

A STUDY OF CONSUMER PREFERENCE FOR CHRISTMAS TREES

METROPOLITAN WINNIPEG 1968

by

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A.G. Teskey and B.W. Karaim¹

INTRODUCTION

What is the market potential for Christmas trees in Winnipeg? Is the present supply of trees sufficient to meet the demand? What are some of the prime determinants of the Christmas tree market? Undoubtedly they are determined by consumer demand (tastes and preferences). The question of consumer satisfaction concerning the present supply of trees, their quality, size and corresponding price is a key factor in determining the final market.

A survey of households was conducted in Metropolitan Winnipeg in 1968 to supply information about consumer preferences for Christmas trees. Data were obtained by employing both mail and telephone survey techniques. This internal report contains a discussion and analysis of the survey results.

METHODS

A computer program was used to select, without replacement, 2,000 random numbers between 1 and 200,000. Theoretically, for every random number selected, there was a corresponding name, address and telephone number in the 1968 Metropolitan Winnipeg Telephone Directory.

The 2,000 random numbers were arbitrarily allotted to a mail survey and telephone interview in a four to one ratio. Sixteen hundred numbers generated 1,453 useable names and addresses for the mail survey while the remaining 400 random numbers generated 264 private listings for the telephone interview.

A covering letter explaining the objective of the survey, a questionnaire (see Appendix) to be filled out, a brochure on Christmas tree safety and a stamped, self-addressed, return envelope were mailed to each of the 1,453 random addresses. The covering letter also stated that a booklet would be sent to all people responding. In this way it was hoped that the response rate² would be increased.

1

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2

For response rates see Appendix.

Persons contacted by telephone were verbally informed of the survey intent and, when they cooperated, questionnaires identical to the one used in the mail survey were completed.

RESULTS AND DISCUSSION

CONSUMER PREFERENCE FOR NATURAL AND ARTIFICIAL CHRISTMAS TREES

Type of Tree Preferred

The mail and telephone surveys elicited 680 responses. Fifty-three per cent of the respondents preferred a natural Christmas tree and 24 per cent an artificial tree (Table 1). The proportion intending to have no Christmas tree was twice as large for the telephone survey as it was for the mail.

TABLE 1. Christmas Tree Preference (in %)

Survey	Natural	Artificial	Both	None
Mail	55	24	10	11
Telephone	43	23	12	22
Combined results	53	24	10	13

Age Distribution of Responding Households with Relation to Christmas Tree Preference

Households preferring natural Christmas trees averaged 4.1 persons; households owning artificial trees averaged 3.4 persons; households preferring both an artificial and a natural tree averaged 4.1 persons and households preferring to have no Christmas tree at all averaged 2.8 persons (Table 2).

Families intending to have no Christmas tree had a higher percentage (39%) of persons over 45 years of age than did families owning artificial trees (33%); families preferring both (21%) and families preferring natural trees (18%). Accompanying percentages of children aged 0 - 14 for the above households are 18%, 24%, 34% and 36% respectively. Evidently, presence of children in the family is an important factor when it comes to choosing the type of Christmas tree for the household.

Those families intending to have no Christmas tree at all, gave many reasons. Most common among these were: religion, going to be away on holidays, no children, too old and sickness in the family.

TABLE 2. Age Distribution of Households with Relation to Christmas Tree Preference

Type of household	No. of households	0-14 yrs.	15-24 yrs.	25-44 yrs.	45-64 yrs.	65 yrs.	Total
Preferring nat. Christmas tree only	360	36	17	29	16	2	100%
Preferring art. Christmas tree only	162	24	20	22	26	8	100%
Preferring both nat. & art. tree	68	34	17	28	17	4	100%
Preferring no Christmas tree	90	18	15	27	23	17	100%
Total	680	32	17	27	19	5	100%

CONSUMER PREFERENCE FOR NATURAL CHRISTMAS TREESSpecies Preferred

A total of 428 respondents from both surveys intended to purchase 490 trees. Black spruce was the species most favoured at 48% while the second most popular species was Scots pine at 31% (Fig. 1).

