



THE CHRISTMAS TREE MARKET METROPOLITAN WINNIPEG 1968

by
P. G. Douglas, A. G. Teskey
and R. M. Waldron

**FOREST RESEARCH LABORATORY
WINNIPEG, MANITOBA
INFORMATION REPORT MS-X-13**

**FORESTRY BRANCH
DEPARTMENT OF FISHERIES AND FORESTRY
JANUARY, 1969**

ACKNOWLEDGEMENTS

The authors wish to express their appreciation to the retailers of natural and artificial Christmas trees in Metropolitan Winnipeg, the Christmas tree growers of southern Manitoba, and to M. Kaye and P.W. Carmichael of the Manitoba Department of Mines and Natural Resources for their cooperation and contributions to this study.

CONTENTS

	Page
INTRODUCTION	1
METHODS	1
RESULTS AND DISCUSSION	2
RETAIL SALES OF NATURAL TREES	2
Lots	2
Retailer Experience	3
Stocks	3
Geographic Origin of Stocks	6
Sales	10
Public Cutting Areas	11
PRODUCTION OF NATURAL TREES	11
Crown Lands	11
Private Lands	14
ARTIFICIAL TREES	19
ANALYSIS AND CONCLUSIONS	21
APPENDIX	22

THE CHRISTMAS TREE MARKET

METROPOLITAN WINNIPEG

1968

by

P.G. Douglas¹, A.G. Teskey¹ and R.M. Waldron²

INTRODUCTION

In December 1968, a study was undertaken by the Forestry Branch, Department of Fisheries and Forestry, to determine the current status of the Christmas tree market (including artificial trees) in Metropolitan Winnipeg.

From a survey of retailers, natural Christmas tree sales in 1968 were estimated to be over 40,000 trees, of which 70% were black spruce³ and 24% Scots pine⁴. In addition, more than 11,000 black spruce were harvested from the public cutting area near Richer. Available data on local production of black spruce and Scots pine indicate an abundance of both during the 1970-1978 period. Sales of artificial Christmas trees were over 8,000 in 1968; an estimated 41,000 families currently own artificial trees.

METHODS

Analysis of the Christmas tree market was accomplished using data obtained through interviews (appendix) with retailers, growers, government officials and consumers.

¹ Economics Section

² Liaison and Services Section

³ Picea mariana BSP

⁴ Pinus sylvestris L.

The survey of natural Christmas tree retailers was conducted during the last three weeks of December 1968. Retailers were interviewed before December 24 to obtain data on their experience in tree retailing, quantity, species and geographic origin of trees for sale and retail prices. Immediately after Christmas, retailers were contacted to obtain an estimate of the quantity and species of unsold trees.

The survey of tree growers in southern Manitoba was carried out using a mail questionnaire. Data were collected on the number and species of trees planted, the quantity and species of trees cut for sale, and prices received.

Data on other Christmas tree production in Manitoba (including the public cutting area in southeastern Manitoba) were obtained from the Manitoba Department of Mines and Natural Resources.

The importance of artificial Christmas trees was examined from the viewpoint of both retailers and consumers:

- (a) Managers of major retail outlets were personally interviewed to obtain data on prices and quantities of trees sold during the 1968 season;
- (b) a study of consumer preferences for Christmas trees provided data on the number of artificial trees owned, dates purchased, prices paid and replacement intentions.

This analysis does not include individual natural trees purchased directly from wholesalers (e.g. purchases by municipalities and industry) or from private land owners.

RESULTS AND DISCUSSIONS

RETAIL SALES OF NATURAL TREES

Lots. The retail survey revealed the existence of 115 Christmas tree lots in the metropolitan area, the majority of which were located on main thoroughfares (Figure 1). These lots were operated by 85 retailers, 15% of whom sold trees at more than one location. Those with more than one lot

averaged 3.6 lots and accounted for 35% of the natural trees available for sale.

Retailer Experience. The average retailer had six years of experience selling Christmas trees. Those with only one lot averaged five years while those with more than one lot were twice as experienced (Table 1). Three of the "one lot" retailers claimed at least 20 years of experience, while only one of the "more than one lot" sellers had equivalent experience.

TABLE 1
RETAILERS' PREVIOUS EXPERIENCE

Years of experience	Retailers	
	With one lot	With more than one lot
0	26	-
1-5	25	3
6-10	14	5
11-15	5	2
More than 15	3	2
Average experience (years)	5	10

Stocks. Approximately 50,000 Christmas trees were available for sale (Table 2). Black spruce constituted approximately 70% of retailer stocks. Twenty-six per cent of trees for sale were Scots pine, and four per cent were Douglas fir⁵, balsam fir⁶, and white spruce⁷.

