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Landscape Maintenance Firms: I. Business Features and Factors Influencing Industry Performance¹

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Abstract

Seventy-two completed questionnaires sent to landscape maintenance firms in Georgia were received for a response rate of about 38%. Approximately two-thirds of the landscape maintenance firms were located in the metro Atlanta area and about 98% of their projects were in Georgia. Firms surveyed were involved primarily (approximately 95% of their projects) in outdoor maintenance activities, however, 50% of the large firms were involved in some level of indoor plant maintenance. Three size classes of firms were established based on their 1993 wholesale value of plant material purchased, small (<\$25K), medium (\$25K–\$100K), and large (>\$100K). The large firms accounted for 26% of the respondents, 72% of the gross revenue, and 79% of the plant materials purchased. Plant material purchased from growers (52.5%), rewholesalers (35.0%), brokers (8.5%), and garden centers (3.9%) accounted for 99.9% of plants purchased by landscape maintenance firms. Industry trends most frequently identified by respondents to have a positive impact on the industry over the next 5 years were: (1) an improving economy (38.7%), (2) consumer emphasis on plant quality (18.1%), and (3) alternative debris disposal such as composting and recycling (12.6%). The 3 trends with the greatest potential for negative impact on the industry were identified as: (1) unprofessional, new firms that submit unrealistic low bids (28.4%), (2) mandatory employee benefits and government regulations (22.7%), and (3) public concern regarding pesticide safety (17.0%).

Index words: market research, woody landscape crops, certification, landscape maintenance, industry trends, plant health care.

Significance to the Nursery Industry

Results of this survey provide information regarding the business characteristics of the landscape maintenance industry and trends impacting the future economic growth of this industry. Nursery producers, industry trade associations, and other segments of the nursery/landscape industry could use the information to develop marketing and support plans for the landscape maintenance industry. Opportunities for industry trade associations to assist landscape maintenance firms include monitoring state and national legislation to minimize regulatory and employer mandated costs, and increased training for new members of the industry. Growers that sell to the landscape industry should note that landscape maintenance firms purchase a higher percentage of plant material from rewholesalers than do landscape installation firms, making rewholesalers an important outlet for nursery crops.

Introduction

In addition to consumer marketing, the landscape/nursery industry conducts a substantial volume of business-to-business marketing (1). Successful marketing between various segments of the landscape/nursery industry, such as growers and landscape maintenance firms, requires a clear understanding of the operating needs of each industry segment. A more effective interface between various segments of the industry could help each segment reduce costs and improve service to their customers.

Recent market research (3, 5, 7) has demonstrated that landscape architects influence demand for much of the plant

material used in the landscape industry. Although landscape architects influence the type of plants which will be in demand, landscape installers generally purchase the plant material (2). Landscape installers purchase most of their plants direct from growers but a sizeable portion is purchased from rewholesalers (6). The plant material purchasing pattern for landscape maintenance firms has not been determined, including the volume and source of plant material.

The landscape maintenance industry is an important part of the rapidly expanding green industry in the United States (8, 9). To facilitate growth of the landscape maintenance industry, a better understanding of the factors that positively or negatively influence the industry is required. Such information can provide the basis for developing support programs by industry trade associations, land grant universities, and businesses serving landscape maintenance firms.

This study was conducted to: (1) analyze business characteristics that relate to the supply of plants, equipment, and services to the landscape maintenance industry, (2) identify trends that may positively or negatively impact the landscape maintenance industry, (3) determine the value and source of plant material purchased by landscape maintenance firms, and (4) compare the results by size of landscape maintenance firms since market segmentation can help focus marketing plans. Several market research reports indicated that different size landscape architectural and landscape installation firms in Georgia had different service requirements (3, 4, 5).

Materials and Methods

Survey questionnaires were mailed to 190 firms which were members of the landscape division of the Georgia Green Industry Association (GGIA), Metropolitan Atlanta Landscape and Turf Association (MALTA) and Georgia members of the Professional Grounds Management Society. Since most firms in GGIA and MALTA indicated installation and maintenance functions in the same firm, questionnaires were

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Table 1. Response rate and location of firms surveyed.

	Location	
	Georgia	Atlanta
Firms surveyed ^a	190	128
Firms responding	72	48
Percent ^b	37.8	37.5

^aFirms surveyed were members of the Georgia Green Industry Association, Metropolitan Atlanta Landscape and Turf Association and Georgia members of the Professional Grounds Management Society.

^bFirms responding as a percentage of total firms surveyed.

directed to landscape maintenance personnel by way of a cover letter. The initial mailing was sent in November 1993, with follow-up mailing to non-respondents in December 1993 and January 1994.

