Economics and Marketing

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Section Editor

Demand and Sales Forecasting Tools and Techniques

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Significance to Industry: Container, field, and floriculture nurseries prepare budgets for future periods so as to reduce the range of uncertainty within which management judgments must be made. The budgets normally focus on costs; however, to understand the likelihood of profits, estimates of both prices and quantities of materials sold must be made (price x quantity = revenue; revenue minus expenses = profit). Business forecasting techniques provide a quantification of these economic concerns. Producers and marketers may not have an understanding of the tools and techniques to do their own forecasting, so an extension agribusiness program has been presented to these individuals.

Nature of Work: Situation and outlook statements and economic-related forecasts are the frequent requests extension economists receive. These requests may be policy-driven, price- or cost-driven, sales-driven, finance-driven, or of some other additional nature (breakeven, cash flow, decision trees, elasticity evaluation, capital investment analysis, game theory). Reliance on only statistical or quantitative data sets and data manipulative methods or modeling techniques is inappropriate for nurseries as judgmental forecasting has major impacts on the final outcome. Analysis, judgment, common sense, intuition or gut feelings, and business experience must be brought to bear at the point where these important techniques generate results, and only the individual has a feel for the weighting or prioritizing of those techniques.

The forecasting process must adhere to two rules: the forecast must be technically correct and produce forecasts accurate enough to meet the firm's needs; and the forecasting procedures and its results must be effectively presented to management so that the forecasts are utilized in the decision-making process to the firm's advantage and justifiable on a cost-benefit basis. Basic descriptive statistical concepts need to be understood by the forecaster: population, sample, mean, degrees of freedom, probability distributions, and hypothesis testing.

Because tabular data is very difficult to interpret, the data should be graphed so as to discern any correlations, cycles, trends, scatter plots, or patterns. In choosing a forecasting technique, there are four considerations: the method (naïve to sophisticated), pattern of the data (stationary, trended, seasonal, cyclical), time horizon (short, intermediate, long-term), and type of model (time series, causal, cross-sectional). To select the appropriate forecasting technique properly, the forecaster must be able to: (1) define the nature of the forecasting problem; (2) explain the nature of the data under investigation; (3) describe the capabilities and limitations of potentially useful forecasting techniques; and (4) develop some predetermined criteria on which the selection

decision can be made. There is no one silver bullet or technique, so must try multiple techniques.

Results and Discussion: Following is a review of various types of data, a description or definition, when to use that type of data, and a list of techniques to be considered when forecasting using that type of data.

Stationary data is data whose average value is not changing over time. Such situations are when the demand patterns influencing the data series are relatively stable. Use available history to data series to estimate its average value, which becomes the forecast for future periods. More sophisticated techniques involve updating the estimate as new information becomes available. Stationary data is useful when initial estimates are unreliable or when the stability of the average is in question. Updating techniques provide some degree of responsiveness to changes in the underlying structure of the series. Stationary data forecasting techniques are used when:

- Forces generating a series have stabilized and he environment in which the series exists is relatively unchanging (unit sales of product in maturation stage of its life cycle; number of sales resulting from a constant level of effort; breakdowns per week of assembly line having uniform production rate);
- A very simple model is needed because of lack of data or for ease of explanation or implementation (new business with very little historical data available);
- Stability may be obtained by making simple corrections for factors such as population growth or inflation (changing income to per capita income; changing dollar sales to constant dollar amounts);
- Series may be transformed into a stable one (logarithms, square roots, differences); or
- Series is a set of forecast errors from forecasting technique that is considered adequate.

Techniques to be considered when forecasting stationary data includes naïve methods, simple averaging methods, moving averages, simple exponential smoothing, or Box-Jenkins methods. All of these are presented as components of statistical software, such as Excel.

Trended series of data contains a long-term component that represents the growth or decline in the series over an extended period of time. Economic time series data commonly contains a trend. Forecasting techniques for trended data are used whenever:

- Increased productivity and new technology lead to changes in the life style (demand for electronic components and demand for rail service or railroad usage);

- Increasing population causes increases in demand for goods and services (sales revenues of consumer goods; demand for energy consumption; use of raw materials);
- Purchasing power of the dollar affects economic variables due to inflation (salaries; production costs; prices); or
- Market acceptance increases (growth period in the life cycle of a new product).