⁵ Pseudotsuga menziesii (Mirb.) Franco

⁶ Abies balsamea (L.) Mill.

⁷ Picea glauca (Moench) Voss.

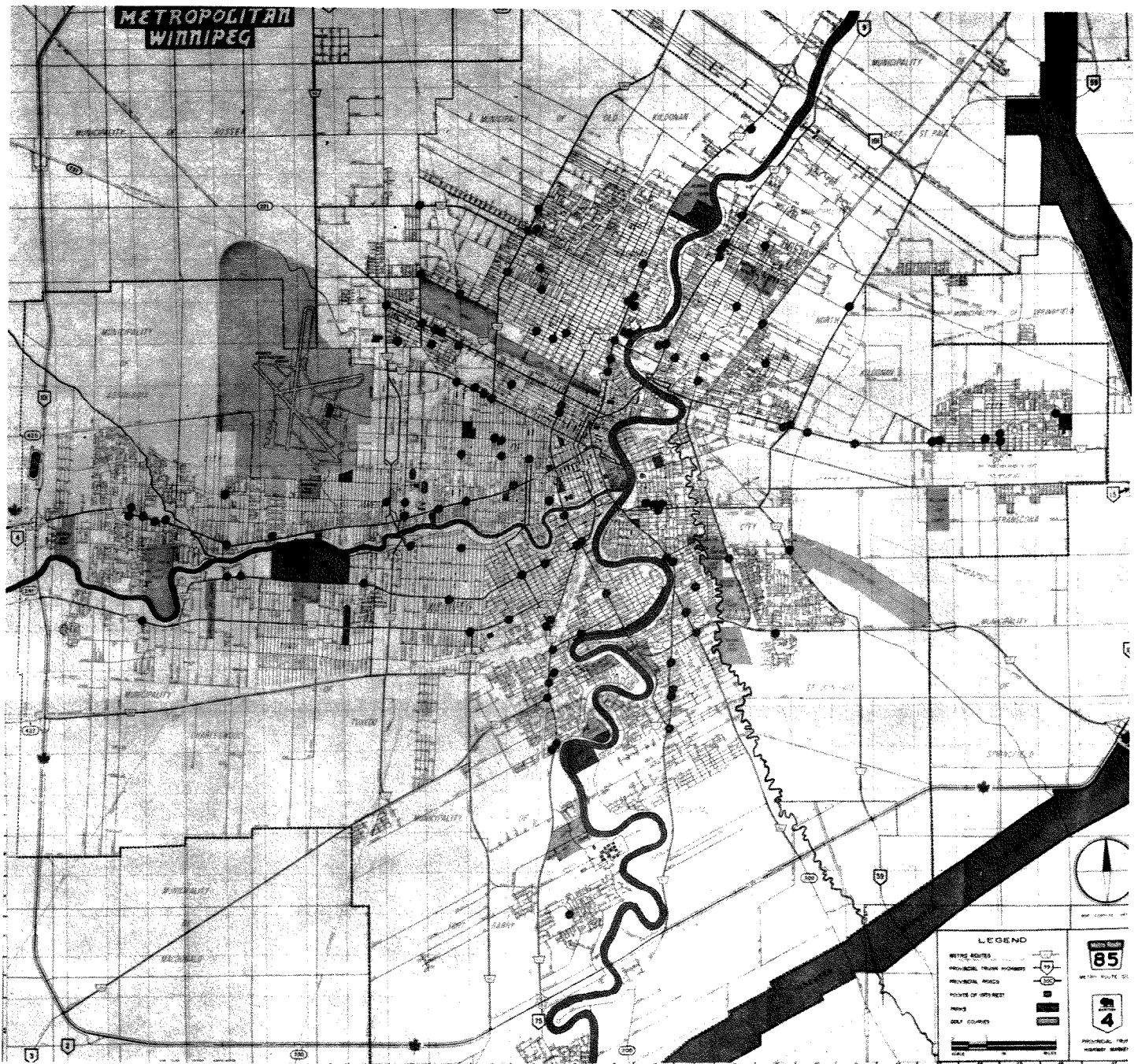


Figure 1. Location of retail Christmas tree lots.

TABLE 2
CHRISTMAS TREES FOR SALE

Species	Number of trees
Black spruce	34,687
Scots pine	12,958
Others	2,185
All	49,839

More than 60% of retailers carried 300 trees or less in stock (Table 3). Of these, 14 stocked only 1-50 trees, and 13 had 51-100 trees available for sale. At the other end of the scale, ten retailers had 501-1000 trees and nine had more than 1000.

TABLE 3
DISTRIBUTION OF RETAILERS BY QUANTITY OF TREES STOCKED

Number of trees available for sale	Number of retailers
1 - 100	27
101 - 300	28
301 - 500	11
501 - 1000	10
More than 1000	9

Apparently retailers favoured black spruce as 81 of 85 stocked this species (Table 4). On the other hand, only 27 carried Scots pine, 12 Douglas or balsam fir, and one white spruce.

