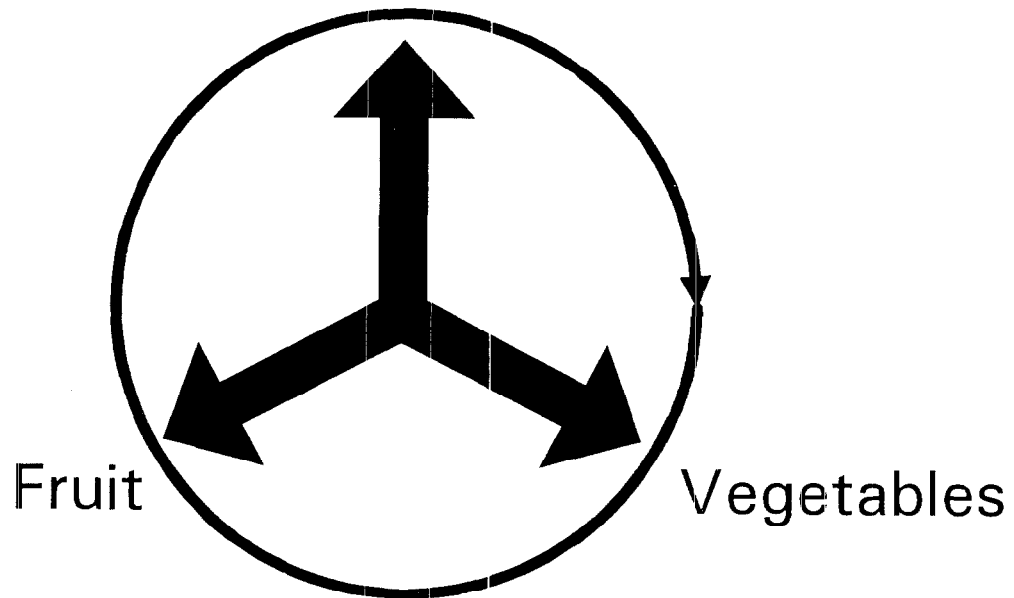


Michigan Rotational Survey
Nursery
and
Christmas Trees-1993

Nursery and Christmas Trees



Michigan Department of Agriculture
Michigan Agricultural Statistics Service

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF AGRICULTURE

P.O. BOX 30017, LANSING, MICHIGAN 48909

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October 1994

Welcome to the 1993 Michigan Nursery and Christmas Tree Survey, a cooperative effort between the private and public sectors to provide data upon which Michigan's agricultural industry depends for planning.

This is the third report to be published under the Michigan Rotational Survey, which is funded by the Michigan Legislature; administered by the Michigan Department of Agriculture; and conducted by the Federal/State Michigan Agricultural Statistics Service. A fruit inventory was conducted in 1991 followed by a vegetable inventory in 1992. Another fruit inventory will begin in the fall of 1994 to restart the rotation.

The cooperation and assistance of the growers who voluntarily provided the data for this report is sincerely appreciated. We also extend thanks to the Michigan Nursery and Landscape Association, Michigan Christmas Tree Association, Michigan State University Cooperative Extension Service, and data collectors from the National Association of the State Departments of Agriculture for their assistance.

If you have any questions regarding this survey, or suggestions for improvement, please contact the Michigan Agricultural Statistics Service at (517) 334-6001.

Sincerely,

A handwritten signature in cursive script that reads "Gordon Guyer".

Dr. Gordon Guyer
Director

A handwritten signature in cursive script that reads "Don J. Fedewa".

Don J. Fedewa
State Statistician

Michigan Rotational Survey

Nursery and Christmas Trees-1993

Compiled by



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National Agricultural Statistics Service
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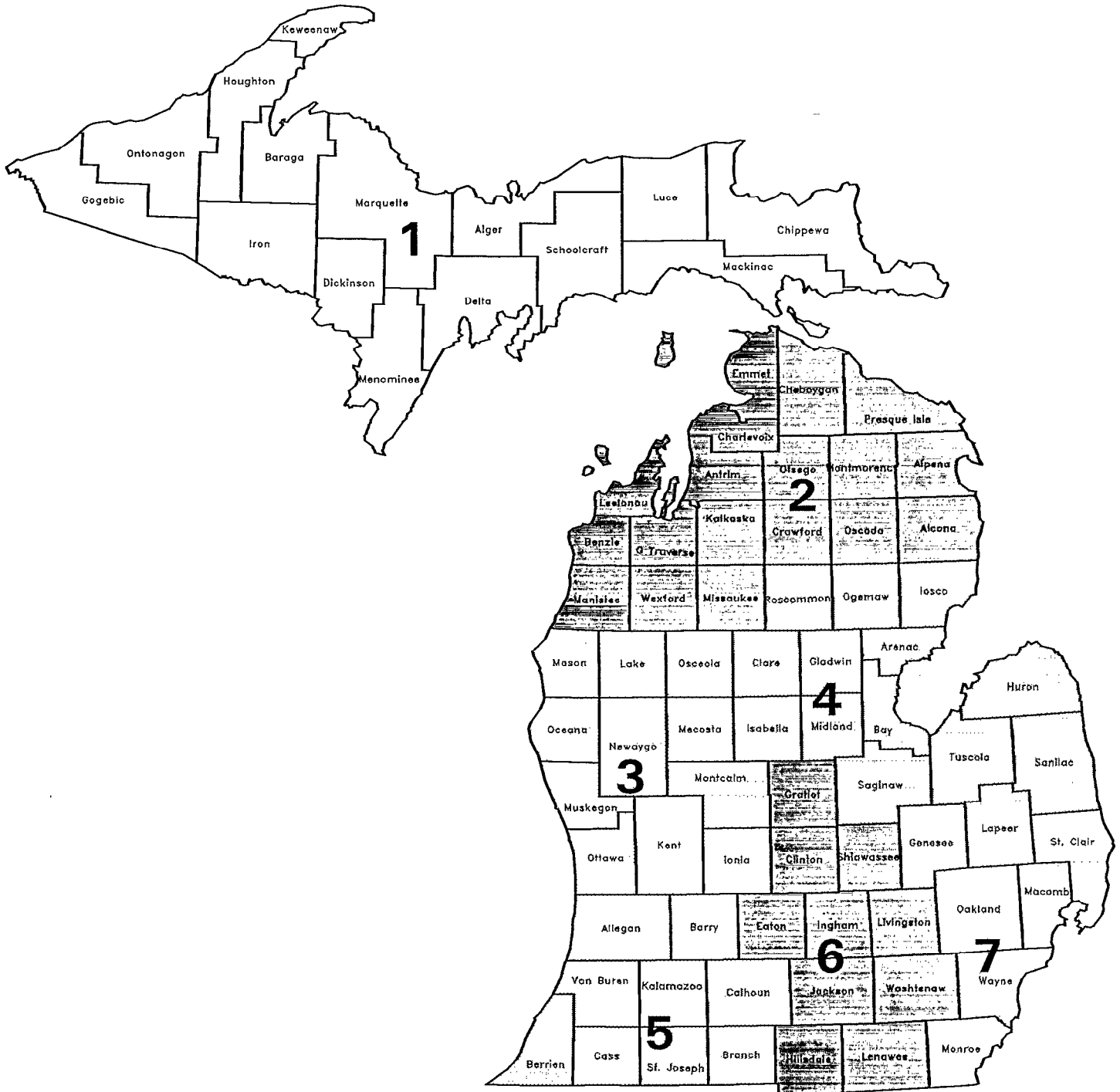
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Nursery and Christmas Tree Regions



