## Faculty Paper Series

# Trade Flows and Marketing Practices in the Texas Nursery Industry 

By<br>Charles R. Hall, Associate Professor and Extension Economist<br>Department of Agricultural Economics<br>Texas A\&M University<br>chall@tamu.edu<br>Lance D. Pate, Extension Assistant<br>Department of Agricultural Economics<br>Texas A\&M University

Copyright © 2000 by Charles R. Hall. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

# Trade Flows and Marketing Practices in the Texas Nursery Industry 

## Table of Contents

Introduction ..... 1
Objective ..... 2
Source Of Data ..... 2
Year Established ..... 2
Employees ..... 3
Computer Function Used by Respondents ..... 3
Types of Plants Sold ..... 4
Production Area ..... 6
Root Package or Container ..... 7
Sales Transaction Methods ..... 7
Distribution of Sales by Month ..... 8
Distribution of Sales From Other States ..... 11
Contract Production ..... 11
Wholesale Versus Retail ..... 12
Advertising Expenditures ..... 13

# Trade Flows and Marketing Practices <br> in the Texas Nursery Industry 

Charles R. Hall and Lance D. Pate

## Introduction

The U.S. "green" industry (sometimes called the nursery and greenhouse sector), has two major sub-sectors: floriculture crops (cut flowers, cut cultivated greens, and potted flowering and foliage plants), and environmental horticulture crops (trees and shrubs, bedding and garden plants, and turfgrass). These floriculture and environmental horticulture crops, as estimated by USDA's Economic Research Service (ERS), reached $\$ 12.1$ billion in 1998. This represents a 2 percent increase over the previous years value of $\$ 11.9$ billion. The value of production has grown an average $\$ 440$ million a year since 1991 when grower receipts were $\$ 9.0$ billion. This translates to a $34 \%$ increase in growers receipts from 1991 to present. Greenhouse and nursery production is concentrated in the West and the South, mostly due to climate factors, but also due to demand factors stemming from proximity to population centers. However, greenhouse and nursery production is also important in the Northeast and the Midwest, and has also been increasing in states with minor production.

Ten states account for more than two-thirds of U.S. output. The most important states, ranked by their respective share of U.S. receipts, are California (20\%), Florida ( $11 \%$ ), Texas ( $9 \%$ ), North Carolina ( $8 \%$ ), Ohio and Oregon (5\%), Michigan ( $4 \%$ ), Pennsylvania (3\%), New York ( $2 \%$ ), and Oklahoma ( $1 \%$ ). California was again the leading state with crops valued at $\$ 769$ million, down 3 percent for the year. Florida was down slightly from 1997 with $\$ 654$ million in wholesale value. Texas ranked fourth in greenhouse and nursery crops cash receipts in 1991 controlling $6.15 \%$ of the nations cash receipts. However, Texas is now a close third controlling $9.24 \%$ of the nations cash receipts. North Carolina moved from third to fourth, and Oklahoma has moved well out of the top ten in this time period.

The green industry remains $6^{\text {th }}$ with respect to grower cash receipts for are commodity group. It does, however, drop from 11 percent of the total cash receipts for all U.S. farm crops in 1994 to 6.1 percent in 1998. The top five commodity groups were cattle and calves, dairy products, corn, soybeans, and broilers. In twenty four states, the "green" industry ranked in the top five commodity groups, and only six states did not have it in the top ten. Within Texas, the "green" industry was ranked $3^{\text {rd }}$ in 1998.

The U.S. "green" industry has enjoyed rising cash receipts for more that a decade despite a steady loss of domestic market share to foreign producers. Last year, consumer confidence in a robust economy, along with relatively high disposable income and low unemployment, helped push floral and plant product purchases to record levels. Likewise, low interest rates have spurred new housing and business starts, aiding the demand for landscaping products and services. With demand for floral and nursery-related products linked to the health of the general economy, economic growth tends to lead to higher retail sales in the nursery and greenhouse sector. In fact, "green" industry sales are projected to grow at twice the rate of the general economy. In nominal terms, producer prices for most flower and plant crops have been fairly stable; volume increases have pushed grower sales upward in almost all categories. Even if producers capture a smaller share of the domestic market, it will still translate into increased income. If the general economy of the U.S. continues to strengthen, it is estimated that grower cash receipts could be near $\$ 12.5$ billion by the year 2000 and $\$ 15$ billion by 2005.

## Objective

The general purpose of this study was to examine the marketing practices and trade flows of nurseries in Texas. Specific objectives were to determine the following:

1. Distribution of sales by plant category and root media,
2. Distribution of sales by transaction method,
3. Distribution of sales by month and by type of outlet,
4. Distribution of budget allocated to advertisement, and
5. Current and anticipated use of computers.