Fig. 1. Species Preference

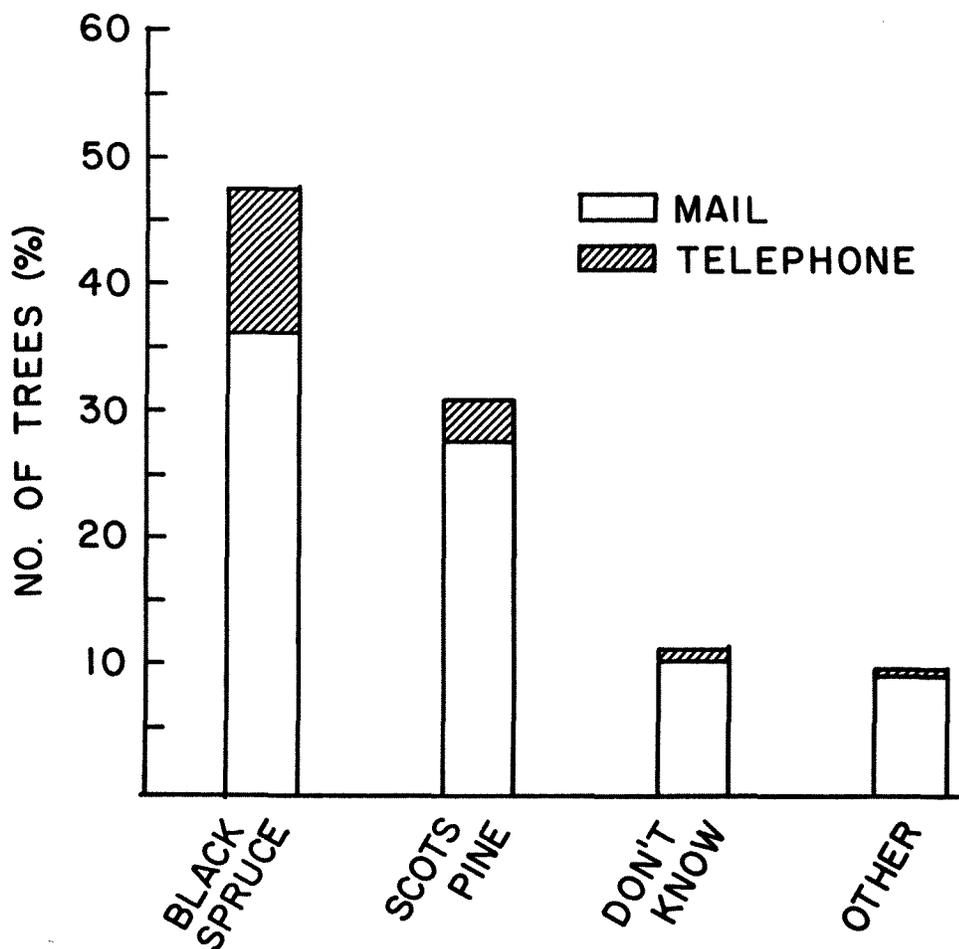
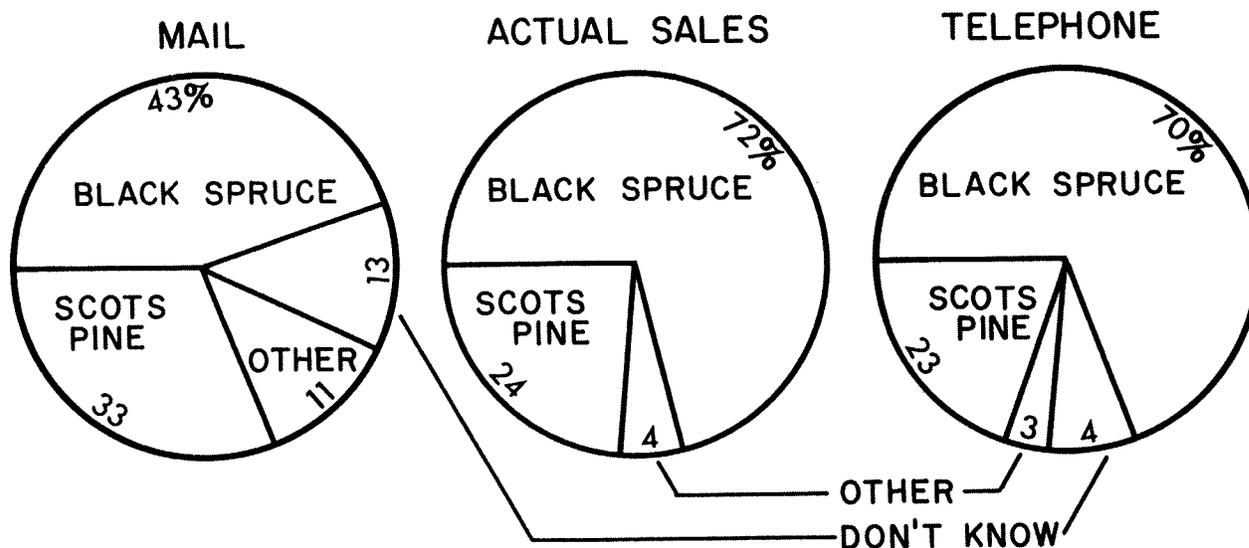


