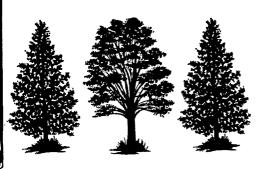


Michigan Rotational Survey





NURSERY & CHRISTMAS TREES

1996-97

Michigan Department of Agriculture Michigan Agricultural Statistics Service





STATE OF MICHIGAN



Commission of Agriculture

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DAN WYANT, Director

October 1997

We are pleased to present this report on the 1996-97 Michigan Nursery and Christmas Tree Survey. This bulletin represents a cooperative effort between the private and public sectors to provide data upon which Michigan's agricultural industry depends for planning.

This is the sixth report to be published under the Michigan Rotational Survey. This is administered by the Michigan Department of Agriculture and conducted by the Federal/State Michigan Agricultural Statistics Service. A fruit inventory was conducted in 1994 followed by a vegetable inventory in 1995. A fruit inventory will be conducted in the fall of 1997 to restart the rotation.

We sincerely appreciate the cooperation and assistance of all the growers who voluntarily provided the data that made this report possible. We also extend thanks to the Michigan Nursery and Landscape Association, Michigan Christmas Tree Association, Michigan State University Cooperative Extension Service, and data collectors of the National Association of State Departments of Agriculture.

We look forward to our continued successful relationship which brings us together for the benefit of Michigan's agricultural industry. If you have any questions regarding this survey, or suggestions for improvement, please contact the Michigan Agricultural Statistics Service at (800)453-7501.

Sincerely,

Dan Wyant

Director

David D. Kleweno State Statistician

Michigan Rotational Survey

Nursery and Christmas Trees 1996-97

Compiled by

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This bulletin is provided free to Michigan farmers and reporting agribusiness firms. Others may obtain copies at \$5.00 each. Please make checks payable to USDA-NASS and send with your request to P.O. Box 20008, Lansing, MI 48901-0608.

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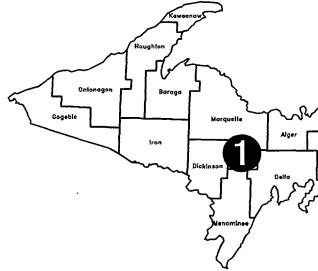
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Contents

		Paç	је
I.	Nursery		1
	Tables:		
	1.—Nurseries: Area and number of operations, by type		1
	2.—Nurseries: Area and number of operations, by size group, 1994 and 1997		1
	3.—Nurseries: Area and number of operations, by region, 1994 and 1997		2
	4.—Nurseries: Number of operations and sales by sales category, 1996		2
	5.—Nurseries: Sales by category, 1996		3
	6.—Herbaceous ornamentals: Area and number of operations, 1994 and 1997		3
	7.—Herbaceous ornamentals: Area and number of operations, by size group, 1994 and 1997		3
	8.—Nurseries: Number of paid workers and payroll, I996		3
	9.—Nurseries: Area and number of operations by county and region		4
II.	Christmas Trees		6
	Tables:		
	10.—Christmas trees: Michigan inventory, January 1, 1994 and 1997		7
	11.—Christmas trees: Acres by region and species, January 1, 1997		8
	12.—Christmas trees: Acres by species, January 1, 1994 and 1997		8
	13.—Christmas trees: Area and number of operations by size, 1994 and 1997		9
	14.—Christmas trees: Sales by destination, 1996		9
	15.—Christmas trees: Sales by species, 1996		10
Ш.	. Survey Methods and Questionnaires	. '	12
	Figures:		
	1. Percent of Sales by Sales Category		
	2. Leading Nursery Counties		
	3. Leading Christmas Tree Counties		
	4. Major Christmas Tree Species		9

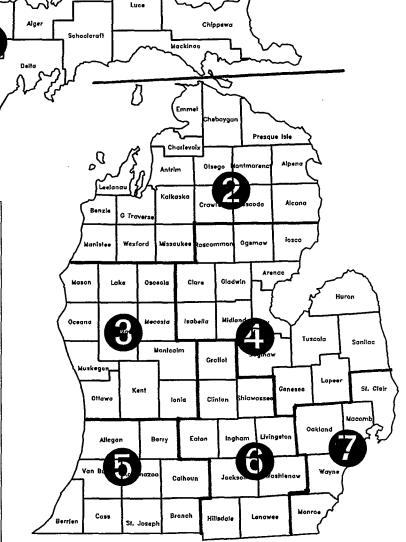
Pesticide and Plant Pest Management Division Regions