## Source Of Data

In the latest survey, 247 mail-back questionnaires were distributed to nurserymen in Texas. This survey form was sent out during the summer of 1999 , but the information collected from the respondents represents the preceding year, 1998. The population for the survey was based on the most recent list of certified nurseries that are members of the TNLA After the survey sample was secured, the nurseries were grouped into three categories based upon annual sales values (Table 1). Small sized nurseries were defined as those firms with less than $\$ 100,000$ in sales, middle sized firms had $\$ 100,000$ through $\$ 499,999$ in sales, and the large sized firms included all nurseries with sales of $\$ 500,00$ or more.

Table 1. Distribution of survey respondents by sales level.

| Nursery Group | Annual Sales | Number | Percent of Total |
| :--- | :--- | :---: | :---: |
| Small | Less Than $\$ 100,000$ | 10 | $12 \%$ |
| Medium | $\$ 100,000$ thru | 64 | $77 \%$ |
| Large | $\$ 500,000$ or more | 9 | $11 \%$ |
| Total |  |  | $100 \%$ |

## Year Established

The age of nurseries was determined by asking the year in which the nursery was established (Table 2). The respondents were grouped into six time periods. The largest portion ( 32.9 percent) of nurseries were established in the 1980s. The second highest category, nurseries established in the 1970s, consisted of 23.4 percent of respondents. The nineties came in third with 19.2 percent. However, once this decade has passed and data can be collected summarizing the 1990s, it is expect that this figure will reach the level of nurseries established in the eighties. This is assumption is primarily based on how well the economy, and the "green" industry, have performed during the last decade of the millennium.

Table 2. Distribution of surveyed nurseries by year established.

| Year | Percent |
| :--- | :---: |
| Prior to 1950 | 9.6 |
| 1950-1959 | 6.4 |
| $1960-1969$ | 8.5 |
| $1970-1979$ | 23.4 |
| $1980-1989$ | 32.9 |
| 1990s | $\underline{19.2}$ |
| Total | 100.0 |

## Employees

The average number of permanent employees at the respondents primary location was 26 . The range of permanent employees ran from 0 to 250 . The average number of temporary or seasonal labor at these locations was slightly higher. Respondents replied with an average of 32 temporary employees. The range for temporary employees was higher as well. This segment of labor ran from 0 to 500 .

Table 3. Number of permanent and temporary employees

| Type of Labor | Respondents | Mean | Range | Standard Dev. |
| :--- | :---: | :---: | :---: | :---: |
| Permanent | $95 \%$ | 26 | $0-250$ | 47.52 |
| Temporary | $73 \%$ | 32 | $0-500$ | 78.34 |

## Computer Function Used by Respondents

Word processing was the most common use that respondents indicated they were currently using. Seventy eight percent of responding nurseries said they were now using there computers for word processing, and three percent said they planned to use a computer for this purpose in the next five years. Accounting was a close second, with 77 percent of respondents indicating they currently use their computer for this purpose. E-mail, faxing, and inventory rounded out the top five current computer uses with 60 percent, 56 percent, and 51 percent respectively. Only 2 percent of respondents indicated they will implement faxing functions in the next five years, while 8.3 percent and 12.5 percent of participants anticipate using their computer for E-mail and inventory within the next five years. Respondents also indicated that the least used computer function was for landscape designing. Only 6.3 percent of respondents are using computers for landscape design, and 4.2 percent plan to implement this function in the next five years.

Table 4. Current and anticipated use of computers

| Activity | Using Computer for Task <br> Now | Planned within Next Five <br> Years |
| :--- | :---: | :---: |
| Work Processing | $78.1 \%$ | $3.1 \%$ |
| Accounting | $77.1 \%$ | $8.3 \%$ |
| Inventory | $51.0 \%$ | $12.5 \%$ |
| Financial Investment | $20.8 \%$ | $4.2 \%$ |
| Marketing |  |  |
| $\quad$ - Web | $37.5 \%$ | $12.5 \%$ |
| $\quad$ CD | $12.5 \%$ | $2.1 \%$ |
| Communications |  |  |
| $\quad$ - E-mail | $60.4 \%$ | $8.3 \%$ |
| $\quad$ - Faxing | $56.3 \%$ | $2.1 \%$ |
| Landscape Design | $6.3 \%$ | $4.2 \%$ |
| Production Scheduling | $26.0 \%$ | $10.4 \%$ |
| Greenhouse Production Controls | $13.5 \%$ | $8.3 \%$ |
| Other | $0.0 \%$ | $1.0 \%$ |

