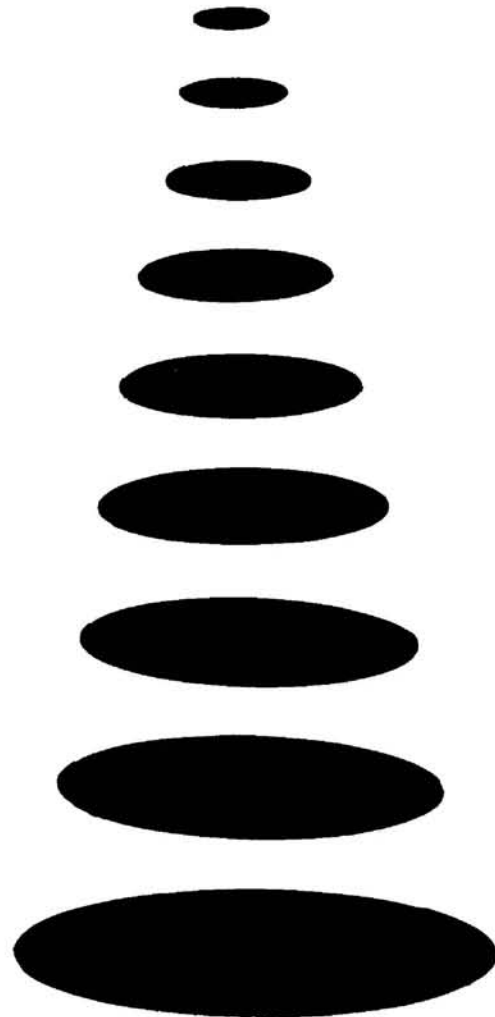


STRUCTURE OF AN URBAN CHRISTMAS TREE MARKET

by Thomas H. Pendleton
and Lawrence D. Garrett



USDA FOREST SERVICE RESEARCH PAPER NE-270
1973
FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE
NORTHEASTERN FOREST EXPERIMENT STATION
6816 MARKET STREET, UPPER DARBY, PA. 19082
WARREN T. DOOLITTLE, DIRECTOR

THE AUTHORS

THOMAS H. PENDLETON is an economist at the Northeastern Forest Experiment Station's Forest Products Marketing Laboratory in Princeton, W. Va. He holds B.A. and B.S. degrees from West Virginia University and an M.A. degree from The George Washington University. He is a candidate for the Ph.D. degree in economics at the University of Tennessee. Before joining the Forest Service in 1967, he was assistant professor of economics at Concord College.

LAWRENCE D. GARRETT is a forest economist and project leader for research at the Northeastern Forest Experiment Station in Burlington, Vt. When this study was made, he was at the Station's Forest Products Marketing Laboratory in Princeton, W. Va. He received his B.S. degree from Southern Illinois University and his M.S. degree from Michigan State University. He is a candidate for the Ph.D. degree in forestry economics at Michigan State University. He began his career with the Forest Service in 1965.

STRUCTURE OF AN URBAN CHRISTMAS TREE MARKET

ABSTRACT

The retail Christmas tree market in Winston-Salem, N. C., was studied 3 years. Types of retailers and their sales are described. Best sales were made by dealers who had lots on heavily traveled streets in business districts, had ample parking facilities, advertised, and displayed their trees well.

GROWING AND SELLING Christmas trees is big business in the United States. Thousands of growers supply an even larger number of wholesalers and retailers with about 40 million natural Christmas trees each year. Consumers spend nearly \$200 million for these evergreens. An additional 5 to 6 million artificial trees are sold at retail each year for more than \$65 million.

To sell this many natural Christmas trees in just a few weeks requires an efficient marketing system. Producers of natural trees must quickly move their products to dealers located in the thousands of markets across the country. These dealers in turn must find buyers for the trees before Christmas day. From producer to consumer, distribution must be fast and efficient. No one wants to be caught with leftover trees on Christmas day.

To gain a better understanding of how natural Christmas trees are marketed, we studied an urban Christmas tree retail market. Information was sought about the nature and degree of concentration of Christmas tree retailers, conditions of entry into the market, retail price policies, location characteristics, and promotional techniques.

THE STUDY

During the 1967, 1968, and 1969 Christmas seasons, a survey was made of all natural Christmas tree retailers in Winston-Salem, North Carolina. All tree retailers were visited each year, and their operations were observed.

