

Michigan Rotational Survey

Nursery and Christmas Trees 2004-2005



Michigan Department Of Agriculture
USDA, NASS, Michigan Field Office





STATE OF MICHIGAN
DEPARTMENT OF AGRICULTURE
LANSING

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November 2005

The Michigan Department of Agriculture and the USDA, NASS, Michigan Field Office are pleased to present the results of the 2004-2005 Michigan Nursery and Christmas Tree Survey. This bulletin represents a cooperative effort between the private and public sectors to provide data critical to the planning process for Michigan's agricultural industries.

This is the fourteenth report to be published under the Michigan Rotational Survey program, which is funded by the Michigan legislature, administered by the Michigan Department of Agriculture, and conducted by the USDA, NASS, Michigan Field Office. Under this program, the first fruit inventory was conducted in 1991, followed by a vegetable survey in 1992, and a nursery and Christmas tree survey in 1993. The surveys have continued on a rotational basis, with a turfgrass survey being added to the rotation in 2002.

We thank Michigan growers for cooperating and voluntarily providing the data that made this report possible. We also thank the Michigan Nursery and Landscape Association and the Michigan Christmas Tree Association. Both organizations provided helpful suggestions during the development of the survey questionnaires and encouraged participation by producers.

We look forward to continuing this successful relationship for the benefit of Michigan agriculture. If you have questions regarding this publication or suggested improvements, please contact the USDA, NASS, Michigan Field Office at (800) 453-7501.

Sincerely,

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Mitch Irwin, Director
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Handwritten signature of David D. Kleweno in black ink.

David D. Kleweno, Director
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Michigan Rotational Survey

Nursery and Christmas Tree Inventory 2004-2005

USDA, NASS, Michigan Field Office

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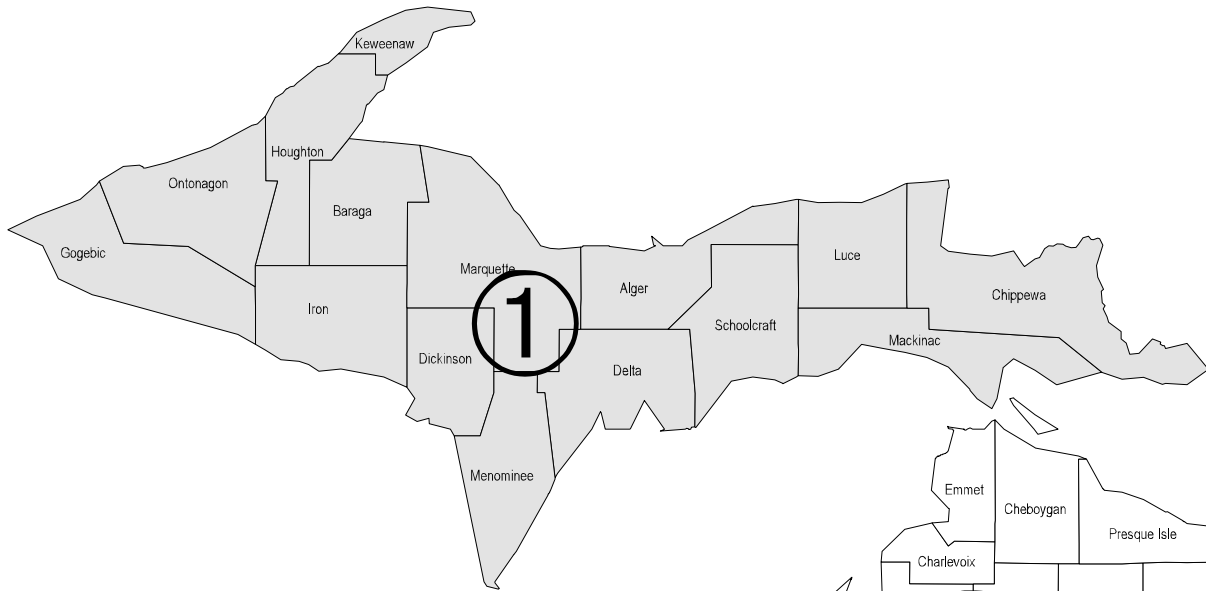
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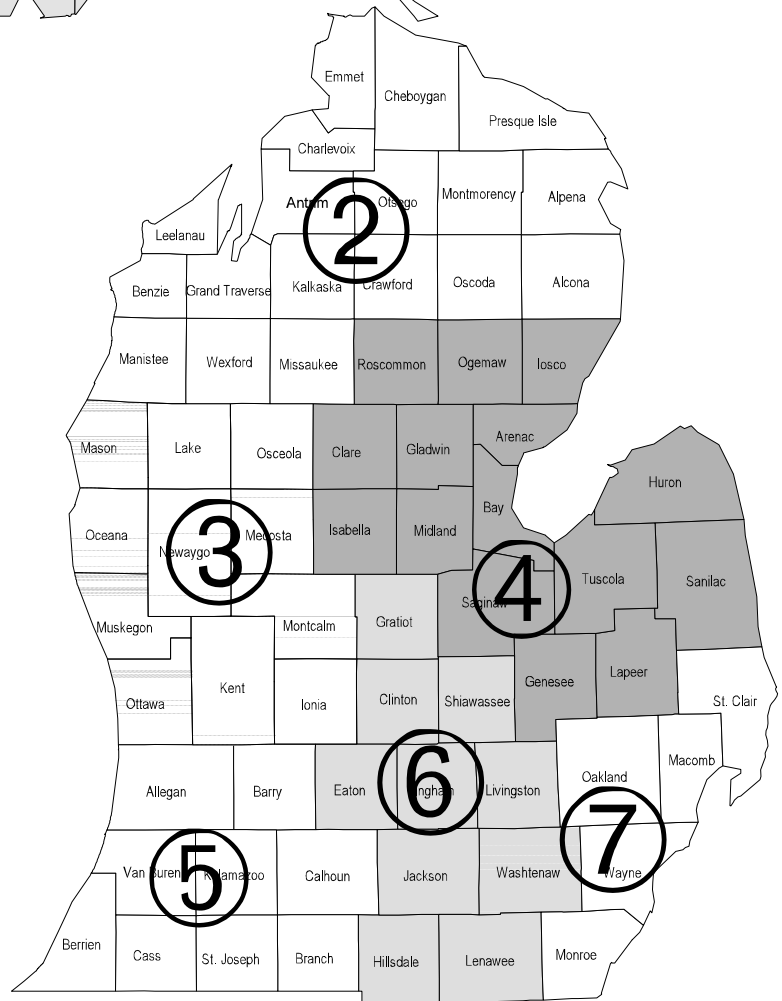
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Michigan Department of Agriculture Regions



MICHIGAN DEPARTMENT OF AGRICULTURE 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.



Nursery

There were 17,630 acres used for production of woody ornamental plants in Michigan in 2004 and 2,970 acres used for growing perennials and other herbaceous ornamentals. To qualify as a producer, an operation had to grow at least 0.1 acre of one of these products and to sell them either wholesale or retail. There were 1,235 such operations. Approximately 22.8 million square feet were devoted to the production of propagation materials.

Ottawa and Allegan were the leading counties for land in production. They accounted for 36 percent of all acres. The

nursery industry is widely dispersed in Michigan. Nineteen counties had 25 operations or more.