Response data were grouped according to the size of landscape maintenance firm. Size classes were established based on the 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), and large (>\$100K). Analysis of response data were conducted using PROC GLM and PROC FREQ of SAS (10). Firm size was included in the statistical model to perform one-way analysis of variance. Open-end questions were included to identify trends with a positive or negative influence on the landscape maintenance industry. Analysis of responses to the open-end questions was accomplished by: (a) listing all responses, (b) developing categories of response, (c) assigning a code to each category, and (d) conducting a frequency analysis for the categories.

Results and Discussion

Approximately 38% of the firms (72 respondents) completed the survey (Table 1). The Atlanta firms were 67% of the total firms surveyed and their response rate (38%) was the same percentage as the entire state of Georgia, indicating that the respondents were uniformly distributed and representative of the sample population. The responding firms were classified as private business (89%) or institution/government agency (11%). Nearly 57% of the respondents were the owner of the firm surveyed. Thus, the results of this study reflect primarily the views of the decision-makers in the private sector of the landscape maintenance industry.

All of the landscape maintenance firms conducted business in Georgia and about 98% of their projects were in

Table 2. Distribution of outdoor and indoor projects conducted by landscape maintenance firms^a.

Firm size ^b	Location			
	Outdoor		Indoor	
	Firm (%)	Projects (%)	Firm (%)	Projects (%)
Small	100.0	98.1	19.4	10.0
Medium	95.0	99.9	15.0	34.0
Large	100.0	94.0	50.0	12.0
All firms	97.3	97.8	23.7	14.4

^aPercentages may equal more than 100% because the same firm may conduct indoor and outdoor projects.

^bFirm size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

Georgia. This result indicates that landscape maintenance firms tend to conduct business where they are located.

The landscape maintenance industry in Georgia is primarily involved in outdoor maintenance projects (Table 2). Essentially all of the firms (97%) conduct outdoor maintenance projects and of those, approximately 98% of their projects are outdoors. The large size firms had the highest percentage firms conducting indoor maintenance projects (50%, compared to 19% of small and 15% of medium size firms). The large firms appeared to be more diversified in the type of maintenance projects conducted compared to small or medium size firms. The results also suggest that only a small proportion of the medium size firms (15%) focus primarily on indoor maintenance projects (Table 2).

The large landscape maintenance firms accounted for 26% of the respondents and approximately 72% of the revenue of the industry (Table 3). A relatively small number of firms accounted for a large portion of the total industry revenue which was similar to the landscape installation (5) and landscape architectural (3) segments of the landscape/nursery industry. The annual gross receipts based on 1993 revenue ranged from \$3,000 to 8M. The average revenue for large firms was approximately thirteen times that for small firms (Table 3). Less than 9% of the industry revenue was contributed by small firms which accounted for 43% of the total number of firms.

The wholesale value of plant material purchased by the responding landscape maintenance firms totaled \$6M and equipment purchased totaled approximately \$2.5M (Table 4). Based on this data, the value of plant material purchased by the entire landscape maintenance industry is estimated at about \$16M, which is about 45% of the value of plant material purchased by landscape installers (5). The lower plant purchases for maintenance firms coincides with their emphasis on maintenance and not plant installation. Large firms accounted for 79% of the plant material purchases (Table 4). The mean plant material purchase for large firms was about 37 times that for small and 6 times that for medium firms (Table 4). Mean gross revenue for large firms was about thirteen times that of small firms. The mean plant material purchase as a percentage of mean revenue (Table 4) increased with firm size; small (4.0%), medium (8.2%), and large (10.9%) averaging about 9% for all firms combined. This result suggests that small firms focus primarily on maintenance activities while large firms have a second element of diversity not practiced by small firms, plant installation.

Table 3. Relationship of revenue to size of firm.

Firm size ^a	Firms		Gross receipts ^a		
	Number	Percent	Mean	Sum	Percent
Small	23	43	202	4634	8.8
Medium	17	31	599	10189	19.4
Large	14	26	2696	37739	71.8
All firms	54	100	973	52562	100

^aExpress in thousand dollars.

^bFirms size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

Table 4. Value of plant materials and equipment purchased by landscape maintenance firms.

Size ^a	Plant material value ^b				Equipment ^b				Mean material purchases as % of mean revenue	
	Mean	Sum	Total (%)	Range	Mean	Sum	Total (%)	Range	Plants	Equipment
Small	8	260	4.4	0.5– 22	12	372	14.9	1 – 46	4.0	5.9
Medium	49	976	16.4	25 – 90	25	479	19.3	0.3– 100	8.2	4.2
Large	295	4718	79.2	119 – 600	102	1640	65.8	4 – 500	10.9	3.8
All firms	89	5954	100.0	0.5– 600	38	2491	100.0	0.3– 500	9.1	3.9

^aFirm size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

^bExpress in thousand dollars.