TABLE 4
RETAILERS, BY QUANTITY OF SPECIES STOCKED

Number of trees	Number of retailers		
	Black spruce	Scots pine	Others
0	4	58	73
1 - 100	26	15	6
101 - 300	31	5	3
301 - 500	10	2	2
501 - 1000	8	4	1
More than 1000	6	1	-
All	85	85	85

The locations of retail lots selling black spruce, Scots pine and other species are shown in Figures 2, 3 and 4 respectively.

Geographic Origin of Stocks. Almost three-quarters of the Christmas trees available for sale were grown in Manitoba (Table 5). Most of these were black spruce, but there were also small quantities of Scots pine, balsam fir and white spruce. Ontario-grown Scots pine constituted less than 25% of the supply while Douglas fir from British Columbia accounted for five per cent.

TABLE 5
GEOGRAPHIC ORIGIN OF STOCKS

Origin	Number of trees			TOTALS
	Black spruce	Scots pine	Others	
Manitoba	34,687	945	200	35,832
Ontario	-	12,013	-	12,013
British Columbia	-	-	1,985	1,985

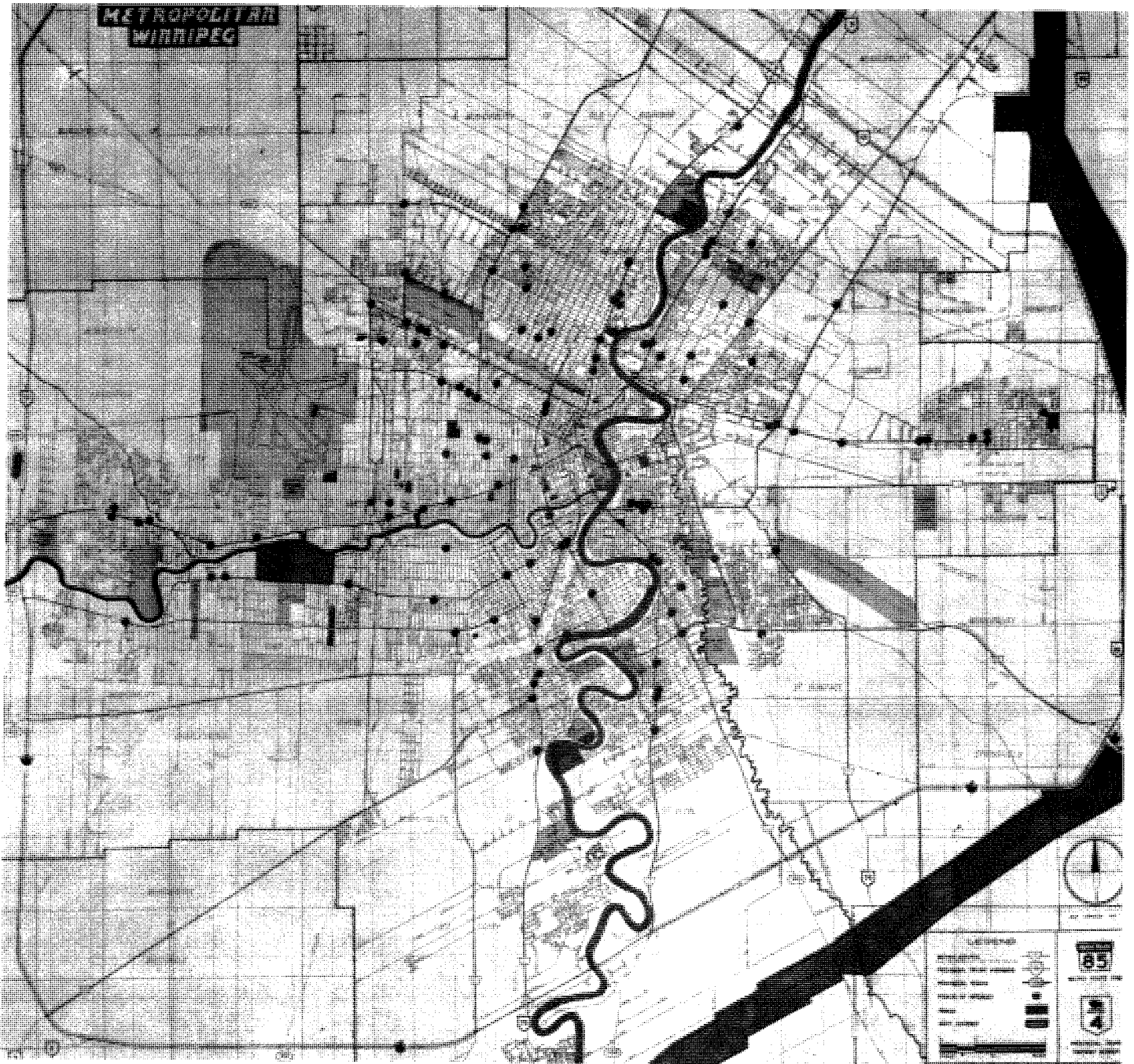


Figure 2. Location of lots selling black spruce.