Fig. 2. A Comparison of Survey Results Using Species Preference



Species Preference vs. Actual Sales

It can be seen by comparing survey results that the telephone poll very closely resembles actual sales patterns in 1968 (Fig. 2). On the other hand, response initiated by mail failed to represent what took place in actual sales. Why the difference? Obviously the mail survey was biased-- in exactly what respects is uncertain. Possibly only the keenly interested people replied (i.e., people who knew and appreciated their trees) whereas in the telephone survey, most respondents were committed to a reply once they answered the call.

An alternative explanation may be in order. It could be that although many mail respondents preferred a Scots pine, they were unwilling to pay the asking price of \$6.50 (Table 2). In support of this point was the fact that the telephone survey took place very close to Christmas and many people had already purchased a tree. As can be seen in Table 3, the expected price to be paid for a Scots pine averaged \$4.65. Availability and quality of species may also have influenced final selection of natural Christmas trees.

Comparison of Average Prices

Average prices people expected to pay for each species were compared to the average prices demanded by retailers for the same species. The only significant difference existed between expected price for Scots pine and the actual retail price (Table 3). Prices listed for the remaining species were quite comparable.

TABLE 3. Expected and Actual Average Prices by Species

Survey	Scots pine	Black spruce	Other	Don't know
Consumer	\$4.65	\$2.90	\$3.80	\$2.75
Retail	6.65	2.40	3.65	N/A

Preferred Location of Trees by Species, Height and Time Kept

About 88% of the trees were intended to be used indoors (Fig. 3). The ratio of trees placed outside to those placed inside is the smallest for Scots pine, which means that of all species, it has the least chance of being located outdoors.

The most popular height both indoors and outdoors was the 5-7 foot range, which accounted for 66% of all the trees (Fig. 4).

Eighty-three per cent of the trees intended to be used indoors were to be kept 6-15 days whereas approximately 71% of the outdoor trees were to be kept at least 21 days (Fig. 5). No one intended to keep their natural trees indoors for more than four weeks.

Where Consumers Intended to Obtain Their Trees

Of 428 potential Christmas tree owners, 82% expected to purchase their trees from a retail outlet in Metropolitan Winnipeg; 16% planned to cut their own, and 2% intended to buy from retailers outside of Winnipeg.

What size of market could be anticipated by directly applying the above percentages to the total population?¹ Such an application would forecast 62,500 trees purchased from Metropolitan retailers; 11,900 cut on public or private land and 1,600 obtained from retailers outside of Winnipeg in 1968.

Consumer Comments on Tree Improvements

In the survey, each respondent was asked to comment on the characteristics of Christmas trees which he felt should be improved. Fifty-one% of the respondents made 502 comments concerning Christmas tree improvements. Listed below are the main comments.

<u>Improvements to be made</u>	<u>Percentage of total comments</u>
1. Even, balanced branches	27%
2. Dense branches	26%
3. Colour control	16%

¹

Population census 1966 D.B.S. (122,000 families in Metropolitan Winnipeg).