After the selling season, each retailer was asked to provide information about his Christmas tree business. In this way, data were obtained on tree sales and prices, types and locations of retail outlets, and marketing techniques. Analysis of these data provided information about the structure of the Winston-Salem Christmas tree retail market.

THE MARKET

The Urban Area

Winston-Salem is located on the Piedmont Plateau in northwestern North Carolina. In 1970, the population of the city plus urban fringe was about 170,000. Almost 130,000 of these resided within the city limits. The number of households in the city was nearly 45,000. The age distribution of the population was similar to that for the United States.

The per-capita disposable income for Winston-Salem in 1968 was about \$2,800, slightly below the national average. Disposable income per household was about \$9,500. However, like most urban areas, geographical income differences were extreme. In the affluent sections in the western part of the city, average household disposable income was over \$20,000, and in certain sections in the central and eastern parts of the city, disposable income was less than \$3,000.

Sales

Christmas tree retailers in Winston-Salem sold about 9,000 natural trees in 1967, 10,000 in 1968, and 12,000 in 1969 (table 1). Balsam fir was by far the biggest seller each year, accounting for more than 40 percent of all trees sold.

In 1967, eastern red cedar and white pine were second and third in sales, respectively. By 1969, the cedar had slipped to fifth in

popularity. White pine was the second most popular tree in 1969, followed by Fraser fir and Scotch pine. The large decline in sale of cedars was attributed to an increase in the supply of the better-quality pines and firs. Sales of Fraser fir doubled between 1967 and 1969.

Unsold trees varied from about 15 percent of the stock in 1967 to about 10 percent in 1968 and 18 percent in 1969. Eastern red cedar led the list of unsold trees. Lot operators had to discard about one-fifth of their cedars each year. Generally, fewer Scotch pines had to be discarded than any other species.

(About 17,000 artificial Christmas trees were used in Winston-Salem in 1969. About 25 percent of these trees were bought new in 1969.)

Prices

The retail price of Christmas trees varied according to species (table 2); but of all the major species, Fraser fir brought the highest price each year.

The average percentage retail markup of the five major species declined notably over the 3 years, from 118 percent in 1967 to 98 percent in 1968 and 91 percent in 1969. Generally, white pine and cedar had the highest markups. The high-priced Fraser fir had the smallest markup each year. A relatively large increase in wholesale tree prices was responsible for the decline in markups.

Table 1.—Christmas tree sales in Winston-Salem, North Carolina, 1967-69

Type	1967		1968		1969	
	Number	Percent of trees available	Number	Percent of trees available	Number	Percent of trees available
Balsam fir	3,762	89.6	4,529	92.2	5,173	81.7
White pine	1,566	84.1	1,737	87.1	2,075	81.3
Fraser fir	615	82.4	848	96.4	1,382	83.7
Scotch pine	976	95.2	1,305	93.2	1,304	87.1
Eastern red cedar	1,686	77.3	1,097	81.4	900	78.5
Blue spruce	—	—	—	—	83	87.4
Norway spruce	16	100.0	3	15.0	65	81.2
Douglas-fir	—	—	—	—	57	95.0
White spruce	35	70.0	—	—	—	—
Arizona cypress	40	66.7	—	—	—	—
Halvorson ¹	531	77.8	633	95.6	902	85.5
Total	9,227	85.3	10,152	90.3	11,941	82.5

¹A color-processed natural spruce.

Table 2.—Average retail price of Christmas trees in Winston-Salem, 1967-69

Species	1967	1968	1969
Balsam fir	\$2.84	\$3.10	\$3.34
White pine	4.44	4.69	4.19
Fraser fir	4.81	6.73	6.90
Scotch pine	4.55	4.76	4.11
Eastern red cedar	2.08	2.32	2.86
Blue spruce	—	—	4.00
Norway spruce	3.25	—	—
Douglas-fir	—	—	7.00
White spruce	2.00	—	—
Arizona cypress	1.10	—	—
Halvorson	2.00	2.32	2.08
Average	\$3.21	\$3.75	\$3.87

Chain grocery stores and discount stores sold Christmas trees at below-average markups. Trees sold by nurseries and florists carried the highest markups.