The nursery and perennial plant growers contributed substantially to the State's economy. They had \$261 million in wholesale and retail sales in 2004. That is up from \$250 million in 1999, the last time the survey was conducted. There was about \$110 million of product wholesaled outside Michigan.

The nursery industry employed 3,100 permanent workers and 3,800 seasonal workers in 2004.

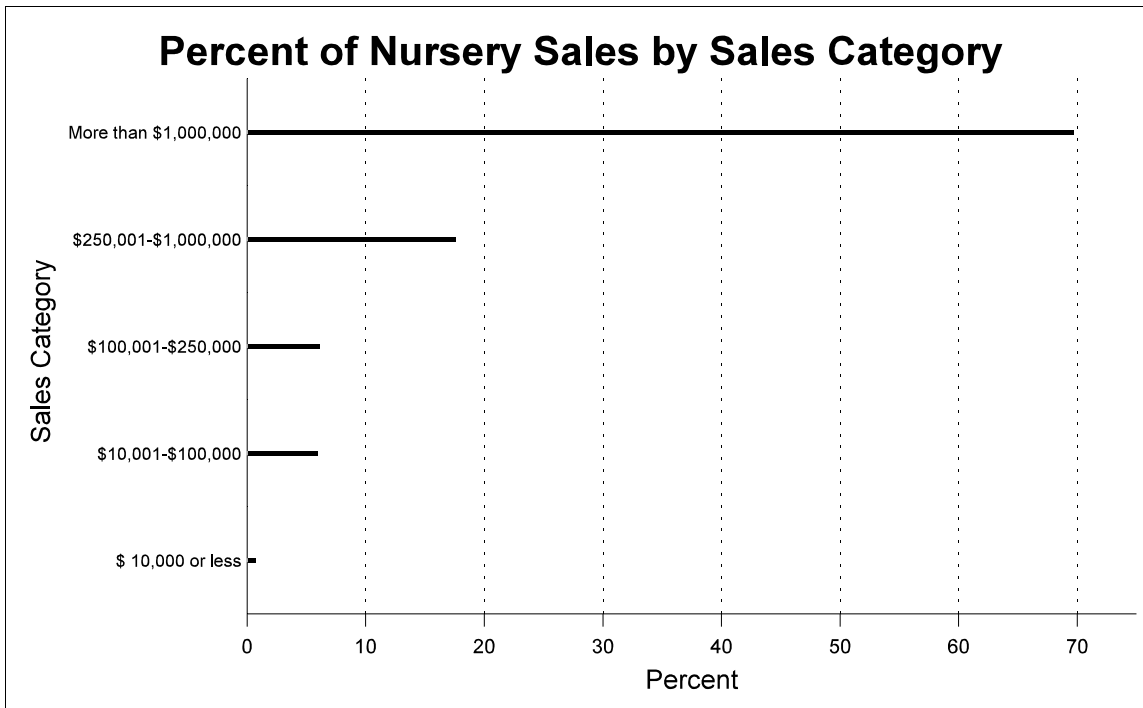
Nurseries: Number of operations and acres, by category, 2004

Category	Field grown		Container grown		Total	
	Operations	Acres	Operations	Acres	Operations	Acres
Deciduous trees	400	4,100	149	180	491	4,280
Deciduous shrubs	121	450	212	880	294	1,330
Narrow-leaved evergreens	616	10,865	117	635	689	11,500
Broad-leaved evergreens	30	64	74	71	99	135
Roses	3	1	84	24	86	25
Fruit trees	26	160	41	5	65	165
Small fruits	23	170	45	25	63	195
All woody plants	748	15,810	303	1,820	911	17,630
Daylillies	117	330	209	35	312	365
Hosta	76	210	266	50	324	260
Ornamental grasses	41	70	208	35	242	105
Other herbaceous perennials	94	1,205	306	215	384	1,420
Vines and ground covers	26	40	154	30	178	70
Bulbs, corms and rhizomes	42	730	48	10	89	740
Water garden (aquatic) plants	11	5	42	5	48	10
All herbaceous plants	216	2,590	385	381	549	2,970
Michigan	915	18,400	499	2,201	1,217	20,600

Nurseries: Number of operations and sales, by sales category, 2004

Sales category	Operations	Percent	Dollars	Percent
\$1,000 or less	280	22.7	80,000	0.1
\$1,001 to \$10,000	370	30.0	1,620,000	0.6
\$10,001 to \$100,000	360	29.1	15,300,000	5.9
\$100,001 to \$250,000	90	7.3	16,000,000	6.1
\$250,001 to \$1,000,000	91	7.4	46,000,000	17.6
\$1,000,001 or more	44	3.6	182,000,000	69.7
Michigan	¹ 1,235		261,000,000	

¹ Includes 18 operations which produced only propagative materials.

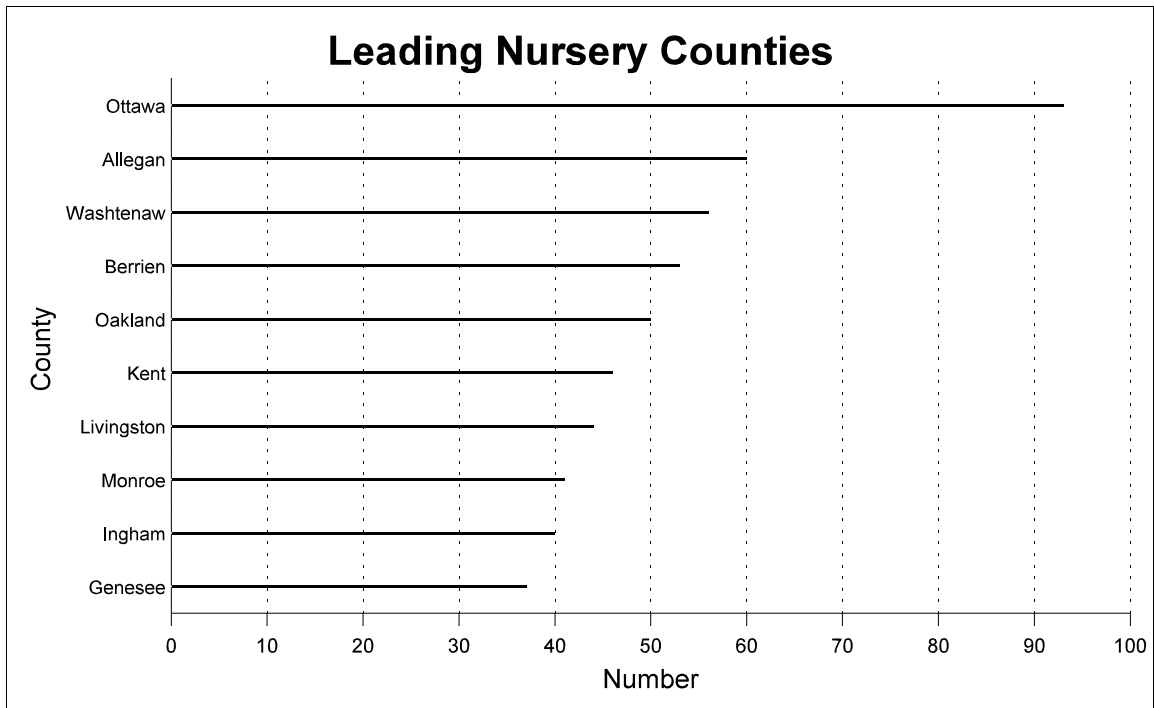


Nurseries: Sales of nursery stock and propagative materials, 2004

Category	Sales <i>1,000 dollars</i>
Woody Plants	
Wholesale	97,000
Retail	27,000
Through own landscaping business	14,000
Herbaceous Plants	
Wholesale	87,000
Retail	19,000
Through own landscaping business	2,000
Propagative Materials	
Wholesale	14,500
Retail	500
Michigan	261,000

