

Insight from Consumer Research

Research collaborations between Michigan State University and various academic and horticultural organizations have led to a better understanding of consumer preferences within our industry.

By **Bridget Behe**

My maternal grandmother loved plants, and my psychologist father wanted to delve into why people buy the beautiful stuff our industry grows.

"We can grow it, but can we sell it?" "And even if we can sell it, can we make money?" Thanks to my grandmother and father, those two questions have been at the forefront of my thinking and most of the consumer research conducted at Michigan State University in the past 12 years. In 1997, I moved my teaching, research and extension program from Auburn University in Alabama to the Big 10 and Michigan State University in East Lansing. The state has a rich agricultural heritage, and today, agricultural production is one of Michigan's few vibrant and growing industries.

While colleagues focus on new crops, better plants, and eco-friendly or improved production practices, my research program has focused on the consumer. Curiosity got me started, but partnerships made me productive. Partnerships are the keys to productivity, whether in consumer research or business ventures. One set of partnerships is grounded in academics, and the other is in our industry. Colleagues from the S-1021 multistate research committee on horticultural marketing, management and economics (www.s1021.org) have been instrumental in our collective generation of researchable questions, methodological approaches, data collection, analysis and report writing. Industry contributions to agencies, including the American Floral Endowment and Horticultural Research Institute, help fund important work. Essential, too, are industry collaborations that provide us, individually and collectively, with possible research topics as well as reactions to our findings. Here is a sample of some of the products of collaborative work where Michigan State has played a key role.

Demographic Influences

In September 2004, Jennifer Dennis and I conducted an Internet study to evaluate and determine differences in gardening participation, purchases and satisfaction/regret levels by age and ethnic background. Consumers were asked to identify their participation in seven gardening activities and about their purchases in 12 gardening product categories. The number of differences in garden-related-activity participation and purchases



Researchers found that price was the most important attribute for the mixed containers.

decreased as income level increased across ethnic and age groups. Still, differences were found for purchase and activity level across age and ethnic groups. For marketers, this shows a heterogeneous market, especially at lower income levels, and a more homogeneous market at upper-income levels. Age and ethnicity can be used as a basis for market segmentation.

The Internet's Influence

Who is searching for gardening-related information online, and who is buying gardening-related products online? Results from another study showed that most gardening purchases are made predominantly in person, not online. As with other consumer goods, certain demographic characteristics influence the search or purchase of gardening items over the Internet. Women and married individuals were more likely to search online for gardening-related information; age, gender and income influenced the online purchase of gardening items. Individuals over age 45, women and individuals with a yearly income of more than \$45,000 were more likely to purchase gardening products online. Having knowledge and understanding of the online search and purchase behavior of consumers who purchase gardening-related items online can assist gardening retailers in producing the most effective marketing campaigns and company websites.

Floriculture

Flower color is a dominant attribute of fresh flowers playing a key role in consumer preferences.



Researchers at MSU have conducted studies on consumer's container preferences.

Chengyan Yue and I analyzed data collected by the Ipsos National Panel Diary group for the American Floral Endowment, which showed that, for single-stem cut flowers,