The total value of equipment purchased for all firms was about 42% of the value of plant material purchases (Table 4). Mean value of equipment purchases increased with firm size but not in proportion to the gross revenue. The mean value of equipment purchases as a percentage of mean revenue (Table 4) decreased with increasing firm size; small (5.9%), medium (4.2%), large (3.8%) averaging about 4% for all firms combined, suggesting that large firms may enjoy economies of scale and a cost advantage over smaller firms, as related to the equipment portion of maintenance costs.

The source of plant material purchased by landscape maintenance firms is important to the development of grower marketing plans. All size firms purchased plants from growers, rewholesalers, garden centers or brokers (Table 5). For all size firms, slightly more than half (52.5%) of the plant material was purchased direct from growers. The next source of plant material was rewholesalers, 35% of plant material. All size firms purchased the greatest percentage of plant material direct from growers. Large firms purchased a higher percentage of plant material (55.4%) direct from growers than did small (37.5%) or medium (44%) firms (Table 5). The purchase of plant material from rewholesalers did not vary greatly among the 3 firm sizes; small (36.6%), medium (40.0%), and large (33.8%). Small firms purchased a much higher percentage (14.5%) of their plant material from garden centers than did medium (5.5%) or large (2.8%) firms (Table 5). The 3 firm sizes purchased about the same percentage of plant material from brokers, small (11.4%), medium (10.0%) and large (8.0%). Purchasing habits of landscape maintenance firms (Table 5) is similar to landscape

installation firms (6). However, landscape maintenance firms buy a smaller percentage of plant material direct from growers (about 10 percentage points) and a higher percentage from rewholesalers (about 5 percentage points) and brokers (about 5 percentage points). The data from landscape installation and landscape maintenance firms suggest that the smaller volume plant purchases are more likely to be made from rewholesalers or brokers. Only the small firms purchased a sizeable portion of their plants (14.5%) from garden centers. This result could be an indication that some garden centers are re-wholesaling or provide convenience and specialty items where price is not as important.

Landscape maintenance firms were asked to identify trends that may have a positive impact on their business over the next 5 years (Table 6). The improving economy (38.7%), a more educated consumer that places greater emphasis on quality (18.1%), increased environmental awareness, including composting and recycling (12.6%), improved efficiency in service, mainly due to more competition (11.4%) and improved professionalism in the industry (8.5%) were the trends most often identified by all sized firms. The medium (55.6%) and large (62.4%) firms felt stronger about the positive effect of an improving economy than did small firms (24.2%). This result suggests that the type of customers could be different for small firms compared to the medium or large firms. Perhaps the customers of small firms are less likely to decrease their maintenance contracts during slow economic growth period. Another explanation is that the medium and large firms expect to secure much of the new maintenance contracts associated with new construction during an improving economic growth period. The small firms felt much

Table 5. Distribution of suppliers of plant material for landscape maintenance firms^a.

Source	Firm size ^b							
	Small		Medium		Large		All firms	
	Firms (%)	\$ (%)	Firms (%)	\$ (%)	Firms (%)	\$ (%)	Firms (%)	\$ (%)
Grower	67.7	37.5	90.0	44.0	93.8	55.4	81.9	52.5
Rewholesaler	77.4	36.6	85.0	40.0	81.2	33.8	83.3	35.0
Garden center	77.4	14.5	70.0	5.5	25.0	2.8	62.5	3.9
Broker	16.1	11.4	25.0	10.0	43.8	8.0	25.0	8.5
Other	0.0	0.0	15.0	0.5	0.0	0.0	4.2	0.1

^aTotal percentages for firms will not equal 100% because some firms purchase from several sources.

^bFirm size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

Table 6. Positive trends affecting landscape maintenance firms over the next five years.

Trends ^a	Firm size ^a			
	Small	Medium	Large	All firms
	----- percent response -----			
Improved economy due to 1996 Olympics, stable clients	24.2	55.6	62.4	38.7
Consumer emphasis on quality, consumer education, consumer has more leisure time	24.2	11.1	12.4	18.1
Improved debris disposal (composting, recycling), environmental awareness	15.2	16.6	6.3	12.6
Efficiency in service mainly due to more competition	15.2	5.6	6.3	11.4
More professionalism in the industry improved training and certification procedures	3.0	11.1	6.3	8.5
Quieter, safer equipment	6.1	0.0	0.0	3.0
Supplier competition (lower costs)	6.1	0.0	0.0	3.0
Regulations controlling 'fly-by-night' maintenance, cut government waste	3.0	0.0	6.3	3.0
Integrated pest management	3.0	0.0	0.0	1.7

^aFirm size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

^aCategories of response from the open-end question: What do you see as trends that could have a positive impact on your business over the next five years?

stronger about the positive effect of a more educated consumer (24.2%) as compared to medium (11.1%) or large (12.4%) firms (Table 6). This result is consistent with a small firm focus on homeowners and small businesses as their customer base. Small firms were also more optimistic about the likelihood of increased efficiency in service (15.2%), compared to medium (5.6%) and large (6.3%) firms. The small (15.2%) and medium (16.6%) firms were more optimistic about the positive impact of composting and recycling on their business than were large (6.3%) firms.