Nurseries: Number of paid workers, 2004

Category	Paid workers
Full-time permanent	2,600
Full-time seasonal	1,950
Part-time permanent	500
Part-time seasonal	1,850
Michigan	6,900



Nurseries: Number of operations and acres of woody plants, by size group, 1996-2004

Size group	Operations			Acres		
	1996	1999	2004	1996	1999	2004
1 acre or less	200	185	223	100	90	100
1.1 to 5 acres	335	272	308	1,000	830	940
5.1 to 10 acres	140	129	120	1,050	1,000	920
10.1 to 25 acres	105	119	144	1,650	2,050	2,390
25.1 to 50 acres	60	65	64	2,100	2,230	2,300
50 acres or more	50	57	52	11,100	10,150	10,980
Michigan	890	827	911	17,000	16,350	17,630

Nurseries: Number of operations and acres of woody plants, by Michigan Department of Agriculture Region, 1999-2004

MDA region	Field grown				Container grown				Total			
	Operations		Acres		Operations		Acres		Operations		Acres	
	1999	2004	1999	2004	1999	2004	1999	2004	1999	2004	1999	2004
1	10	19	215	490	8	5	10	5	16	20	225	495
2	62	76	840	1,300	26	39	15	30	78	105	855	1,330
3	128	118	5,600	4,145	56	63	585	1,445	155	157	6,185	5,590
4	121	120	1,685	1,580	42	43	65	65	134	134	1,750	1,645
5	131	118	3,110	3,775	46	61	100	90	151	147	3,210	3,865
6	169	205	2,760	3,015	43	49	50	55	185	229	2,810	3,070
7	89	92	1,590	1,505	46	43	125	130	108	119	1,715	1,635
Michigan	710	748	15,800	15,810	267	303	950	1,820	827	911	16,750	17,630

Nurseries: Number of operations and acres of herbaceous plants, by size group, 1996-2004

Size group	Operations			Acres		
	1996	1999	2004	1996	1999	2004
0.5 acre or less	365	274	314	85	75	65
0.6 to 1 acre	85	88	86	70	75	70
1.1 to 5 acres	93	113	109	215	250	235
5.1 acres or more	27	32	40	1,380	1,550	2,600
Michigan	570	507	549	1,750	1,950	2,970

Nurseries: Number of operations and acres of herbaceous plants, by Michigan Department of Agriculture region, 1999-2004

MDA region	Field grown				Container grown				Total			
	Operations		Acres		Operations		Acres		Operations		Acres	
	1999	2004	1999	2004	1999	2004	1999	2004	1999	2004	1999	2004
1 & 2	27	32	30	30	40	47	10	15	61	75	40	45
3	40	33	360	490	64	87	95	160	91	111	455	650
4	20	34	15	35	45	49	35	20	61	73	50	55
5	71	62	1,125	1,975	60	85	115	100	119	131	1,240	2,075
6	34	34	20	30	57	55	30	30	79	81	50	60
7	32	21	50	30	75	63	65	55	96	78	115	85
Michigan	224	216	1,600	2,590	341	386	350	380	507	549	1,950	2,970

Nurseries: Number of operations and area of propagative materials, 2004

Category	Operations	1,000 sq ft
Woody plants	103	15,340
Herbaceous plants	101	7,420
Michigan	181	22,760

**Nurseries: Number of operations and acres, by county
and Michigan Department of Agriculture region, 1999-2004**

County and MDA region	Operations		Acres	
	1999	2004	1999	2004
Chippewa		3		30
Menominee	3	8	20	120
Other counties ¹	14	15	210	340
Region 1	17	26	230	490
Alcona	4	7	80	195
Alpena		8		95
Antrim	15	18	90	220
Benzie	3	9	10	20
Charlevoix	4	5	20	20
Cheboygan	6	9	25	45
Emmett	6	8	170	80
Grand Traverse	12	14	20	75
Kalkaska	7	5	170	10
Leelanau	9	19	45	100
Manistee	11	12	100	100
Missaukee	5	7	105	345
Wexford	6	7	20	25
Other counties ¹	8	8	35	50
Region 2	96	136	890	1,380
Ionia	9	13	95	100
Kent	41	46	360	345
Lake	3	4	135	10
Mason	12	12	310	315
Mecosta	4		45	
Montcalm	16	18	465	885
Muskegon	8	9	135	70
Newaygo	11	17	130	145
Oceana	9	6	95	85
Osceola	6		70	
Ottawa	81	93	4,800	4,115
Other counties ¹		5		170
Region 3	200	223	6,640	6,240
Arenac	4	5	25	15
Bay	8	15	135	170
Genesee	41	37	330	220
Huron	6	8	25	35
Iosco	3		10	
Isabella	10	11	195	190
Lapeer	31	34	385	365
Midland	6	6	15	25
Ogemaw	3		35	
Saginaw	26	25	270	220
Sanilac	12	11	300	310
Tuscola	6	11	30	85
Other counties ¹	5	12	45	65
Region 4	161	175	1,800	1,700

See footnote(s) at end of table.

--continued

**Nurseries: Number of operations and acres, by county and
Michigan Department of Agriculture region, 1999-2004 (continued)**

County and MDA region	Operations		Acres	
	1999	2004	1999	2004
Allegan	50	60	2,440	3,240
Barry	5	8	30	20
Berrien	59	53	860	810
Branch	3	7	5	370
Calhoun	21	20	170	130
Cass	16	17	75	170
Kalamazoo	28	34	200	230
St. Joseph	11	13	60	500
Van Buren	33	26	610	470
Region 5	226	238	4,450	5,940
Clinton	25	31	245	230
Eaton	22	26	225	220
Gratiot	6	5	25	15
Hillsdale	8	4	15	15
Ingham	25	40	415	880
Jackson	17	27	260	270
Lenawee	14	22	130	160
Livingston	43	44	640	630
Shiawassee	14	15	95	340
Washtenaw	49	56	400	370
Region 6	223	270	2,450	3,130
Macomb	28	27	435	550
Monroe	33	42	625	360
Oakland	54	50	300	390
St. Clair	21	22	325	210
Wayne	26	26	155	210
Region 7	162	167	1,840	1,720
Michigan	1,085	² 1,235	18,300	20,600

¹ Not published separately to avoid disclosure of individual operations.

² Includes 18 operations which produced only propagative materials.