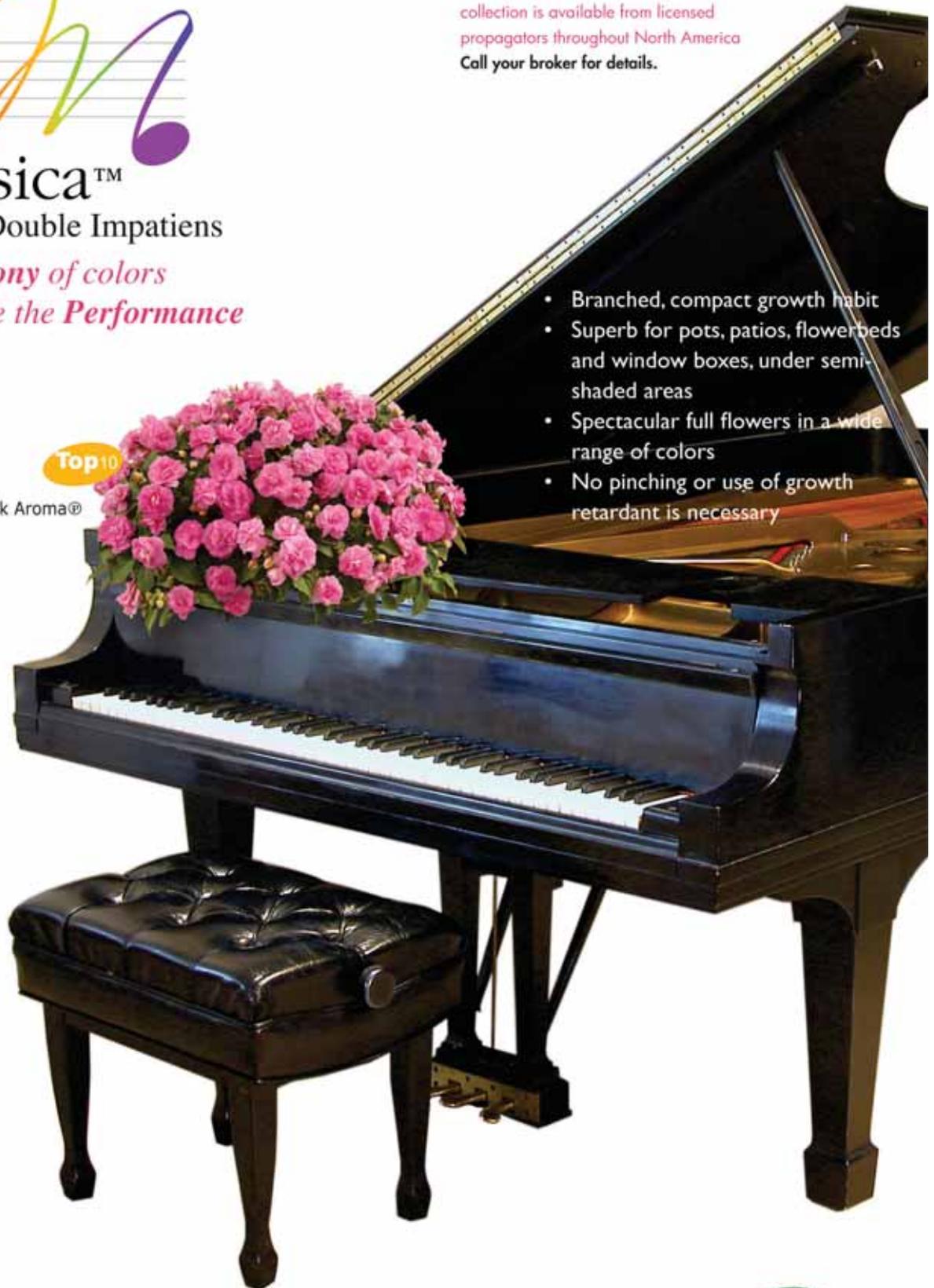
men and women not only differed in their color preferences but also within their gender depending on demographic characteristics and occasion. Most flowers purchased

were RedBronze (34 percent) while fewest were Yellow (10 percent). Women used a more diverse color palette, but both men and women were more likely to buy RedBronze



Musica™
Double Impatiens
Symphony of colors
Twice the Performance

Top 10
Musica™ Pink Aroma®



Danziger's extensive bedding plant collection is available from licensed propagators throughout North America. Call your broker for details.

- Branched, compact growth habit
- Superb for pots, patios, flowerbeds and window boxes, under semi-shaded areas
- Spectacular full flowers in a wide range of colors
- No pinching or use of growth retardant is necessary

Danziger - "Dan" Flower Farm Moshav Mishmar Hashiva 50297. P.O.Box 24 Beit-Dagan, Israel
Tel: 972-3-9602525, Fax: 972-3-9605896, E-mail: danziger@danziger.co.il www.danziger.co.il



flowers for an anniversary and buy PeachPink flowers for Mother's Day. Overall demand for BluePurple and Yellow flower colors increased over

time while the demand for other colors decreased.

