Choice of Nursery-Appropriate Marketing Channels in the Landscape Plant Industry[1]

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Abstract

Producers of landscape plants utilize different marketing channels based on various factors including the age, size, region, and corporate status of firm, number of trading methods used, competitive pressures, and negotiating attitudes. This study identified significant influences on market channel choice as negotiation propensity, use of various transaction methods, competitive pressures, and the region of the country where the nursery was located. These results lend support and empirical evidence to the hypothesis that marketing channel choice is influenced by trading attitudes and styles as well as economics.

Index Words: marketing channels, marketing, economics.

Significance to the Nursery Industry

Nurseries should be aware that, in general, direct retail sales are reflective of smaller (in terms of gross sales) firms sensitive to competitive pressures. As landscape plant producers grow, their wholesale sales flow to retailers, landscapers, or re-wholesalers based on willingness to negotiate and the number of trade methods used. Lower levels of negotiation appear to accompany wholesale sales to retailers and landscapers, while the opposite occurs to re-wholesalers. Re-wholesalers also appear to be a more viable market channel as competitive pressure increases for an individual landscape plant producer.

Introduction

A marketing channel is the path taken by a product as it moves from producer to consumer. For many agricultural products, the channels lead to immediate use (food or feed) or processing (stored grain, corn flakes, and canned/frozen vegetables) (10). Alternative channels available to producers of landscape plants include direct sales to consumers and various wholesale market sales prior to being offered for retail sale.

In this research, the focus was on marketing channels used by landscape plant producers. The specific objectives included determination of whether nursery characteristics differ by market channel, development of a "typical nurseryman" profile by market channel, and inference about why a particular channel might be appropriate given the profile of characteristics.

The "market" in landscape plants differs from markets in other agricultural products in ways other than channel. Many agricultural commodities are undifferentiated and are sold in impersonal markets with computerized auctions being an extreme but illustrative example. Landscape and nursery plants in the U.S. are traded in a more personal system, somewhat in the same manner as sales of fresh fruits and vegetables. A more personal system may reflect that produce and landscape products are more difficult to grade objectively. In the landscape/nursery plant industry, grades and standards frequently are not used as a product description in a transaction. This characteristic influences the marketing process, because a buyer's security may require on-site approval of plant quality, or may be based on a long-term business relationship with the seller.

The landscape/nursery plant industry has increased substantially in importance. The number of nurserymen has risen and the industry's annual rate of increase in gross sales approached 10% during the 1980s. In addition, the proportion of total U.S. agricultural income attributable to the nursery/greenhouse industry increased to almost 10% (7). Analysis of current marketing practices of landscape plant producers has been limited. Despite the significant growth in dollar volume and in percentage terms, most research has focused on estimation of capital requirements and operating costs of alternative production nursery sizes, by field grown or containerized production, and by climatic zones (1, 2, 4, 5, 9). Census and U.S. Department of Agriculture publications provide aggregate information on the nursery industry, but provide little information on product flows, sales methods, price determination, transportation, and advertising (6, 11).

Materials and Methods

To identify and describe marketing practices of wholesale nurseries, a survey instrument was used to collect marketing practice information in 23 states throughout the U.S. The instrument focused on product mix, product flows and trading practices. Conducted by mail in early 1989, a total of 1302 useable responses were received (out of 1500 total responses received). Further detail about procedures, assumptions and respondent description is provided in Brooker and Turner (3).

Market channel choice was hypothesized to be influenced by factors such as firm age (AGE) and size (GSALES), propensity to negotiate (NEG), diversification strategies (NUMTM), organizational structure (CORP), competitive pressures (COMPET), and location of the nursery (NORTHE, SOUTHE, WEST, MIDDLE). Some expected relationships are obvious. For example, large, more established nurseries are more likely to sell to retailers, but probably less likely to engage in direct retail sales. Various transaction methods are utilized by nurseries including individual personal con-

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tacts, telephone, trade show and mail order sales. The number of different transaction methods (NUMTM) used might be related to the marketing channels utilized. Heavy dependence on direct retail sales might indicate heavy reliance on personal contact sales. On the other hand, sales to re-wholesalers implies use of several transaction methods. The expected relationship between negotiation strategies, organizational structure, and market channel use are not as clear. Firms that face competitive pressure would be more likely to use re-wholesalers and direct retail channels to move product. Regionally, nurseries in the southeast and west have advantages in length of production season and often are larger. For that reason, the choice of market channel may be influenced by location.