Figure 3. Location of lots selling Scots pine.

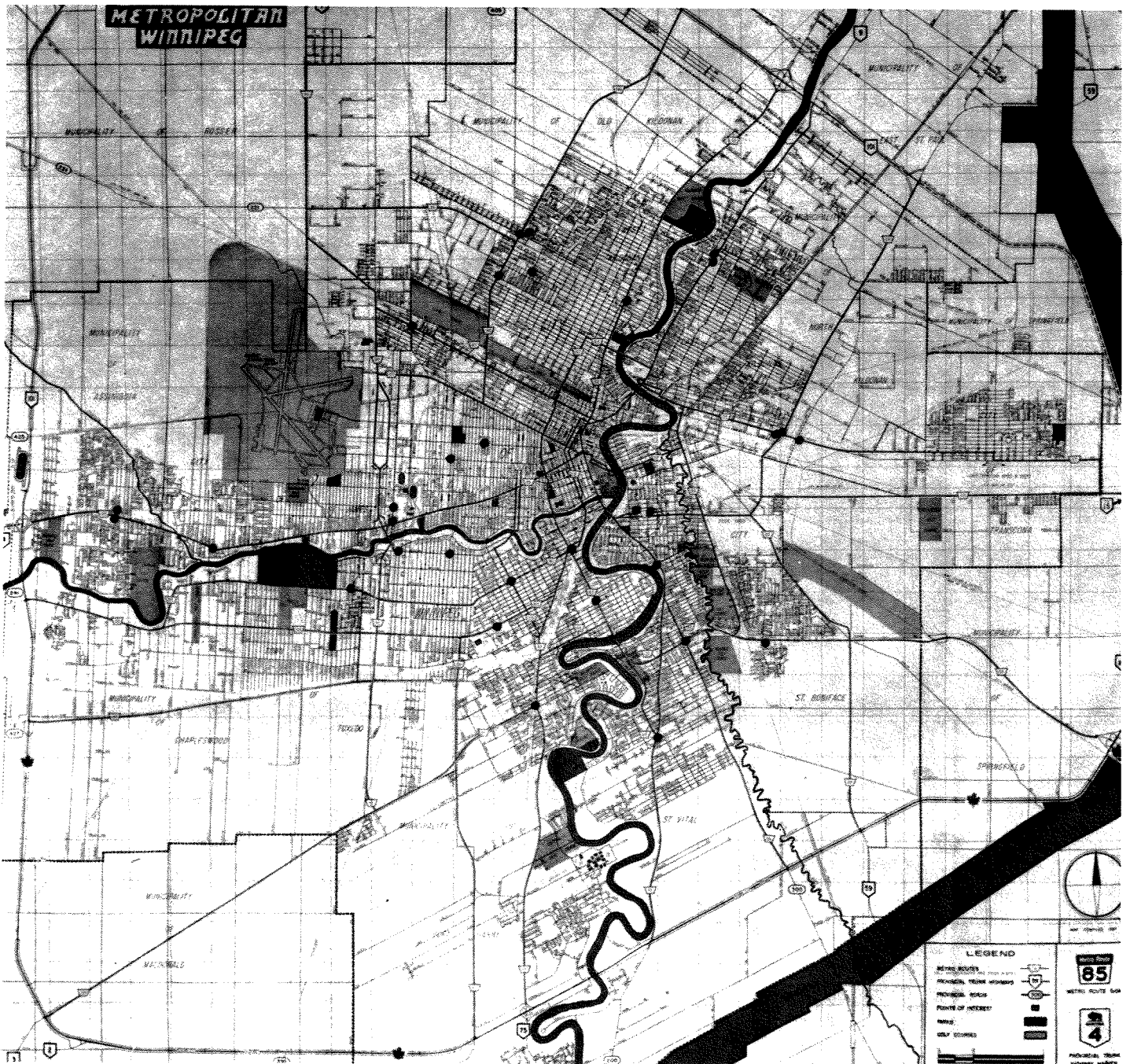


Figure 4. Location of lots selling white spruce, Douglas and balsam fir.

Sales. In terms of number of trees sold, black spruce was the leading species accounting for 72% of total sales (Table 6). Scots pine sales were approximately 24%; other species constituted 4%.