## Types of Plants Sold

Respondents were asked to distribute total annual sales among the major plant categories (Table 5). Other horticulture crops that the nurserymen did not feel would fit into one of the listed options were grouped into a miscellaneous category termed "other". For each plant category, the percentage of firms that had reported sales in a particular plant category was calculated as well as the average percent of sales coming from specified plant categories. The most important plant category, with respect to the number of firms selling plants in that category, was deciduous shade and flowering trees. However, the mean percent of sales in this plant category ranked third compared to all other categories. The other and bedding plants annuals categories are the top two with respect to percent of sales with 56.9 and 46.4 percent respectively. The other category, however, was among the lowest categories with respect to the number of firms that reported sales in this category.

Table 5. Distribution of nursery sales by plant categories

| Category | Firms | Mean | Standard Deviation |
| :---: | :---: | :---: | :---: |
|  | ---------------------------percent---------------------------------- |  |  |
| Deciduous shade \& flowering trees | 51 | 32.8 | 30.8 |
| Deciduous shrubs | 35 | 10.0 | 17.2 |
| Broad-leaved evergreen shrubs | 39 | 30.7 | 25.0 |
| Narrow-leaved evergreen shrubs | 29 | 8.8 | 8.1 |
| Evergreen trees | 43 | 24.8 | 30.2 |
| Azaleas | 19 | 5.0 | 4.9 |
| Vines \& ground cover | 33 | 7.4 | 5.3 |
| Roses | 19 | 28.8 | 41.7 |
| Herbaceous perennials | 28 | 24.0 | 31.3 |
| Bedding plants- annuals | 31 | 46.4 | 36.3 |
| Bedding plants- veg., fruits, herbs | 16 | 10.1 | 14.5 |
| Flowering potted plants | 17 | 21.1 | 23.5 |
| Christmas trees (live or cut) | 8 | 16.1 | 34.0 |
| Tree fruits | 8 | 4.5 | 4.5 |
| Foliage | 20 | 23.4 | 34.6 |
| Propagated material | 18 | 12.6 | 23.3 |
| Other | 16 | 56.9 | 41.7 |

Table 6. Production area devoted to specific categories

| Division/Category | Mean |
| :--- | :---: |
|  |  |
| Propagation: |  |
| Acres in open field | 428.59 |
| Acres for landscape plants | 6.25 |
| Square feet | $45,297.06$ |
| Acres for floriculture crops | 4.50 |
| Square feet | $10,902.15$ |
|  |  |
| In ground field production: |  |
| Acres in open field | 156.11 |
| Acres in shade - for landscape plants | 2.50 |
| Square feet | $66,000.00$ |
|  |  |
| Container Production: | 25.12 |
| Acres in open container production | 15.21 |
| Acres in greenhouse or shade for landscape plants | $88,980.48$ |
| Square feet | 4.67 |
| Acres in greenhouse or shade for floriculture crops | $48,985.71$ |
| Square feet |  |

## Production Area

Respondent were asked how much of their production area was devoted to several categories (Table 6). The categories were divided into three divisions by the type of production method used. These three divisions were propagation, in ground field production, and container production. Within the propagation division, the highest average acreage was devoted to acres in open field at 428.6, and the highest average square feet was devoted to landscape plants at 45,297 . In ground field production also had the acres in open field category listed as the highest average devotion of acres. In the container production division, the acres in open container production category captured an average of 25 acres while square feet in green house or shade for landscape plants category had an average devotion of 88,980 square feet.

## Root Package or Container

Respondent were asked what percentage of their sales were done with plants leaving in one of seven various forms (Table 7). The largest response came in the container form with 79 percent of the responding firms stating 87.4 percent of sales came in this form. The second highest number of respondents indicated that 38 percent of their sales were done with plants in the balled and burlapped form. It is of special note that 10 percent of respondents indicated that almost 60 percent of their sales were done with plant in some other form than those listed.