I. Nursery Stock

There were 15,500 acres used for production of nursery stock in Michigan in 1993, 1,550 acres used for production of herbaceous perennials, vines, ground covers, bulbs, corms, and rhizomes, and 1,150 nursery establishments. A producer was defined as an operation growing at least one tenth acre of one of these products for sale. Lists of licensed plant growers and nursery growers obtained from the Michigan Department of Agriculture were the source of names for the project. Floriculture operations were outside the scope of this survey.

The nursery industry is widely dispersed in Michigan. Ottawa, Allegan and Berrien were the three top counties

in land in production and accounted for 44 percent of all acres. Nine counties had at least twenty operations.

Nursery and perennial plant growers contribute substantially to the State's economy. They had 200 million dollars in wholesale and retail sales in 1993 at point of first sale. About 50 million dollars of that total was sold wholesale outside Michigan. The production segment of the nursery industry employed about 2,700 people full-time in 1993. It also hired 1,000 permanent part-time workers and 6,000 seasonal workers.

Table 1.—Nurseries: Area and number of operations, by kind of business.

Item and kind of business	Field grown		Container grown		Total	
	Number	Acres	Number	Acres	Number	Acres
Deciduous trees	490	4,410	150	140	550	4,550
Deciduous shrubs.....	220	550	185	370	340	920
Narrowleaved evergreens	600	8,710	150	240	660	8,950
Broadleaved evergreens	65	69	110	76	160	145
Roses	5	1	70	14	70	15
Fruit trees	40	180	45	10	80	190
Small fruits.....	40	230	30	50	60	280
Vines & ground covers.....	45	60	100	70	140	130
Bulbs, corms & rhizomes.....	65	130	40	10	100	140
Herbaceous perennials	215	1,160	235	120	400	1,280
Annuals	25	50	100	80	120	130
Total	970	15,550	430	1,180	1,150	16,730

Table 2.—Nurseries: Sales by category

Category	Dollars
Wholesale nursery	95,000,000
Retail nursery	38,000,000
Wholesale perennial....	52,000,000
Retail perennial	15,000,000
Wholesale annual	3,000,000
Retail annual.....	1,000,000
Total	\$204,000,000

Table 3.—Nurseries: Number in workforce and payroll

Category	Number
Seasonal.....	6,000
Permanent Part-time.....	1,000
Full-time	2,700
Total	9,700
Payroll.....	\$72,000,000

Table 4.—Nursery plants: Area and number of operations, by region

[Nursery plants include deciduous trees, deciduous shrubs, narrowleaved evergreens, broadleaved evergreens, roses, fruit trees, and small fruits.]

Region	Field grown		Container grown		Total	
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
Region 1	17	175	9	15	22	190
Region 2	59	590	23	30	72	620
Region 3	136	5,600	53	540	156	6,140
Region 4	103	1,315	35	25	109	1,340
Region 5	131	2,250	53	70	149	2,320
Region 6	178	2,580	45	70	193	2,650
Region 7	146	1,640	62	150	174	1,790
State	770	14,150	280	900	875	15,050

Table 5.—Nursery plants: Area and number of operations, by size group

[Nursery plants include deciduous trees, deciduous shrubs, narrowleaved evergreens, broadleaved evergreens, roses, fruit trees, and small fruits.]

Size	Operations	Area
<i>Acres</i>	<i>Number</i>	<i>Acres</i>
1 or less	240	150
1.1-5.0	300	900
5.1-10.0	125	950
10.1-25.0	120	2,000
25.1-50.0	45	1,850
More than 50	45	9,200
Total	875	15,050

Table 6.—Herbaceous ornamentals: Area and number of operations, by region

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

Region	Field grown		Container grown		Total	
	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>	<i>Number</i>	<i>Acres</i>
Region 1	Combined with Region 2		Combined with Region 2		Combined with Region 2	
Region 2	31	20	27	10	52	30
Region 3	48	400	47	80	87	480
Region 4	35	30	32	10	61	40
Region 5	69	790	51	40	108	830
Region 6	39	20	51	20	81	40
Region 7	53	90	62	40	96	130
State	275	1,350	270	200	485	1,550

Table 7.—Herbaceous ornamentals: Area and number of operations, by size

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

Size in acres	Operations		Area	
	<i>Number</i>		<i>Acres</i>	
0.5 or less		320		80
0.6-1.0.....		70		60
1.1-5.0.....		68		160
5 or more		27		1,250
Total.....		485		1,550

Table 8.—Nurseries: Area and number of operations by county and region

[Does not include acres for annuals.]