Counties in MDA Pesticide and Plant Pest Management Division Regions

- Region 1. Upper Peninsula.
- Region 2. Alcona, Antrim, Alpena, Benzie, Charlevoix, Cheboygan, Crawford, Emmet, Grand Traverse, Kalkaska, Leelanau, Manistee, Missaukee, Montmorency, Oscoda, Otsego, Presque Isle, Wexford.
- Region 3. Ionia, Kent, Lake, Mason, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Osceola, Ottawa.
- Region 4. Arenac, Bay, Clare, Genesee, Gladwin, Huron, Iosco, Isabella, Lapeer, Midland, Ogemaw, Roscommon, Saginaw, Sanilac Tuscola.
- Region 5. Allegan, Barry, Berrien, Branch, Calhoun, Cass, Kalamazoo, St. Joseph, Van Buren.
- Region 6. Clinton, Eaton, Gratiot, Hillsdale, Ingham, Jackson, Lenawee, Livingston, Shiawassee, Washtenaw.
- Region 7. Macomb, Monroe, Oakland, St. Clair, Wayne.



I. Nursery

There were 17,000 acres used for production of nursery stock in Michigan in 1996 and 1,750 acres used for production of herbaceous perennials, vines and ground covers, and bulbs, corms and rhizomes, and ferns. To qualify as a producer, an operation had to have been growing at least 0.1 acre of one of these products and selling them. There were 1,230 such nursery establishments. The Michigan Department of Agriculture's lists of licensed plant growers and nursery growers was the source of names for the project.

Ottawa, Allegan and Berrien were the three leading counties in land in production. They accounted for 46 percent of all acres. The nursery industry is widely dispersed in Michigan. Sixteen counties had at least thirty operations.

The nursery and perennial plant growers contributed substantially to the State's economy. They had 210 million dollars in wholesale and retail sales in 1996. About \$60 million of that total was sold wholesale outside Michigan. The nursery industry employed about 2,000 people full-time in 1996. It also hired 1,200 permanent part-time workers and 5,900 seasonal workers.

Table 1.-Nurseries: Area and number of operations, by type

Type	Field grow		Conta grow		Total		
rype	Number of operations	Acres	Number of operations	Acres	Number of operations	Acres	
Deciduous trees	448	4,560	134	185	506	4,745	
Deciduous shrubs	201	870	180	645	330	1,515	
Narrowleaved evergreens .	607	9,230	142	290	679	9,520	
Broadleaved evergreens	40	115	89	275	166	390	
Roses	5	1	69	29	73	30	
Fruit trees	23	240	47	10	67	250	
Small fruits	21	484	53	66	69	550	
Vines and ground covers	53	65	110	50	156	115	
Bulbs, corms and rhizomes	65	110	46	15	110	125	
Herbaceous perennials	234	1,300	298	170	482	1,470	
Ferns and grasses	27	25	77	15	99	40	
Total	985	17,000	480	1,750	1,230	18,750	

Table 2.-Nurseries: Area and number of operations, by size group, 1994 and 1997

Size group	Number operation		Acres			
	1994	1997	1994	1997		
1 acre or less	240	200	150	100		
1.1-5 acres	300	335	900	1,000		
5.1-10 acres	125	140	950	1,050		
10.1-25 acres	120	105	2,000	1,650		
25.1-50 acres	45	60	1,850	2,100		
More than 50 acres	45	50	9,200	11,100		
Total	875	890	15,050	17,000		

Table 3.- Nurseries: Area and number of operations, by region, 1994 and 1997

		Fie gro				Cont gro				To	tal	
Region	Number of operations Acres		Number of operations		Acres		Number of operations		Acres			
	1994	1997	1994	1997	1994	1997	1994	1997	1994	1997	1994	1997
1	17	15	175	490	9	9	15	10	22	20	190	500
2	59	58	590	585	23	32	30	35	72	74	620	620
3	136	121	5,600	5810	53	69	540	980	156	153	6,140	6,790
4	103	104	1,315	1190	35	41	25	60	109	119	1,340	1,250
5	131	134	2,250	2925	53	53	70	115	149	154	2,320	3,040
6	178	191	2,580	2500	45	43	70	130	193	205	2,650	2,630
7	146	142	1,640	2000	62	53	150	170	174	165	1,790	2,170
Total	770	765	14,150	15,500	280	300	900	1,500	875	890	15,050	17,000