THE RETAIL STRUCTURE

There were 53 Christmas tree retailers in Winston-Salem in both 1967 and 1969. Only 46 retailers sold Christmas trees in 1968.

Type of Retailers

Many different types of retail outlets sold Christmas trees in Winston-Salem between 1967 and 1969. Each year, over one-third of all Christmas tree retailers were chain grocery stores. Independent sales lots (including those operated by church and civic groups) accounted for about 22 percent of the retailers, discount stores for about 13 percent; independent grocers, nurseries and florists, service stations, and other dealers made up about 30 percent.

The proportion of sales for the different types of retailers was as follows:

Type of retailer	Sales (percent)
Chain groceries	25.9
Independent lots	44.4
Discount stores	15.4
Independent grocers	2.6
Nurseries and florists	5.3
Service stations	3.8
Other	2.6
	100.0

In 1969, eight retail organizations each operated two or more Christmas tree outlets.

Five of these were major food chains. There were nine retail organizations with more than one outlet in 1967 and seven in 1968. In each of the 3 years, about one-half of all outlets belonged to some type of chain organization. These retail outlets sold about 35 percent of all the trees sold each year.

Size of Retailers

The Winston-Salem market was characterized by a few large tree retailers and many small ones. In each of the 3 years, the 10 largest retailers—roughly 20 percent of all retailers—sold about 60 percent of all the trees sold. In 1969, each of the 10 largest retailers sold an average of 722 trees. All other retailers averaged less than 110 trees each.

Ease of Entry and Exit

The retail Christmas tree market in Winston-Salem was characterized by ease of entry and exit of sellers. There are three reasons.

- The only major investment required of the retailer is an inventory of trees. And because the selling season is short, the investment is recovered quickly. No permanent facilities are needed.
- The trees of one retailer are very much like the trees of any other; so consumers have no reason to think that one retailer will have better trees than any other.
- The supply of Christmas trees for sale at wholesale in Winston-Salem was more than adequate for the existing demand. Accordingly, new retailers had no difficulty in obtaining a sufficient quantity of suitable trees.

The lack of barriers to entry and exit was clearly evident in Winston-Salem between 1967 and 1969. Between 1967 and 1968, 13 retailers left and 6 entered. And between 1968 and 1969, 11 retailers entered and 4 left. Of the 65 different retailers who sold trees between 1967 and 1969, 35 percent lasted just 1 year. Only 37 retailers—57 percent—were in the tree business all 3 years.

The small retail outlets were responsible for most of the fluctuation in the number of retailers; large operators seldom left the busi-

ness. The average sales of those retailers that left the business was only about 100 trees. All but one of the 10 largest retailers in 1967 were still in business in 1968. And all of the 10 largest retailers in 1968 were still selling trees in 1969.

LOT LOCATION

Business areas and major traffic arteries have one thing in common—people. And people demand goods and services, including Christmas trees. Retail Christmas tree outlets that are located where consumer demand is large can be expected to sell more trees and sell them at higher prices.

Type of Area

Most Christmas tree retailers—70 to 80 percent—in Winston-Salem were located in business areas. About one-third of all retailers were located in shopping centers each year. Every one of the 10 largest retailers in 1968 and 1969 was located in a business area.

Retailers located in business areas sold more trees and discarded fewer each year than did those in residential areas (fig. 1). In 1968, the typical residential retailer sold only 98 trees and had to discard 1 tree for every 4 trees sold. In 1969, the average retailer in a business area sold 241 trees, but the average retailer in a residential area only sold 156 trees.

In addition to selling more trees, retailers in business areas received a higher price for their trees. For example, in 1969, the average price of trees sold in business areas was \$4.04; the price in residential areas was \$3.76.

Type of Street

About half of all Christmas tree retailers in Winston-Salem were located on major traffic arteries (average daily volume of more than 10,000 vehicles). These retailers sold more than twice as many trees as retailers located on streets with less traffic. Eight of the 10 largest retailers were located on major streets in both 1968 and 1969.

Prices were also higher at outlets located on major streets. In 1969, the average price



Figure 1.—A Christmas tree retailer located in a residential area cannot expect to sell many trees.

of trees sold by retailers on major streets was \$4.24, or \$0.87 higher than tree prices at retail outlets on minor streets. The average price differences in 1967 and 1968 were \$0.51 and \$1.12, respectively.