Competition has changed the retail landscape while giving con-

sumers more choices in locations for purchase. Data collected by the NPR for the AFE were again used to evaluate consumers' choice of

different floral retail outlets among box stores (BS), traditional free-standing floral outlets (TF), general retailer (GR), other stores (OS) and direct-to-consumer channels (DC). We found that since 1992, market share and percentage of transactions decreased through TF but increased for BS. Average price per transaction in TF was higher than in BS and GR. Consumers who made floral gift purchases were more likely to shop at TF but those who bought floral products for themselves were more likely to purchase from BS. Consumers who shopped at TF or DC were more likely to buy arranged flowers rather than unarranged flowers. Consumers who purchased foliage plants and outdoor bedding or garden plants were more likely to buy them from BS. Consumers who chose BS and GR cited reasons for making the purchase including convenience and price, while consumers who went to TR and DC cited delivery, reputation and service.

Retail sales of container gardens have increased dramatically in recent years, rising 8 percent from 2004 to 2005, to \$1.3 billion. Still, little was known about consumer preferences for three attributes of container gardens: color harmony, price and care information provided. I worked with Texas A&M researchers and found that price was the most important attribute for the mixed containers (71 percent) followed by the amount of care information (23 percent) and color harmony (6 percent). Survey participants preferred a container garden with a price point of \$24.99, extensive care information and complementary color harmony. Seventy-six percent of study participants indicated that they would be more likely to purchase a container garden if they received extensive care information with the purchase, and 85 percent of participants said they would be willing to visit a website for more information on how to care for and maintain a container garden.

Landscaping

How much value do consumers place on a good landscape? *Money* magazine discovered a study lead at MSU and highlighted it in the June 2007 issue. I worked with researchers from seven states and a grant from HRI to show that clients



Today, ornamental buyers expect their plants to arrive in great shape. That's why more and more top growers are turning to PGRs from Fine Americas. With proven active ingredients, advanced formulations and uncompromising quality control, Fine PGRs bring out the best in your plants. Plus, these cost-effective products are backed by ongoing university research and top-notch technical support. For the distributor nearest you, visit www.fine-americas.com or call (888) 474-3463 toll free.

Always read and follow label directions before use. Abide®, Citadel®, Configure®, Concise®, Dazide®, Florgib®, Fresco® and Piccolo® are registered trademarks of Fine Agrochemicals, Ltd. Dazide® is a registered trademark of Find Holdings, Ltd. Cycocel®, Sumagic®, B-Nine®, ProGibb®, Fascination® and Bonzi® are registered trademarks of their respective manufacturers. © 2010 Fine Americas, Inc.

will get their greatest return on the installation of herbaceous plant material. A relatively small investment (less than \$250 in their study) in annual and perennial flower color added nearly four times the investment to the perceived value of a home (\$1,000 in their study). Increasing plant material size from the smallest size (gallon shrubs, 1-inch diameter trees, 2.5-inch perennials) to the largest size (7-gallon specimen shrubs, 3- to 3½-inch diameter trees, gallon perennials) increased a home's perceived value by an average of 5 percent. Plant size accounted for 41 percent of total perceived home value! Increasing the sophistication of the design — such as adding one or two curved island beds — added 1 percent in perceived value all on its own. How much more does it cost to cut a curved line than a straight line? Probably 100 times less than the return and plant size was twice as important as plant material selection.

Nursery production contributed \$18.1 billion to the U.S. economy in 2002 and created nearly 2 million jobs. Colleagues from the multistate research committee S-1021 conduct the National Nursery Survey. The most recent survey was in 2003. It targeted 15,588 total firms representing 44 states, with 2,485 nurseries responding. Behe led one part of the data interpretation to provide a regional profile of the marketing practices of nursery producers. The coastal regions had a higher percentage of wholesale sales, while interior regions had a higher percentage of retail sales. Newsletters and yellow pages were the most important form of advertising in the Great Plains; trade journals were the most important method in the South Central and Southeast regions; and catalogs were the most important advertising method for all other regions. The percentage of sales to repeat customers varied from a low of 65 percent in the Great Plains to a high of 76 percent in the Southeast. The Appalachian and Southeast regions had the highest percentage of negotiated sales (27 percent), while the Northeast had the lowest. Differences generally existed among regions in the percentage of sales spent on various transaction methods; in-person, telephone and mail-order were the three most important sales transaction methods for nurseries in all



One study showed that plant size accounted for 41 percent of perceived home value.

regions, except in the Southeast, where trade shows ranked third. Landscape professionals, rewholesalers, and single-location garden centers were the major market outlets in all regions.

