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# Comparison of Gardening Activities and Purchases of Homeowners and Renters<sup>1</sup>

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## Abstract

In September 2004, an Internet survey was conducted among 1507 American homeowners and renters to compare their gardening participation and purchases. Because income level and homeownership were related, the sample was stratified to create four groups using the respondent's 2003 household income: (a) < \$25,000, (b) \$25,000 to \$49,999, (c) \$50,000 to \$74,999, and (d) ≥ \$75,000. Within each income group, the percentages of respondents who participated in 14 gardening-related activities and made 12 gardening-related purchases were compared. Across all income groups, a higher percentage of homeowners than renters participated in gardening-related activities and made gardening-related purchases, however as income level rose the number of differences between homeowners and renters generally declined. At the income category \$25,000 to \$49,999, there were 20 of 26 possible differences between homeowners and renters. At the highest income category (≥ \$75,000), homeowners and renters differed in only 5 of 14 gardening-related activities and none of 12 gardening-related purchases. Given the moderate extent to which they already participate and make gardening-related purchases, greater effort should be made to increase participation and purchases among this underserved target market.

**Index words:** consumer, marketing, survey.

## Significance to the Nursery Industry

For decades, the primary target market for horticultural products has been a more affluent homeowner, while renters have been mostly ignored. No information exists on the gardening activities and related purchases of renters. A study of 1010 homeowners and 497 renters showed that more homeowners than renters participated in gardening-related activities and a higher percentage made gardening-related purchases. As income level rose, the number of differences in owner and renter gardening participation declined from 13 to 5 of 14 activities and the number of differences in purchases declined from 7 to none of 12 gardening-related purchases. In the lowest income category (< \$25,000), 71.0% of homeowners cared for their lawn, compared to 31.1% of renters. At the highest income category (≥ \$75,000), 60.2% of homeowners cared for their lawn compared to 28.9% of renters. Overall, there were differences in the percentage of homeowners and renters who purchased garden-related items, especially in the percentage of homeowners and renters who purchased live plant material and, to a lesser extent,

hardgoods. Income, not homeownership status, is a key variable in the level of participation and the extent to which garden-related purchases were made. However, the industry should not target only upper-income households since gardeners at all income levels participate and make purchases. Retailers, and their partners in the supply distribution channel, should consider targeting renters of all income categories in future marketing strategies.

## Introduction

A primary target market for horticultural products is the affluent homeowner, but as industry competition increases and industry growth slows, an investigation of renters as a potentially ignored or underserved market is warranted. No published information exists on the gardening activities and purchases of renters.

Homeownership in the United States has been relatively stable for the past three decades. Approximately 69% of Americans owned their home in 2005 compared with 65% in 1995, and 64% in 1975 (6). Homeownership increases with age. Only 25.9% of people under age 25 years owned their home compared to 40.1% for individuals aged 25 to 29 years, and 58% of people aged 30 to 34 years. Homeownership peaks between the ages of 70 and 74 years, with 83.3% of them

<sup>1</sup>Received for publication May 11, 2006; in revised form July 6, 2006.

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owning a home. Other Census information showed that 32% of a household's net worth in 2000 was invested in the home (4).

The National Gardening Association annually tracks gardening participation and purchases along with the rate of growth in participation for selected gardening activities and purchases (1). In 2005, lawn and garden retail sales totaled \$35 billion with 91 million households (83%) participating in lawn and garden activities. However, sales growth has stalled since 2000. On average, Americans spent \$387 on lawn and garden-related products in 2005, down \$48 from 2000. The growth in lawn and gardening expenditures from 2000 to 2005 shows a decrease in participation in four activities: lawn care (-0.3%), flower gardening (-6.3%), vegetable gardening (-11.8%), shrub care (-4.9%), and water gardening (-11.8%). However, there was a decline in dollars spent in all 16 areas studied. While some of this decrease may be attributed to the use of professional services, the decrease could be a signal that the market has matured or is saturated. A mature market, or one that is saturated, is a market that has a declining rate of growth, slowing to near zero (3). The NGA statistics may suggest that a new challenge for retailers and their partners in the distribution channel is to target some previously ignored or under-addressed markets such as renters.