**Nurseries: Sources of nursery management
information by primary product sold, 2004**

Source	Herbaceous plants		Woody plants		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Michigan State University	22	13	25	16	24	15
Other Universities	1	2	1	1	1	1
Community College	0	0	0	0	0	0
Extension Service (AOE)	12	13	20	16	17	15
Other nursery professionals	24	12	21	14	22	14
Commercial tech reps	5	8	1	5	2	6
Private consultant	2	2	4	3	3	3
Michigan Nursery and Landscape Assn	9	8	10	13	10	11
Local nursery industry assn	2	1	2	3	2	2
Other ¹	6	4	4	3	5	3
None chosen	17	37	12	26	14	30

¹ The most frequent other sources were national horticultural associations and Michigan Department of Agriculture inspectors.

**Nurseries: Sources of nursery management
information by sales category, 2004**

Source	Sales \$10,000 or less		Sales above \$10,000		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Michigan State University	23	12	24	18	24	15
Other Universities	1	1	1	2	1	1
Community College	0	0	0	0	0	0
Extension Service (AOE)	17	15	18	14	17	15
Other nursery professionals	20	14	24	14	22	14
Commercial tech reps	1	3	3	10	2	6
Private consultant	4	3	3	2	3	3
Michigan Nursery and Landscape Assn	7	8	13	15	10	11
Local nursery industry assn	2	1	3	3	2	2
Other ¹	5	3	4	4	5	3
None chosen	20	40	7	18	14	30

¹ The most frequent other sources were national horticultural associations and Michigan Department of Agriculture inspectors.

Nurseries: Communications media used to access nursery management information by primary product sold, 2004

Category	Herbaceous plants		Woody plants		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Magazines/Journals	30	16	27	19	28	18
Telephone/Facsimile	12	10	13	13	12	12
Seminars/Trade Shows	7	18	11	11	10	13
Face-to-face	20	16	23	22	22	20
Internet	17	12	13	10	15	11
Other ¹	2	2	1	1	1	1
None chosen	12	26	12	24	12	25

¹ The most frequent other category was books.

Nurseries: Communications media used to access nursery management information by sales category, 2004

Category	Sales \$10,000 or less		Sales above \$10,000		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Magazines/Journals	28	16	28	21	28	18
Telephone/Facsimile	10	11	14	13	12	12
Seminars/Trade Shows	6	10	14	18	10	13
Face-to-face	24	17	22	22	22	20
Internet	15	13	14	9	15	11
Other ¹	2	2	1	1	1	1
None chosen	15	31	7	16	12	25

¹ The most frequent other category was books.

Nurseries: Major future problems for nursery production by primary product sold, 2004

Problem	Herbaceous plants		Woody plants		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Input costs	29	16	20	10	23	12
Water availability	3	5	4	5	4	5
Loss of chemical registrations	3	5	5	7	4	6
Labor availability	11	8	12	10	12	10
Non-native pest infestations	12	10	25	14	21	13
Government regulations	15	14	11	17	12	16
Other ¹	10	5	6	2	7	3
None chosen	17	37	17	35	17	35

¹ The most frequent other problems were competition from imports, other U.S. growers, and large retail chains; and native pests, including deer, insects, and diseases.

Nurseries: Major future problems for nursery production by sales category, 2004

Problem	Sales \$10,000 or less		Sales above \$10,000		Total	
	First choice	Second choice	First choice	Second choice	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Input costs	20	10	28	14	23	12
Water availability	5	4	2	6	4	5
Loss of chemical registrations	2	4	6	10	4	6
Labor availability	9	8	16	12	12	10
Non-native pest infestations	23	12	19	14	21	13
Government regulations	10	14	14	18	12	16
Other ¹	8	3	6	3	7	3
None chosen	23	45	9	23	17	35

¹ The most frequent other problems were competition from imports, other U.S. growers, and large retail chains; and native pests, including deer, insects, and diseases.

**Nurseries: Michigan Nursery and Landscaping Association as
primary legislative contact by primary product sold, 2004**

Response	Herbaceous plants	Woody plants	Total
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Yes	35	42	40
No	55	49	50
None chosen	10	9	10

**Nurseries: Michigan Nursery and Landscaping Association
as primary legislative contact by sales category, 2004**

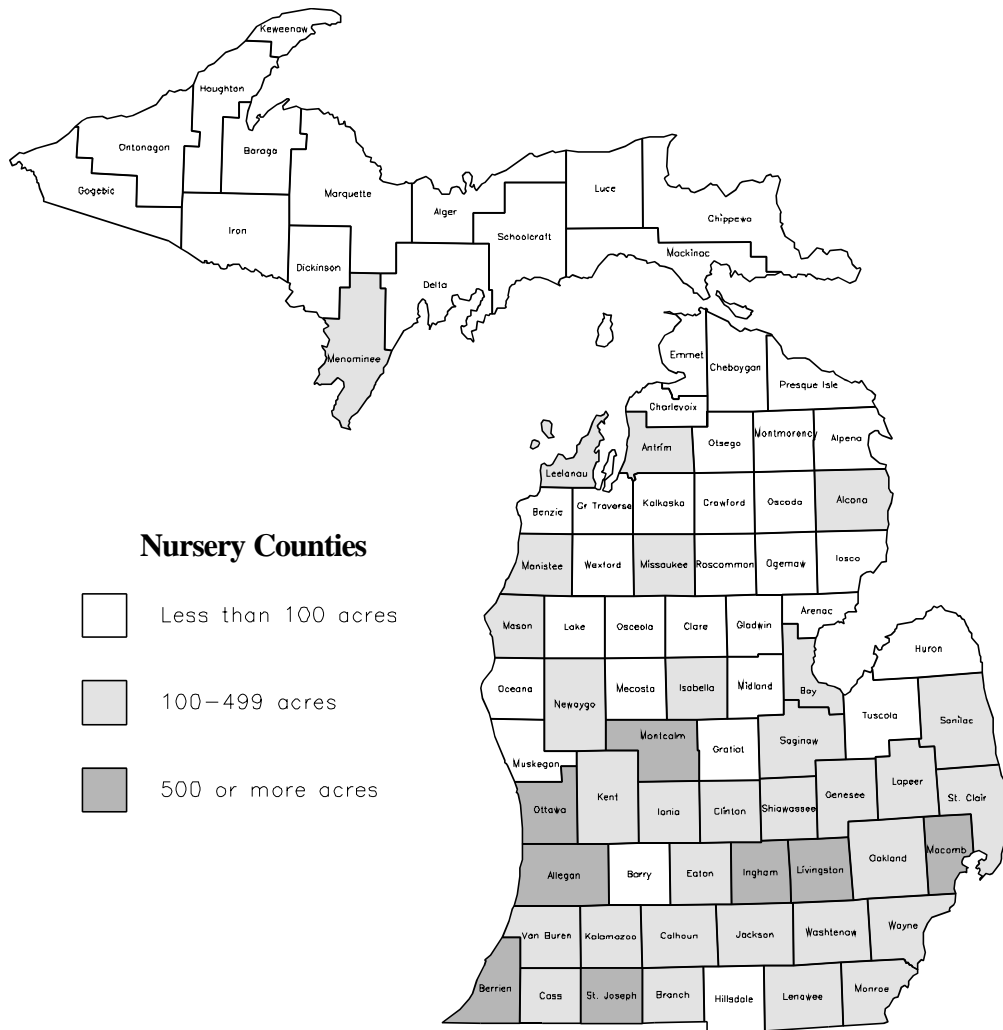
Response	Sales \$10,000 or less	Sales above \$10,000	Total
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Yes	30	53	40
No	59	41	50
None chosen	11	6	10