Information about market channel use was itemized by the respondent through allocation of total sales as a proportion among retail type sales (to the final consumer) and sales through alternative wholesale channels (to retailers, re-wholesalers, and landscapers). Given the nature of these measurements (values between 0 and 100), a tobit estimation procedure was chosen from the family of limited dependent variable models (8). The tobit model estimates coefficients for the explanatory variables, and standard t-tests are used to evaluate significance. Using the estimated coefficients, a profile of the nurseryman whose percentage of sales through a particular marketing channel was higher or lower was developed.

The tobit model that incorporated the previously mentioned hypothesized relationships was of the general form:

$$\text{MKTCHAN} = f(\text{AGE, GSALES, NEG, NUMTM, CORP, COMPET, NORTHE, SOUTHE, WEST}),$$

where MKTCHAN represented the percentage of gross sales through a particular marketing channel and the explanatory variables were as defined in Table 1. Three wholesale channels were considered; to retail (WRET), to landscapers (WLANDS), and to re-wholesalers (WREW). The retail (RETAIL) channel (direct from producer to consumer) was the fourth channel analyzed. Definitions, measurements, means, and standard deviations of the MKTCHAN and explanatory variables are presented in Table 1. Regional differences were included as dummy variables—estimated coefficients indicated differences from the base (a group of states in the midwest and middle south, defined in Table 1).

Results and Discussion

Descriptive statistics from the survey are provided (Table 1).The average nursery had been in business 21 years and had sales of $876,000. Respondents indicated that an average of almost 43% of sales were negotiated or discounted from list price. Within the shares of wholesale sales going to alternative wholesale channels, a higher percentage went through landscapers (38%) than through retailers (28%) or re-wholesalers (24%). Nearly 42% of firms responding were incorporated. About 36% of respondents indicated that degree of competition was one of the most important constraints on firm expansion. The number of respondents from each region was fairly even across the northeast, middle and southeast, but was lower in the west.

Alternative models (different dependent variables) provide evidence about firm characteristics that are significantly (.10 level) related to market channel use. In the following discussion, a typical respondent profile is developed based on each model's significant explanatory variables.

Wholesale Sales to Retailers. In this model, NUMTM, NORTHE, SOUTHE, and WEST were significant and directly related to changes in the proportion of wholesale sales to retailers (WRET), while negotiation (NEG) was significant and inversely related. The other variables did not statistically influence changes in the dependent variable. The results indicate that a firm with a higher proportion of sales to retailers used a higher number of transaction methods, and was located in the northeast, southeast, and west as opposed to the group of midwestern and upper south states used as the base. The higher percentages of wholesale sales to retailers also was associated with a lower level of price negotiation (higher proportion of sales not discounted from list price) (Table 2).

Wholesale Sales to Landscapers. In this profile, a firm with a higher proportion of wholesale sales to landscapers (WLANDS) was associated with incorporated firms (CORP) with a lower level of price negotiation (NEG). Firms located in the southeast (SOUTHE) and in the west (WEST) were more likely to have lower percentages of sales to landscapers than those in the base states (MIDDLE) (Table 2).

Wholesale Sales to Re-Wholesalers. A firm with a higher proportion of wholesale sales to re-wholesalers (WREW) occurred in association with a higher level of price negotia-

Table 1. Landscape plant producers and factors hypothesized to influence market channel use, 1988.

Variable	Definition	Measurement	Mean	Standard deviation
WRET	% of wholesale sales to retailers	% (0–100)	28.33	30.23
WLANDS	% of wholesale sales to landscapers	% (0–100)	37.83	34.90
WREW	% of wholesale sales to re-wholesalers	% (0–100)	24.23	30.44
RETAIL	% of sales to retail	% (0–100)	23.91	35.41
AGE	age of firm	years	21.52	33.30
GSALES	gross sales of firm	$	876,080	2,507,800
NEG	% of sales negotiated	% (0–100)	42.58	41.46
NUMTM	number of trade methods used	actual number	2.21	0.86
CORP	firm is incorporated	0 = No; 1 = Yes	.42	0.49
COMPET	competition cited as limiting expansion potential	0 = No; 1 = Yes	.36	0.48
NORTHE	firm is located in CN, DE, NY, NJ, ME, or PA	0 = No; 1 = Yes	.25	0.43
SOUTHE	firm is located in AL, GA, MS, SC, LA, or FL	0 = No; 1 = Yes	.32	0.46
WEST	firm is located in AZ, CA, or OR	0 = No; 1 = Yes	.16	0.36
MIDDLE	firm is located in KY, MI, OH, OK, IL, TN, or AR	0 = No; 1 = Yes	.27	0.44

Table 2. Tobit parameter estimates for market channels models.