The NGA reported the percentage of households that participated in various gardening activities, but did not differentiate between homeowners and renters: 54% were engaged in lawn care, 41% in flower gardening, 29–34% in gardening with woody trees and shrubs, 25 to 17% gardened with vegetables and herbs, 30% controlled pests, 42% engaged in indoor flower gardening, and 11% did some form of water gardening (1). In addition, 20% purchased bulbs, 12–18% purchased several types of seeds, 12.7% purchased garden furniture, 5.5% purchased fountains or garden statuary, 21% purchased fertilizer, 35% purchased non-motorized tools, and 24.6% purchased motorized tools. People from higher-income households participated to a greater extent in gardening activities than people from lower-income households, with those households earning more than \$50,000 most likely to participate in lawn and garden activities and make related purchases (1).

Dennis and Behe (2) examined the influence of age and ethnicity, stratified by income, on gardening activities and purchases. When they compared the percentage of participants from each ethnic group who either participated in gardening-related activities or made gardening-related purchases, the number of differences in garden-related activity participation and purchases decreased as income level increased across ethnic and age groups. Ethnicity played a larger role in the level of participation in gardening activities and purchases among respondents in lower-income groups compared to higher-income groups. Generally, older homeowners participated in more garden-related activities and made more garden-related purchases across all income levels.

If expansion of the home horticulture industry is slowing, then understanding the gardening practices and purchases of renters could benefit retailers and others in horticultural product distribution channels. The objective of this paper is to identify differences in participation and purchases in selected mainstream gardening activities according to homeownership. The hypotheses are that homeowners participate to a greater extent than renters in gardening activi-

ties and a higher percentage of homeowners make gardening-related purchases. However, the percentage of renters who make garden-related purchases and participate in gardening activities may be substantial enough to warrant future marketing efforts.

## Materials and Methods

In September 2004, Knowledge Networks was sub-contracted to provide a scientific probability sample of ~ 1500 U.S. households, representative of the U.S. population on average ( $\pm 1\%$ ), but over-sampled for three ethnic groups: African-Americans, Hispanics, and Asians. Over-sampling of those three ethnic groups enabled statistical comparisons of their gardening purchases and activities (2). The sample was drawn from an online panel based on a random sample of the full U.S. population and, therefore, is representative of the nation on average. If internet access was not available to a participant, Knowledge Networks provided a computer and internet access. Knowledge Networks conducts survey research for economic, social, and political research for clients who include Stanford and Harvard universities, and CBS News. Responses totaled 1610, of which 1588 were complete and used in analyses.

Respondents were asked questions about their participation in seven gardening activities: gardening with annuals and perennials (flower gardening); gardening with herbs, vegetables, and fruits; indoor gardening with flowering or foliage plants; landscape gardening with trees and shrubs; care of or mowing the lawn; control of pests (insects, diseases or weeds); and water gardening. They were asked in separate questions if (a) they personally participated in the activity and (b) whether another adult in the household participated in seven garden-related activities. In subsequent questions, they were asked about purchases of 12 products for use in their household (not as gifts): annuals and perennials; bulbs; composting devices or implements; fertilizer; garden art or sculpture, garden furniture; herb, vegetable or fruit plants; motorized tools; non-motorized tools; pest (insect, weed, or disease) control supplies; seeds; and trees and shrubs. The survey instrument was approved by the university committee on research involving human subjects and then pre-tested using 50 subjects from the Knowledge Networks panel. Data were collected between September 3 and September 20, 2004. Differences in the percentage of homeowners and renters who engaged in activities or made purchases were tested by Chi-square analyses using SPSS 13.0.