TABLE 6
RETAIL SALES OF CHRISTMAS TREES

Species	Number of trees sold	Number sold as a per cent of stock	Value of retail sales
Black spruce	28,623	83	\$65,800
Scots pine	9,778	76	\$64,100
Others	1,660	76	\$ 6,200
All	40,061	80	\$136,100

Retailers, on the average, sold 80% of their tree inventories. The sales/stock ratio was slightly higher for black spruce than for Scots pine or other species. However, these figures are averages and cases were found where the sales/stock ratio was much lower. Several retailers sold 35% or less of their black spruce inventories. As well, in two cases sales of Scots pine were less than 30% of stock. Several explanations for these low sales/stock ratios are possible: low quality trees, high prices, or unfavourable lot location. The location factor may be quite significant as found in a study of consumer behaviour in Cleveland where more than 65% of consumers interviewed bought their tree at the first lot they visited⁸.

⁸

Mitchell, Glen H. 1959. Christmas tree purchasing habits in greater Cleveland, Ohio, 1957. Ohio Agric. Expt. Stn., Res. Circ. 65, p. 4.

The survey revealed that the average retail price for Scots pine ranged from \$6.50 to \$6.75, black spruce from \$2.25 to \$2.50 and other species between \$3.50 and \$3.75.

Retail value of sales was approximately \$136,000; black spruce accounted for 48% and Scots pine 47%.

Public Cutting Areas. Cutting of Christmas trees on crown lands has been permitted in the Sandilands Forest Reserve approximately 50 miles east of Winnipeg on the Trans-Canada Highway. Cutting areas are designated annually-- in 1968 near Richer--and the public allowed to cut tops from stagnant black spruce stands. A permit fee of 25¢ per tree was charged with a maximum of five trees per car.

Sales between 1959 and 1966 averaged approximately 4,000 per annum but in 1967 rose to 9,300 and in 1968 to 12,400 (Table 7). The unusually high cut in the last two years has been ascribed to particularly light snow-cover and mild weather during the three weeks preceeding Christmas.

The Manitoba Department of Mines and Natural Resources estimates that 90% of the trees cut were used in the Metropolitan Winnipeg area. In 1968, this amounted to 11,160 trees.

PRODUCTION OF NATURAL TREES

Crown Lands. The number of Christmas trees harvested in Manitoba has declined from approximately 100,000 in the early 1960's to 50,000 in the late 1960's (Table 8). The major species harvested has been black spruce but some Scots pine (as high as 12,000 in 1962 and 1963) has been cut. The Southern and Eastern Regions, because of their proximity to the large centres, have produced the bulk of the trees harvested. Most of the trees were obtained from pulpwood tops.

A breakdown of the 1968 harvest in the Southern Region shows that 20% of the trees were exported to the United States (Table 9).

TABLE 7
HARVEST FROM PUBLIC CUTTING AREAS
1959 - 1968

Year	Number of trees cut
1959	5,300
1960	5,000
1961	3,000
1962	3,200
1963	1,200
1964	4,200
1965	5,000
1966	4,700
1967	9,300
1968	12,400
Total	53,400
Average 1959-1968	5,300

Source: Manitoba Department of Mines and Natural Resources.

TABLE 8
HARVEST FROM PROVINCIAL CROWN LANDS
1959 to 1968¹

Year	Region				Totals
	Southern ²	Eastern ³	Western	Northern	
	Number of trees				
1959	115,000	37,000	2,000	-	154,000
1960	65,000	22,000	1,000	-	88,000
1961	62,000	44,000	1,000	-	107,000
1962	60,000	52,000	-	-	112,000
1963	47,000	13,000	3,000	-	63,000
1964	39,000	32,000	1,000	-	72,000
1965	27,000	8,000	1,000	-	36,000
1966	28,000	10,000	-	-	38,000
1967	37,000	15,000	1,000	-	53,000
1968	27,000	10,000	3,000	9,000	49,000
Totals 1959-1968	507,000	243,000	13,000	9,000	772,000
Averages 1959-1968	50,700	24,300	1,300	900	77,200

¹ Excludes public cutting areas.

² Includes Sandilands and North West Angle Forest Reserves.

³ Includes Whiteshell Provincial Park, Agassiz Forest Reserve and Abitibi
Manitoba Paper Company Limits.

Source: Manitoba Department of Mines and Natural Resources.

TABLE 9
HARVEST AND EXPORT OF CHRISTMAS TREES ON CROWN LANDS
SOUTHERN REGION - 1968

Species	<u>Harvest</u> Number of trees	<u>Exports</u>	Per cent of harvest exported
Black spruce	24,100	5,100	21
Scots pine	3,100	300	10
Total	27,200	5,400	20

Source: Manitoba Department of Mines and Natural Resources.