Variable[z]	Retailers	Wholesale sales to landscapers	Re-wholesalers	Retail sales
	Parameter estimates (Student t-value)			
INTERCEPT	.0432490 (.010)	44.6236[y] (9.514)	−17.5556[y] (−3.650)	61.7047[y] (9.152)
AGE	.0000200195 (.001)	−.0249248 (−.644)	.0278015 (.738)	.0807416 (1.372)
GSALES	.000000693012 (1.474)	−.000000452440 (−.860)	−.000000162760 (−.321)	−.00000652041[y] (−3.881)
NEG	−.0620800[y] (−2.175)	−.0925039[y] (−2.941)	.125558[y] (3.993)	−.105837[y] (−2.307)
NUMTM	8.09605[y] (5.647)	−2.29416 (−1.452)	11.7659[y] (7.456)	−21.0156[y] (−8.792)
CORP	−3.89311 (1.557)	14.5887[y] (5.283)	−1.65262 (−.602)	−.758498 (−.183)
COMPET	2.29409 (.949)	−1.78413 (−.667)	4.73943[y] (−1.779)	7.41434[y] (1.893)
NORTHE	7.79685[y] (2.400)	−5.01033 (−1.403)	−7.58158[y] (−2.093)	5.86430 (1.159)
SOUTHE	6.63296[y] (2.187)	−6.77162[y] (−2.033)	5.86616[y] (1.773)	−21.1471[y] (−4.291)
WEST	12.7513[y] (3.468)	−18.8089[y] (−4.596)	13.3720[y] (3.340)	−23.4106[y] (−3.803)

[z]Variable definitions appear in Table 1.
[y]Significant at the .10 level.

tion (NEG), and with firms who identified competition as a limiting factor to firm growth (COMPET). Compared to the base states, southeastern (SOUTHE) and western (WEST) firms had higher proportion of sales to re-wholesalers, while northeastern (NORTHE) firms had lower proportion of sales to re-wholesalers (Table 2).

Retail Sales. A firm with a higher proportion of retail sales (RETAIL) was more likely to identify competition as a limiting factor to growth (COMPET), have lower gross sales (GSALES), a lower proportion of negotiated sales (NEG), and fewer transactions methods (NUMTM). A firm located in the southeast (SOUTHE) or west (WEST) had significantly lower proportion of retail sales than the base states (Table 2).

Firm characteristics consistently important in explaining changes in proportion of sales across market channels included percentages of sales negotiated (NEG) and the number of trade methods used (NUMTM) (Table 2). Regional differences from the base group of states were statistically significant (.10 level), particularly for the southeast (SOUTHE) and west (WEST), while the northeast (NORTHE) was statistically different only for the wholesale sales to retailers and wholesale sales to re-wholesalers models. If a firm thought competition was the most important factor limiting expansion (COMPET), then significantly higher percentages of wholesale sales went to rewholesalers and direct retail sales (Table 2).

In terms of competitive strategies, age (AGE) and gross sales (GSALES) of the firm were hypothesized to have some impact on market channel choice, but they did not (Table 2). There is a difficulty in discussing the wholesale sales to retailers model, because the retailer definition includes the high-volume, low service, low price segment of the retail market that competes with the garden center segment, which may be higher quality, more service-oriented, and higher priced. When respondents provided a portion of wholesale sales to retail, there was no distinction between these two segments. There was, however, a lower level of negotiation, while number of transactions methods was higher (Table 2). The midwestern states base group also had lower percentage of wholesale sales to retailers.

Sales to landscapers differed considerably from sales to retailers, as demonstrated by the profile. When the portion of sales to landscapers was higher, wholesale nurseries were more likely to be incorporated (Table 2). This was the only instance among the different market channel models where the relationship between channel and corporate structure was significant. The fact that the proportion of negotiated sales was lower for higher portions sold through landscapers supports a price inelastic hypothesis concerning these customers. Regionally, location in the base states indicated a greater reliance on sales to landscapers.

As the proportion of sales to re-wholesalers increases, the portion negotiated increased. In this channel, there is another "middleman" in the chain but no reason to expect a change in retail demand and therefore no change in retail price. At the same time, number of transaction methods used was higher, indicating that nurserymen were searching for additional markets. Regionally, the southeast and west had higher percentages of re-wholesaler sales than the base states, while the northeast states had lower percentages (Table 2).

Direct sales at the retail level by wholesale nurseries is another channel. A higher proportion of retail sales was related to lower gross sales, to less negotiation, and to fewer transactions methods used (Table 2). This was the only channel model where gross sales was significant. Competition was seen as a limiting factor, perhaps stimulating the search for primary retail demand. Regional differences showed that the southeast and west had lower portions of retail sales. This is probably related to the larger container-oriented nurseries in those areas and their location in less populated areas.

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