 = slightly important, 3 = important, and 4 = very important.

⁵Mean within a column, bearing different letters differ at the 5% probability level.

Table 9. Percentage of landscape architectural firms that rated the following factors as “very important” when recommending a production nursery as a source of plants.

Factor	Firm size ^a		
	Small	Medium	Large
	----- Percent response -----		
Plant varieties	58.3	33.3	66.7
Proximity to client	8.3	25.0	9.1
Price	16.7	33.3	45.5
Plant quality	75.0	91.7	100.0
Available in desired size	58.3	91.7	45.5
Nursery will hold material until job completion	25.0	16.7	45.5

^aBased on 1990 value of plant material purchased or specified: Small (<\$200 K), Medium (\$200 K–\$999 K), Large (≥\$1 M).

price, and site requirements for optimum survival and growth; (b) develop a mailing list of landscape architects for catalog distribution; and (c) consider updating the information by sending a periodic listing of plants currently available at their nursery. If resources are limited, the marketing effort could be focused on the larger firms since they are more involved (92%) in sourcing of plants. Also, large firms

represent 21% of the population but 67% of the plants specified (1).

Landscape architects have generally not been a target market for growers. This has probably occurred because landscape architects generally do not buy directly from growers and their role in determining where plants are sourced has not been well known to growers. However, these results are the first to demonstrate that landscape architects are directly involved in specifying plants and selecting producers and thus should be treated as important customers by growers.

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