Table 7. Distribution of sales by rooted packaging/container

| Method Used | Respondents | Mean | Standard Deviation |
| :---: | :---: | :---: | :---: |
|  | --------------------------percent---------------------------- |  |  |
| Bare Root | 14 | 28.38 | 39.89 |
| Balled and potted | 15 | 18.36 | 26.01 |
| Balled and burlapped | 24 | 38.09 | 37.22 |
| Processed and balled | 0 | 0.00 | 0.00 |
| Container | 79 | 87.36 | 25.41 |
| Field grow bag | 10 | 22.80 | 35.44 |
| In-ground containers (pot-in-pot) | 6 | 22.17 | 38.56 |
| Other | 10 | 59.80 | 40.63 |

## Sales Transaction Methods

Non-negotiated phone orders was the leading transaction method for Texas nurserymen according to this survey (Table 8). Almost three-fourths of respondents indicated that more than half of their sales were done over the phone and involved no negotiations. Fifty five percent of respondents indicated that inperson orders made up roughly 30 percent of their sales, whether negotiations took place or not. Only 7 percent of respondents utilized mail orders, but did represented a larger percent of sales, 27 percent, compared to trade shows orders, around 11 percent, which 23 percent of respondents utilized. Respondents were also asked with what frequency they attended trade shows (Table 9). Fifty four percent responded that, on average, they attend trade show almost three times a year with an exhibit during 1998. Thirty one percent indicated that they attended an average of 2.4 trade shows in 1998 without an exhibit. Respondents were also asked what percent of their sales are done with repeat customers (Table 10). The respondents average response indicates that a little over 88 percent of sales are realized with repeat customers.

Table 8. Distribution of sales by transaction method.

| Transaction Method | Respondents | Mean |
| :---: | :---: | :---: |
|  | -----------------percent--------------- |  |
| Trade show orders (negotiated) | 23 | 10.64 |
| Trade show orders (non-negotiated) | 23 | 11.45 |
| Telephone orders (negotiated) | 46 | 31.95 |
| Telephone orders (non-negotiated) | 71 | 54.37 |
| In-person orders (negotiated) | 55 | 27.00 |
| In-person orders (non-negotiated) | 55 | 31.85 |
| Mail order | 7 | 27.43 |

Table 9. Attendance at trade show.

| Trade Shows | Respondents | Mean |
| :--- | :---: | :---: |
| With an exhibit | $54 \%$ | 2.62 |
| Without an exhibit | $31 \%$ | 2.40 |

Table 10. Proportion of annual sales to repeat customers.

| Average | $85.33 \%$ |
| :--- | :---: |
| Range: |  |
| Minimum | $40 \%$ |
| Maximum | $100 \%$ |
| Respondents | $98 \%$ |

## Distribution of Sales by Month

Surprisingly, the spring months did not dominate the distribution (Table 11 and Figure 1). It appears that the distribution is nearly equal among all four seasons. However, the fall season did top the others by a few percentage points. The results of the survey show that October was the month with the highest average percent of sales. These results are very interesting because, in the past, the spring months have represented the prime selling months for nurseries. The month with the second highest percent of sales was July. Summer months are generally among the best months for nurserymen. The spring months, consisting of March, April, and May, are among the lowest with regard to distribution of sales. April was listed as fourth with an average of 11.18 percent of sales, but March came in tenth with an average of 7.25 percent and May ranked eighth with an average of 8.19 percent.

Table 11. Distribution of nursery sales by month.

| Month | Respondents | Mean |
| :--- | :---: | :---: |
|  | ------------------------- -percent-------------------------------1. |  |
| January | 71 | 7.46 |
| February | 82 | 13.33 |
| March | 72 | 7.25 |
| April | 75 | 11.18 |
| May | 75 | 8.19 |
| June | 75 | 9.60 |
| July | 84 | 14.94 |
| August | 66 | 5.00 |
| September | 77 | 9.26 |
| October | 82 | 18.39 |
| November | 64 | 5.10 |
| December | 71 | 8.53 |

Table 12. Distribution of annual sales by state.

| State | Respondents | Mean |
| :---: | :---: | :---: |
|  |  |  |
| TX | 99 | 87.49 |
| AL | 3 | 45.00 |
| AR | 17 | 15.94 |
| AZ | 2 | 30.00 |
| CA | 4 | 17.50 |
| CO | 5 | 26.40 |
| FL | 7 | 10.00 |
| GA | 4 | 12.50 |
| IL | 2 | 12.50 |
| IN | 1 | 8.00 |
| KS | 5 | 8.80 |
| KY | 2 | 15.00 |
| LA | 27 | 35.77 |
| MD | 1 | 10.00 |
| MO | 3 | 8.33 |
| MS | 7 | 7.00 |
| NC | 6 | 8.33 |
| NJ | 1 | 20.00 |
| NM | 9 | 24.00 |
| NV | 6 | 40.33 |
| NY | 1 | 10.00 |
| OH | 2 | 12.00 |
| OK | 31 | 29.40 |
| OR | 2 | 5.00 |
| SC | 1 | 10.00 |
| TN | 7 | 15.57 |
| VA | 1 | 10.00 |
| WI | 2 | 17.50 |