County	Operations		County	Operations		County	Operations	
	<i>Number</i>	<i>Acres</i>		<i>Number</i>	<i>Acres</i>		<i>Number</i>	<i>Acres</i>
Delta	5	40	Bay	11	110	Clinton	28	300
Luce	3	70	Genesee	31	240	Eaton	24	510
Others	17	90	Isabella.....	6	50	Ingham	27	340
Region 1	25	200	Lapeer.....	31	370	Jackson.....	19	290
Alcona	4	80	Midland	10	35	Lenawee.....	18	90
Antrim	13	45	Saginaw	25	270	Livingston.....	45	460
Cheboygan.....	4	90	Sanilac	5	210	Shiawassee.....	16	250
Emmett.....	6	60	Tuscola	7	35	Washtenaw.....	47	380
Grand Traverse	12	25	Others.....	23	60	Others	13	70
Leelanau	10	20	Region 4.....	149	1,380	Region 6	237	2,690
Manistee	9	120	Allegan.....	35	1,450	Macomb	42	480
Missaukee	6	70	Barry	8	30	Monroe.....	40	430
Others	29	130	Berrien	61	820	Oakland	83	440
Region 2	93	640	Branch	5	30	St. Clair.....	24	310
Ionia	8	80	Calhoun.....	16	250	Wayne.....	38	260
Kent	45	420	Cass	14	50	Region 7	227	1,920
Mason	13	400	Kalamazoo.....	42	200			
Mecosta.....	8	60	St. Joseph.....	14	80			
Montcalm.....	15	120	Van Buren	27	240			
Muskegon	11	70	Region 5.....	222	3,150	State.....	1,150	16,600
Newaygo	11	100						
Oceana	9	80						
Osceola	7	90						
Ottawa	70	5,200						
Region 3	197	6,620						

Nursery Acres by County

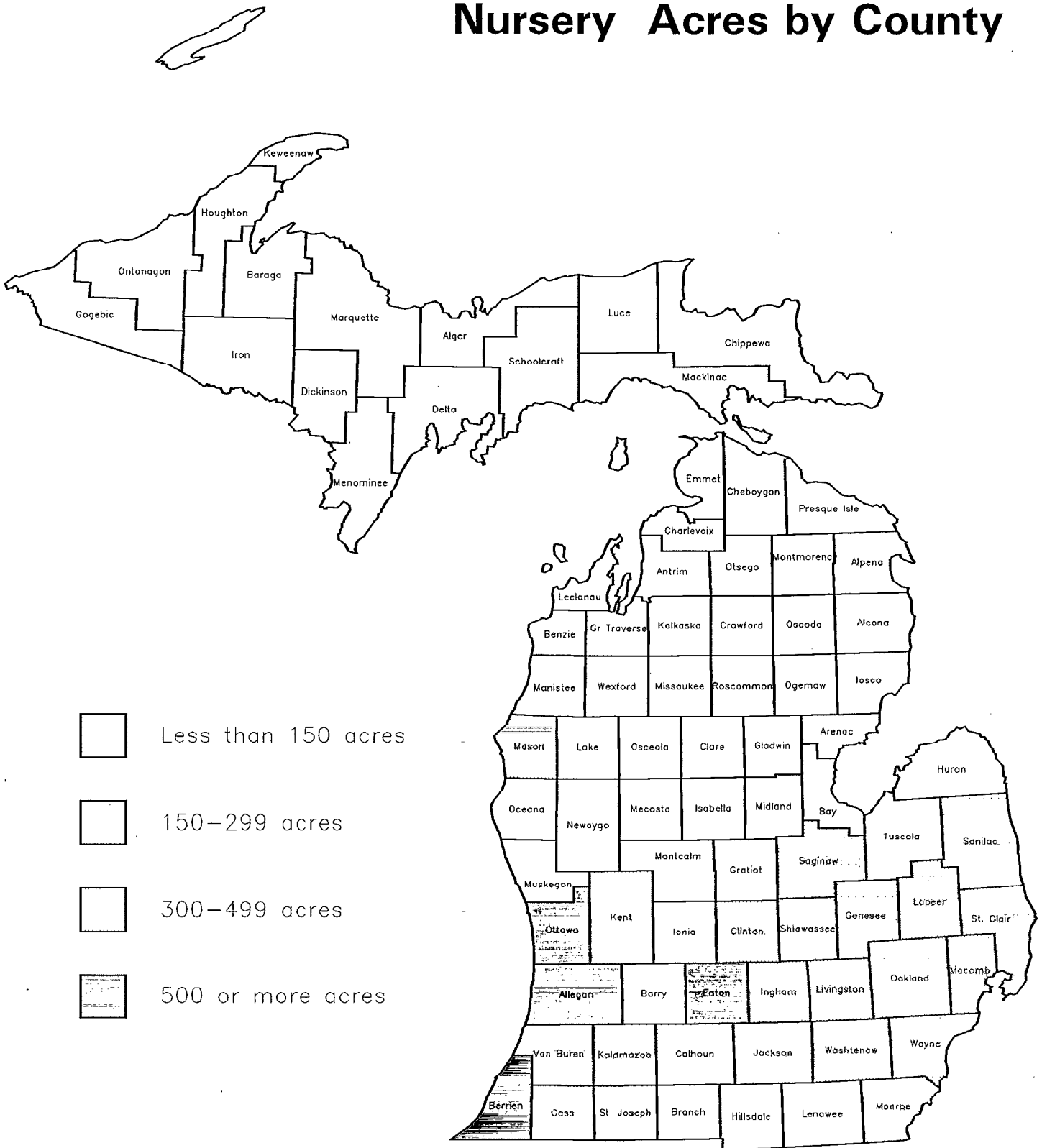


Figure 1.

