FNGLA Endowed Research Fund Progress Report
Consumer Purchase Patterns in Florida (3 Year Study)

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FNGLA Research Priority: Enhance Quality of Life

Project Title: The impact of display gardens on identifying consumer needs, trends, and preferences

Abstract: Traditionally, Florida has been a state known for wholesale production of plant goods (3). Hodges and Haydu (2) reported an increase in retail sales during 2000, while the wholesale industry experienced a decrease in sales of 245 million dollars. The increase in homebuilding and urban sprawl in Florida has increased demand for plant goods on a local scale. Therefore, the need to investigate retailing was paramount. Consumer behavior was measured for four hours per site at two Northwest Florida retailers, one in a rural area (20 May) and the other in an urban area (27 May). Areas in the retail operation where containerized plants in display gardens or these plants displayed in traditional rows were placed included: the landing (parking to entrance), transition (entrance or just inside entrance), and destination (within retail setting) zones. More plants were purchased from displays in the landing zone at both locations and containerized display gardens influenced purchase behavior. However, limited data gathered at the sites did not confirm if containerized plants as gardens were shopped more than traditional displays. Retailers should consider displaying a collection of containerized plants as display gardens and conduct post-purchase surveys to provide insight into purchase behavior.

Introduction: Display gardens help to inspire gardeners, both new and old, with the possibilities of what could be. As a marketing tool, nothing beats display gardens. They are colorful and educational, captivating and informative (1). An attractive display garden helps to sell plants and other materials by giving homeowners new ideas about plants, hard goods, and garden themes. Attractiveness influences unplanned purchases because most customers have not decided on everything they will buy when they enter a retail establishment (5), therefore well-designed display gardens are crucial tools for increasing sales.

Paco Underhill (5) states that all shopping/ retail experiences follow a standard pattern. First, men and women, young and old, alone or family, people have different ways of shopping. The challenge for retailers- from a person with an up-scale mega square-foot road side stand, to a person with a table at a farmers' market, is to enhance the shopping experience so as to promote sales. Underhill's research shows that the shopping experience goes through 5 steps or stages. He calls them "zones".

The zones he identifies are the landing, transition, destination, transaction and exit zones. The landing zone is the initial experience that ranges from the signs, parking lot look to the welcoming eye contact at the garden center. The transition zone is the point of entry- the doorway space, and the overall presentation which clarifies the space at the garden center. The destination zone is where product is displayed and offered for sale and needs space to shop, display and a hovering zone for people who are accompanying the shopper who are not actively involved in the purchase process. The transactions zone is where the actual sale is made and goods and services are exchanged. Finally the exit zone is the departure point to facilitate the removal of all those items which were purchased and encourage a return for another purchase.

According to Hodges and Haydu (2), 37% of retail sales are attributed to retail salespersons. Labor is the leading expense in any nursery operation, therefore methods that minimize labor costs must be investigated. Direct mail, discounts, radio and television advertising, and the internet contribute to 13% of retail plant sales in Florida. While these strategies are effective, they incur substantial costs to the producer. On-site strategies to increase plant sales, such as in-house displays, display gardens, and point-of-purchase materials, need to be evaluated in Florida.

Objective:

The objective of this study is to record the impact of retail setting display location and containerized plant displays on impulse buying behavior through post-sale surveys.

Materials and Methods:

Consumer behavior was measured for four hours per site at two Northwest Florida retailers, one in a rural area (20 May) and the other in an urban area (27 May). A collection of plant species, selected by the business owner or manager (Table 1) which represented 3 distinct gardens were displayed in the landing, transition, or destination zone. Each zone featured the same plant species with 3 replications displayed per species. The same type and number of plants were displayed behind the containerized display gardens in rows. Theme gardens at the rural location included a continuous summer flowering, spring to summer flowering, and a foundation garden; gardens at the urban location were labeled butterfly, purple flower, and foundation garden. All species were advertised by a 4-inch by 6-inch sign card containing four to five plant attributes and a color photograph.. Consumer behavior was evaluated by a post-sale survey provided to

consumers that purchased plants from the displays. The post-purchase survey was used to define customer demographics (male/female, education, income range, and reason for purchase).

Fourteen questions were asked on the post-purchase survey. Questions included: How did you learn about this retail operation? newspaper, radio, internet, marquee/billboard, word of mouth, or other; How often do you typically purchase plants? Rarely, seasonally, often; You bought plant material today because: gift, for garden, season to plant, enjoy shopping, interior houseplant, hurricane replacement, patio plant, unique/unusual, or other; We observed your purchase today, why did you choose this display? attractive, convenient, well stocked, had to have, clean and easy to shop, well labeled, spontaneous purchase, atmosphere, or no reason; What drew you to the display? color combination, salesperson, signs, quality of plants, quality of display, plant type, structure of the display, or nothing; Do you think the display area affected your purchase behavior? no, somewhat, or yes; Did the display garden provide you with design ideas? no, somewhat, or yes; Are you pleased with the quality of the plants? no, somewhat, or yes; Gender: male or female; Age: 15 to 24, 25 to 34, 35 to 44, 45 to 54, or 55+; Household Income: ≤ $10,000, ≥ $10,000, ≥ $20,000; ≥ $40,000; ≥ $60,000, ≥ $80,000, ≥ $100,000; ≥ $120,000; ≥ $140,000; Education: not a high school graduate, high school graduate, college tech graduate, 4 year college graduate, graduate degree, or other; Number of adults in the household and Number of children in the household.