Private Lands. Reliable data on the production of black spruce Christmas trees from private lands prior to 1968 are not available. However, data recorded for the Southern Region in 1968 indicated a harvest of 17,400 trees of which 3,600 (21%) were exported to the United States.

Between 1957 and 1968 a total of 86 individuals were growing Scots pine and other conifers (obtained from the Manitoba Department of Mines and Natural Resources) either for Christmas trees or aesthetic purposes in southeastern Manitoba. Records show that the majority (78%) only planted in one or two years (Table 10). During the 1957-1968 period only six per cent of the tree growers planted in five or more years.

TABLE 10
 TREE GROWERS, BY FREQUENCY OF PLANTING
 1957 - 1968

Number of years planting	Number who planted
1	47
2	20
3	9
4	4
5	2
6	2
7 - 10	2
More than 10	-

Source: Manitoba Department of Mines and Natural Resources.

The number of trees planted varied between 216,000 in 1961 and 20,000 in 1959 (Table 11). The years 1957 to 1959 marked a low level of tree planting. Planting increased considerably from 1960 to 1963 but subsequently declined.

Scots pine was the most popular species planted. In six of the twelve years, it constituted more than 80% of all plantings. Only in 1959 did it amount to less than 60%.

TABLE 11
PRIVATE PLANTINGS
1957 - 1968

Year	Scots pine planted	All species ¹ planted	Scots pine as a per cent of all plantings
1957	15,000	23,000	65
1958	25,000	31,000	81
1959	4,000	20,000	20
1960	121,000	149,000	82
1961	173,000	216,000	80
1962	104,000	163,000	64
1963	96,000	162,000	60
1964	62,000	86,000	71
1965	64,000	90,000	72
1966	79,000	98,000	81
1967	67,000	76,000	89
1968	44,000	55,000	80
Totals	854,000	1,166,000	73

¹ Other species include white spruce, white (Pinus strobus L.), red (Pinus resinosa Ait.), and jack (Pinus banksiana Lamb.) pine.

Source: Manitoba Department of Mines and Natural Resources.

To predict the quantity of potentially available Scots pine Christmas trees for the Metropolitan Winnipeg market, it was assumed that:

- (1) planted species other than Scots pine could be ignored since only this planted species is currently retailed in any quantity,
- (2) only tree growers who planted at least 10,000 Scots pine over the 1957 - 1968 period were considered to be in the business of growing Christmas trees,
- (3) 50% of the Scots pine planted would be lost because of mortality or poor quality,
- (4) the period necessary to produce a six to seven foot Scots pine would be 10 years, and
- (5) all Scots pine would be sheared or pruned annually.

Based on these assumptions only 16 of the tree growers in southern Manitoba were considered to be growing Scots pine for the Christmas tree market.

Predicted availability of Scots pine Christmas trees between 1969 and 1978 ranged from 500 in 1969 to 66,500 in 1971 (Table 12). Although it is not known what portion of this estimated production will go to destinations other than Winnipeg, it appears that there will be (based on Scots pine sales in 1968) an annual surplus of between 10,000 and 56,000 trees between 1970 and 1978.

TABLE 12

POTENTIAL AVAILABILITY OF PLANTATION-GROWN SCOTS PINE FOR CHRISTMAS TREES
 MANITOBA 1969 - 1978¹

Year planted	Number planted	Assumed year of marketing	Predicted number of potentially available trees
1959	1,000	1969	500
1960	93,000	1970	46,500
1961	133,000	1971	66,500
1962	73,000	1972	36,500
1963	83,000	1973	41,500
1964	44,000	1974	22,000
1965	44,000	1975	22,000
1966	64,000	1976	32,000
1967	54,000	1977	27,000
1968	40,000	1978	20,000

¹ Based on the 16 tree growers considered to be in the business of growing Scots pine for the Christmas tree market in Metropolitan Winnipeg.

Source: columns 1, 2: Manitoba Department of Mines and Natural Resources.

ARTIFICIAL TREES

Approximately 8,000 artificial Christmas trees were sold in Metropolitan Winnipeg during the 1968 season. Retailers reported that sales increased for the third year in a row, and that they expected further increases in 1969. New designs, materials and colours found widespread consumer acceptance with some models selling for more than \$40 each. The most popular price range was \$8 to \$16.

An estimated 90% of the market was supplied by 12 retailers operating a total of 21 stores. Five of these stores sold more than 600 trees each.

A study of consumer preferences indicated that one of every three (roughly 41,000)⁹ families owned an artificial tree in December 1968. Of the 680 families studied, 230 (34%) owned artificial trees. Two hundred and twenty-three trees had been purchased before 1968. Of these, more than 90% had been acquired since 1961. The average age of trees owned was 3.4 years.