FIG. 3

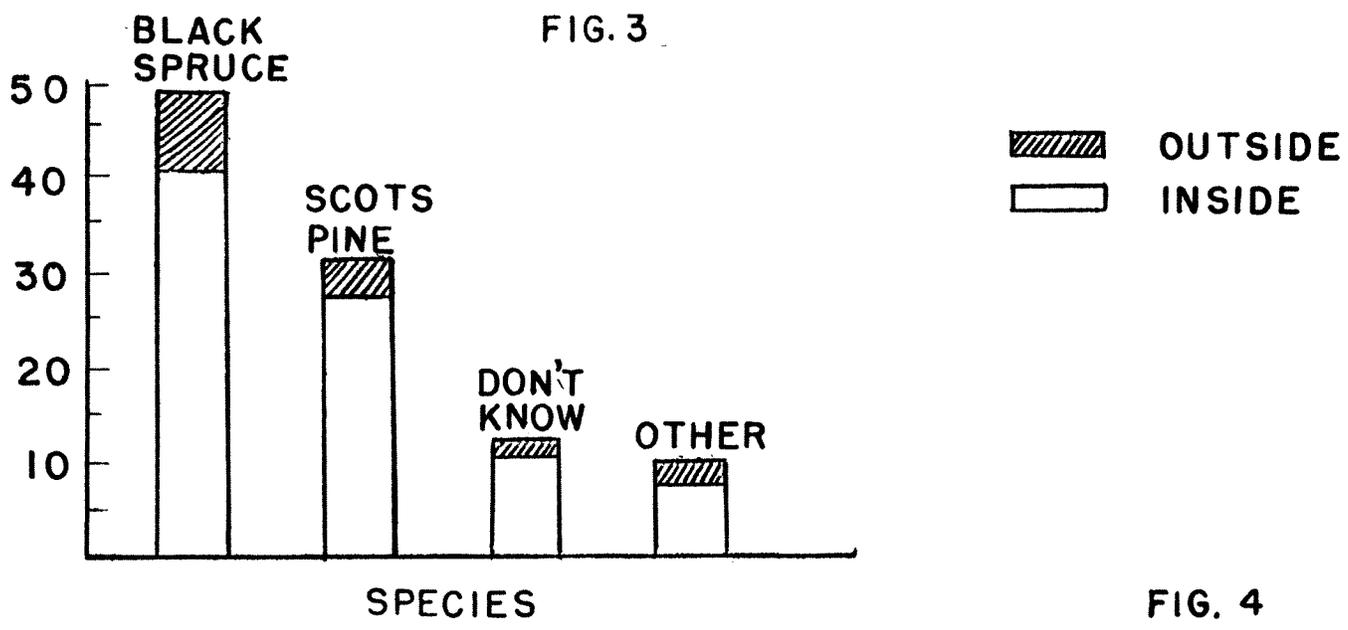


FIG. 4

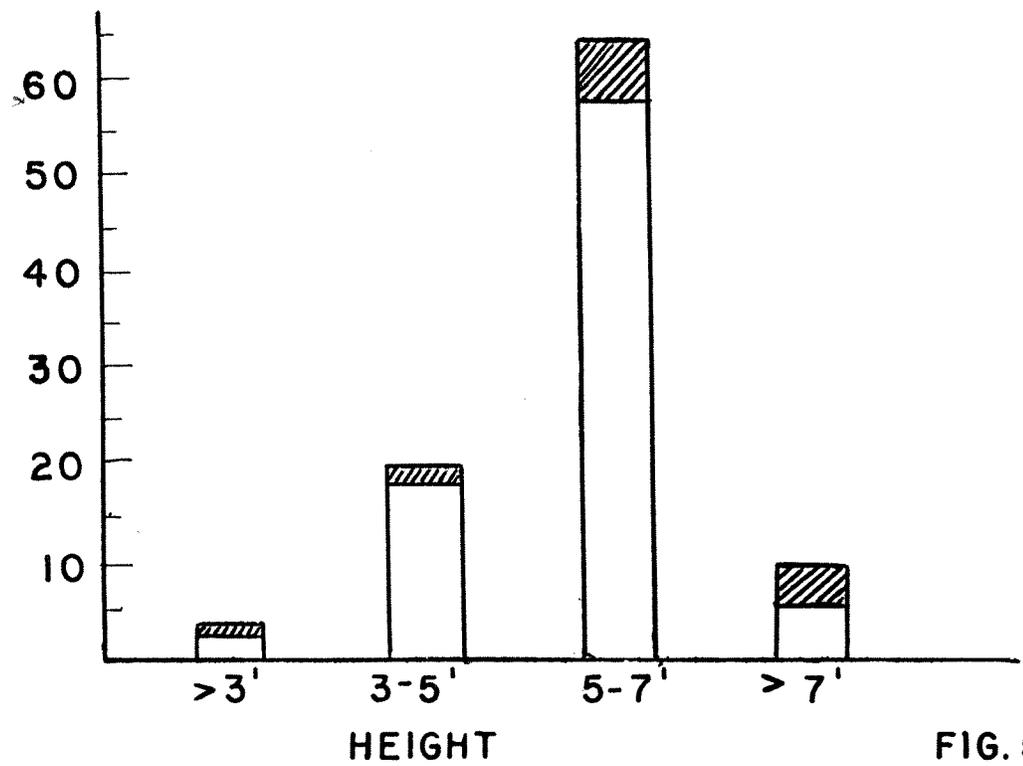
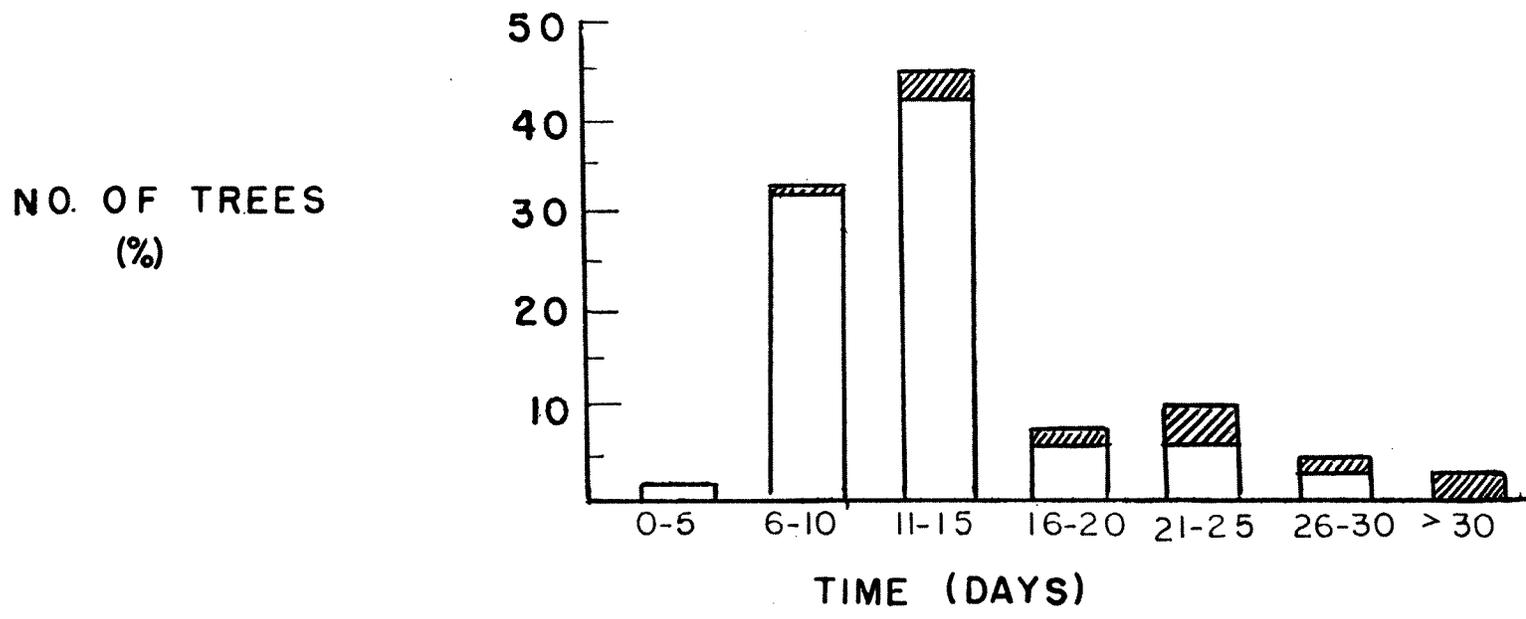


FIG. 5



4. Needle retention	13%
5. No change	7%
6. Other comments (numbering 20)	<u>11%</u>
Total	100%

Surprisingly enough, most of the suggested improvements have solutions. Improvements 1 and 2 can be made by regular pruning and management of plantation trees. Colour can be artificially applied by spraying or "flocking" natural trees. Needle loss can be reduced by selection of ideal species, by watering and by cutting trees immediately prior to their placement in the home.