Native Plants

How is the market for native plants developing? More than 300 Internet respondents in Montana participated in a study on consumer perceptions of native plants in traditional and naturalistic settings. They reported their familiarity with both woody and herbaceous plant species native to Montana, and additional data were collected to determine their perceptions of native plants used in naturalistic designs through a conjoint study. Nearly half of the participants recognized or had purchased most of the native plants shown in photographs. Data analysis showed participants placed the greatest relative importance (62 percent) on landscape style as the most important factor in landscape design. Study participants also preferred a naturalistic style over a more traditional one, and mixed plant species to single species. Even among those participants who were unfamiliar with native plants or hadn't purchased them, native plants were preferred in the landscape. The demand for native plants may be reaching a critical stage.

Eco-Friendly Containers

Another recent collaboration with members of the S-1021 multistate committee produced a better understanding of consumer preferences for eco-friendly containers. The study was funded partly by AFE and a grant from the Federal/State Marketing Improvement Program. Researchers found that over the last decade, the green industry has made significant strides in its environmentally beneficial alternatives, from biodegradable potting containers to increased waste

composition and carbon footprint reduction. However, little is known about how traditional product attributes compare to their newer, more environmentally friendly counterparts. This study bridges this gap by allowing not only for a better understanding of consumer preferences but also for identification of several distinct consumer segments that value these traits the most. This identification can allow businesses to more efficient in the use of their resources to offer specific product attributes to their target consumers. MSU researchers conducted a conjoint analysis through Internet surveys with 535 valid observations from Texas, Michigan, Minnesota and Indiana. Our results show that on average consumers like rice hull pots the most, followed by straw pots. Our analysis identified seven market segments and corresponding consumer profiles: "Rice Hull Likers," "Straw Likers," "Price Conscious," "Environmentally Conscious," "Carbon Sensitive" and "Nondiscriminating." Different marketing strategies should be adopted to market biodegradable containers to different consumer segments.

Conclusion

A smattering of collaborative work has provided some new information about how consumers buy and use products associated with our industry. Consumer research provides a valuable link between business, industry and academia to fill the void that most businesses have neither the expertise, resources or time to explore. While funding opportunities are relatively abundant for consumer research on edible products, consumer research for ornamentals lags behind. The funding stream that comes from businesses through trade associations and funding agencies is vital to this pursuit. Because there is no megacorporation to subsidize consumer research for the diverse, highly fragmented horticulture industry, S-1021 partnerships will work hard to be there to fill the need. **[GPN]**

Bridget Behe is a professor of horticulture marketing in Michigan State University's Department of Horticulture. She can be reached at behe@msu.edu or (517) 355-5191, ext. 1346.

LearnMore

For more information related to this article, go to www.gpnmag.com/lm.cfm/gp031002

Shape up your plants with these Fine PGRs

 **abide**[®]

*Same active ingredient as ARest[®]

Abide[®] is a broad-spectrum PGR offering consistent results in container-grown ornamental plants.

 **citadel**[®]

*Same active ingredient as Cycocel[®]

Citadel[®] generates effective PGR activity on a wide variety of containerized crops.

 **concise**[®]

*Same active ingredient as Sumagic[®]

Concise[®] promotes more compact and marketable plants, and is highly effective at low use rates.

 **configure**[®]

Configure[®] increases lateral/basal branching and promotes flowering.

 **dazide**[®]

*Same active ingredient as B-NINE[®]

Dazide[®] 85 WSG produces compact, stronger and greener plants with well developed root systems.

 **florgib**[®]

*Same active ingredient as ProGibb[®]

Florgib[®] stimulates and promotes growth, produces stem elongation and flowering in ornamental plants.

 **fresco**[®]

*Same active ingredient as Fascination[®]

Fresco[®] delays leaf yellowing and necrosis on lower leaves and delays flower senescence.

 **piccolo**[®]

*Same active ingredient as Bonzi[®]

Piccolo[®] brings out the best in ornamentals by producing compact, consistent quality plants.

Write in 117

 **fine**
Excellence in PGR Technology
www.fine-americas.com