## Distribution of Sales From Other States

Respondents were asked to list what portion of sales came from other states (Table 12). As would be expected, Texas had the highest average percent of sales at 87.5 percent. State with close proximity to Texas also had a considerable portion of Texas nursery sales. States like Arizona, which had an average of 30 percent, and Louisiana, which averaged 35.77 percent, display how proximity related to higher percentages of sales. The out-of-state figure that proved most interesting was Alabama's. Alabama ranked first in out-ofstate sales with an average response of 45 percent. This is surprising because North Carolina and Florida, two major producers of nursery products are extremely close to Alabama, yet Texas nurserymen are selling a considerable portion of their plants to this state. What is not surprising is that only 3 percent of respondents indicated that they sold to Alabama.

## Contract Production

The survey also asked respondents if they were involved in sales by contracts, sold or committed before planting, and what percent of their annual sales in 1998 were made through this method (Table 13). Fifty three percent of those surveyed said they were involved in contracting in some fashion. The average percent of annual sales coming from contractual agreements was a little over 33 percent. This number is sure to rise as contracting becomes more prevalent in all categories of agriculture.

Closely related to contract production was a question regarding whether growers handle (resale) plants for other growers (Table 14). Nearly all surveyed, 99 percent, responded to this question and 59 percent of respondents indicated that they did not handle/ resell other growers items. With respect to sales, the percent of total sales accounted for by handling other growers items averaged 27 percent and ranged from 1 to 100 percent.

Table 13. Percent of total sales on contract.

| Respondents | Mean | Standard Deviation |
| :---: | :---: | :---: |
|  |  |  |
| 53 | 33.47 | 31.10 |

Table 14. Distribution of respondents who handle sales for other growers.

|  | Respondents | Mean | Yes | No |
| :--- | :---: | :---: | :---: | :---: |
|  | ------------- percent-------------- |  |  |  |
| Handle/Resell for others | 99 |  | 39 | 56 |
| Percent of Total Sales | 44 | 27 |  |  |

Also of special note are the types of buyers contracting from the respondents firm (Table 15). Retail garden centers made up the largest category with 43 percent of respondents indicating if they contracted, it was done with this type of retail outlet. Other producers represented a large portion as well. Thirty two percent of respondents indicated that they contracted with other producers. The lowest category of contracting partners were agriculture cooperatives.

Table 15. Type of buyer(s) contracting from respondents firm.

| Category | Respondents |
| :--- | :---: |
| Other producers | -------------------- percent------------------------ |
| Retail garden centers | 32 |
| Mass merchandisers | 43 |
| Cooperatives | 21 |
| Other | 3 |

## Wholesale Versus Retail

Those surveyed were asked to separate their total annual sales into two areas - wholesale and retail (Table 16). The majority of those surveyed indicated that most of their sales, 91 percent, were done on a wholesale level. Only 41 percent of the respondents indicated that their sales were done through retail and this only made up a little more than 32 percent of their total sales. The respondents who indicated that they sold wholesale were then asked to divide these sales into five categories (Table 17). Landscape firms made up the largest potion of wholesale business with an average of 43 percent. Retail firms - mass merchandisers/home centers followed closely comprising an average of 40 percent of wholesale sales. Retail firms other than garden centers and mass merchandisers/home centers made up the smallest portion of respondents wholesale business.

Table 16. Distribution of sales, wholesale or retail.

|  | Respondents | Mean |
| :--- | :---: | :---: |
|  | ------------------------------------------------------------------1. |  |
| Wholesale | 95 | 91.54 |
| Retail | 41 | 32.56 |

Table 17. Percentage of wholesale sales.

| Category | Respondents | Mean |
| :--- | :---: | :---: |
|  | ------------------ percent------------------------ |  |
| Retail firms - mass merchandisers / home centers | 27 | 40.31 |
| Retail firms - garden centers | 78 | 32.13 |
| Retail firms - other | 30 | 17.90 |
| Landscape firms | 74 | 43.04 |
| Re-wholesalers | 68 | 30.26 |

## Advertising Expenditures

Advertising budgets averaged 4.8 percent of annual sales in 1998 (Table 18). Advertising other than web sites, yellow pages, radio, billboards, catalogs (print or CD), trade journals, newsletters, and trade shows made up the largest portion of respondents advertising dollars. Catalogs (print or CD) made up the second largest potion of advertising dollars with an average response of a little more than 41 percent. Close behind catalogs was trade shows with an average of just over 40 percent of respondents advertising dollars. In 1998, the smallest average amount of advertising dollars was dedicated to web sites. This will no doubt change as advertising on the world wide web increases in popularity in every portion of agriculture.