Techniques to be considered when forecasting trended series data includes linear moving average, linear exponential smoothing, quadratic exponential smoothing, simple regression, growth curves, or exponential models.

Seasonal series data could be defined as a time series with a pattern of change that repeats itself year after year. Seasonal data involves selecting either a multiplicative or additive method and then estimating seasonal indexes from the history of the series, which are then used to include seasonality in forecasts or to remove such effects from the observed values. Forecasting techniques for seasonal data are used whenever:

- Weather influences the variable of interest (electrical consumption, seasonal sports activities, clothing styles, agricultural growing seasons, weekender and diy'er activities); or
- The annual calendar influences the variable of interest (retail sales influenced by holidays, three-day weekends, or school calendars).

Techniques to be considered when forecasting using seasonal data include classical decomposition, exponential smoothing, time series regression, or Box-Jenkins methods.

Cyclical data series are the wavelike fluctuations around the trend, and tend to repeat in the data every two, three, or more years. Such data are difficult to model because their patterns are not stable. The up-down wavelike fluctuations around the trend rarely repeat at fixed intervals of time and the magnitude of the fluctuations also tends to vary. Cyclical data series often requires finding coincidental or leading economic indicators of macroeconomics. Forecasting techniques for cyclical data are used when:

- The business cycle influences the variable of interest (economic, market , competitive factors);
- Shifts in popular tastes occur (fashion, food, music, color);
- Shifts in population occur (wars, famines, epidemics, natural disasters); or
- Shifts in the product life cycle occur (introduction, growth, maturity, decline).

Techniques to be considered when forecasting cyclical series data include classical decomposition, economic indicators, econometric models, multiple regression, or Box-Jenkins methods.
The time horizon has a direct bearing on the selection of the forecasting technique. As the forecasting horizon increases, a number of quantitative techniques become less applicable. Moving averages, exponential smoothing, and Box-Jenkins models are poor

predictors of economic turning points, whereas econometric or point estimate models are more useful.

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Update on The State of the Green Industry: 2014 National Nursery Survey Results

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Significance to Industry: As a result of the recent economic recession (2007-2009) and subsequent decline in consumers' discretionary expenditures, the green industry in the United States suffered significant economic losses leading to major structural changes in the industry. To be competitive in the complex business landscape and effectively manage risk, nursery and greenhouse operators need reliable and up to date information about sales, transportation, marketing channels, product mix, irrigation, pest management and relevant production practices, to name only a few. However, due to budgetary limitations, the availability of such data became very limited in recent years. The current report summarizes the state of the industry focusing on trends in production and marketing characteristics.

Nature of Work: The 2014 *National Nursery Survey*, conducted by the *Green Industry Research Consortium* for calendar year 2013, is sixth in a series of reports summarizing industry trends and statistics since 1989 (Brooker et al., 1990, 1995, 2000, and 2003; Hodges et al., 2010). The main objective of these surveys is to document changes in production and management practices of the United States nursery and greenhouse industry over time in individual states and regions, and to provide useful information to growers, allied industry professionals, extension personnel and researchers. Information collected in this survey included annual sales, employment characteristics, plant type categories produced, native plants, product forms, market distribution channels, selling methods, advertising forms, irrigation water sources and application methods, integrated pest management practices, interstate and international trade flows of finished products and propagation materials, year of business establishment, computerized business functions, and factors affecting business growth and pricing.

Results and Discussion: *Survey Methodology*: The research team compiled a list of 110,000 registered growers and plant dealer firms in all 50 states of the U.S. A stratified random sample of 32,000 firms was contacted for the survey with 15,000 firms via mail and 17,000 firms via email. The number of survey respondents in 8 U.S. regions (after screening out duplicate responses and outlier values) totaled 2,657 firms, representing an 8% response rate of firms contacted (Figure 1). The number of employees reported, including fulltime, part-time, temporary and seasonal workers and management, totaled over 38,000.

Sales: Total annual sales reported were nearly $4 billion with the largest sales occurring in the Southeast region ($1.06 Bn), followed by the Midwest ($877 Mn), Pacific ($525

Mn), and Northeast ($486 Mn) (Figure 1). The distribution of total reported sales was 40.2% retail and 54% wholesale. Note that the percentages do not sum to 100% because some respondents did not report this data. About two-thirds (67.6%) of sampled firms reported annual sales under $250,000, while 16 percent had sales between $250,000 and $999,000, 10% had sales from $1 to $4.9 million, and 6% had sales over $5 million. The average annual sales per firm was $1.83 million and the average sales per employee was $102,355.