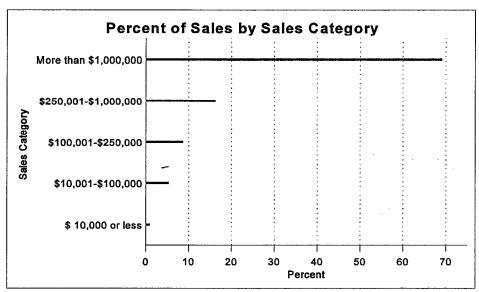


Figure 1

Table 4.-Nurseries: Number of operations and sales by sales category, 1996

Sales category	Number of operations	Percent of total	Total sales	Percent of total
\$1,000 or less	370	30.1	120,000	0.1
\$1,001-\$10,000	380	30.9	1,680,000	0.8
\$10,001-\$100,000	280	22.8	11,200,000	5.3
\$100,001-\$250,000	105	8.5	18,000,000	8.6
\$250,001-\$1,000,000	70	5.7	34,000,000	16.2
More than \$1,000,000	25	2.0	145,000,000	69.0
Total	1,230		210,000,000	

Table 5.-Nurseries: Sales by category, 1996

Category	Dollars
Wholesale nursery	110,000,000
Retail nursery	35,000,000
Wholesale perennial	50,000,000
Retail perennial	15,000,000
All	210,000,000

Table 6.-Herbaceous ornamentals: Area and number of operations, 1994 and 1997

[Herbaceous ornamentals include: Vines, ground covers, bulbs, corms, rhizomes and perennials]

		Fie gro			Container grown				Total			
Region	Acres			lumber of Acre		Acres		Number of operations		Acres		
	1994	1997	1994	1997	1994	1997	1994	1997	1994	1997	1994	1997
1 & 2	31	30	20	20	27	40	10	15	52	62	30	35
3	48	55	400	390	47	64	80	70	87	107	480	460
4	35	42	30	35	32	43	10	20	61	79	40	55
5	69	78	790	975	51	65	40	75	108	126	830	1,050
6	39	44	20	25	51	55	20	25	81	87	40	50
7	53	51	90	55	62	68	40	45	96	109	130	100
Total	275	300	1,350	1,500	270	335	200	250	485	570	1,550	1,750

Table 7.-Herbaceous ornamentals: Area and number of operations by size group, 1994 and 1997

Size group	Number operation	i	Acres			
, , ,	1994	1997	1994	1997		
0.5 acre or less	320	365	80	85		
0.6-1 acre	70	85	. 60	70		
1.1-5 acres	68	93	160	215		
More than 5 acres	27	27	1,250	1,380		
Total	485	570	1,550	1,750		

Table 8.-Nurseries: Number of paid workers and payroll, 1996

Paid workers:	Number
Seasonal	5,900 1,200 2,000
Total	9,100 Dollars
Payroll	

Table 9.-Nurseries: Area and number of operations by county and region

County	Number of operations	Acres	County	Number of operations	Acres
Delta	3	25	Allegan	37	1,700
Marquette	3	15	Barry	7	25
Menominee	3	65	Berrien	61	960
Others	15	400	Branch	8	40
Region 1	24	505	Calhoun	19	140
Alcona	3	80	Cass	16	90
Antrim	13	75	Kalamazoo	36	450
Benzie	4	20	St. Joseph	18	135
Emmett	6	120	Van Buren	32	550
Grand Traverse	20	30	Region 5	234	4,090
Kalkaska	4	60	Clinton	27	250
Leelanau	12	25	Eaton	29	380
Manistee	8	120	Ingham	33	420
Missaukee	5	25	Jackson	22	270
Otsego	4	50	Lenawee	21	160
Others	20	45	Livingston	51	560
Region 2	99	650	Shiawassee	14	280
Ionia	14	90	Washtenaw	49	330
Kent	55	650	Others	11	30
Mason	12	250	Region 6	257	2,680
Montcalm	11	70	Macomb	47	530
Muskegon	9	60	Monroe	38	540
Newaygo	12	100	Oakland	86	510
Oceana	6	40	St. Clair	29	450
Ottawa	88	5,950	Wayne	34	240
Others	11	40	Region 7	234	2,270
Region 3	218	7,250			
Bay	8	110	State	1,230	18,750
Genesee	35	180			
Isabella	6	45			
Lapeer	38	420			
Midland	9	15			•
Saginaw	31	250			•
Sanilac	11	230			
Tuscola	10	30			
Others	16	. 25			
Region 4	164	1,305			