CONSUMER PREFERENCE FOR ARTIFICIAL CHRISTMAS TREES

Respondents Owning Artificial Trees

Thirty-four per cent of the respondents owned 245 artificial Christmas trees (Table 4). Thirteen respondents each owned two artificial trees and one owned three. This means that approximately 41,000¹ families in Metropolitan Winnipeg own artificial Christmas trees.

TABLE 4. Ownership of Artificial Christmas Trees

Survey	Do you own an artificial Christmas tree?		Quantity owned
	Yes	No	
Mail	186	365	199
Telephone	44	85	46
Total	230	450	245

Number of Trees Owned in 1968 by Year of Purchase

Artificial trees were purchased as far back as 1950 and averaged 3.4 years of age (Table 5). Two-thirds of these trees cost between \$5 and \$20 each; one-sixth cost less than \$5 and the remaining one-sixth more than \$20.

TABLE 5. Year of Purchase

Survey	Prior to 1962	1962	1963	1964	1965	1966	1967	1968	Total
Mail	13	14	16	24	31	40	41	20	199
Telephone	3	4	8	5	6	9	10	1	46
Total	16	18	24	29	37	49	51	21	245

¹ Population census 1966 D.B.S. (122,000 families in Metropolitan Winnipeg).

Why are artificial Christmas trees so popular? Many consumers think an artificial tree is decorative; that it is economical in terms of money and time because it lasts several years; that its high price makes it a status symbol and that there is no mess to clean up or a disposal problem after Christmas.

There are some advantages that artificial trees have over natural trees, especially in the retail trade. Artificial trees can be sold indoors. This is an extreme advantage especially when the city is experiencing adverse weather conditions. Consumers would rather do their buying indoors where it is warm and comfortable. Artificial trees conserve space because only one tree of each price range needs to be displayed. Then when a customer buys a tree, he takes it home in a cardboard box which reduces selling costs.

How can the retail lot operator combat competition from artificial trees? The following are suggestions that natural tree retailers should keep in mind. Sales lots should be centrally located, and the trees should be visible from the street. The lot should be large enough to display the trees adequately--not just piling them up. Nearby parking is essential. Prospective retailers are advised to complete their arrangements for sales space well in advance of the selling date.

Sales can no doubt be increased if the lot is decorated and efficiently organized. It should be well lighted at night. The trees should be standing upright, for easy inspection, with the price clearly marked. Trees might be priced individually, or all trees in a group might be priced the same. The salesman should know the species. Other items for Christmas decoration may help to attract customers; these might include bundles of evergreen branches, Oregon grape, holly, mistletoe, and small painted trees and cones.¹

For tree farmers who plan to have people come and cut their own tree, here are a few suggestions. Since location is the key factor tree farmers should advertise adequately in order to inform people of the exact location. Farmers located close to the city have an advantage, therefore those further out should have extra attractions. Perhaps picnic benches and temporary fire places could be installed to encourage family outings. Hot drinks and light snacks could be optional. It might be a novelty to take prospective customers through your plantation by horse and sleigh or by the latest mode of winter travel--ski-doo.

SUMMARY AND CONCLUSIONS

Assuming that our sample is a true representation of the Metropolitan population, and that people who intended to buy natural trees actually bought them, then there should have been approximately 76,000² trees sold in Winnipeg in 1968.

1

Stiell, W.M. 1957. Christmas Tree Growing in Canada. p. 19. Miscellaneous Publication No. 7, Dept. of Northern Affairs and National Resources, Ottawa.

2

Population census 1966 D.B.S. (122,000 families in Metropolitan Winnipeg).

Prices influence the selection of natural tree species. Selection of Christmas tree type is dependent on the number and age of children in the family.

People over 45 years are more inclined to have no Christmas tree at all or if they do it tends to be an artificial Christmas tree.

Of the two survey techniques employed, the telephone was a much cheaper, quicker and more controllable method of obtaining results.

Artificial Christmas tree sales in 1968 were over 8,000 and are expected to increase in 1969-70. With increased sales of artificial Christmas trees, natural tree sales will remain stable or possibly decrease, households remaining constant.