**Nurseries: Legislator contacts in past year
by primary product sold, 2004**

Contacts	Herbaceous plants	Woody plants	Total
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
None	75	80	78
1 or 2	12	10	11
3 or more	4	4	4
None chosen	9	6	7

**Nurseries: Legislator contacts in past
year by sales category, 2004**

Contacts	Sales \$10,000 or less	Sales above \$10,000	Total
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
None	84	72	78
1 or 2	6	17	11
3 or more	2	7	4
None chosen	8	4	7



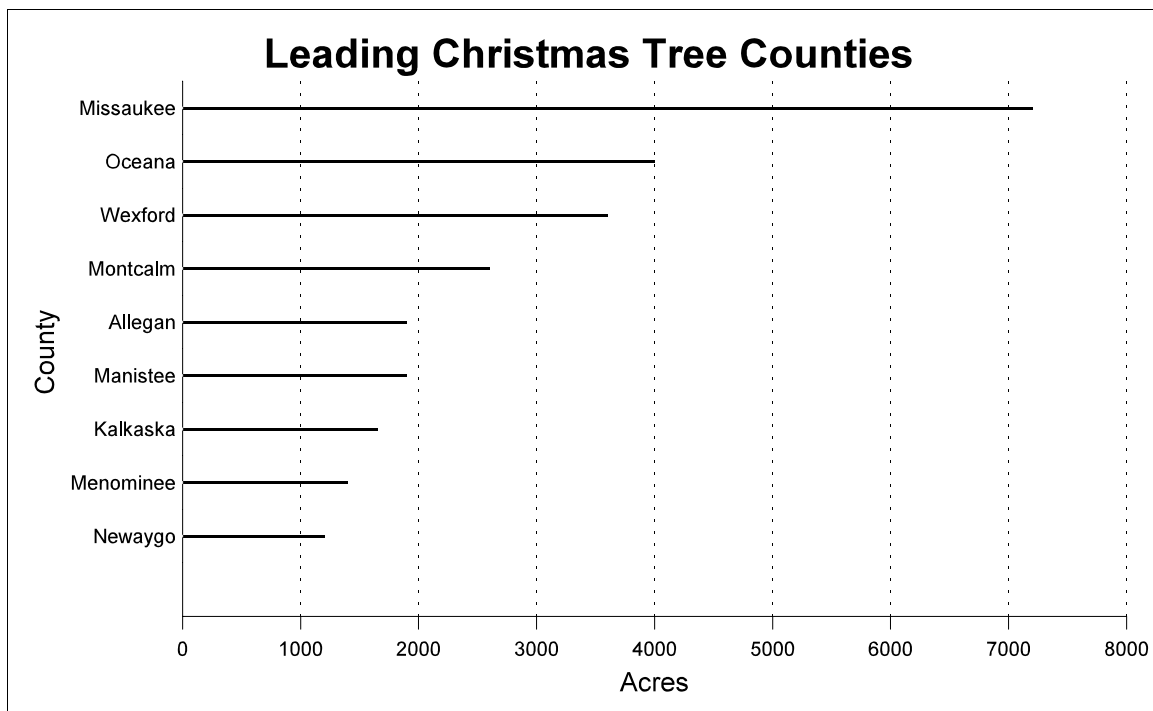
Christmas Trees

There were 42,000 acres in commercial Christmas tree production in Michigan on January 1, 2005. That was down from 54,000 acres on January 1, 2000. There were 780 commercial growers--operations with at least five acres of Christmas trees. Eleven operations had 500 acres or more, down from 16 five years ago. The top six counties, Missaukee, Oceana, Wexford, Montcalm, Allegan, and Manistee, accounted for 51 percent of the Christmas tree acreage. Thirty-five counties had at least ten Christmas tree farms.

Sales of Christmas trees in 2004 had a value of \$41.5 million at the producer level. That was up slightly from \$41.0

million in 1999. The number of trees sold by growers fell to 2.87 million from 3.18 million in 1999. There were an additional \$1.3 million of sales of wreathes, cut boughs, garlands, and other cut greens.

There were 9,000 acres of Scotch Pine at the outset of 2005. Its percentage of total acres, however, fell to 21 percent from 35 percent five years earlier. The three other leading species were Douglas Fir with 7,600 acres, down from 10,350 acres; Fraser Fir with 7,600 acres, up from 4,700 acres; and Colorado Blue Spruce with 6,900 acres, down from 9,750 acres.



**Christmas trees: Acres by Michigan Department of Agriculture region
and species, January 1, 2005**

Species	MDA region							Michigan
	1	2	3	4	5	6	7	
Fir								
Balsam	1,150	520	250	150	150	60	20	2,300
Canaan	15	55	85	30	220	45	50	500
Concolor	20	380	380	75	120	95	30	1,100
Douglas	290	2,980	3,200	235	560	230	105	7,600
Fraser	240	3,040	2,370	205	1,240	350	155	7,600
Pine								
Austrian	5	35	40	25	45	25	25	200
Red	30	480	30	80	5	20	5	650
Scotch	180	4,500	2,730	560	560	290	180	9,000
White	70	590	380	130	100	115	65	1,450
Spruce								
Black Hills	30	1,670	130	40	15	50	15	1,950
Colorado Blue	240	3,230	1,490	590	580	480	290	6,900
Norway	25	400	45	55	40	95	40	700
White	660	470	105	220	40	140	65	1,700
Other	45	150	65	55	25	5	5	350
Michigan	3,000	18,500	11,300	2,450	3,700	2,000	1,050	42,000

Christmas trees: Acres by species, January 1, 1994-2005

Species	1994		1997		2000		2005	
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Fir								
Balsam	1,770	2.4	2,100	3.0	2,250	4.2	2,300	5.5
Canaan ¹			100	0.1	250	0.5	500	1.2
Concolor	590	0.8	750	1.1	900	1.7	1,100	2.6
Douglas	11,400	15.2	13,600	19.7	10,350	19.2	7,600	18.1
Fraser	2,080	2.8	4,000	5.8	4,700	8.7	7,600	18.1
Pine								
Austrian	380	0.5	350	0.5	300	0.6	200	0.5
Red	390	0.5	250	0.4	450	0.8	650	1.5
Scotch	38,900	51.9	29,500	42.8	19,000	35.2	9,000	21.4
White	1,520	2.0	1,300	1.9	1,500	2.8	1,450	3.5
Spruce								
Black Hills ¹			700	1.0	700	1.3	1,950	4.6
Colorado Blue	12,900	17.2	12,300	17.8	9,750	18.1	6,900	16.4
Norway	580	0.8	400	0.6	450	0.8	700	1.7
White	3,700	4.9	3,200	4.6	3,200	5.9	1,700	4.0
Other	790	1.1	450	0.7	200	0.4	350	0.8
Michigan	75,000	100.0	69,000	100.0	54,000	100.0	42,000	100.0

¹ Included in other species in 1994.