Seventy-five per cent of those who owned an artificial tree intended to replace it with another, while the remainder intended to replace theirs with a natural tree.

Prices reported paid for artificial trees varied. Two-thirds of the trees cost between \$5 and \$20 each. The remainder were divided about equally between those costing less than \$5 and more than \$20.

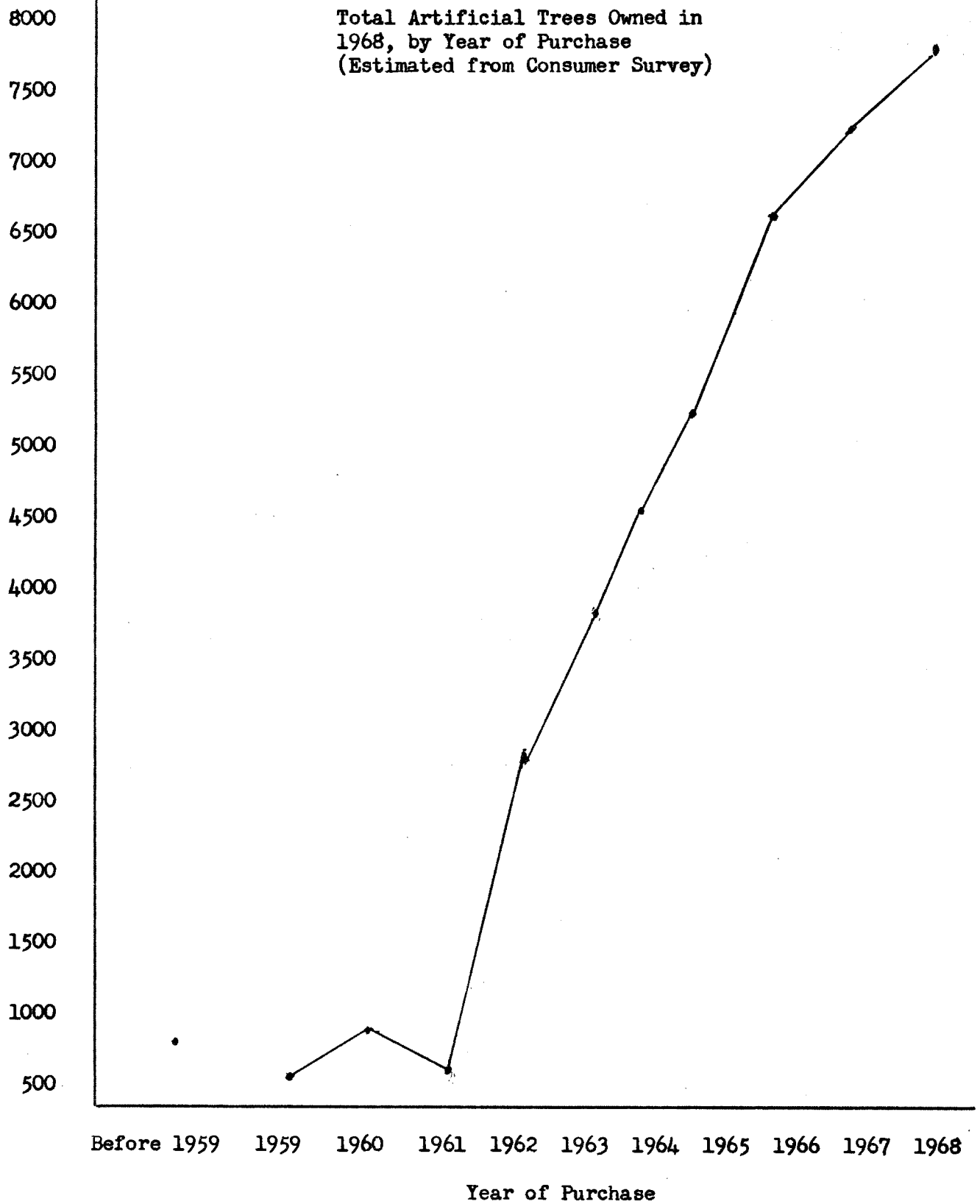
The time pattern of purchases of artificial trees currently owned has been estimated (Figure 5). This underestimates sales by the number of trees that have been disposed of prior to December 1968. Thus, sales in recent years are more closely estimated than in earlier years. Despite these conservative estimates, it appears that the use of artificial trees is growing rapidly.

⁹ Based on a total population of 122,000 families (Census of Population, Metropolitan Winnipeg, 1966).

Number of trees

Figure 5

Total Artificial Trees Owned in
1968, by Year of Purchase
(Estimated from Consumer Survey)



ANALYSIS AND CONCLUSIONS

The Christmas tree market in Winnipeg absorbed approximately 51,000 natural trees in 1968. This includes an estimated 11,000 harvested at the public cutting area. In addition, over 8,000 artificial trees were sold.