Because income level and homeownership were related, the sample was stratified to create four categories based on the respondent's 2003 household income: (a) < \$25,000, (b) \$25,000 to \$49,999, (c) \$50,000 to \$74,999, and (d)  $\geq$  \$75,000. The percentage of homeowners and renters who participated in garden-related activities and who made garden-related purchases was then compared within each income group.

## Results and Discussion

Sixty-four percent of the sample owned a home ( $n = 1010$ ), while 31% reported renting a home ( $n = 497$ ). Five percent of the respondents ( $n = 81$ ) did not pay for housing and were excluded from subsequent analyses.

There was a similar percentage of males (46.6%) and females (53.4%) who were homeowners and renters ( $\chi^2 = 0.096$ ,

**Table 1. Percentage of homeowners and renters, stratified by the respondent's 2003 household income, which participated in gardening-related activities and made purchases of gardening-related products.**

	2003 Household income							
	Homeowner				Renter			
	<\$25K n = 176	\$25-\$49K n = 344	\$50-\$74K n = 234	>\$75K n = 256	<\$25K n = 183	\$25-\$49K n = 205	\$50-\$74K n = 71	>\$75K n = 38
<b>Activities</b>								
annuals and perennials (R <sup>2</sup> )	62.5	64.0	59.8	63.3	25.7 <sup>y</sup>	31.2 <sup>y</sup>	42.3 <sup>y</sup>	28.9 <sup>y</sup>
(other adult in household)	33.5	43.9	53.8	49.2	28.4	33.2 <sup>y</sup>	36.6 <sup>y</sup>	36.8
herbs, vegetables, fruits (R)	36.9	36.9	33.3	34.8	15.8 <sup>y</sup>	20.5 <sup>y</sup>	25.4	13.2 <sup>y</sup>
(other adult in household)	25.0	32.3	28.6	32.0	20.8	22.9 <sup>y</sup>	16.9 <sup>y</sup>	21.1
indoor flower/foilage (R)	40.9	43.9	44.0	41.1	27.9 <sup>y</sup>	31.7 <sup>y</sup>	42.3	34.2
(other adult in household)	23.9	30.2	34.2	35.5	22.4	25.4	28.2	34.2
landscape w/ woody plants (R)	43.2	48.8	48.7	52.3	19.1 <sup>y</sup>	25.9 <sup>y</sup>	29.6 <sup>y</sup>	21.1 <sup>y</sup>
(other adult in household)	30.1	41.0	44.9	43.0	24.0	27.3 <sup>y</sup>	22.5 <sup>y</sup>	31.6
lawn care (R)	71.0	63.4	70.9	60.2	31.1 <sup>y</sup>	38.5 <sup>y</sup>	40.8 <sup>y</sup>	28.9 <sup>y</sup>
(other adult in household)	42.6	52.0	57.7	56.6	27.3 <sup>y</sup>	36.6 <sup>y</sup>	29.6 <sup>y</sup>	42.1
pest control (R)	49.4	53.2	41.9	51.6	24.6	25.9 <sup>y</sup>	26.8 <sup>y</sup>	28.9 <sup>y</sup>
(other adult in household)	31.8	40.7	47.4	44.1	24.6	25.9 <sup>y</sup>	26.8 <sup>y</sup>	31.6
water garden (R)	29.0	35.3	28.6	28.5	19.1 <sup>y</sup>	23.9 <sup>y</sup>	26.8	18.4
(other adult in household)	20.5	26.7	25.2	23.4	18.6	18.5 <sup>y</sup>	21.1	26.3
<b>Purchases</b>								
annuals and perennials	76.3	69.5	76.9	70.1	57.4 <sup>y</sup>	60.4	66.7	68.8
bulbs	35.6	27.0	27.8	25.9	26.5	14.6 <sup>y</sup>	27.3	6.3
compost implements or unit	20.3	21.1	16.6	20.8	13.2	12.5 <sup>y</sup>	18.2	18.8
fertilizer	60.2	59.8	68.8	67.5	50.0	38.5 <sup>y</sup>	42.4 <sup>y</sup>	56.3
garden art or statuary	11.9	16.0	17.8	15.2	5.9	8.3 <sup>y</sup>	18.2	25.0
garden furniture	14.4	16.4	14.8	18.3	13.2	11.5	24.2	18.8
herb or vegetable plants	43.2	39.1	37.9	39.1	27.9 <sup>y</sup>	27.1 <sup>y</sup>	42.4	25.0
motorized tools	14.4	23.4	20.1	20.3	13.2	19.8	18.2	18.8
non-motorized tools	32.2	33.6	34.9	41.6	19.1 <sup>y</sup>	30.2	36.4	50.0
pest controls	54.2	66.0	63.3	69.5	44.1	43.8	54.5	50.0
trees and shrubs	22.0	24.6	31.4	34.5	24.6	14.6 <sup>y</sup>	12.1 <sup>y</sup>	18.8
seeds	43.2	44.5	46.2	42.6	35.3	36.5 <sup>y</sup>	48.5	25.0