Christmas trees: Number of operations and acres, by size group

Operation size group	Operations			Acres		
	1997	2000	2005	1997	2000	2005
5 to 9.9 acres	155	135	145	1,000	900	950
10 to 24.9 acres	340	325	315	5,200	5,000	4,750
25 to 49.9 acres	210	165	160	7,100	5,600	5,400
50 to 99.9 acres	115	98	90	7,700	6,800	6,000
100 to 499.9 acres	130	91	59	24,000	16,200	11,400
500 acres or more	20	16	11	24,000	19,500	13,500
Michigan	970	830	780	69,000	54,000	42,000

Christmas trees: Sales by species, 2004

Species	Trees	Price per tree	Value of sales
	<i>Number</i>	<i>Dollars</i>	<i>Dollars</i>
Balsam Fir			
Wholesale	100,000	14.0	1,400,000
Retail	20,000	36.0	720,000
Total	120,000	17.7	2,120,000
Concolor Fir			
Wholesale	26,000	19.0	495,000
Retail	8,000	37.0	296,000
Total	34,000	23.3	791,000
Douglas Fir			
Wholesale	330,000	15.0	4,950,000
Retail	20,000	38.0	760,000
Total	350,000	16.3	5,710,000
Fraser Fir			
Wholesale	410,000	22.0	9,020,000
Retail	35,000	44.0	1,540,000
Total	445,000	23.7	10,560,000
Scotch Pine			
Wholesale	1,170,000	10.0	11,700,000
Retail	30,000	23.0	690,000
Total	1,200,000	10.3	12,390,000
White Pine			
Wholesale	85,000	11.0	935,000
Retail	7,000	25.0	175,000
Total	92,000	12.1	1,110,000
Black Hills Spruce			
Wholesale	94,000	15.0	1,410,000
Retail	6,000	34.0	204,000
Total	100,000	16.1	1,614,000
Colorado Blue Spruce			
Wholesale	350,000	11.0	3,850,000
Retail	40,000	30.0	1,200,000
Total	390,000	12.9	5,050,000
White Spruce			
Wholesale	100,000	11.0	1,100,000
Retail	15,000	29.0	435,000
Total	115,000	13.3	1,535,000
Other			
Wholesale	15,000	17.0	255,000
Retail	9,000	35.0	315,000
Total	24,000	23.8	570,000
Michigan			
Wholesale	2,680,000	13.1	35,115,000
Retail ¹	190,000	33.3	6,335,000
Total	2,870,000	14.4	41,450,000

¹ Includes 100,000 trees sold retail-cut and 90,000 trees sold choose and cut.

Christmas trees: Sales by destination, 2004

Destination	Trees sold
Michigan	580,000
Other states	2,270,000
Out of United States	20,000
Total	28,700,000

**Christmas trees: Number of operations and acres,
by county and Michigan Department of Agriculture region**

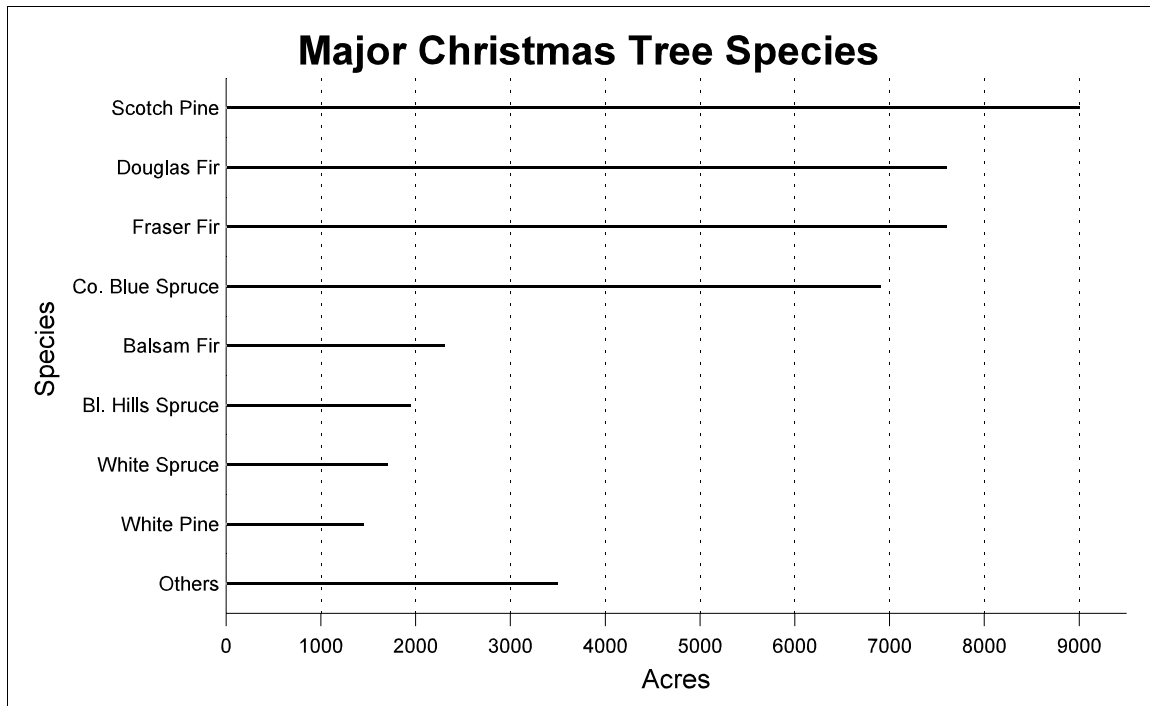
County and MDA region	Operations			Acres		
	1997	2000	2005	1997	2000	2005
Chippewa	6	4	8	270	170	150
Delta	17	15	14	800	820	670
Dickinson	14	9	6	500	240	120
Luce	5	3		160	110	
Marquette	3	4	4	130	100	60
Menominee	31	36	35	1,600	1,800	1,400
Other counties ¹	9	9	13	740	760	600
Region 1	85	80	80	4,200	4,000	3,000
Alcona	8	5	7	360	280	350
Alpena	8	8	8	350	200	150
Antrim	16	17	16	2,000	1,200	1,050
Benzie	12	12	6	630	600	250
Cheboygan	21	18	15	1,100	1,000	750
Emmett	9	6	5	180	130	120
Grand Traverse	18	16	13	1,550	1,100	550
Kalkaska	35	27	15	5,100	3,300	1,650
Leelanau	17	13	13	520	370	380
Manistee	24	27	25	2,700	2,600	1,900
Missaukee	53	40	48	7,500	6,500	7,200
Otsego	9	5	4	220	60	90
Presque Isle	5	7	4	210	210	170
Wexford	47	41	36	8,500	7,300	3,800
Other counties ¹	3	3	5	80	50	90
Region 2	285	245	220	31,000	24,900	18,500
Kent	11	8	9	800	570	370
Lake	7	6	6	700	530	250
Mason	13	15	14	800	850	650
Mecosta	20	6	10	1,400	650	350
Montcalm	24	25	22	4,500	3,400	2,600
Muskegon	13	12	11	450	350	220
Newaygo	24	14	14	2,300	1,400	1,200
Oceana	74	55	40	6,000	4,500	4,000
Ottawa	25	16	12	1,100	450	310
Other counties ¹	29	28	22	3,450	2,700	1,350
Region 3	240	185	160	21,500	15,400	11,300
Arenac	4	7	5	230	160	110
Clare	7	3	4	300	120	80
Genesee	11	12	11	180	200	170
Gladwin	4	4	5	130	130	140
Iosco	8	7		200	110	
Isabella	23	14	12	750	400	430
Lapeer	12	11	10	250	200	250
Midland	4	5	9	160	150	190
Saginaw	15	14	12	380	350	340
Sanilac	8	6	6	360	360	350
Tuscola	12	9	6	600	260	190
Other counties ¹	12	8	15	260	260	200
Region 4	120	100	95	3,800	2,700	2,450

See footnote(s) at end of table.

