management

Changing Nursery Sales Agreements

Retailers often make specific demands on growers. New research quantifies how these demands have affected sales agreements.

By Roger A. Hinson and Roberto Navajas



Mass merchandisers, such as this Home Depot in Homestead, Fla., sometimes stipulate delivery time as part of their sales agreement.

he nursery industry has experienced significant change over the last 15 years, partly fueled by changes in retailer strategies and practices. The driving forces of change lie in three related areas. First, some individual firms, both at retail and at other levels in the supply chain, are becoming more important as measured by total sales and market share. These firms are large compared to their competitors, and size can influence growers' decisions and other choices within the industry. Second, supply chains are increasingly integrated. Businesses perceive that efficiencies can be gained through scale of operation and better coordination of firms in the supply stream. Third, the capacity of electronic hardware and the capability of software to optimize product movement based on up-to-date information are enabling businesses to better match product supply with demand and to perform other activities more efficiently.

In agriculture, the pork and poultry industries are examples of consolidation and integration. A relatively few input supplier, processor and wholesaler firms have captured significant portions of regional and national markets. A similar organization is developing in the fruits and vegetables industry.

While the ornamental plant industry has integrated and consolidated less quickly than pork and poultry, mass merchandisers (MMs) have made substantial market share gains. According to the National Gardening Association, the percentage of households making purchases of lawn and garden products from MMs grew from 32 percent of purchasers to 45 percent between 1996 and 2001, and for home centers the values increased from 36 percent to 49 percent. One of the changes occurring is that large retailers demand use of an electronic format for order placement, inventory management, reconciliation and payment. Shipments of products are based on real-time sales information rather than forecasts from historical data. Growers unwilling to adopt these innovations may be shut out of the faster growth segment of the market. So, growers increasingly are undertaking activities such as managing the product flow to the market.

Among the many impacts on producers of consolidation and integration may be additional requirements in the terms of sale. Exchange agreements have specified price, quantity and quality. As they gain influence in the market, retailers also may request or require other services. For example, the grower might be asked to arrange or provide transportation to the retail outlet, use returnable shipping equipment, make deliveries at a specific time or package/tag products according to the retailer's specification. The situation is similar to the produce industry, where retailers have imposed a set of performance guidelines on their suppliers.

In the nursery industry, the business relationship is less formal. Verbal agreements are common. Among the reasons are perishability, absence of well-defined grades and standards and the absence of openly traded markets.

management

The verbal agreement has disadvantages but in some cases may mitigate risk on both sides of the exchange. Growers' production risk is based on uncontrollable natural processes and on management, and output can vary significantly based on these factors. Buyers understand that failure to deliver can be beyond the grower's control. On the demand side, buyers place



Printing product descriptions and bar codes on pots can be useful to both grower and retailer, though most growers often resist this as part of a sales agreement.

orders, but if demand changes and more (or less) product is needed the agreed upon quantity may be adjusted. In these cases, it is unusual for either side to demand delivery. This flexible agreement is an additional risk for growers, but most feel it is necessary to work with customers to maintain access to the consumer. Growers know that if they are not willing to work with the customer, others will.

From among the issues discussed, the objective of this study was to identify changes in the terms of the sales agreement. Growers provided information about the expectations of MMs (national chains with full retail categories that include lawn and garden) and garden centers (small chains or individual stores that specialize in lawn and garden) by reporting those items that were included in the agreement in 1996 and 2001.

MATERIALS AND METHODS

Producer level data were collected from nursery growers through a mail survey. The target population was contained in the Louisiana Department of Agriculture and Forestry's list of licensed nursery growers. From this list, growers with at least 1 acre of field production, 0.5 acre of container beds or .04 acre of greenhouse space **b**

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A late stage Bonzi drench is the safest and most effective method for controlling final plant height after the cutoff dates for spraying growth regulators. The 'Red Velvet' plant pictured was given a late Bonzi drench on Nov. 11, 2003 after growing 3 inches in the previous 14 days; the picture was taken on Nov. 25, and the plant had grown less than 1 inch after the drench. There is not a cutoff date at which it is too late to make this application. Protection against affecting bract size comes from using the correct Bonzi rate and making sure the drench is not applied too early. The fol-



l o w i n g should be used as guidelines.

Stage of Development

To ensure adequate development, the crop should meet both of these guidelines.

In cool climates:

• Plants should be within 1/ inch of final desired height.

• There should be at least two bracts in full color. In warm climates:

• Plants should be within 1 inch of final desired height.

• There should be at least one bract in full color.

Application Rate

These are suggested starting rates for testing the late Bonzi drench. Use these rates when the crop meets both of the above criteria for stage of development; they are too high to use earlier in the crop.