Over the 3-year period, the proportion of Christmas tree retailers located on major traffic arteries gradually increased. This trend will probably continue as more and more retailers realize the importance of selling trees where consumers concentrate.

Parking Facilities

Buyers of natural Christmas trees seem to prefer the convenience of large and easily accessible parking lots. Retailers providing adequate parking sold over twice as many trees than did other retailers. And they had fewer trees left over on Christmas day. For example, in 1969, retailers without adequate parking facilities had to discard two trees for every three sold.

Tree prices were also higher at locations with large parking areas. Tree buyers were apparently willing to pay for convenient parking facilities.

Most Christmas tree retailers in Winston-Salem realized the importance of large and easily accessible parking facilities. About 70

percent of the retail outlets had adequate parking facilities. The others had either small and cramped parking lots or none at all.

PROMOTION

Advertising and product display were the most widely used methods for promoting sale of Christmas trees in Winston-Salem.

Advertising

About half of all retailers advertised their Christmas trees each year. This advertising included newspaper, television, and radio ads; handbills; trading-stamp specials; special displays; and direct-mail campaigns.

Newspaper advertising was the most common. In 1967, about 40 percent of the retailers advertised in newspapers, and in 1968 and 1969, the number was almost 50 percent. Newspaper advertising was used heavily by chain grocery stores and discount stores.

Christmas tree retailers made very little use of radio and television to reach the public. In 1969, only six retailers used either one of these two media. Three of these retailers were independent lots and all were large. In 1968, four of the five users of radio and television advertising were large independent lots.

The advertising media were used by Christmas tree retailers as follows:

Percent of retailers using medium

<i>Medium</i>	<i>1967</i>	<i>1968</i>	<i>1969</i>
Newspapers	39.6	47.8	47.2
Television	7.5	6.5	7.6
Radio	5.7	10.9	11.3
Handbills	3.8	4.3	3.8
Other	3.8	8.7	1.9

In 1968, each retailer who advertised sold an average of 337 trees and had less than 7 percent of his trees left over on Christmas day. The typical retailer who did not advertise sold only 105 trees and had almost 20 percent of his trees left over. The retailer who advertised in 1969 sold an average of 312 trees compared to an average of 225 trees for all retailers. Each year, most of the 10 largest retailers advertised.

Tree prices were generally higher at retail outlets that advertised. In 1969, the average price received by retailers who advertised was \$0.19 above that received by those who did not advertise. The average price differences in 1967 and 1968 were \$0.35 and \$0.64, respectively. Retailers who advertised eastern red cedar in 1968 were able to get at least \$1.00 more than the average price for all cedars sold that year.

Product Display

Like advertising, an attractive display of Christmas trees lures customers to retail lots and influences their decision to buy. However,

Figure 2.—An attractive display of Christmas trees and plenty of parking space lures customers to retail outlets and influences their decision to buy.



Christmas tree retailers in the Winston-Salem market—including the very largest—did not take full advantage of this promotional technique. Many—41 percent in 1969—simply leaned their trees against a building, racks, or rope. And over one-third of the retailers piled most of their trees on the ground. Only one-fourth of the retailers displayed their trees standing upright and separately for ease of selection (fig. 2).

The manner in which Christmas trees were displayed on the lot in Winston-Salem appeared to affect both tree sales and prices. Generally, a retailer whose trees stood upright and separately sold over twice as many trees as a retailer who leaned his trees against a support or stacked them in piles on the ground. Retailers with good displays also received higher prices for their trees.

SUMMARY

Christmas tree retailers in Winston-Salem were characterized by extremes in both type and size. Grocery stores, discount houses, church and civic groups, nurseries and florists, service stations, and even individuals had trees for sale. Most of the retailers were chain grocery stores. However, the independent lots sold the most trees. Though most of the retailers were small, a few large retailers dominated the market. And because these large retailers seldom left the Christmas tree business, they provided an element of stability to a market where the turnover of retailers from one year to the next was high.

Christmas tree retailers who were located on heavily traveled streets in business areas, advertised, and had attractive tree displays and adequate parking facilities sold the most trees. These retailers also received higher prices for their trees.





THE FOREST SERVICE of the U. S. Department of Agriculture is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives — as directed by Congress — to provide increasingly greater service to a growing Nation.