**Christmas trees: Number of operations and acres, by county
and Michigan Department of Agriculture region (continued)**

County and MDA region	Operations			Acres		
	1997	2000	2005	1997	2000	2005
Allegan	21	29	21	2,900	2,500	1,900
Berrien	19	14	14	300	170	180
Calhoun	10	13	12	290	220	200
Cass	6	4	7	160	100	260
Kalamazoo	10	9	7	280	210	130
Van Buren	16	17	12	700	750	800
Other counties ¹	13	4	12	270	100	230
Region 5	95	90	85	4,900	4,050	3,700
Clinton	12	8	13	280	160	240
Eaton	14	15	14	240	270	260
Hillsdale	8	6	5	270	250	190
Ingham	13	13	14	280	310	340
Jackson	18	19	16	500	370	360
Livingston	15	13	11	310	290	210
Shiawassee	5	3	4	130	50	100
Washtenaw	10	10	11	350	250	250
Other counties ¹	5	5	3	90	50	50
Region 6	100	92	91	2,450	2,000	2,000
Monroe	6	5	11	140	130	210
Oakland	16	15	16	310	270	320
St. Clair	9	9	14	380	410	390
Other counties ¹	14	9	8	320	140	130
Region 7	45	38	49	1,150	950	1,050
Michigan	970	830	780	69,000	54,000	42,000

¹ Not published separately to avoid disclosure of individual operators.



Christmas trees: Operations by type of sales, 2004

Type of Sales	Operations	Percent
Wholesale only	165	21.2
Wholesale and retail-cut	55	7.1
Wholesale and choose & cut	35	4.5
Wholesale, retail-cut, and choose & cut	30	3.8
Retail-cut only	65	8.3
Retail-cut and choose & cut	35	4.5
Choose & cut only	195	25.0
No sales	200	25.6
Total	780	100

Christmas trees: Plans for operation in the next 10 years

Plan	Percent
Continue current operation	72
Turn over operation to a relative	5
Discontinue sales but keep ownership of acreage	18
Sell the acreage to another grower	1
Sell the acreage for non-agricultural use	2
Other	2

Christmas trees: Growers reporting that insect control issues affect their business significantly, by type of operation

Insect control issues	Type of operation ¹			
	Wholesale	Retail-cut	Choose & cut	All ²
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Do not affect business	25	39	54	47
Do affect business	75	61	46	53
Significant insect control issues for growers responding "Do affect business" (total may exceed 100 percent)				
Gypsy moth certification	64	41	20	46
Availability of effective insecticides on market	64	44	66	58
Uniformity of MDA field inspections	21	10	18	16
Federal quarantines in other states	35	15	3	20
Other	12	15	24	18

¹ Defined by channel through which majority of trees were sold.

² Includes operations not categorized because they had no sales.

Christmas trees: Sources of management information

Sources	First choice	Second choice
	<i>Percent</i>	<i>Percent</i>
Michigan State University	21	18
Other Universities	0	1
Community College	0	0
Extension Service (AOE)	21	14
Other Christmas Tree Professionals	19	16
Commercial Technical Reps	1	2
Private Consultant	2	2
Michigan Christmas Tree Association	18	11
Other Professional Association	1	2
Other	4	2
None chosen	13	32

Christmas trees: Agri-tourism attractions at the 9 percent of operations with such activities

Attraction	Percent
Roadside stand	13
Petting zoo/Reindeer	19
Food and beverages	0
U-pick pumpkins	10
Corn maze	2
Wagon, sleigh, or train rides	60
Gift shop	40
Other	13

Survey Methods and Questionnaires

The Nursery Grower survey was sent to the USDA, NASS, Michigan Field Office list of nurseries and herbaceous ornamental growers. This list was supplemented by the Michigan Department of Agriculture (MDA) 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 2004 and have planned to sell them either retail or wholesale. There were 1,235 such places. The principal Christmas tree list was the NASS List Sampling Frame. Additional names were provided by the Michigan Christmas Tree Association. To qualify, an operation had to have grown at least 5 acres of trees for sale as Christmas trees. There were 780 operations that met the criteria for Christmas

tree farms.

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

Questionnaires were mailed in late December, 2004, with cover letters from the Michigan Nursery and Landscape Association and the Michigan Christmas Tree Association. Two weeks later, those who had not responded were sent a second questionnaire. Telephoning of non-respondents began the last week of January 2005. This was followed by personal enumeration of operators who could not be reached by phone.

The following table is a summary of responses:

Nurseries and Christmas Trees: Response Summary, 2004

Response Category	Nurseries	Christmas Trees
Mail	490	310
Telephone	465	290
Personal Interview	65	25
Refusal	130	105
Inaccessible	85	50
Total	1,235	780

For plant material grown in containers, both the number of containers and the acres used for growing were asked. When respondents provided only the number of containers, the acres were estimated based on the average containers per acre from respondents who gave both.

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

(Ac. on Usable Reports+Estimated Ac.)/(Ac. on Usable Reports). These expansion factors were applied to data to account for missing reports.

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

Michigan Nursery Inventory 2004



Project Code 483

January 2005

At the request of the nursery industry, the Michigan Department of Agriculture is conducting the fourth periodic nursery inventory. Please complete and return this questionnaire promptly. Your confidential report is needed to evaluate changes during the last five years and is used only for statistical purposes. Response to this survey is voluntary and not required by law. However, your report will help the nursery industry better represent your interests with current factual information.

Thank you,
David D. Kleweno, Director

Include: Trees, shrubs, ground covers, etc. at all stages of growth, except propagation materials. Plants that are field-grown and sold bare-rooted, balled and potted, or balled and burlapped. Plants grown and sold in containers.
Exclude: Liners (lining out stock), young plants such as plug seedlings and tissue cultured plantlets, propagation materials such as cuttings. (Report in item 2.) Also exclude plants purchased for resale without a change in size or status, i.e. bare-root to pot-established.