Distribution of Nursery Operations

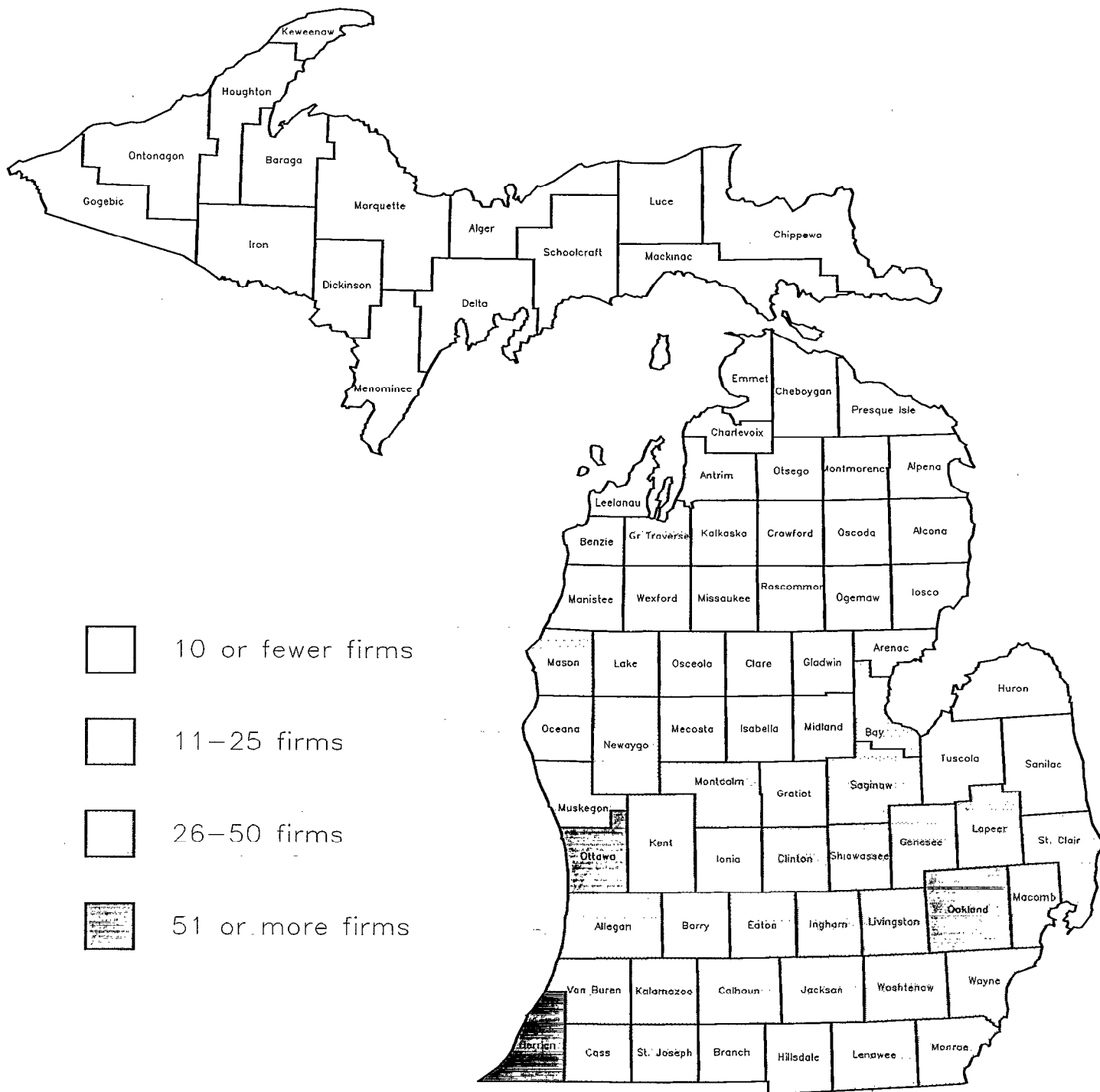


Figure 2.

Nursery Grower Sales by Category (At First Point of Purchase)

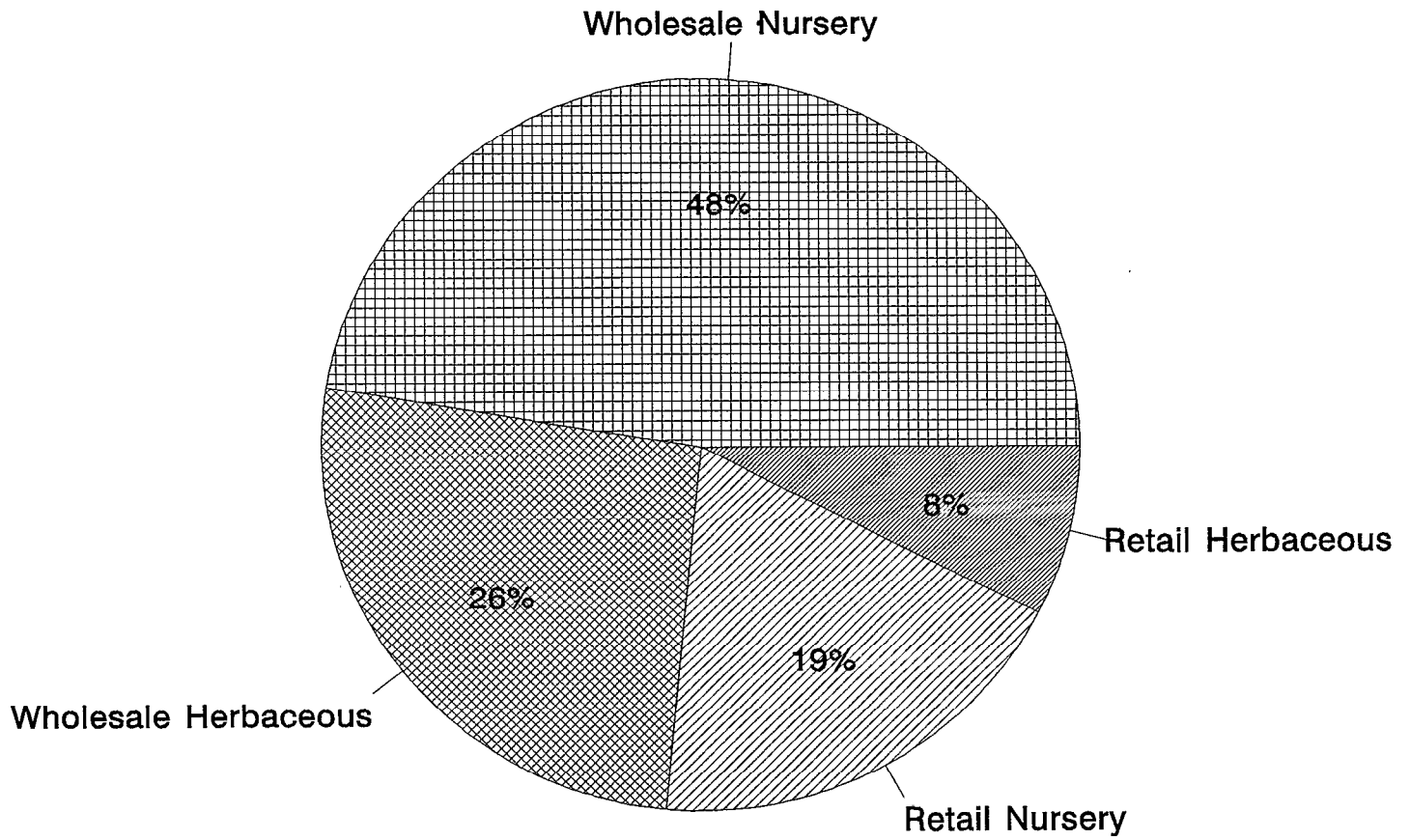


Figure 3.