## Table 18. Advertising budget and distribution by outlet category.

| Category | Respondents | Mean |
| :--- | :---: | :---: |
|  | --------------------------------percent----------------------------------- |  |
| Advertising | 71 | 4.82 |
| Web site |  |  |
| Yellow pages | 23 | 14.50 |
| Radio | 34 | 24.24 |
| Billboards | 6 | 16.83 |
| Catalogs (print or CD) | 2 | 35.00 |
| Trade journals | 45 | 41.42 |
| Newsletters | 17 | 29.31 |
| Trade shows | 6 | 25.83 |
| Other | 47 | 54.66 |

## Concluding remarks

The data collected from this survey will be used by the researchers on the S-103 committee to provide insight regarding trends and/or structural changes affecting the relative competitive position of producers in various parts of the country. All individual responses to this survey will be kept strictly confidential. A huge thank-you goes out to all of the nursery firms in Texas for participating in this survey!

## S-103's Third National Nursery Industry Survey

This data collection project is the third nationwide survey conducted by the S-103 Regional Research Committee. The first survey was conducted in 1989, and the 23 states with participating nurserymen represented about 75 percent of the total U.S. grower cash receipts. The second nationwide survey was conducted in 1994, and the 24 states covered in that effort represented more than 79 percent of grower cash receipts. This survey hopefully will represent more than 90 percent of grower cash receipts in the U.S. nursery industry.

The data collected from this survey will be used by the researchers on the S-103 committee to provide insight regarding trends and/or structural changes affecting the relative competitive position of producers in various parts of the country. All individual responses to this survey will be kept strictly confidential. For efficiency and consistency in coding, all questionnaires will be returned to the University of Tennessee for coding and basic statistical analysis. Each state's representative will receive a computer file that contains her/his state's data. Because the nursery's name is never attached to the questionnaire, no one will be able to identify a particular respondent.

## GENERAL INFORMATION

1. From what state are you reporting? $\qquad$
2. In what year was your firm established? $\qquad$
Does your business operate a nursery in another state?
$\qquad$ yes $\qquad$ no

If yes, please list the state(s) $\qquad$
3. How many people does your firm employ at this location?

Permanent employees $\qquad$ (average number during your peak season)
4. What functions of your firm are computerized?

| Function | Using computer for task now | Planned within next five years |
| :---: | :---: | :---: |
|  | (please check if yes) |  |
| Word processing |  |  |
| Accounting |  |  |
| Inventory |  |  |
| Financial investments |  |  |
| Marketing - Web page (Internet) |  |  |
| - CDs |  |  |
| Communications - E-mail |  |  |
| - faxing |  |  |
| Landscape designing |  |  |
| Production scheduling |  |  |
| Greenhouse production controls |  |  |
| Other (please specify) |  |  |

## PRODUCTS

5. What percentage of your sales are in these plant categories?
 \% Deciduous shade and flowering trees \% Deciduous shrubs \% Broad-leaved evergreen shrubs \% Narrow-leaved evergreen shrubs \% Evergreen trees \% Azaleas
$\qquad$ \% Vines and grounds covers \% Roses
\% Herbaceous perennials \% Bedding plants - annuals \% Bedding plants - vegetables, fruits, and herbs \% Flowering potted plants \% Christmas trees (live or cut) \% Tree fruits \% Foliage \% Propagated material (liners, cuttings, plugs, etc.) \% Other
100 \% Total
6. Considering your landscape/floriculture production area, what acreage (or square feet) is devoted to the following:

Propagation:
$\qquad$ Acres in open field
Square feet (or acres) in greenhouse or shade:
$\qquad$ For landscape plants
For floriculture crops
In ground field production:
_ Acres in open field
Square feet (or acres) in shade - for landscape plants
Container production:
Acres in open container production
Square feet (or acres) in greenhouse or shade
$\qquad$ For landscape plants
For floriculture crops
7. Considering all plants sold by your firm, what percentage of your sales are in these forms?

| Percent of Sales | Method Used |
| :---: | :---: |
| \% | Bare root |
| \% | Balled and potted |
| \% | Balled and burlapped |
| \% | Processed balled |
| \% | Container |
| \% | Field grow bag |
| \% | In-ground containers (pot-in-pot) |
| \% | Other (please specify) $\qquad$ (For example, cut Christmas trees, budwood scions, seeds, tissue cultured plants, unrooted cuttings) |
| 100 \% | Total |