Location 1: The rural location was an 8-year old, family-operated garden center located in Pace, FL that employs 5 full time workers. Pace is a community on the Gulf Coast of Florida's Panhandle 14 miles from Pensacola with a population of 8,869 with an average household income of $38,813 (4). The median age is 35.5. The garden center markets a diverse group of

ornamental plants and hardgoods and is known for its contractor services of turf maintenance and pest management. The nursery primarily draws its customers through word of mouth advertising and attributes a majority of sales to customers over the age of 30 with a primary customer profile of 60 years old and greater.

Location 2: The urban location was a 36-year old, family-run garden center located in Pensacola, FL that employs 10 workers. Pensacola has a population of 54,734 with an average household income of $36, 659 (4). The median age is 39.7. The retail nursery is known for its high-quality shrubs and trees, on-site plant information consultants, and assorted selection of homeowner labeled pesticides. The nursery primarily draws its customers through billboard, radio, and newspaper advertising.

Results and Discussion:

Location 1: Over a four hour period 4 plants were purchased from the sales area. Two Rose-of-Sharon plants were purchased individually from the landing zone from traditional displays behind the display gardens. Two chaste trees were purchased individually, one from the landing zone and one from the transition zone, but both from the display gardens. Consumers chose not to fill out a post-purchase survey.

Location 2: Over a four hour period three species (chaste tree, Indigo Spires salvia, and Imperial Blue plumbago) were purchased from three different zones. The chaste tree (*Vitex agnus-castus*) was purchased from the selling zone in the traditional display by a male shopper over 55 with an advanced degree and a household income greater than $80,000. He knew of the retail operation

by word of mouth and shops on a seasonal basis. The customer bought the plant as a hurricane replacement and felt the display was well stocked and was drawn to the display by plant type. The display garden affected his purchase behavior and he was pleased with the quality of the plants.

The Indigo Spires salvia (*Salvia* 'Indigo Spires') was purchased from the transition zone in the display garden by a 4-year college educated female over 55 with a household income greater than $60,000. She shops often and only at this urban location. The customer bought the plant for her garden and felt the display was attractive and was drawn to the display by color combination. The display garden somewhat affected her purchase behavior, she did not receive design ideas, and she was pleased with the quality of the plants.

Two blue plumbago (*Plumbago auriculata* 'Imperial Blue') were purchased from the landing zone in the traditional display by a 4-year college educated male between the ages of 45 and 54 and a household income greater than $140,000. One adult and three children live with the customer. He knew of the retail operation by word of mouth and often shops at the urban location. The customer bought the plant for his garden and felt the display was attractive and was drawn to the display by color combination and plant quality. The display garden somewhat affected his purchase behavior, he did not receive design ideas, and he was pleased with the quality of the plants.

Conclusions and Recommendations: Our research shows that more plants were purchased from displays in the landing zone at both locations and containerized display gardens influenced

purchase behavior. However, the limited data gathered cannot make definitive conclusions about consumer behavior. Retailers should consider displaying a collection of containerized plants as display gardens and conduct post-purchase surveys to provide insight into purchase behavior.

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3. Hodges, A.W. and J.J. Haydu. 2000. A Decade of Change in Florida's Ornamental Plant Nursery Industry, 1989 to 1999. Economic Information Report 00-3, Food and Economics Dept., Univ. Florida, Gainesville.
4. Sperling's Best Places. 2005. Neighborhood Profiles.<http://www.bestplaces.net/nhood/>.
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Table 1. Plant species displayed at urban and rural garden centers.

Urban Location	**Rural Location**
Butterfly Garden	**Continuous Summer Flowering Garden**
White Oleander	Pink KnockOut Rose Tree
Nerium oleander	*Rosa* 'Radcon'
Yellow Coral Honeysuckle	Shrub Althea
Lonicera sempervirens 'Sulphurea'	*Hibiscus syriacus*
New Gold Lantana	Coreopsis (Tickseed)
Lantana x*hybrida* 'New Gold'	*Coreopsis grandiflora* 'Sunrise'
Purple Flower Garden	**Spring to Summer Flowering Garden**
Chaste Tree	Red Carpet Rose
Vitex agnus-castus	Rosa 'Noare'
Indigo Spires Salvia	English Dogwood
Salvia farinacea x *longispicata*	*Philadelphus coronarius*
(*Salvia* 'Indigo Spires')	
Butterfly Bush	Patio Verbena Verbena Temari Red
Buddleia davidii 'Nanho Blue'	*Verbena* x*hybrida*
Foundation Garden	**Foundation Garden**
Wax Leaf Privet	Chaste Tree
Ligustrum japonicum	*Vitex agnus-castus*
Chinese Fringe Bush	Encore Azalea
Loropetalum chinense 'Rubrum'	*Azalea* x*hybrida*
Blue Plumbago	Lantana
Plumbago auriculata 'Imperial Blue'	*Lantana camara*