II. Christmas Trees

There were 75,000 acres were used for production of Christmas trees in 1993 and 1,225 Christmas tree operations. A producer was defined as an operation growing at least one acre of trees with intent to sell them for Christmas trees. Twenty eight growers had 500 or more acres. One hundred thirty operations reported at least 100 acres and accounted for over two-thirds of the producing acres.

Wexford, Missaukee, Oceana, Montcalm, Kalkaska and Allegan were the six top counties and accounted for 50

percent of all acreage. Forty counties had at least ten operations growing trees and 68 counties had 50 acres or more.

Scotch Pine, Colorado Blue Spruce and Douglas Fir were the three most prevalent species grown and accounted for about 85 percent of all Christmas tree acreage. There were 38,900 acres of Scotch Pines, 12,900 acres of Colorado Blue Spruce and 11,400 acres of Douglas Fir. White Spruce, Fraser Fir, Balsam Fir and White Pine made up the majority of other species raised.

Table 9.—Christmas trees: Area and number of operations by county and region

County	Operations	Area	County	Operations	Area	County	Operations	Area
	<i>Number</i>	<i>Acres</i>		<i>Number</i>	<i>Acres</i>		<i>Number</i>	<i>Acres</i>
Baraga	2	160	Ionia	12	400	Allegan	38	3,700
Chippewa	6	150	Kent	16	1,300	Berrien	31	410
Delta	18	620	Lake	7	1,100	Calhoun	6	280
Dickinson	15	280	Mason	16	1,200	Cass	23	190
Houghton	2	160	Mecosta	22	1,700	Kalamazoo	18	390
Luce	9	220	Montcalm	31	5,300	St. Joseph	9	170
Menominee	42	2,000	Muskegon	28	1,100	Van Buren	25	620
Ontonagon	2	90	Newaygo	24	2,600	Others	10	140
Schoolcraft	4	200	Oceana	80	6,200	Region 5	160	5,900
Others	10	120	Osceola	20	3,200	Clinton	15	380
Region 1	110	4,000	Ottawa	39	2,400	Eaton	9	210
			Region 3	295	26,500	Hillsdale	6	200
Alcona	7	240				Ingham	17	390
Alpena	10	120	Arenac	3	110	Jackson	16	330
Antrim	13	1,100	Bay	8	90	Livingston	22	320
Benzie	10	620	Clare	12	400	Shiawassee	6	160
Cheboygan	31	1,700	Genesee	12	240	Washtenaw	18	450
Emmett	9	330	Gladwin	3	90	Others	11	60
Grand Traverse	23	1,400	Huron	4	50	Region 6	120	2,500
Kalkaska	41	3,800	Iosco	8	200	Macomb	9	80
Leelanau	34	620	Isabella	29	1,000	Monroe	8	190
Manistee	21	3,000	Lapeer	13	200	Oakland	14	300
Missaukee	62	8,000	Midland	7	200	St. Clair	13	380
Otsego	8	160	Ogemaw	6	90	Wayne	6	250
Presque Isle	5	220	Saginaw	25	310	Region 7	50	1,200
Wexford	61	10,000	Sanilac	8	220			
Others	5	90	Tuscola	12	300	State	1,225	75,000
Region 2	340	31,400	Region 4	150	3,500			

Table 10.—Christmas tree varieties: Distribution by region

Region	Fir				Pine				Spruce			Others	All
	Balsam	Con-color	Douglas	Fraser	Aus-trian	Red	Scotch	White	Colo-rado	Norway	White		
	<i>Acres</i>				<i>Acres</i>				<i>Acres</i>			<i>Acres</i>	<i>Acres</i>
1	1,050	0	200	90	20	50	980	100	340	20	1,070	80	4,000
2	390	190	4,500	1,040	90	180	17,500	470	4,900	260	1,550	330	31,400
3	180	150	5,200	600	80	90	14,100	340	4,950	100	580	130	26,500
4	80	30	120	80	40	50	1,860	130	720	70	290	30	3,500
5	40	180	1,140	190	20	0	2,680	250	1,250	50	60	40	5,900
6	20	30	190	70	100	10	1,000	180	570	70	120	140	2,500
7	10	10	50	10	30	10	780	50	170	10	30	40	1,200
State	1,770	590	11,400	2,080	380	390	38,900	1,520	12,900	580	3,700	790	75,000

Table 11.—Christmas trees: Area and number of operations by size

Size in acres	Operations	Area
	<i>Number</i>	<i>Acres</i>
Less than 10	490	2,200
10-24.9	280	4,800
25-49.9	195	7,000
50-99.9	135	9,500
100-499.9	102	19,500
500-999.9	17	12,500
1,000 or more	11	19,500
Total	1,230	75,000

Table 12.—Christmas trees: Sales by species

Species	Trees	Value per tree	Value of sales
	<i>Number</i>	<i>Dollars</i>	
Fir			
Balsam	63,000	16	1,008,000
Concolor	16,000	18	288,000
Douglas	450,000	13	5,850,000
Fraser	87,000	21	1,827,000
Pine			
Austrian	10,000	11	110,000
Red	3,000	7	21,000
Scotch	2,850,000	8	22,800,000
White	73,000	11	803,000
Spruce			
Colorado Blue	310,000	12	3,720,000
Norway	10,000	17	170,000
White	110,000	14	1,540,000
Other	18,000	17	306,000
Total	4,000,000		38,443,000

Table 13.—Christmas trees: Sales by outlet, 1993

Outlet type	Trees
	<i>Number</i>
Wholesale	3,500,000
Retail-cut	260,000
Choose and cut	240,000
Total	4,000,000

Table 14.—Christmas trees: Sales by destination, 1993

Destination	Trees
	<i>Number</i>
Michigan	1,135,000
Other states	2,830,000
Out of USA	35,000
Total	4,000,000