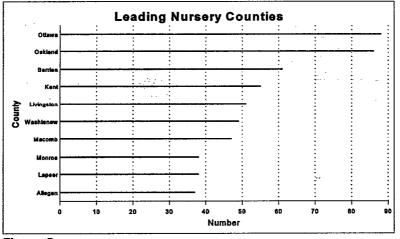


Figure 2 MICHIGAN ROTATIONAL SURVEY

Nursery Acres by County





II. Christmas Trees

The Christmas tree inventory is part of the Michigan Department of Agriculture's Rotational Survey Program. Information was collected from Michigan's Christmas tree growers. A commercial grower was defined as anyone growing at least 5 acres of Christmas trees.

There were 69,000 acres in commercial Christmas tree production on January 1, 1997. That total was down from 75,000 acres on January 1, 1994. Most of

the decline occurred because several plantations with more than 500 acres in 1994 went out of business in the past three years. The acreage on small and medium-sized tree farms increased. The leading 5 counties, Wexford, Missaukee, Oceana, Kalkaska and Montcalm accounted for more than 45 percent of the Christmas tree acreage in 1997.

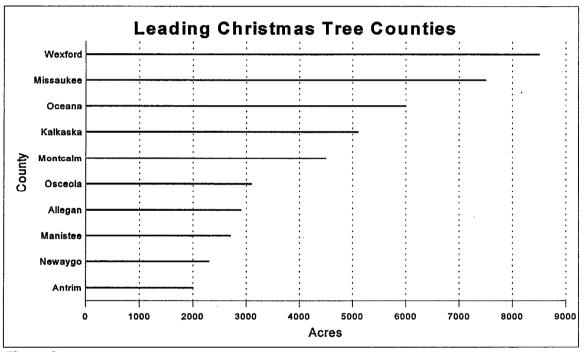


Figure 3

Table 10.-Christmas trees: Michigan inventory, January 1, 1994 and 1997

	199	94	19	97	0.4	19	94	1997		
County	Opera- tions	Acres	Opera- tions	Acres	County	Opera- tions	Acres	Opera- tions	Acres	
Chippewa	6	150	6	270	Arenac	3	110	4	230	
Delta	18	620	17	800	Bay	8	90	3	70	
Dickinson	15	280	14	500	Clare	12	400	7	300	
Houghton	2	160	3	240	Genesee	12	240	11	180	
Luce	9	220	5	160	Gladwin	3	90	4	130	
Marquette	(1)	(1)	3	130	Huron	4	50	5	70	
Menominee	42	2,000	31	1,600	losco	8	200	8	200	
Ontonagon	2	90	(1)	(1)	Isabella	29	1,000	23	750	
Schoolcraft	4	200	3	200	Lapeer	13	200	12	250	
Others ²	12	280	3	300	Midland	7	200	4	160	
Region 1	110	4,000	85	4,200	Ogemaw	6	90	4	120	
Alcona	7	240	8	360	Saginaw	25	310	15	380	
Alpena	10	120	8	350	Sanilac	8	220	8	360	
Antrim	13	1,100	16	2,000	Tuscola	12	300	12	600	
Benzie	10	620	12	630	Region 4	150	3,500	120	3,800	
Cheboygan	31	1,700	21	1,100	Allegan	38	3,700	21	2,900	
Emmett	9	330	9	180	Berrien	31	410	19	300	
Grand Traverse	23	1,400	18	1,550	Calhoun	6	280	10	290	
Kalkaska	41	3,800	35	5,100	Cass	23	190	6	160	
Leelanau	34	620	17	520	Kalamazoo	18	390	10	280	
Manistee	21	3,000	24	2,700	St. Joseph	9	170	7	160	
Missaukee	62	8,000	53	7,500	Van Buren	25	620	16	700	
Otsego	8	160	9	220	Others ²	10	140	6	110	
Presque Isle	5	220	5	210	Region 5	160	5,900	95	4,900	
Wexford	61	10,000	47	8,500	Clinton	15	380	12	280	
Others ²	5	90	3	80	Eaton	9	210	14	240	
Region 2	340	31,400	285	31,000	Hillsdale	6	200	8	270	
lonia	12	400	11	350	Ingham	17	390	13	280	
Kent	16	1,300	11	800	Jackson	16	330	18	500	
Lake	7	1,100	7	700	Livingston	22	320	15	310	
Mason	16	1,200	13	800	Shiawassee	6	160	5	130	
Mecosta	22	1,700	20	1,400	Washtenaw	18	450	10	350	
Montcalm	31	5,300	24	4,500	Others ²	11	60	5	90	
Muskegon	28	1,100	13	450	Region 6	120	2,500	100	2,450	
Newaygo	24	2,600	24	2,300	Macomb	9	80	9	130	
Oceana	80	6,200	74	6,000	Monroe	8	190	6	140	
Osceola	20	3,200	18	3,100	Oakland	14	300	16	310	
Ottawa	39	2,400	25	1,100	St. Clair	13	380	9	380	
Region 3	295	26,500	240	21,500	Wayne	6	250	5	190	
	· ····				Region 7	50	1,200	45	1,150	
					Citata tatal	1 905	7E 000	676	60.000	
1 Included in other co				ا	State total	1,225	75,000	970	69,000	