Plants grown or produced in 2004	Maximum growing area (Report to nearest tenth of an acre.)		
	Field grown (acres)	Container grown (acres)	Containers (number)
Woody plants:	301	302	303
1. A. Deciduous shade and flowering trees-maple, oak, birch, crabapple, dogwood, magnolia, etc.	c	c	
B. Deciduous shrubs	c	c	306
C. Narrow-leaved evergreens-fir, pine, spruce, other conifers. (Include Christmas trees only if grown as nursery stock)	c	c	309
D. Broad-leaved evergreens-rhododendron, etc.	c	c	312
E. Roses	c	c	315
F. Fruit trees (Nursery stock only)	c	c	318
G. Small fruits-grapes, berries, etc. (Nursery stock only)	c	c	321
Non-woody plants:	322	323	324
H. Daylilies	c	c	
I. Hosta	c	c	327
J. Ornamental grasses	c	c	330
K. Other herbaceous perennials	c	c	333
L. Vines and ground covers	c	c	336
M. Bulbs, corms and rhizomes-tulip, crocus, lily, etc.	c	c	339
N. Water garden (aquatic) plants	c	c	342
O. Total	c	c	345

2. In 2004 how much production area was used for propagative (unfinished) materials by category?

(Include: Cuttings, liners, plug seedlings, prefinished plants, tissue cultured plantlets, and plants sold to other growers for FURTHER GROWING ON; **Exclude:** FINISHED plants sold to others, seed, bulbs, tubers, rhizomes, or corms, materials for annuals)

	Square feet
Woody plants (A-G)	346
Non-woody plants (H-N)	347

3. How many paid workers in each category were employed in 2004?
 (Exclude workers in any retail operation.)

Full-time (32 hours or more per week)

Part-time (31 hours or less per week)

Permanent (150 days or more per year)	Seasonal (149 days or fewer per year)
348	349
350	351

4. Please report your total 2004 GROSS wholesale and retail sales volume in dollars.

Sales	Woody plants (Items A. - G. in question 1)	Non-woody plants (Items H. - N. in question 1)	Propagation material from question 2
	Dollars	Dollars	Dollars
Wholesale to retailers, wholesalers, and landscapers	352	353	354
Retail to consumers	355	356	357
Through own landscaping business	358	359	

5. What percent of your wholesale sales in item 4., (wholesale to retailers, and wholesale to wholesalers) were in:

Michigan

Other states

Other countries

Total =

Percent
361
362
363
100%

6. 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
364	365	366
367	368	369

7. Rank your two most important sources for nursery management information from the following: (Enter a "1" for your first choice and a "2" for your second.)

370	Michigan State University	371	Extension Service (AOE)	372	Private Consultant
373	Other Universities	374	Other Nursery Professionals	375	Local Nursery Industry Assn.
376	Community College	377	Commercial Technical Reps	378	Michigan Nursery Landscape Assn. (MNLA)
				379	Other _____ (specify)

8. Which two communications media do you use most often to access that information? (Enter a "1" for your first choice and a "2" for your second.)

380	Magazines/Journals	381	Telephone/Facsimile	382	Seminars/Trade Shows
383	Face-to-face Contact	384	Internet	385	Other _____ (specify)

9. Which two of the following do you consider to be major future problems for nursery production at this operation? (Enter a "1" for your first choice and a "2" for your second.)

386	Input Costs	387	Water Availability	388	Loss of Chemical Registrations
389	Labor Availability	390	Non-native Pest Infestations	391	Other _____ (specify)
392	Government Regulations				

10. Do you depend on MNLA to serve as your primary contact with legislators regarding industry issues? (Enter a "1" in the appropriate box.)

Yes	393
No	394

11. Within the last year, how many times have you contacted any legislator concerning industry issues and concerns? (Enter a "1" in the appropriate box.)

None ... 395 Once or twice ... 396 Three or more times ... 397

Reported by: _____ Phone: _____ Date: _____

Respondent	Response Code	Enum.	Eval.
1-Op/Ptnt 2-Sp 3-Acct/Bkpr 4-Oth 5-Est R 6-Est NR	2-Tel 3-Int 7-TR 8-IR 9-Inac	098	100



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Michigan Christmas Tree Inventory 2004-2005



Project Code 483

January 2005

At the request of the Christmas tree industry, the Michigan Department of Agriculture is conducting the fourth periodic inventory. Please complete and return this questionnaire promptly. Your confidential report is needed to evaluate changes during the last five years and is used only for statistical purposes. Response to this survey is voluntary and not required by law. However, your report will help the Christmas tree industry better represent your interests with current factual information.

Thank you,
David D. Kleweno, Director

Please make address corrections, if needed.

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

Firm Name: _____

Partner's Name(s): _____

Address: _____

City: _____ St: _____ Zip: _____

If not growing Christmas trees, check (/) reason below and give new operator's name:

1. Operation sold.
2. Operation rented.
3. Never had Christmas trees.

New Operator's Name: _____

Address: _____

City: _____ St: _____ Zip: _____

Telephone: _____

1. A. Total Christmas tree acres on January 1, 2005
(If less than 5 acres, complete this item only and return questionnaire.)

001	Acres
-----	-------

2. A. Tree sales in 2004

Species	Wholesale		Retail-cut		Choose and cut	
	Trees sold	Average price per tree	Trees sold	Average price per tree	Trees sold	Average price per tree
	<i>Number</i>	<i>Dollars</i>	<i>Number</i>	<i>Dollars</i>	<i>Number</i>	<i>Dollars</i>
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
Black Hills Spruce	006	020	034	048	062	076
Colorado Blue Spruce	007	021	035	049	063	077
White Spruce	110	111	112	113	114	115
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

Dollars
088

2. B. Sales of wreaths, cut boughs, and roping (garlands) in 2004

2. C. Sales in 2004

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

3. A. Did you have any agri-tainment (agri-tourism) enterprises in addition to your Christmas tree operation in 2004?

Yes	116
No (Go to item 4)	117

3. B. Which of the following agri-tainment (agri-tourism) enterprises did you have? (Enter a "1" in each box that applies.)

118	Roadside Stand	120	U-pick Pumpkins	122	Gift Shop
119	Petting zoo/Reindeer	121	Corn Maze	123	Other _____ (specify)
124	Food/Beverages	125	Wagon/Sleigh/Train Rides		

4. Within the next 10 years I plan to: (Check the **one** response that best describes your intentions.)

- Q Continue my current Christmas tree operation. (Skip to item 5.) ORY Q Turn over this Christmas tree operation to a relative.
- Q Discontinue Christmas tree sales, but keep ownership of the acreage.
- Q Sell the Christmas tree acreage to another Christmas tree operator.
- Q Sell the Christmas tree acreage for non-agricultural use.
- Q Other _____ (specify)

Office use only 091

5. Which of the following insect control issues do you consider to be significant to your Christmas tree business? (Check as many as apply.)

- G Insect control issues do not affect my business. ORY G Gypsy moth certification.
- G Availability of effective insecticides in the market.
- G Uniformity of MDA field inspections.
- G Federal quarantines in other states.
- G Other _____ (specify)

Office use only 092

6. Rank your two most important sources for Christmas tree management information from the following: (Enter a "1" for your first choice and a "2" for your second.)

370	Michigan State University	371	Extension Service (AOE)	372	Private Consultant
373	Other Universities	374	Other Christmas Tree Professionals	375	Michigan Christmas Tree Association (MCTA)
376	Community College	377	Commercial Technical Reps	378	Other Professional Association
				379	Other _____ (specify)

Reported by: _____ Phone: _____ Date: _____

Respondent		Response Code		Enum.	Eval.
1-Op/Ptnr	101	2-Tel	910	098	100
2-Sp		3-Int			
3-Acct/Bkpr		7-TR			
4-Oth		8-IR			
5-Est R		9-Inac			
6-Est NR					

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