Employment: Over half (54.2%) of employees in the Green Industry were fulltime/permanent, followed by temporary/seasonal workers (42.7%). A small share of employees (3.1%) were foreign nationals working in the U.S. under the H2A Visa program. The average number of employees per firm was 18.4.

Plant Type Categories: The top five plant categories reported by the surveyed firms as a share of total sales were bedding plants/flowering annuals (17.6%), deciduous shade and flowering trees (9.0%), herbaceous perennials (8.6%), deciduous shrubs (7.3%), and bedding plants/vegetables/fruits/herbs (5.8%). Miscellaneous other unidentified plants represented 10.5 percent of sales. The bottom 5 plant types were azaleas (1.5%), vines and ground covers (2.3%), propagated material (liners, cuttings, plugs, etc., 2.4%), narrow-leaved evergreen shrubs (2.5%), and tropical foliage (2.7%). In addition, native plants represented 17.1% of total sales reported. Plant types that increased as a share of sales since the previous 2008 survey were bedding plants-flowering annuals, herbaceous perennials, and fruit trees.

Product Form: The largest product form category reported by surveyed firms was containerized plant material, representing over 73% of total sales. The second largest identified category was balled/burlapped (8.1%), followed by bare root plant material (7.0%). Other product forms were 8.6% of reported sales. A relatively small percentage of sales were accounted for by in-ground containers (1.9%), balled/potted/process balled (0.7%) and field grown bags (0.3%). The share of containerized plants increased from 65% in the previous survey, while balled-burlapped and bare root product forms decreased.

Sales Transaction Types: Information was collected on various types of marketing practices used. About one-fourth (26%) of sales transactions involved negotiating prices and terms. Sales for products contracted in advance comprised 17% of total sales. Sales brokered for other growers represented 8% of sales. Sales to repeat customers represented 89% of sales.

Market Distribution Channels: Wholesales sales were categorized into 6 major market channels. The largest market channel was landscape firms (28.4%), followed by re-wholesalers (20.1%), home centers (19.9%), single location garden centers (16.7%), mass merchandisers (10.3%), and multiple location garden centers (4.6%). Since the previous survey, sales increased to home stores (e.g., Home Depot, Lowe's) but decreased to garden centers.

Advertising Media Expenditures: The largest category of advertising media expenditures in 2013 was the Internet, representing 19.4% of total expenditures, followed by trade journals (15.2%). Miscellaneous other unspecified advertising media represented 13.9% of expenditures. The next largest advertising media categories were radio/TV (12.0%), social media (11.7%), Yellow Pages (7.9%), and trade journals (6.3%). Relatively small expenditures were made for print/CD catalogs (4.5%), newsletters (4.2%), gardening publications (2.9%), and billboards (2.1%). In addition, total advertising expenditures represented 4.0 percent of total sales. Surprisingly, the large share of expenditures for Internet advertising does not appear to have resulted in significantly increased sales through this medium. Attendance at trade shows continues to decline, both with and without an exhibit.

Irrigation Source: The predominant source of irrigation water was groundwater wells, used by over half (55%) of the surveyed Green Industry firms in 2013. City water was the primary source for 27.2% of firms, and natural surface water by 23.1%. A relatively small share of firms used recaptured (10.4%) or reclaimed (4.3%) water sources. Note that respondents were allowed to choose multiple sources, so the percentages do not sum to 100%. The share of firms using city water has increased from the previous survey.

Irrigation Method: The most widely used water application method used in the Green Industry in 2013 was overhead irrigation, reportedly used by 53.3% of firms. Drip irrigation was used by 36.8% of firms. Approximately one fifth of the firms (19.9%) used other methods (i.e. hand watering) and only 4.8% used sub-irrigation (i.e. ebb/flood systems). Again, respondents were allowed to choose any of the sources, so the percentages do not sum to 100%. Although drip irrigation typically has higher water use efficiency, the share of firms using this method has not increased.