¹ Included in other counties. ² Includes all counties with fewer than 3 operations.

Table 11.-Christmas trees: Acres by region and species, January 1, 1997

		,		Region				
	1	2	3	4	5	6	7	Total
				Acres				
Fir:								
Balsam	1,300	400	280	70	25	20	5	2,100
Canaan	0	30	20	10	20	10	10	100
Concolor	10	260	330	50	70	20	10	750
Douglas	350	6,200	5,200	360	1,100	310	80	13,600
Fraser	130	1,500	1,770	210	250	110	30	4,000
Pine:					•			
Austrian	20	100	120	50	10	40	10	350
Red	50	90	70	10	20	5	5	250
Scotch	800	14,400	8,850	1,450	2,300	1,100	600	29,500
White	80	530	220	150	180	110	30	1,300
Spruce:	:							
Black Hills	40	500	100	20	20	20	0	700
Colorado Blue	300	5,400	4,000	1,000	800	500	300	12,300
Norway	40	170	50	70	20	40	10	400
White	1,000	1,200	400	340	75	135	50	3,200
Others	80	220	90	10	10	30	10	450
All	4,200	31,000	21,500	3,800	4,900	2,450	1,150	69,000

Table 12.-Christmas trees: Acres by species, January 1, 1994 and 1997

Species	1994	1	1997	7
Species	Acres	Percent	Acres	Percent
Fir:				
Balsam	1,770	2.4	2,100	3.0
Canaan 1			100	0.1
Concolor	590	0.8	750	1.1
Douglas	11,400	15.2	13,600	19.7
Fraser	2,080	2.8	4,000	5.8
Pine:				
Austrian	380	0.5	350	0.5
Red	390	0.5	250	0.4
Scotch	38,900	51.9	29,500	42.8
White	1,520	2.0	1,300	1.9
Spruce:				
Black Hills 1			700	1.0
Colorado Blue	12,900	17.2	12,300	17.8
Norway	580	0.8	400	0.6
White	3,700	4.9	3,200	4.6
Others	790	1.1	450	0.7
Total	75,000	100.0	69,000	100,0

¹ Included in others in 1994.

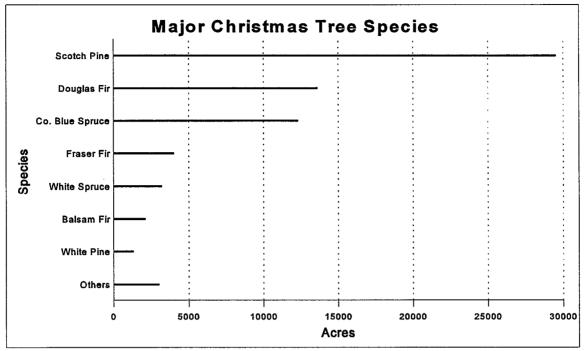


Figure 4

Table 13.-Christmas trees: Area and number of operations by size, 1994 and 1997

Size in acres	Numb opera		Area	
	1994 ¹	1997 ²	1994	1997
	Num	ber	Acres	
5-9.9	490	155	2,200	1,000
10-24.9	280	340	4,800	5,200
25-49.9	195	210	7,000	7,100
50-99.9	135	115	9,500	7,700
100-499.9	102	130	19,500	24,000
500 or more	28	20	32,000	24,000
Total	1,230	970	75,000	69,000

¹ In 1994 an operation was counted if it had at least one acre of trees.