## SALES CONSIDERATIONS

8. At how many trade shows was your firm represented in 1998 ?
$\qquad$ With an exhibit
$\qquad$ Without an exhibit
9. What percentage of your sales are done with repeat customers? $\qquad$ \%
10. Do you publish discount (price) information for large-volume purchases? $\qquad$ yes $\qquad$ no
11. What percentage of your sales transactions are made using the following methods? (Note: negotiated means there was some discussion/debate over price, quality or other terms of sale.)

| Percent |  |
| :--- | :--- |
|  | Method |
| $\%$ |  |
| $\%$ |  |
| $\%$ |  |
| $\%$ | Trade show orders (negotiated) |
| $\%$ | Telephone orders (negotiated) |
| $\%$ | In-person orders (negotiated) |
| $100 \%$ | In-person orders (nonnegotiated) |
| $\%$ | Total sales |

12. Please rate each of the factors listed below according to how much they impact your business. Use a 1 to 5 scale, with $1=$ very minor; $2=$ minor; $3=$ neutral; $4=$ important; $5=$ very important.

|  | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Weather uncertainty |  |  |  |  |  |
| Land |  |  |  |  |  |
| Market demand |  |  |  |  |  |
| Labor |  |  |  |  |  |
| Water supply |  |  |  |  |  |
| Capital |  |  |  |  |  |
| Own managerial expertise |  |  |  |  |  |
| Competition |  |  |  |  |  |
| Environmental regulations |  |  |  |  |  |
| Other government regulations |  |  |  |  |  |
| Ability to hire competent management |  |  |  |  |  |
| Ability to hire competent hourly employees |  |  |  |  |  |

## PRODUCT FLOW

13. What are the top five states, including your own state, from which you purchase seedlings, liners, whips, or grafted material?

Percent of Purchases
Top five states:
$\qquad$
$\square$
2) $\qquad$ \%
3) $\qquad$
$\qquad$
$\qquad$
[ \%
4)
$\qquad$
$\qquad$ \%
5) $\qquad$ \%

All other states combined $\qquad$
Total $=$
14. What percentage of your firm's total annual sales occur during each month?

| \% | January |
| :---: | :---: |
| \% | February |
| \% | March |
| \% | April |

$\qquad$ \% May
__ $\%$ September
\% October
__ $\%$ November
_ \% December
15. Do you export nursery products out of the U.S.?
$\qquad$ yes $\qquad$ no

If yes, what percentage of total sales are from exports?
$\qquad$ \%

Do you import nursery products?
$\qquad$ yes $\qquad$ no

If yes, indicate country(y's) of origin: $\qquad$
16. What percent of your firm's total annual sales are:
$\qquad$ \% In-state (your home state)
$\qquad$ \% Out-of-state (outside of your home state)

100 \% Total

If you sell any product out-of-state, what are the top five destinations by state and the share of your total out-ofstate sales?

## Distribution of Total Out- <br> of-state Sales

Top five states:

1) $\qquad$
$\qquad$
2) $\qquad$
$\qquad$
3) $\qquad$ _ $\%$
4) $\qquad$
— $\%$
5) $\qquad$
All other out-of-state sales combined
Total $=$

_ $\%$
100 \%
17. Do you handle/resell items from other growers?
$\qquad$
If yes, what percent of your total sales does this account for? $\qquad$ \%
18. What percentage of your total sales are on contract, in other words, sold or committed before being planted/potted?
$\qquad$ \%

What type of buyer(s) are contracting with your firm?
___ Other producers
Retail garden centers
___Mass merchandisers
Cooperatives
$\qquad$
19. What percent of your total annual sales are:
$\qquad$ \% Wholesale
$\qquad$ \% Retail

100 \% Total
20. If you sell wholesale, what percentage of your wholesale sales (from question 19) are to:
$\qquad$ \% Retail firms - mass merchandisers/home centers
$\qquad$ \% Retail firms - garden centers
$\qquad$ \% Retail firms - other (grocery, hardware, etc.)
$\qquad$ \% Landscape firms (in-house or external)
$\qquad$ \% Re-wholesalers (brokers, other growers, etc.)
100 \% Total
21. For dollar sales to mass merchandisers/home centers (from question 20), what are the top five destination states and what percentage of sales to mass merchandisers/home centers does each state represent? Please begin with your own state first.