Integrated Pest Management Practices: Among 22 different Integrated Pest Management (IPM) practices, the most commonly used by 72.0% the Green Industry firms in 2013 was “remove infested plants”. A majority of firms used cultivation and hand weeding (61.9%) and “spot treatment with pesticides” (52.7%). Other frequently used practices included “elevate or space plants for air circulation” (47.2%), “inspect incoming stock” (46.1%), and “alternate pesticides to avoid chemical resistance” (42.0%). The least common practices were “use sanitized water foot baths”, “treat retention pond water”, and “soil solarization/sterilization”, all were used by less than 5 percent of firms. Many of IPM practices were reported by a slightly lower percentage of respondents than the previous survey.

Inter-regional Trade Flows: The U.S. regions with the largest share of total plant product sales to other regions were the Appalachian (35.7%), Mountain (25.4%), Southeast (19.1%), and Southcentral (12.3%) regions. The Northeast, Pacific, Midwest and Great Plains regions had less than 11% of total sales to other regions.. International exports represented only 1.0% of total sales, down from 3.7% previously. Among seven broad factors potentially affecting the geographic range of business conducted by Green

Industry firms in 2013, “transportation” was indicated as “very important” by 40.8% of firms, followed by “plant offerings” (36.5%), “production” (28.0%), “personnel” (25.2%), and marketing issues (17.4%), while debt capital and equity capital were generally rated as “not important.”

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Figure 1. Number of respondents, employees and sales reported for 2013, by region, in the U.S. Green Industry survey

Region	Number Respondents	Employees Reported	Sales Reported (million $)
Appalachian	222	3,649	$421.02
Great Plains	160	1,833	$268.88
Midwest	461	8,815	$877.41
Mountain	81	1,454	$112.14
Northeast	602	6,107	$485.65
Pacific	246	5,542	$524.64
Southcentral	176	2,192	$201.69
Southeast	709	9,065	$1,065.30
Total	2,657	38,657	$3,956.74

Costs And Carbon Footprint Associated With Selected Nursery Production Systems

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Significance to the Industry: From a supply standpoint, information gained from this cost analysis and LCA of field-grown ornamental shrub production systems will help managers better understand the economic dimensions of their production systems and associated cultural practices and help them better articulate an improved value proposition for their products in the green industry marketplace. From a demand standpoint, recent literature has demonstrated that consumers increasingly consider the potential environmental impact of green industry products (e.g. carbon footprint) is increasingly when making purchasing decisions. Knowing the carbon footprint of production and distribution components of nursery crops will help nursery managers understand the environmental costs associated with their respective systems and evaluate potential system modifications to reduce GHG emissions.

Nature of Work: Many current economic trends and driving forces point to the fact that the green industry is in a period of hypercompetitive rivalry, with consumer demand exhibiting characteristics of being in the mature stage of the industry life cycle (Hall, 2010). Nonetheless, the green industry is a vital component of the economy in individual states and nationally, contributing $175.3 billion in economic contributions (2; 6).

In spite of being referred to as the green industry, there have been recent concerns expressed in the mass media questioning the environmental friendliness of the industry given its prominent use of petroleum-based inputs (Evans and Hensley, 2004). While this may appear as a negative on the surface, it has promulgated an interest in developing more sustainable alternatives (1; 2) to appeal to the environmental consciousness of consumers (2; 16).

The real question has been whether these alternatives are economically feasible for growers to provide them. To be considered economically viable, these alternatives would either have to reduce costs at various points of the firm-level or industry-wide supply chain and/or enable industry participants to use the sustainable attributes as a marketing advantage (e.g. the ability to capture a price premium), or both. Previous research has documented that the latter is possible if firms emphasize the more sustainable (or environmentally beneficial) aspects of landscape shrubs and trees (2; 12; 14; 16).

Though it is widely recognized that landscape shrubs and trees and plants enhance property values (16), these plant materials also provide measurable and lasting environmental benefits. For example, ornamental shrubs and trees sequester carbon,

reduce energy use, mitigate water runoff, clean the air, and provide a plethora of other ecosystems services (13; 15).
Recently, university researchers have quantified, using procedures first developed by Norris (2001), the value of a subset of these ecosystem services for trees (4, 7; 8; 9; 10). Ingram and Hall (2014) also looked at the economic costs of component horticultural systems while conducting a life cycle assessment for field-grown, deciduous shrubs grown in the lower Midwest (10).