<sup>2</sup>Respondent.

<sup>3</sup>Indicates significant difference between homeowner and renter at  $p \geq 0.05$ .

$p = 0.399$ ). Homeowners had a higher 2003 household income than renters ( $\chi^2 = 142.171$ ,  $p = 0.000$ ). A higher percentage of homeowners were married (71.8%) compared to renters (35.0%) ( $\chi^2 = 225.827$ ,  $p = 0.000$ ) and a greater percentage of renters were single (41.6%) compared to homeowners (13.3%). Homeowners were older than renters, with an average age of 48.8 years for homeowners compared to 39.6 years for renters ( $F = 153.937$ ,  $p = 0.000$ ). A greater percentage of renters had less than a high-school education (21.2%) compared to homeowners (13.2%) ( $\chi^2 = 19.561$ ,  $p = 0.000$ ). The Midwest had a higher percentage of homeowners (21.5%) compared to renters (15.8%), but the Northeast and West had more renters (22.6%, 30.1%) than homeowners (18.7%, 24.7%) ( $\chi^2 = 12.685$ ,  $p = 0.005$ ). A higher percentage of Caucasian participants were homeowners (78.8%), than were renters (21.2%) ( $\chi^2 = 131.854$ ,  $p = 0.000$ ) while a higher percentage of African-Americans and Hispanics were renters (57.0%, 43.8%) than home homeowners (43.0%, 56.3%). More Asian-Americans were homeowners (62.9%) than renters (37.1%).

Housing type and current employment status were asked. Sixty-one percent lived in a single-family house, detached from other buildings and 6.6% lived in a manufactured or mobile home. The remaining 32% lived in either a single-family house attached (6.4%), an apartment (19.0%), a con-

dominium or co-op (3.4%), or college dormitory (0.1%). Fifty-six percent work as a paid employee, 5.8% were self-employed, nearly 2% were an owner or partner in a small business, 4.4% were unemployed, 12.8% retired, 6.5% disabled, 9.0% were homemakers, and 2.9% were classified as 'other' for employment status. Comparing those working full-time with those retired, 70.2% of full-time employees owned a detached residence compared to 80% of retired persons ( $\chi^2 = 7.431$ ,  $p = 0.003$ ). A substantially higher percent (86.7%) of participants living in a detached residence owned their home, compared to 22.6% of those who lived in a residence attached to another residence or building ( $\chi^2 = 582.099$ ,  $p = 0.000$ ).

For households with a 2003 income < \$25,000, there were differences between homeowners and renters for eight of 14 garden-related activities and three of 12 garden-related product purchases (Table 1). Not surprisingly, a higher percentage of homeowners participated in all gardening-related activities and a higher percentage made garden-related purchases. What was surprising was the large percentage of renters that participated in gardening activities and made gardening-related purchases.