Percent of Total Sales
Top five states:

1) Home state $\qquad$ \%
2) $\qquad$
$\qquad$
3) $\qquad$
$\qquad$
4) $\qquad$
_ $\%$
5) $\qquad$
All other states combined


Total $=$
100 \%
22. For dollar sales to garden centers (from question 20), what are the top five destination states and what percentage of garden centers sales does each state represent? Please begin with your own state first.

Percent of Total Sales
Top five states:

1) Home state $\qquad$ \%
2) $\qquad$
$\qquad$
3) $\qquad$
$\square$
4) $\qquad$ — $\%$
$\qquad$ \%
5) $\%$

$$
\text { Total }=\quad 100 \quad \%
$$

23. For dollar sales to other retail firms (from question 20), what are the top five destination states and what percentage of sales to other retail firms does each state represent? Please begin with your own state first.

## Percent of Total Sales

Top five states:

1) Home state
2) $\qquad$
3) $\qquad$
4) $\qquad$
5) $\qquad$
All other states combined
$\qquad$
_ $\%$

— $\%$
\%
100 \%
24. For dollar sales to landscape firms ( from question 20), what are the top five destination states and what percentage of sales to landscape firms does each state represent? Please begin with your own state first.

Percent of Total Sales
Top five states:

1) Home state $\qquad$
2) $\qquad$
$\qquad$
3) $\qquad$
4) $\qquad$
$\qquad$
_ $\%$
5) $\qquad$
All other states combined
_ $\%$
$\qquad$
Total $=$
100
25. For dollar sales to re-wholesalers (from question 20), what are the top five destination states and what percentage of sales to re-wholesalers does each state represent? Please begin with your own state first.

Percent of Total Sales
Top five states:
$\qquad$

1) Home state $\qquad$ \%
2) $\qquad$
$\qquad$
3) $\qquad$ _ $\%$
4) $\qquad$

5) $\qquad$
All other states combined
$\qquad$ $\%$

Total $=$
100 \%

## PRICE DETERMINATION

26. Regarding price determination, please rate the level of importance of each factor by using the 1 to 5 scale, with $1=$ very minor; 2=minor; $3=$ neutral; 4=important; and 5=very important.

|  | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Cost of production |  |  |  |  |  |
| Inflation |  |  |  |  |  |
| Other growers' prices |  |  |  |  |  |
| Grade of plants |  |  |  |  |  |
| Market demand |  |  |  |  |  |
| Product uniqueness |  |  |  |  |  |
| Inventory levels |  |  |  |  |  |
| Last year's price |  |  |  |  |  |
| Other (please specify) |  |  |  |  |  |

27. Regarding factors that might limit the expansion of the geographic scope of your trading area, please rate the level of importance of each factor by using the 1 to 5 scale, with $1=$ very minor; $2=$ minor; $3=$ neutral; $4=$ important; and 5=very important.

|  | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Capital |  |  |  |  |  |
| Marketing |  |  |  |  |  |
| Personnel |  |  |  |  |  |
| Production |  |  |  |  |  |
| Transportation |  |  |  |  |  |
| Plant offering |  |  |  |  |  |

## ADVERTISING

28. What percentage of sales did you allocate in 1998 to advertising? $\qquad$ \%

How do you allocate these advertising dollars?

\% Web sites
\% Yellow pages
—— \% Radio
—_ \% Billboards
\% Catalogs (print or CD)
\% Trade journals
\% Newsletters
\% Trade shows \% Other, please specify $\qquad$
100 \% Total

## SALES

29. What was the gross value of product sales from your nursery in 1998, or your most recently completed fiscal year? Please check the appropriate category.
$\qquad$ Less than \$50,000
\$50,000 - \$ 99,999
\$ 100,000 - \$ 249,999
\$ 250,000 - \$ 499,999
\$ 500,000 - \$ 999,999
\$ 1,000,000 - \$ 1,999,999
\$ 2,000.000 - \$ 2,999,999
\$ 3,000,000 - \$ 3,999,999
\$ 4,000,000 - \$ 4,999,999
\$ 5,000,000 - \$ 9,999,999
$\$ 10,000,000$ or above

Thanks for participating in this survey! In order for us to make full use of all questions regarding the distribution of product sales by market outlet, the final question regarding total sales is absolutely essential. If you skipped question 29, please reconsider providing an answer. Again, all individual information will be kept strictly confidential. As researchers in the area of landscape plants, we need the type of data collected from this survey to conduct marketing research intended to contribute to the overall benefit and development of this industry.

Faculty Papers are available for distribution without formal review by the Department of Agricultural Economics.

All programs and information of the Texas Agricultural Experiment Station are available to everyone without regard to race, color, religion, gender, age, national origin, or handicap.