Table 14.-Christmas trees: Sales by destination, 1996

Destination	Trees
	Number
Michigan	810,000
Other states	2,730,000
Out of United States	10,000

Total	3,550,000

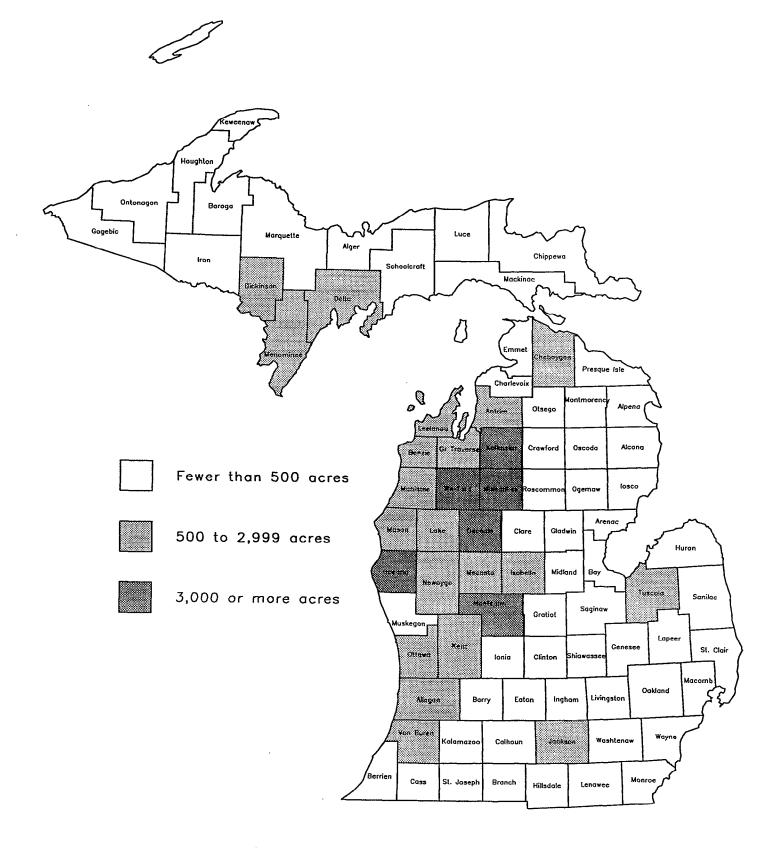
² In 1997 an operation was counted if it had at least five acres of trees.

Table 15.-Christmas trees: Sales by species, 1996

Species	Sales	Trees	Value per tree	Value of sales
		Number	Dollars	Dollars
Balsam Fir	Wholesale	35,000	13.00	455,000
Daisaill III	Retail	15,000	27.00	405,000
	Total	50,000	17.20	860,000
Canada Fia	140	00.000	47.00	0.40.000
Concolor Fir	Wholesale	20,000	17.00	340,000
	Retail	3,000	25.00	75,000
	Total	23,000	18.00	415,000
Douglas Fir	Wholesale	680,000	12.00	8,160,000
	Retail	45,000	28.00	1,260,000
	Total	725,000	13.00	9,420,000
Fraser Fir	Wholesale	150,000	20.00	3,000,000
	Retail	15,000	36.00	540,000
	Total	165,000	21.40	3,540,000
Scotch Pine	Wholesale	1,920,000	7.00	13,440,000
	Retail	140,000	21.50	3,010,000
	Total	2,060,000	8.00	16,450,000
White Pine	Wholesale	40,000	10.00	400,000
	Retail	12,000	25.00	300,000
	Total	52,000	13.50	700,000
Colorado Blue Spruce	Wholesale	280,000	11.00	3,080,000
colorado bido oprado	Retail	80,000	24.50	1,960,000
	Total	360,000	14.00	5,040,000
White Spruce	Wholesale	45,000	11 00	40E 000
White Spruce	Retail	15,000	11.00 25.00	495,000 375,000
	Total	60,000	14.50	870,000
	Total	00,000	14.50	870,000
Others	Wholesale	30,000	12.00	360,000
•	Retail	14,000	31.00	435,000
•	Total	44,000	18.10	795,000
All Species	Wholesale	3,200,000	9.30	29,730,000
	Retail 1	350,000	23.90	8,360,000
	Total	3,550,000	10.70	38,090,000
	, otai	5,550,000	10.70	55,550,550

¹ Includes 190,000 trees retailed by growers already cut and 160,000 trees sold choose & cut.