APPENDIX

Sampling Technique and Response

Survey	Random Selection	Attempted Contact	Returned Envelopes	No Answer	Number Contacted	Number of Responses	Percentage Responses
Mail	1,600	1,453	65		1,388	551	39.7
Telephone	400	264		74	190	129	67.9
Total	2,000	1,717	65	74	1,578	680	43.1

SURVEY OF MAJOR RETAILERS SELLING ARTIFICIAL CHRISTMAS TREES

METROPOLITAN WINNIPEG - 1968

QUESTIONNAIRE

1. How many artificial trees were sold during the 1968 Christmas season?

2. What were the retail prices for the trees sold? _____

3. How did this year's sales compare with previous years? _____

4. Have you any comments on selling artificial Christmas trees and what do you think the market will be like next year? _____

SELECTED BIBLIOGRAPHY

1. Alm, Alvin A., April 15, 1968. Production and Marketing of Douglas Fir Christmas Trees in Minnesota, School of Forestry, University of Minnesota, St. Paul, Minnesota.
2. American Christmas Tree Growers' Journal, May, 1965. Survey of Christmas Trees in Indiana Homes.
3. Anderson, Henry P., Richard A. Skok and William R. Miles, October 15, 1966. The 1965 Twin Cities Retail Christmas Tree Market, School of Forestry, University of Minnesota, St. Paul, Minnesota.
4. Darr, David, Richard A. Skok, Marvin Smith, October 15, 1967. Retail Christmas Tree Sales in the Twin City Area, School of Forestry, University of Minnesota, St. Paul, Minnesota.
5. Douglas, P.G., A.G. Teskey and R.M. Waldron, 1969. The Christmas Tree Market - Metropolitan Winnipeg 1968, Forest Research Laboratory, Winnipeg, Manitoba.
6. Duncan, D.P., E.T. Sullivan, C.J. Shiue and R.I. Beazley, 1960. A Study of Consumer Preference in Christmas Trees, Paper no. 4191, Minnesota Agricultural Experiment Station.
7. Duncan, D.P., 1962. Christmas Tree Preference in a Metropolitan Area, School of Forestry, University of Minnesota, Paper no. 4925, Minnesota Agricultural Experiment Station.
8. Ellefson, Paul, Richard A. Skok and William R. Miles, July 15, 1965. 1964 Retail Christmas Tree Sales in the Twin Cities Area, School of Forestry, University of Minnesota, St. Paul, Minnesota.
9. Mitchell, Glen, H., March, 1959. Christmas Tree Purchasing Habits in Greater Cleveland, Ohio, 1957. Ohio Agricultural Experiment Station, Wooster, Ohio.

10. Palk, R. Brooks, 1964. Christmas Trees, A Missouri Crop. Agricultural Experiment Station, University of Missouri, Columbia, Missouri.
11. Schuster, Ervin G., Richard A. Skok and Marvin E. Smith, April 15, 1966. Some Observations on Artificial Christmas Trees; U.S. Production and Marketing in Minnesota. School of Forestry, University of Minnesota, St. Paul, Minnesota.
12. Skok, Richard A., Marvin Smith and Henry L. Hanson, October 15, 1961. Christmas Tree Sales in the Twin City Area, 1960. School of Forestry, University of Minnesota, St. Paul, Minnesota.
13. Skok, Richard A., Dennis Schweitzer and Marvin Smith, July 15, 1962. Christmas Tree Retail Lot Sales in the Twin City Area, 1961. School of Forestry, University of Minnesota, St. Paul, Minnesota.
14. Skok, Richard A., Marvin E. Smith and William Miles, October, 1962, July, 1964. Retail Christmas Tree Sales in the Twin Cities Area, 1962, 1963. School of Forestry, University of Minnesota, St. Paul, Minnesota.
15. Sowder, A.M., 1964. The Christmas Tree Industry in Retrospect and Prospect. Federal Extension Service, U.S. Department of Agriculture.
16. Stiell, W.M., 1957. Christmas Tree Growing in Canada, Canada Department of Northern Affairs and National Resources, Ottawa, Ontario.
17. Sullivan, E.T. and H.L. Hansen, July 15, 1957. The Twin City Metropolitan Area as a Market for Norway Pine Christmas Trees. School of Forestry, University of Minnesota, St. Paul, Minnesota.
18. Sullivan, E.T., October 15, 1959. Trends in Growing Christmas Trees in Minnesota. School of Forestry, University of Minnesota, St. Paul, Minnesota.
19. Westerman, Donald W., Richard A. Skok and Marvin E. Smith, July 15, 1968. Twin Cities Retail Christmas Tree Market 1967. School of Forestry, University of Minnesota, St. Paul, Minnesota.