In cool climates:

• Medium vigor varieties like 'Freedom Red' start

0.5 ppm

• Higher vigor varieties like 'Monet' start at 1 ppm In warm climates:

• Medium vigor varieties like 'Freedom Red' start at 1



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management

were contacted. Respondents with less than \$5,000 in sales, or who were primarily retailers, were excluded, reducing the target population to 352. Additional telephone contacts to encourage participation were made. In total, 63 responses were received, and of these, 38 (about 11 percent) were sufficiently complete for use. While this response rate is lower than desired, results should be representative of Louisiana production. In addition, results represent a significant portion of the state's production, because six of the state's 10 largest growers were among the respondents.

No literature was found that indicated the different dimensions, or terms of sale, included in sales contracts within the nursery industry. Terms of sale chosen for evaluation were based on input from selected nursery growers, experts in the field of environmental horticulture and information in related literature. Nine items were included: product information tags be applied; barcode stickers be applied; special containers be used; transportation to retailer be arranged by the seller; returnable shipping equipment be supplied by the grower; on-time delivery be assured by the grower; unsold merchandise be taken back; minimum volume be supplied by the grower; and continuous inventory replenishment be used. Pretesting refined the survey.

Respondents indicated whether each item was a requirement they had to meet in 1996 and responded again for 2001. The measure of interest was whether the item's status changed between years. McNemar's test allows comparison between statistically dependent samples, which is the case here since each grower responded for both years. The test evaluates the change in proportions and was used, though not included in this article, to compare the changes in each term of sale between the two years and between the two channels.

The two dominant retail channels, MMs and garden centers, were chosen for comparison. The MM channel includes both general merchandise and home improvement retailers and is the leading retail channel in sales. Within MMs, supply chain management (SCM) practices, already used in non-perishable categories, are used in the lawn and garden category. SCM's combination of management approach and computer hardware and software applications is a driving force of change in the industry. Suppliers may be required to communicate via Internet connection, where realtime, store-by-store, sales information can enhance their planning efforts. For the retailer, SCM reduces selected management and labor requirements and enables better management of inventory and store space. For many growers, SCM is a new way of doing business that requires time and capital investment.

From a supplier's point of view, independent garden centers differ from MMs. The group includes small chains and individual stores. Growers and garden centers probably are more similar in size and other measures. Market areas are more diverse. Average sales per store are likely to be lower. Garden centers may have been slower to integrate electronic technology, so growers would feel less pressure to adopt computer assistance in their operations. Overall, a more balanced relationship between growers and their garden center customers is expected.

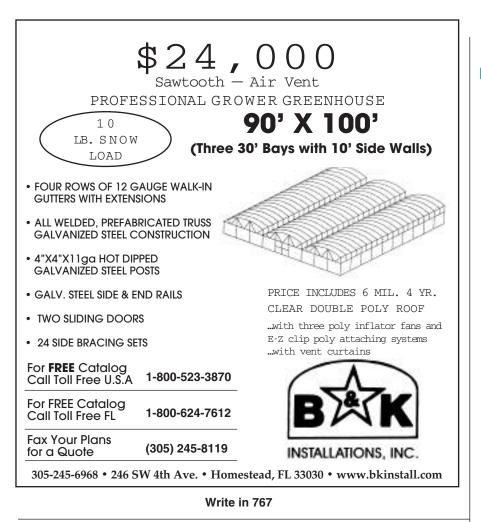
Frequencies of survey outcomes and changes in proportions are reported in Figure 1, below. As an example, a survey with no response to apply barcode stickers in either 1996 or 2001 appears in the "unchanged" column, and similarly for the case where the barcode sticker was required in both years. The "removed" column for both market channels contains cases where the barcode sticker was a term of sale in 1996 but was not

Figure 1. Number of growers reporting that specific items were removed, unchanged or added to the sales agreement, by market channel, between 1996 and 2001, from a survey conducted in Louisiana in 2002.

| | NUMBER OF NURSERYMEN REPORTING BY MARKET CHANNEL | | | | | |
|------------------------------------|--|-------------------------------|--------------------|-----------------------|-------------------------------|--------------------|
| | Mass merchandiser channel | | | Garden center channel | | |
| Item | Removed ^z | Unchanged ^x | Added ^y | Removed ^z | Unchanged ^x | Added ^y |
| Product information tag | 2 | 31 | 5 | 1 | 28 | 9 |
| Barcode sticker | 1 | 27 | 10 | 0 | 33 | 5 |
| Custom container | 2 | 25 | 11 | 1 | 37 | 0 |
| Transportation to retailer | 1 | 33 | 4 | 1 | 34 | 3 |
| Returnable shipping equipment | 0 | 33 | 5 | 1 | 36 | 1 |
| On-time delivery | 0 | 37 | 1 | 1 | 33 | 4 |
| Take back unsold merchandise | 2 | 28 | 8 | 0 | 38 | 0 |
| Minimum volume | 1 | 36 | 1 | 0 | 34 | 4 |
| Continuous inventory replenishment | 2 | 29 | 7 | 0 | 34 | 4 |

Notes: ^zRemoved: The grower said the item was a condition of sale in 1996 but was not in 2001.