Results and Discussion: Life cycle assessment (LCA) is an approach that analyzes the flows associated with the whole life cycle of a product or a service, usually referred to as “cradle-to-grave” (i.e., from raw material extraction, to manufacturing, use, recovery and end-of-life). The first step in LCA is identifying the processes or steps for each stage in the life cycle. The inputs (materials and energy) and outputs (releases to air, water, soil, etc.) are determined for each step, evaluated for global warming potential, and summarized as the basis for drawing conclusions and improving future results (9).

The carbon footprint of a product is a measure of all greenhouse gases (GHG) emitted in a product’s life cycle, and is measured in units of tons (or kg) of carbon dioxide equivalents (CO_2e). It is the impact indicator of primary interest to many stakeholders as it quantifies the global warming potential (GWP) of a product or service. Since most GHG are produced through burning fossil fuels, the carbon footprint of a product is primarily related to energy consumption (9; 11).

To date, the costs and carbon footprint have been calculated for field-grown shade trees, field-grown flowering trees, field-grown shrubs, and pot-in-pot trees. For each of these plant categories, production protocols were developed in which each cultural practices was defined in detail including all materials, labor, and equipment used. Then the costs and carbon footprint of each activity was summarized for the propagation phase(s), the growing phase(s), harvesting and transport to the landscape site, the entire life of the shrub/tree in the landscape, and take down and removal at the end of the plant’s life. Thus, the full life cycle of the plant was modeled. The following table summarizes these findings.

Knowing the impact of these production system protocols on environmental parameters such as carbon footprint (global warming potential, GWP) and variable costs will allow managers to focus on increasing efficiency for the largest contributors. Growers will also have the necessary data to analyze the tradeoffs between costs and GWP, as well as the sensitivity of various cultural practices on costs and GWP. These data can be also used to communicate to the consuming public the value of trees in their landscape, along with producers’ efforts to minimize GHG emissions during production.

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Table 1. A summary of costs and carbon footprint associated with selected nursery crop plant categories.

Plant category	Modeled plant	Total life cycle cost per plant	Net carbon footprint per plant
Field-grown shade trees	2” caliper red maple	$235.09 per tree	-666.14 kg CO2e
Field-grown shrubs	36-inch ball viburnum	$18.25 per shrub	-11.295 kg CO2e
Pot-in-pot shade trees	25-gallon red maple	$250.76 per tree	-671.42 kg CO_2e

LSU AgCenter Louisiana Super Plants – Program Update

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Significance to Industry: The LSU AgCenter's Louisiana Super Plants program debuted in 2010. With the announcement of four new varieties for 2015 and three new winners for 2016 the program has now identified 37 great landscape plants as for statewide marketing and promotion. The goal of this program has been to identify and promote exceptional plants that perform well in Louisiana. Some of these are new varieties and some are older varieties with a prior proven track record.

Nature of Work: The LSU AgCenter and Louisiana's nursery and landscape industry, through the Louisiana Nursery and Landscape Association, identified the need for a state-based program that uses university research to identify and promote exceptional plants. Similar programs, such as Texas Superstars and Mississippi Medallions, are on-going in other states. Funding for this project was initially provided through the Louisiana Department of Agriculture and Forestry with U.S. Department of Agriculture Specialty Crop Block Grant Program funds. The LSU AgCenter's Hammond Research Station, partnering with the School of Plant, Environmental and Soil Sciences, leads the program.

Each Super Plant must have at least two years of rigorous evaluations and have a proven track record under north and south Louisiana growing conditions. Louisiana Super Plants must prove hardy across the state. Louisiana Super Plants must be easily produced and available for all nursery and landscape industry wholesalers and retailers to market and sell.

Louisiana Super Plants are selected a year or two in advance of a public announcement. The program results in home gardeners having an increased awareness of better performing landscape plants. A motto of the program is "university tested and industry approved".

Results and Discussion: Four new Louisiana Super Plants are being announced for 2015. Spring winners are 'Henna' coleus and 'Fireworks' pennisetum. Fall winners are 'Homestead Purple' perennial verbena and 'Leslie Ann' camellia. The 2016 Louisiana Super Plants are 'Miss Schiller's Delight' viburnum (fall), 'Serenita Raspberry' angelonia (spring) and 'Evolution' salvia (spring). Here are some details on the 2015 winning plant selections.