Christmas Tree Acres by County



III. Survey Methods and Questionnaires

The Nursery Grower survey was sent to the Michigan Agricultural Statistics Service's (MASS) list of nurseries and herbaceous ornamental growers. Those lists were supplemented by the Michigan Department of Agriculture's list of licensed nursery growers and plant growers. To qualify, an operation had to have grown at least 0.1 acre of woody ornamentals or herbaceous perennials in 1996 and have planned to sell them either retail or wholesale. There were 1,230 such places. The principle Christmas tree list was again MASS's List Sampling Frame. Names were added from the Michigan Christmas Tree Association. To qualify an operation had to have been grown at least five acres of trees for sale as Christmas trees. There were 970 operations that met the criterion for Christmas tree farms.

The data were collected on the attached Nursery Grower and the Christmas Tree questionnaires. These forms were developed with input from industry representatives.

Questionnaires were mailed to the entire universe in early January 1997. A cover letter on Michigan Nursery and Landscape Association letterhead accompanied the Nursery questionnaire. The Michigan Christmas Tree Association provided a letter of endorsement of the Christmas Tree Survey. Telephoning of non-respondents commenced in February. This was followed by personal enumeration of operators who could not be reached by phone.

The following table is a summary of responses:

Responses	Nursery Growers	Christmas Trees	
	Number	Number	
Mail	460	350	
Telephone	580	460	
Personal Interview	65	25	
Refused	70	100	
Inaccessible	55	35	
Total	1230	970	

Estimates of total acres were made for refusals and inaccessibles. Expansion factors were computed for each of the seven regions for both surveys:

(Acres on Usable Reports + Estimated Acres)/(Acres on Usable Reports)

These weights were applied to data to account for missing reports.

Some respondents who provided acreage refused income data. Regression and ratio estimators were used to expand missing income data on the Nursery and Christmas Tree surveys, respectively.

Some nurseries operated in more than one county. Those operations were attributed to the county with the most acres. Acres, however, were spilt into the appropriate counties.

Many growers using containers reported number of containers instead of acres. The following conversions were used to estimate acres: for woody plants, 9,000 containers/acre; for herbaceous plants, 18,000 containers/acre.



Michigan Nursery Survey 1996-97



Michigan Agricultural Statistics Service 315 W. Allegan St., Room 201 Lansing, Michigan 48901-0608

Telephone: Facsimile: E-mail:

(517) 377-1834 (517) 377-1829 nass-mi@nass.usda.gov

SAMPLE

January 1997

Dear Nursery Grower:

The Michigan Department of Agriculture is conducting the second inventory of the Nursery industry. Your report is needed to evaluate changes that have occurred during the last three years. The information you report is kept confidential and used only for statistical purposes. Response to this survey is voluntary and not required by law. However, your cooperation is very important and greatly appreciated. Please complete and return this questionnaire promptly.

Thank you,

David D. Kleweno State Statistician

Include trees, shrubs, groundcovers, etc. at all stages of growth. Include plants that are Instructions: field-grown and sold as bare-root, balled and potted, or balled and burlapped. Also include plants grown and sold in containers.

Estimate acres to nearest tenth:

 $\frac{1}{4}$ acre = .2

 $\frac{1}{3}$ acre = .3

 $\frac{2}{3}$ acre = .7

 $\frac{3}{4}$ acre = .8

ltem			cres growing in 996
	••		In containers
1. A	Deciduous shade and flowering trees (ashes, maples, oaks, birches, crabapple, dogwood, magnolia, etc.)	001	013
В	Deciduous shrubs	002	014
С	Narrowleaved evergreens (juniper, pine, spruce, and other conifers—exclude Christmas trees)	003	015
		004	016
D	. Broadleaved evergreens (azalea, holly, rhododendron, etc.)	005	017
E	Roses	•	
F	Fruit trees (nursery stock only)	006	018
G	. Small fruits (grapes, berries, etc.—nursery stock only)	007	019
		008	020
H	. Vines & ground covers	009	021
I.	Bulbs, corms and rhizomes (Tulips, crocus, lilies, etc.)		•
	. Herbaceous perennials	010	022
		011	023
K	. Ferns and grasses	012	024
L	. Total acres	•	•

