

# CONSUMER SEGMENTATION BASED ON PERCEIVED PLANT KNOWLEDGE AND GARDENING INVOLVEMENT

by Jill Hardy, Bridget Behe, and Robert Schutzki, Michigan State University

A Presentation at the 1999 Southern Nursery Association Research Conference

## *Nature of Work*

One of the fundamental components of a marketing strategy is market segmentation. Market segmentation attempts to identify all potential customers of a product or service and group them into definable categories. This process allows marketers to select particular groups or segments and concentrate marketing efforts on those groups. Such marketing efforts could include tailoring marketing strategies to focus on an individual segment or developing products and services that specifically address a particular segment's needs.

One of the more common statistical methods used to identify market segments is cluster analysis. Cluster analysis allows researchers to build groups of individuals with similar characteristics from survey or other data. Groups are comprised of members whose characteristics for particular variables or characteristics are similar. These similar characteristics can be used to define a type or profile, in this case of gardeners. Often, other demographic variables, not used to identify the type can be used to describe groups more fully.

On April 8 and 9, 1999, surveys were administered at the Detroit, Michigan Bloomfest. Bloomfest is an annual flower show in the downtown Detroit area, drawing thousands of gardeners of all interests and skill levels. Detroit is a relatively good test market, with a population that strongly resembles the U.S. on the average. At Bloomfest, a student recruited participants who passed through garden displays. Participants were asked to view photographs of landscapes, answer questions regarding their gardening activities and provide demographic information. A series of questions was included to assess respondent's gardening involvement and plant knowledge. This series of questions was derived from marketing scales to measure product knowledge and familiarity, and tailored to assess horticultural knowledge in particular (1) Respondents were asked to state the extent to which they agreed or disagreed with several statements using a 7-point Likert scale (1=strongly disagree, 7=strongly agree).

## *Results and Discussion*

We used cluster analysis to identify three groups of respondents who vary in their degree of perceived plant knowledge and in the level of pleasure they derive from gardening. The first group was comprised of plant-expert, high gardening enjoyment individuals (PE/HE). Plant-novice, high-gardening enjoyment individuals (PN/HE) comprise the second group. The last group contains individuals who are characterized as plant-ignorant, low gardening enjoyment individuals (PI/LE).

Chi-square test results revealed that more members of the plant-expert, high gardening enjoyment group were female than in the other two groups ( $p=0.035$ ). Seventy-five percent of the members in this cluster were female, while the plant-novice, high gardening enjoyment (53% female) and plant-ignorant, low gardening involvement (54% female) had approximately equal numbers of males and females.

Significant differences were also apparent between the groups in the amount of money spent on garden and landscape in 1998 ( $p=0.039$ ). Two large subgroups made up the majority of the plant-expert, high-enjoyment group. Those stating they spent between \$210 and \$500 made up 31% of the PE/HE group while those stating they spend \$2000 or more made up 23%. The greatest percentage (39%) of the members of the plant-novice, high gardening enjoyment group spent between \$851 to \$2000. Approximately 40% of the plant-ignorant, low gardening enjoyment group stated they spent \$0 to \$200 in 1998, with a majority (64%) stating they spent between \$0 and \$500.

Also significant was the number of hours per week respondents stated they spent on lawn and yard care ( $p<0.001$ ). Forty-five percent of the plant expert, high gardening enjoyment group spent eleven hours or more on lawn and yard care, while 34% of the plant-novice, high gardening enjoyment group stated the same. The PN/HE group was split into three large groups with respect to hours spent on lawn and yard. The largest group spent eleven hours or more on lawn and yard care. The other two groups were those who spent four to seven hours per week (31%) and those who spent eight to ten hours per week (28%). A majority (70%) of the plant ignorant, low gardening enjoyment group stated that they spent zero to three hours per week on their lawn and garden.

Income category, current market value of primary home, and age of the respondent were not significantly different between the three groups. The PI/LE group was slightly younger than the other two market segments, by approximately four years. Average age for the PE/HE and PN/HE groups was 49 years.

These consumer groups resemble four market segments identified by a national study of gardeners, funded by Organic Gardening Magazine and conducted by the Gallup Organization in the late 1980's. Four groups of gardeners were identified in that study: Dabblers, Decoraters, Cultivators, and Masters. As in our study, time spent in the garden was one of the most defining variables in this cluster analysis. Hours spent in the garden were related to expenditures, where more time spent in the garden also indicated more dollars spent on gardening products and activities. Our results paralleled this study.

To date, very little market segmentation information has been gathered for the green industry. The data that has been collected is almost exclusively demographic in nature. Such data suggests that for the retail nursery and garden center industry, a typical customer is probably female, older than the average population, married, college-educated, with an income of \$30,000 or more. Defining customers in terms of demographic characteristics, like age, income, and sex, does little to help us understand the dynamics of the purchase process and the personal and personality factors that drive the purchase decision. For example, a 20 year old, male, high school graduate, with an income of \$25,000 per year may be the profile of a buyer of a particular automobile. It is much more powerful, from a marketing perspective, to understand that this buyer craves excitement, seeks approval from his peers and favors stylish products that impart the image of material wealth. In the landscape and nursery industry, few examples of this type of segmentation exist.

### Significance to the Industry

Questions, such as "How many hours do you spend on your lawn and garden in a typical week?" or "How much do you spend on lawn and gardening products and activities?" can be powerful variables to segment a market. Business owners can use these questions to begin to identify customers that fit a particular profile. This profile may be added to information already in a customer databases. Customer databases can be helpful in identifying customers who spend large amounts of money or time gardening. Customers who spend moderate amounts of time or money may be targeted for add-on purchases while in the store. Business managers can capitalize on a group's unique points and tailor marketing efforts to address that specific group's needs more fully. The result is an increased capacity to make informed and profitable decisions about allocating marketing dollars.

Additionally, it is important to recognize a large group of customers (HE/PN) who have desire, but lack knowledge. This lack of knowledge may manifest itself as an information gap in the purchase process or the inability to do the things necessary to make the product perform as expected. Both result in dissatisfaction with the product and company. Research has shown that, for the garden center customer, assurance defined as employee knowledge, courtesy and ability to convey trust and confidence, is the most important factor in product and service quality. Business owners will benefit from recognizing and meeting this groups need for assurance in the sales encounter.



## Deep South Growers

1535 HARVEY VICKERS ROAD  
DOUGLAS, GEORGIA 31535-0955

(912) 384-5450

FAX: (800) 527-5745

E-MAIL: [deepsouthgrowers@netscape.net](mailto:deepsouthgrowers@netscape.net)

*Perennials • Bedding Plants • Wholesale and Retail*

# HARDIN'S

WHOLESALE FLORIST SUPPLY



FOIL



SPEED COVERS



FLORA SATIN



SATIN RIBBON

P.O. BOX 1129 • 329 WEST BOWMAN AVENUE  
LIBERTY, NORTH CAROLINA 27298

PHONE: (336) 622-3035 FAX: (336) 622-5443

**TOLL FREE: 1-800-672-8226**

**CALL FOR FREE CATALOG**



## caSSco

P.O. Box 3508  
Montgomery, AL 36109-0508

"A COMPLETE HORTICULTURAL GOODS PROVIDER"

**1-800-933-5888**



**National<sup>®</sup>**  
POLYMERS, INC.



**RAIN BIRD**  
PREFERRED BY PROFESSIONALS WORLDWIDE



CALL TODAY & SEE WHAT'S NEW!