'Henna' Coleus

There is a lot of interest in coleuses these days. Just look at the amazing variety of these plants available at area nurseries. One issue with coleus varieties is finding those that are less-inclined to bloom. Coleus is grown for its colorful foliage, and the flower

spikes are not generally desirable. The newest coleus for the most exceptional performance in Louisiana is 'Henna'. The foliage of 'Henna' is highly fringed and sports shades of gold, chartreuse and reddish-purple on top and reddish-purple underneath. Plants reach 24-30 inches in height and do best planted in a full sun to partial sun landscape. Plant in the spring after the danger of frost has passed and plants last until first killing frost.

'Fireworks' Fountain Grass

Pennisetum is an ornamental grass commonly known as purple fountain grass. The red-foliaged variety, 'Fireworks', is part of the Celebration series from Itsaul Plants. These are annuals in north and central Louisiana but can be perennials in the warmer locations of south Louisiana. Plants need full sun and will be 4 feet tall in the landscape by fall. Planted in clumps of three to five, they can be used as a vertical focal plant in flower beds. Flower plumes start midsummer and continue until first frost. Irrigation requirements are minimal. There are no insect and pest issues with this unique, new fountain grass.

'Homestead Purple' Verbena

The best perennial verbena for the Louisiana landscape is 'Homestead Purple'. Even with an avalanche of new varieties on the market, this plant is still the best of the best for Louisiana. Rich purple blooms cover a three foot wide canopy of foliage twice annually – peak bloom being mid winter until late spring (mid-February through May) and then another flowering occurring during the fall months. Although perennial verbenas are generally planted in spring, we need to consider fall and winter planting of perennial verbenas for best performance the first year. This is the reason we are promoting 'Homestead Purple' as a fall Louisiana Super Plant. In the landscape, provide adequate spacing between plants (18" at planting) and occasionally shear to bring back nice, new foliage growth. Fertilize at planting and in each following spring. Verbenas need full sun and well- drained soil for best success.

'Leslie Ann' Camellia

'Leslie Ann' is a *Camellia sasanqua* that is popular in Louisiana and has been a long time proven performer in Louisiana landscapes. Plants need a most sunny to partly sunny area and prefer acid, well-drained soil. The flower petals are bi-colored and sometimes tri-colored with blends of pink, blush and white. 'Leslie Ann' is a mostly upright grower that will mature at 8 feet in the landscape. Plants are early season bloomers – starting in late October and continuing until mid or late December.

Past Louisiana Super Plant winners in cool season flowers are Amazon dianthus, Swan columbine, 'Diamonds Blue' delphinium, 'Redbor' kale, Sorbet violas, and Camelot foxglove. Past warm season flower winners are BabyWing begonias, Bandana lantanas, Butterfly pentas 'Little Ruby alternanthera (Joseph's coat), 'Senorita Rosalita' cleome, Serena angelonia, Luna hibiscus (rose mallow), Kauai torenia (wishbone flower), and Mesa gaillardia. Louisiana Super Plant shrubs have additionally included 'Aphrodite' althea (rose of Sharon), 'Belinda's Dream' rose, 'Conversation Piece' azalea, Drift roses, 'Frostproof' gardenia, 'Penny Mac' hydrangea, 'ShiShi Gashira' camellia, 'Flutterby Petite Tutti Fruitti Pink' buddleia (butterfly bush), and Rabbiteye blueberries.

Trees named Louisiana Super Plants are ‘Shoal Creek’ vitex Southern sugar maple, willow oak, and evergreen sweetbay magnolia.

Conclusion: A survey of retail and wholesale businesses participating in Louisiana Super Plants showed that 80% of respondents said the program had a positive effect on their business. Fifty percent of the respondents said sales or use of Super Plants in their business increased from 21 percent to 40 percent after the promotion began; the other 50 percent indicated increased sales of 20 percent or less. The survey indicated that not only did the program increase sales of Louisiana Super Plants, but overall sales at a business also increased. More than 60 percent said the Super Plants program increased traffic flow or interest in their business. All the respondents indicated that the program increased overall sales in their business from 10 percent to 60 percent. Eighty-five percent of the respondents said the Louisiana Super Plants program had been beneficial to the nursery and landscape industry. When asked to name the Super Plant that had the greatest impact on sales, one respondent wrote “no one plant, but an increase in general plant knowledge and interest.” The Louisiana Super Plants program is proving to be a marketing plan that works.