	County		Acres		Percent of s	ales
25	•	028			031	
26		029			032	
27	,	030			033	
. Please re	port your total 1996 <i>gross</i>	wholesa	ale and retai	l sal	es volume in do	llars.
	NURSERY STOCK				OUS PERENNIA	
Sales	(Items A G. in Question	on 1)	(Item	s H	K. in Question	1)
0.	Dollars 34		038		Dollars	
Wholesale .		· • · · · · · · · · · · · · · · · · · ·				
Retail	35		039			
Percent o	f wholesale sales				Percent	\neg
	In Michigan			042		
	In other states			043		
	In other countries .			044		
			Total =	L	100%	
6. How man 1996?	ny workers in each categor	y were e	employed in		Number of workers	
	Full-time			045		
	Permanent part-time			046		
	•			047		\dashv
•	Seasonal (maximum	number	inciuae	<u> </u>		
					Dollars	
6. What wa	s the total annual labor pa	vroll for	1996?	048		
. Triide Wa	o and total annual labor pu	,		L		
County Es	stimate Permission:					
county and my or f I grow more tha tem in a cou	or than three growers in a ceration is one of them, or an 60% of the acres of an nty, I consent to the estimate for that county.					
Check (✔) one	Yes □ No □					99



Michigan Christmas Tree Survey 1996-97



Michigan Agricultural Statistics Service 315 W. Aliegan St., Room 201 Lansing, Michigan 48901-0608

Telephone: Facsimile: E-mail:

(517) 377-1834 (517) 377-1829 nass-mi@nass.usda.gov

January 1997

SAMPLE

Dear Christmas Tree Grower:

The Michigan Department of Agriculture is conducting the second inventory of the Christmas Tree industry. Your report is needed to evaluate changes that have occurred during the last three years. The information you report is kept confidential and used only for statistical purposes. Response to this survey is voluntary and not required by law. However, your cooperation is very important and greatly appreciated. Please complete and return this questionnaire promptly.

If not growing Christmas trees,

David D. Kleweno State Statistician

Dlogen	maka	addroce	corrections	if nooded

To avoid duplication, indicate below any operation name or partner(s) associated with this operation <i>not</i> included above.	check (√) reason below and give new operator's name: 1. □ Operation sold. 2. □ Operation rented.
Firm Name:	3. Never had trees.
Partner's Name(s):	New Operator's Name:
City:St:Zip:	City: St: Zip:

1. A. Total Christmas Tree Acres-January 1, 1997 (If less than 5 acres, complete item 1 A. an

Example	<u> </u>
d return questionnaire.)	001

Species	Code	Species	Code
Scotch Pine	1	Douglas Fir	8
Austrian Pine	2	Fraser Fir	9
Red Pine	3	Concolor Fir	10
White Pine	4	Balsam Fir	11
Colorado Blue Spruce	5	Canaan Fir	12
White Spruce	6	Other	13
Norway Spruce	7	(specify)	

County	Species (code)*	Acres

1. B. Christmas Tree Acres by County and Species (please use codes from shaded box above).

County	Species (code)*	Acres	County	Species (code)*	Acres
					
					, ., .,
					···
			<u> </u>		
a nava a					
			<u> </u>		

2. A. Tree Sales in 1996

	Wholesale		Retail-Cut		Choose & Cut	
Species	Trees sold	Average price per tree	Trees sold	Average price per tree	Trees sold	Average price per tree
	Number	Dollars	Number	Dollars	Number	Dollars
Scotch Pine	002	016	030	044	058	072
Austrian Pine	003	017	031	045	059	073
Red Pine	004	018	032	046	060	074
White Pine	005	019	033	047	061	075
Colorado Blue Spruce	006	020	034	048	062	076
White Spruce	007	021	035	049	063	077
Norway Spruce	008	022	036	050	064	078
Douglas Fir	009	023	037	051	065	079
Fraser Fir	010	024	038	052	066	080
Concolor Fir	011	025	039	053	067	081
Balsam Fir	012	026	040	054	068	082
Canaan Fir	013	027	041	055	069	083
Other (specify)	014	028	042	056	070	084

2. B. Tree Sales in 1996

Buyer Location	Percent of total		
Michigan	085		
Out of state	086		
Out of U.S.A	087		
Total =	100%		

County E	Estimate	Permi	issi	on:
----------	----------	-------	------	-----

If there are fewer than three growers in a county and my operation is one of them, or if I grow more than 60% of the acres of a species in a county, I consent to the publication of an estimate for that county.

Check (✓) one	Yes □	No 🗀
CHECK (A) OHE	162 [INO L

3. So that we can ensure complete coverage, please give the names of two nearby Christmas tree operations:

Name	Address	City	Telephone	

	Office use only	
999		

Reported by:	lephone:	Date:
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