Future demands for black spruce, which accounted for 72% of natural tree sales in 1968, can be satisfied from an abundant local supply. Also, surplus quantities of Scots pine will be available from local sources. Scots pine imports from Ontario will likely continue; they could expand if quality low-priced trees cannot be produced locally. Increased artificial tree sales are likely to result in diminished sales of natural trees.

In view of the large supply of natural trees, increasing use of artificial trees and (at best) moderate population increases, it is expected that prices for natural trees will remain stable, or decline, with little increase in volume.

Thus the outlook for natural tree sales over the years 1970 to 1978 appears dim,
for
and that artificial trees quite bright.

APPENDIX

SURVEY OF NATURAL CHRISTMAS TREE RETAILERS

IN METROPOLITAN WINNIPEG

1968

QUESTIONNAIRE

1. How many trees do you have for sale of each of:
Scots pine _____ Black spruce _____ Other species (Please specify) _____
2. What prices are you charging, by size? _____

3. Were they all grown in Manitoba? Yes _____ No _____ Don't know _____
If no, which province or state? _____ In what quantities? _____
Scots pine _____ Black spruce _____ Other _____
4. Where did you obtain them? Your own farm _____ Tree grower _____
Crown land _____ Wholesale _____: Who? _____
Other _____: Who? _____
5. Have you been selling Christmas trees previous to this year? Yes _____ No _____
If yes, for how many years? _____
Always in Winnipeg area? Yes _____ No _____
6. If you are interested in receiving a copy of our market survey, please give
mailing address: _____

7. Location of lot: _____

8. Estimate of trees unsold: _____

SURVEY OF CHRISTMAS TREE GROWERS

IN SOUTHERN MANITOBA

1968

QUESTIONNAIRE

1. Are you currently in the business of GROWING Christmas trees? Yes ___ No ___
- 1A. If yes are you growing natural trees ___ planted ___ or both ___?
- 1B. If no are you growing the trees for your own enjoyment - i.e. recreational and aesthetical purposes? Yes ___ No ___

2. Approximately how many trees have you planted in the past 10 years with the intent of selling them as Christmas trees?

Scots pineOther (please name)

1968

1967

1966

1965

1964

1963

1962

1961

1960

1959

3. Are you currently in the business of MARKETING Christmas trees? Yes ___ No ___
- 3A. If yes are you marketing natural trees ___, planted trees ___ or both ___?
- 3B. If no are you planning to sell Christmas trees within the next two or three years? Yes ___ No ___
4. If marketing trees do you sell wholesale ___ or retail ___ or both ___?
5. At approximately what price do you sell your trees on the wholesale market ___ retail market ___
6. Is your selling price that at your tree farm or delivered to the city?
Farm ___ City ___
7. If delivered, how do you ship your trees to the city? Truck ___ rail ___
Other ___

8. Approximately how much does it cost to ship 100 trees to the city? _____

9. If marketing natural trees what species and approximately how many have you sold in the past 5 years?

	<u>Black spruce</u>	<u>Balsam fir</u>	<u>Other</u> <u>(please name)</u>	<u>Unknown</u>
1968 (est.)	_____	_____	_____	_____
1967	_____	_____	_____	_____
1966	_____	_____	_____	_____
1965	_____	_____	_____	_____
1964	_____	_____	_____	_____

10. If marketing plantation-grown trees what species and approximately how many have you sold in the past five years?

	<u>Scots pine</u>	<u>Other (please name)</u>
1968 (est.)	_____	_____
1967	_____	_____
1966	_____	_____
1965	_____	_____
1964	_____	_____

11. Do you shear your planted trees? Yes _____ No _____

If yes how often? Annually _____ Periodically _____

12. What is the location of your tree farm? Section _____ Twp. _____ Rge _____

Name _____

Address _____

Thank you

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? _____

SURVEY OF CONSUMER PREFERENCES IN CHRISTMAS TREES

METROPOLITAN WINNIPEG - 1968

QUESTIONNAIRE

1. Do you own an artificial Christmas tree? No _____ Yes _____
If yes, how many? _____
2. If yes,
 - a) When did you buy it? Year: _____
 - b) Approximately what was its retail value? \$1-\$5 _____ \$5-\$10 _____
\$10-\$20 _____ \$20-\$30 _____ over \$30 _____
 - c) If you have to replace it, will you probably buy
An evergreen tree _____ Another artificial tree _____ Don't know _____
3. If no,
 - a) Do you intend to buy an artificial Christmas tree? Yes _____ No _____
 - b) If yes, when will you probably buy it? This year _____ Next year _____