Other lower ranking positive trends identified by landscape maintenance industry were quieter, safer equipment (3.0%), competition among suppliers reducing costs (3.0%), regulations controlling new maintenance firms (3.0%) and increased use of integrated pest management (1.7%). With the exception of regulations controlling new firms, the last 4 trends were identified only by small firms (Table 6). With the growing public concern over the use of pesticides, it was perhaps surprising that the positive impact of integrated pest management was ranked very low and only by small firms.

The most frequently listed trend that could have a negative impact on the landscape maintenance industry (28.4%) was low bid competition from unprofessional, unlicensed or part-time personnel (Table 7). This concern was listed most often by small (30.6%), medium (36.4%) and large (27.3%) firms, suggesting a low-entry barrier to the landscape main-

tenance industry. Another area of significant concern for all size firms was the impact of government mandated employee benefits and regulations (22.7%). The small (27.8%) and medium (22.7%) firm sizes were more concerned about the negative impact of this trend than were large (13.6%) firms. This trend ranked fourth among all trends with possible negative impact by the large firms but ranked second for both small and medium firms (Table 7). Smaller firms may not have the expertise or resources to deal with a steady stream of new regulations. The negative publicity regarding pesticide use and other environmental restrictions was the third most frequently listed negative trend (17.0%) when the 3 firm sizes were combined. The small and large firms were most concerned with the pesticide issue. Other trends with a potentially negative impact were a slower economy (12.5%), lack of technically skilled staff (10.3%), water restrictions (4.5%), large out-of-state competitors (3.4%) and increased land-fill fees (1.2%). The lack of technically skilled staff was the second most frequently listed trend with a negative impact for large firms (22.7%) but of much less concern to small (5.6%) and medium (4.5%) firms.

This study demonstrates that the landscape maintenance industry surveyed in Georgia is located primarily in metropolitan Atlanta and conducts business primarily in state. This agrees with earlier findings with landscape architects (3) and landscape installers (5) and suggests that landscape firms

Table 7. Negative trends affecting landscape maintenance firms over the next five years.

Trends ^a	Firm size ^a			
	Small	Medium	Large	All firms
	----- percent response -----			
Competition with lower bids, primarily unprofessional, unlicensed and inexperienced part-timers	30.6	36.4	27.3	28.4
Mandatory employer paid benefits, government regulations, taxes	27.8	22.7	13.6	22.7
Negative pesticide publicity, posting requirements, environmental restrictions	19.4	9.2	18.2	17.0
Slow economy, tighter corporate budgets, decreased state revenue	11.0	18.2	4.5	12.5
Lack of technically skilled staff	5.6	4.5	22.7	10.3
Water restrictions	5.6	0.0	4.5	4.5
Large out-of-state competitors	0.0	4.5	9.2	3.4
Increased land-fill fees	0.0	4.5	0.0	1.2

^aFirm size based on 1993 wholesale value of plant material purchased: small (<\$25K), medium (\$25K–\$100K), large (>\$100K).

^aCategories of response from the open-end question: What do you see as trends that could have a negative impact on your business over the next five years?

tend to locate in metropolitan areas and work close to their business residence.

In conclusion, the landscape maintenance firms in Georgia handle primarily outdoor projects. The large firms appear to be more diversified in their activities than are small or medium size firms. A higher percentage of projects of large firms are indoors compared to medium or small firms. Large firms also purchase more plant material and appear to have more plant installation activities than small or medium size firms. The mean plant purchases for landscape maintenance firms is less than for landscape installation firms and the maintenance firms purchase a higher percentage of their product from rewholesalers. As with landscape installers, the firms with smaller mean purchases rely more on the local rewholesalers or, in the case of small maintenance firms, the local garden center. The implication for nurserymen marketing to the landscape trade is that rewholesalers should be one of the outlets for plants if the grower is to reach the smaller landscape maintenance or installation firms. Several important trends were identified that could have a positive or negative impact on the landscape installation industry. This information could be used by trade associations, university faculty and other segments of the Green Industry to provide better goods and services to the landscape maintenance industry. Increasing industry professionalism, educating the consumer on alternative debris disposal such as composting and recycling, working with government regulators and legislators to control mandated costs, and educating the consumer on the minimal risks of

safe pesticide use, are key items that could benefit the landscape maintenance industry.

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