^xUnchanged: The item was either not in the agreement in 1996 and 2001 or was in the agreement in both years. ^yAdded: The grower said this item was not a condition of sale in 1996 but was in 2001.





management

something that had to be done in 2001. The "added" column reports cases where the grower did not have to apply barcode stickers in 1996, but in 2001 the grower did have to attach these stickers.

Retailers were expected to add to the conditions of sale, so the added column should be larger than the removed column. Also, the items that are more important to retailers in each market channel would have larger values in the added column. For both kinds of retailers, results indicate a net addition of most items. The items custom container, barcode sticker and take back unsold merchandise were more important for the MM channel, while product information tag was highest for garden centers. On-time delivery was infrequently added by MMs. Custom containers, take back unsold merchandise and supply returnable shipping equipment were infrequently added in the garden center channel.

DISCUSSION

Using a significance level of 0.10, five of the proportions tested were significantly higher for the MM channel compared to four for the garden center channel. This level of significance is an appropriate one in studies where there has been little prior empirical testing of relationships.

Items with similar results between channels. Two of the items evaluated — apply barcode stickers and use continuous inventory replacement - were significant for both channels. For apply barcode stickers, there were 10 added responses compared to one removed for the MM channel as reported in Figure 1, page 54. This was among the highest of the added responses. We expected that applying barcode stickers to products sold to MMs was common practice in 1996, so the result was unexpected. As an alternative explanation, the respondents' customer base might have changed over the period. If this was the case, responses could differ because the growers probably were selling to more MM customers or were selling a higher proportion of output to MM customers. In those cases, the MM expectation would not be different, but the grower's response would change because output was distributed differently among the customer base. In the garden center analysis for the requirement to apply barcode stickers, there were five added cases and zero removed. The number added was in the middle of the garden center group. It was expected that garden centers would be adding this item to the terms of sale as these firms adopted scanning capability.

The significantly higher number of added cases for continuous inventory replacement was expected in the MM channel. However, those four respondents in the garden center channel reported the addition of this sophisticated, hightechnology business practice was not expected. This suggests the need for additional research into the rate at which garden centers are adopting this technology.

Items that differed between channels. For MMs, provide custom containers, provide returnable shipping equipment and take back unsold merchandise were the other three significantly different items. These are issues that enhance the MM's competitive position. The custom container is a product and company differentiation tool and was the item most frequently added to the sales agreement. Returnable shipping equipment usually is the property of the grower, and its use reduces MMs' handling requirement at the unloading point and when positioning product within the store. Taking back unsold merchandise assists the retailer by removing the risk of over-ordering or when damage to the product results from inattentive or untrained employees. Take-backs are usually in the form of account adjustments rather than physically sending the product back to the grower. The impact of this practice on growers merits further study.

For garden centers, the other two items with significantly different proportions were attach product information tags and provide minimum volume. For MMs, the information tag probably already was a condition in 1996 and now is ubiquitous in this channel.

Evidence suggests that garden center customers also value information tags on products. Garden centers have responded by asking growers to supply that service. There were nine cases where this



item was added, so it appears to have been an important garden center concern during the period.

Asking growers to agree to supply some minimum volume was another of the significant differences, suggesting a desire among some garden centers to use fewer suppliers. Each of the remaining suppliers would then have a larger share of the business. This supports the discussion above where the continuous inventory replenishment item was more frequently added and may be another indication that garden centers' expectations of suppliers were changing.

For MMs, there appeared to be little interest in the on-time delivery and the minimum volume items, but these probably are superceded by the inventory replenishment systems they employ. For garden centers, custom containers, returnable shipping equipment and take back unsold product were items where little activity appeared. Given the importance of these items to the MM segment of the industry, it would be a reasonable forecast that interest in these items would increase among garden centers.

This research is important because it addresses business practices that can increase the grower's costs and risk level. There has been little prior empirical study of these changes. The discussion of items included in the conditions of sale is based on results from a grower survey. The statistical results were limited by low response rate and the resulting small sample size. Particularly in small samples, results are sensitive to changes in a few observations. Given these statistical considerations and the limited amount of information about the terms of exchange, this research should be considered exploratory. In addition, we expected that retailers would demand more services from growers, but another factor that affected survey responses was the grower's customer base. If an increasing portion of growers' output went to MMs over the period, they would be more likely to respond that any given item was added. Results, though, generally were consistent with expectations based on industrial organization theory and experiences from other agricultural and non-agricultural industries. GPN

This article was taken in part from a previous publication in HortTechnology.

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