Table 15.—Christmas tree varieties: Acres by year planted

Species	Before 1980	1980	1981	1982	1983	1984	1985	1986
Fir								
Balsam	380	60	80	40	50	120	70	150
Concolor...	0	5	0	20	0	40	55	15
Douglas ...	750	570	570	670	910	1,020	1,100	810
Fraser.....	5	5	5	5	15	25	90	220
Pine								
Austrian...	5	5	0	10	15	10	25	25
Red	30	50	15	10	15	15	35	20
Scotch.....	640	470	640	1,150	2,950	3,400	4,550	4,900
White	10	30	50	70	120	80	100	120
Spruce								
Blue	480	290	410	720	740	1,310	1,120	1,200
Norway ...	10	15	50	50	30	50	55	30
White	230	300	160	440	320	370	300	320
Other.....	0	30	20	5	15	50	120	100
Total	2,540	1,830	2,000	3,190	5,180	6,490	7,620	7,910

Species	1987	1988	1989	1990	1991	1992	1993	All years
Fir								
Balsam	80	130	140	160	90	120	100	1,770
Concolor...	65	70	70	50	40	90	70	590
Douglas ...	950	840	660	1,050	700	460	340	11,400
Fraser.....	340	160	230	280	270	220	210	2,080
Pine								
Austrian...	50	30	35	70	55	25	20	380
Red	15	15	15	75	10	10	60	390
Scotch.....	4,250	4,650	3,600	3,050	1,800	1,500	1,350	38,900
White	150	140	130	160	130	150	80	1,520
Spruce								
Blue	1,430	1,040	1,330	1,170	700	500	460	12,900
Norway ...	50	55	50	45	45	25	20	580
White	240	220	190	220	200	120	70	3,700
Other.....	90	50	120	90	50	30	20	790
Total	7,710	7,400	6,570	6,420	4,090	3,250	2,800	75,000

Table 16.--Christmas tree varieties: Inventory by year of planting

Species	Before 1980	1980	1981	1982	1983	1984	1985	1986
Fir								
Balsam	260,000	42,600	58,300	29,500	39,400	98,700	59,200	131,000
Concolor ..	0	3,600	0	14,700	0	32,500	47,600	13,400
Douglas ...	536,000	420,000	430,000	520,000	715,000	815,000	952,000	705,000
Fraser	3,300	3,500	3,600	3,800	11,900	20,400	76,500	186,000
Pine								
Austrian...	3,200	3,700	0	7,400	12,000	8,400	21,500	22,300
Red	21,300	37,000	11,100	7,300	11,300	13,000	30,600	17,900
Scotch.....	450,000	330,000	455,000	825,000	2,130,000	2,700,000	3,660,000	4,140,000
White	6,200	18,500	30,800	43,100	90,000	61,900	81,200	88,000
Spruce								
Blue	343,000	209,000	314,000	599,000	622,000	1,110,000	951,000	1,050,000
Norway ...	7,000	10,800	37,500	39,400	25,300	42,100	47,400	26,400
White	155,000	223,000	125,000	345,000	273,000	319,000	263,000	297,000
Other	0	20,300	13,700	3,800	12,100	41,000	104,000	89,000
Total	1,785,000	1,322,000	1,479,000	2,438,000	3,942,000	5,262,000	6,294,000	6,766,000

Species	1987	1988	1989	1990	1991	1992	1993	All years
Fir								
Balsam	71,900	119,000	135,000	159,000	90,400	123,000	103,000	1,520,000
Concolor ..	59,500	63,700	65,800	51,500	41,800	93,700	72,200	560,000
Douglas ...	855,000	767,000	616,000	1,000,000	705,000	466,000	348,000	9,850,000
Fraser	304,000	146,000	212,000	260,000	252,000	213,000	204,000	1,900,000
Pine								
Austrian...	43,700	27,800	33,000	66,600	52,800	24,500	23,100	350,000
Red	13,500	13,600	14,000	72,000	10,700	10,700	66,000	350,000
Scotch.....	3,720,000	4,100,000	3,400,000	2,900,000	1,740,000	1,510,000	1,390,000	33,450,000
White	126,000	122,000	118,000	148,000	121,000	140,000	75,300	1,270,000
Spruce								
Blue	1,260,000	918,000	1,216,000	1,090,000	660,000	480,000	448,000	11,270,000
Norway ...	45,000	50,300	46,200	42,600	43,000	24,600	22,400	510,000
White	227,000	210,000	185,000	216,000	198,000	122,000	72,000	3,230,000
Other	82,400	48,600	122,000	93,300	53,300	33,500	23,000	740,000
Total	6,808,000	6,586,000	6,163,000	6,099,000	3,968,000	3,241,000	2,847,000	65,000,000