Of the twelve kinds of gardening-related purchases investigated in this income category, there were differences in the percentage of homeowners and renters purchases of only four

items: annuals and perennials; herbs or vegetables; and non-motorized tools; although consistently homeowners made a greater percentage of gardening-related purchases.

In the next higher income category (\$25,000 to \$49,999), there was a difference in the percentage of homeowners and renters on 13 of 14 activities and 7 of 12 purchase categories. Consistently, a greater percentage of homeowners participated in the garden-related activities, but the participation level among renters was at least half of the level among homeowners. The one participation similarity was in the percentage of homeowners and renters who had another person in the household garden indoors with flowering or foliage plants. A similar percentage of homeowners and renters in this income category purchased annuals or perennials, garden furniture, motorized and non-motorized tools, and seeds. Again, many of the similarities were for hardgoods.

In the next higher income category level (\$50,000 to \$74,999), which was above the median household income (5), the number of differences in the percentage of homeowners and renters declined to 9 of 14 activities and 2 of 12 purchases. While a greater percentage of homeowners participated in garden-related activities and made garden-related purchases, the difference in the percentages was about half. In garden-related purchases, differences were observed only in the percentage of households buying fertilizer and trees and shrubs. The differences between homeowners and renters were half or less of the percentage of homeowners buying those items.

At the highest income category ( $\geq$  \$75,000), there were differences in only 5 of 14 participation variables and none of the twelve purchase variables. Slightly less than half the renters gardened with annuals and perennials or landscaped with trees and shrubs themselves compared to homeowners. Two-thirds fewer renters gardened with herbs, vegetables, and fruits themselves compared to homeowners. Nearly half of the renters cared for the lawn and controlled pests themselves compared to homeowners. There were no differences in garden-related purchases at this income category. Although the number of differences declined at this income level, the magnitude of those few differences widened for each activity, compared to the differences observed in the next lower income group.

The percentage of homeowners and renters who cared for their lawn themselves was different in each of the four income categories. The NGA reported that 54% of their sample indicated they were engaged in this activity (1). In this study, the percentage of homeowners who cared for their own lawn ranged from 71.0 to 60.2%. The percentage of renters who reported caring for their own lawn ranged from 40.8 to 28.9%. The NGA reported that 41% of their sample participated in flower gardening. In this study, the percentage of homeowners who reported gardening with annuals or perennials differed in each of the four income categories, ranging from 64 to 59.8%. The percentage of renters who participated in this

activity ranged from 25.7 to 42.3%. A similar range was observed for the participation in landscaping with woody trees or shrubs, from 43.2 to 52.3% for homeowners and 19.1 to 29.6% for renters.

The percentage of homeowners and renters who gardened with herbs, vegetables, or fruits was different in three of the four income groups. For homeowners, it ranged from 33.3 to 36.9%. For renters, a decrease was observed with the percentage of renters who participated in gardening with herbs, vegetables or fruits changing from 20.5 to 13.2%.

While the percentage of homeowners and renters who engaged in garden-related activities was different across the four income groups, the percentage of homeowners and renters who made purchases of garden furniture and motorized tools was the same across all four income groups.

Overall, there were differences in the percentage of homeowners and renters who purchased garden-related items, especially in the percentage of homeowners and renters who purchased live plant material and, to a lesser extent, hardgoods. For many activities, the percentage of both homeowners and renters increased as income level increased. As Dennis and Behe (2) reported for ethnicity and age, the differences between homeowners and renters decreased as income increased. Income, not homeownership status, is a key variable in the level of participation and the extent to which garden-related purchases were made. However, the industry should not target only upper-income households since gardeners at all income levels participate and make purchases. Homeownership influences gardening purchases and activities, but renters should not be ignored as a market segment. Renters participated in activities and made purchases to a surprisingly large extent, but not as great an extent as homeowners. Retailers, and their partners in the supply distribution channel, should consider the differences between homeowners and renters in their marketing strategy.

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