Christmas Tree Acres by County

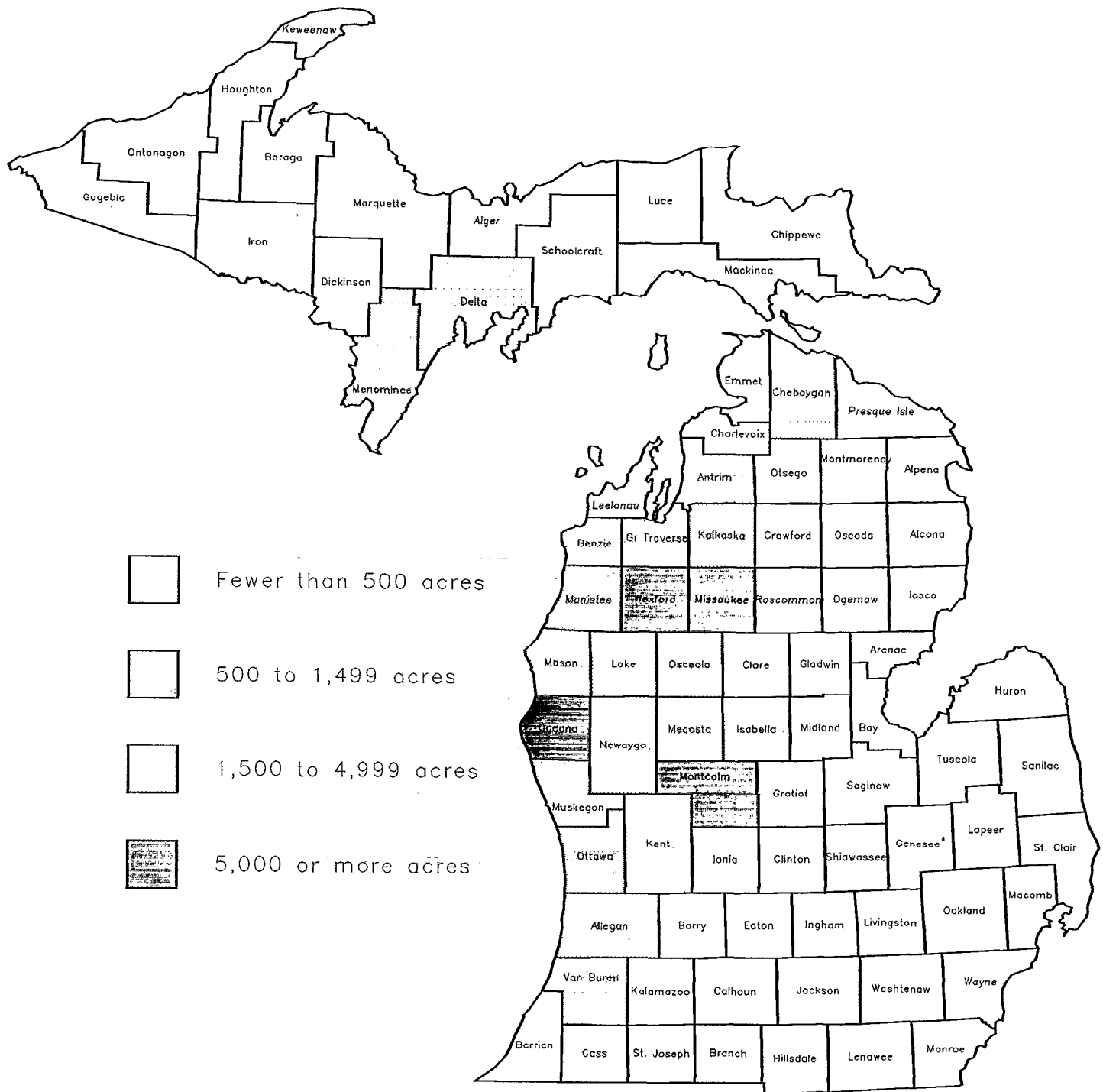


Figure 4.

Christmas Tree Sales by Species

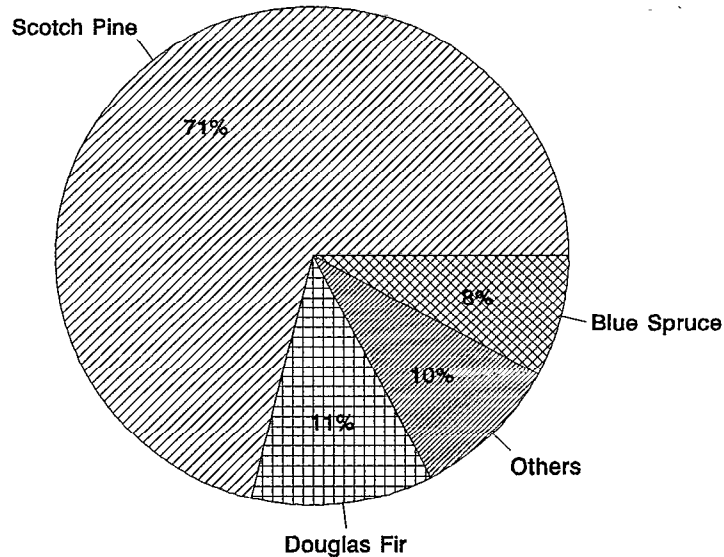


Figure 5.

III. Survey Methods and Questionnaires

The Nursery Grower survey was sent to 1,775 potential operations. The list was the Michigan Department of Agriculture's licensed nursery growers and plant growers. To qualify an operation had to have grown at least .1 acre of woody ornamentals or herbaceous perennials in 1993 and have planned to sell them either retail or wholesale. There were 1,150 such places.

The Christmas tree list of 2,235 was developed from names from Michigan State University Extension, the Michigan Christmas Tree Association, telephone book Yellow Pages, and the Michigan Agricultural Statistics Service's list sampling frame. To qualify an operation had to have grown at least one acre of trees for sale as Christmas trees. Growers of coniferous trees for windbreaks, landscaping or conservation were excluded. There were 1,225 places that met the criteria for Christmas tree farms.

The data were collected on the following Nursery Grower and the Christmas Tree questionnaires. These forms were developed with input from industry representatives. Some ideas for the Nursery questionnaire came from surveys done by NASS in other states.

Questionnaires were mailed to the entire universe in early January, 1994. A cover letter on Michigan Nursery and Landscape Assn. letterhead accompanied the Nursery Grower questionnaire. The Michigan Christmas Tree As-

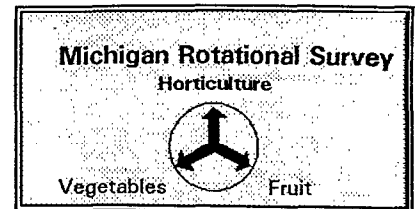
sociation provided a letter of endorsement of the Christmas Tree Survey. Telephoning of non-respondents commenced in February; this was followed by personal enumeration of operators who could not be reached by phone.

The following table is a summary of responses:

Responses	Nursery growers	Christmas trees
	<i>Number</i>	<i>Number</i>
Mail.....	500	450
Telephone	500	520
Personal interview.....	60	75
Refused	65	95
Inaccessible.....	25	85
Total	1,150	1,225

Estimates of total acres were made for refusals and inaccessible. Expansion factors were computed for each county and survey: (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 acreages refused income data. Regression and ratio estimators were used to expand missing income data on the Nursery and Christmas Tree surveys, respectively.

Nurseries-1993



January, 1994

Dear Nursery Grower:

The Michigan Department of Agriculture is conducting a survey of the nursery growers in the State. Your firm is part of that industry. Accordingly, we are asking your cooperation with this short report. All answers you provide will be kept strictly confidential. The data shall be combined with data from other firms to establish totals for Michigan.

Don J. Fedewa
State Statistician

1. **Instructions:** Include trees, shrubs, groundcovers, herbaceous perennials, etc. at all stages of growth. Include plants that are field-grown and sold as bare-root or bagged and balled nursery stock. Also include plants grown and sold in containers. Estimate acres to nearest tenth. 1/4 acre = .25 1/3 acre = .33 2/3 acre = .67 3/4 acre = .75

Item	Maximum acres growing in 1993	
	In field	In containers
A. Deciduous shade and flowering trees (ashes, maples, oaks, birches, crabapple, dogwood, magnolia, etc.)	001	013
B. Deciduous shrubs	002	014
C. Narrowleaved evergreens (juniper, pine, spruce, and other conifers—exclude christmas trees.)	003	015
D. Broadleaved evergreens (azalea, holly, rhododendron, etc.)	004	016
E. Roses	005	017
F. Fruit trees	006	018
G. Small fruits (Grapes, blueberries, raspberries, etc.)	007	019
H. Vines & ground covers	008	020
I. Bulbs, corms and rhizomes (Tulips, crocus, lilies, etc.)	009	021
J. Herbaceous perennials	010	022
K. Annuals	011	023
L. Total acres	012	024

2. List the county or counties where your nursery is located. If your operation is in more than one county, list each county separately with acres and percent of *total gross* sales by county.

County	Acres	Percent of sales
025	028	031 %
026	029	032 %
027	030	033 %

Over ↘

3. Please report your total 1993 *gross* wholesale and retail sales volume in dollars. Estimate the percent of sales that were from products produced in Michigan.

	Wholesale	Percent grown in Michigan	Retail	Percent grown in Michigan
	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>	<i>Percent</i>
Nursery stock	034	036	038	040
Herbaceous perennials, ground cover, annuals & bulbs	035	037	039	041

4. Percent of wholesale sales

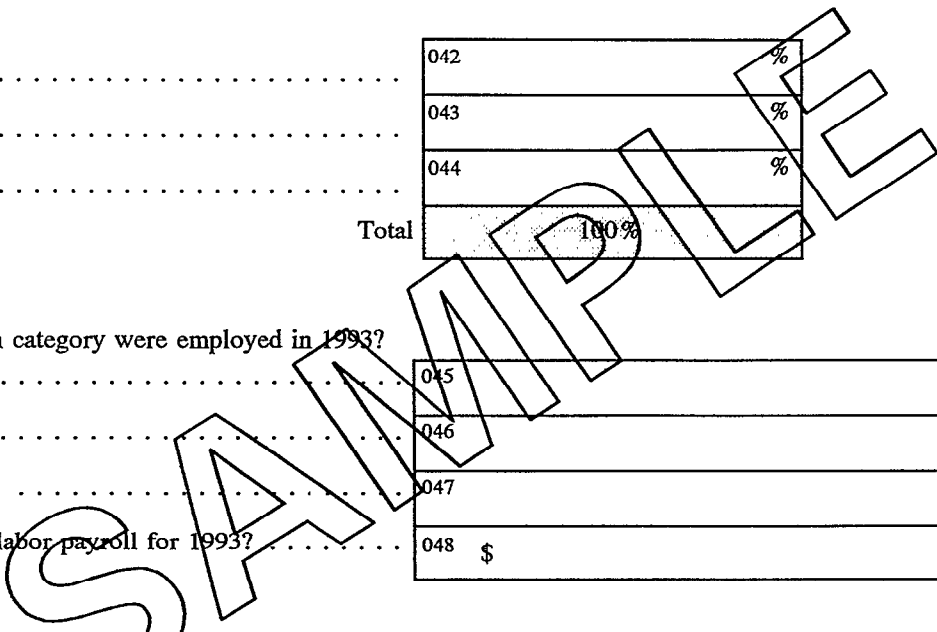
In Michigan	042	%
In other states	043	%
In other countries	044	%
Total	100%	

5. How many workers in each category were employed in 1993?

Full-time	045
Permanent part-time	046
Seasonal (maximum number)	047

6. What was the total annual labor payroll for 1993?

048	\$
-----	----



County Estimate Permission:

If my operation has more than 60% of the acres of an item in a county, I consent to the publication of an estimate for that county.

Check (✓) one Yes No

Reported by: _____ Telephone: _____ Date: _____

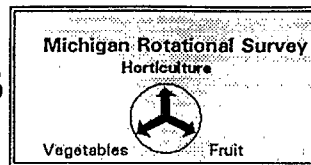


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P.O. Box 20008
Lansing, Michigan 48901-0608
(517) 377-1831

Christmas Tree Growers-1993



Dear Christmas Tree Grower:

The Michigan Department of Agriculture is conducting a survey of Christmas tree growers in the State. Your operation is part of that industry. Accordingly, we are asking your cooperation with this short report. All answers you provide will be kept strictly confidential. The data shall be combined with data from other growers to establish totals for Michigan.

Don J. Fedewa
State Statistician

Please make address corrections, if needed.

To avoid duplication, indicate below any operation name or partner(s) associated with this operation *not* included in the above address.

If not growing Christmas trees, check (✓) reason below (one only):

Operation Sold Operation Rented Never Had Trees

Firm Name: _____

New Operator's Name: _____

Partner's Name(s): _____

Address: _____

Address: _____

City: _____ St: _____ Zip: _____

City: _____ St: _____ Zip: _____

Telephone: _____

1. Christmas Tree Inventory--January 1, 1994

Example:

* Please use these codes for tree species.				County	Species (code)*	Acres	Total number of trees	Year planted
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	Other	12					
White Spruce	6	(Specify)						
Norway Spruce	7							

If more space is needed, please photocopy this page or substitute your own inventory printout.

County	Species (code)*	Acres	Total number of trees	Year planted

2. Tree Sales In 1993

Category	Percent of total
Wholesale	001
Retail-cut	002
Choose and cut	003
Total	100%

Destination	Percent of total
Michigan	004
Out of state	005
Out of U.S.A.	006
Total	100%

Species	Trees sold	Average price per tree
	<i>Number</i>	<i>Dollars</i>
Scotch Pine	007	020
Austrian Pine	008	021
Red Pine	009	022
White Pine	010	023
Colorado Blue Spruce	011	024
White Spruce	012	025
Norway Spruce	013	026
Douglas Fir	014	027
Fraser Fir	015	028
Concolor Fir	016	029
Balsam Fir	017	030
Other (Please specify) _____	018	031
	019	032

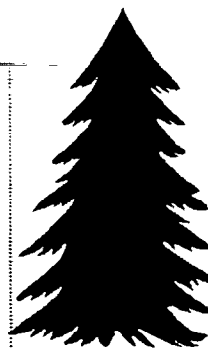
SAMPLE

3. Hired Workers in 1993

What was the maximum number of workers employed by this firm in 1993? . . .

County Estimate Permission:
 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 of trees, in a county I consent to the publication of an estimate for that county.

Check (✓) one Yes No



Reported by: _____ Telephone: _____ Date: _____

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