

Michigan Rotational Survey

Fruit Inventory 1997-98



Michigan Department Of Agriculture
Michigan Agricultural Statistics Service



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Michigan Agricultural Statistics Service

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Issued cooperatively by:



United States Department of Agriculture
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November 1998

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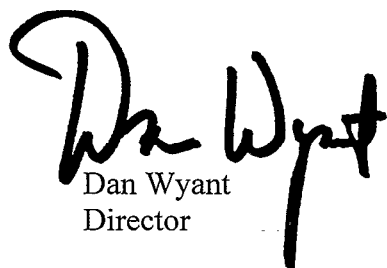
We are pleased to present the results of the 1997 Michigan Fruit Inventory. This bulletin represents a cooperative effort between the private and public sectors to provide data on which Michigan's agricultural industries depend for planning.

This is the seventh report to be published under the Michigan Rotational Survey program. A fruit inventory was conducted in 1991, followed by a vegetable survey in 1992, and a nursery and Christmas tree survey in 1993. The three-year cycle has been repeated since then in a program funded by the legislature, administered by the Michigan Department of Agriculture, and conducted by the Federal/State Michigan Agricultural Statistics Service.

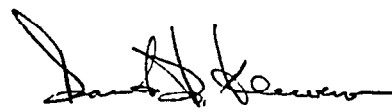
We appreciate the cooperation and assistance of all growers who voluntarily provided the data that made this report possible. We also extend thanks to fruit processors and other industry officials, to the Michigan State University Extension Service, and to the data collectors of the National Association of State Departments of Agriculture.

We look forward to our continued successful relationship which brings us together for the benefit of Michigan agriculture. If you have any questions regarding this publication, or suggested improvements, please contact Michigan Agricultural Statistics Service at (800) 453-7501.

Sincerely,



Dan Wyant
Director



David D. Kleweno
State Statistician

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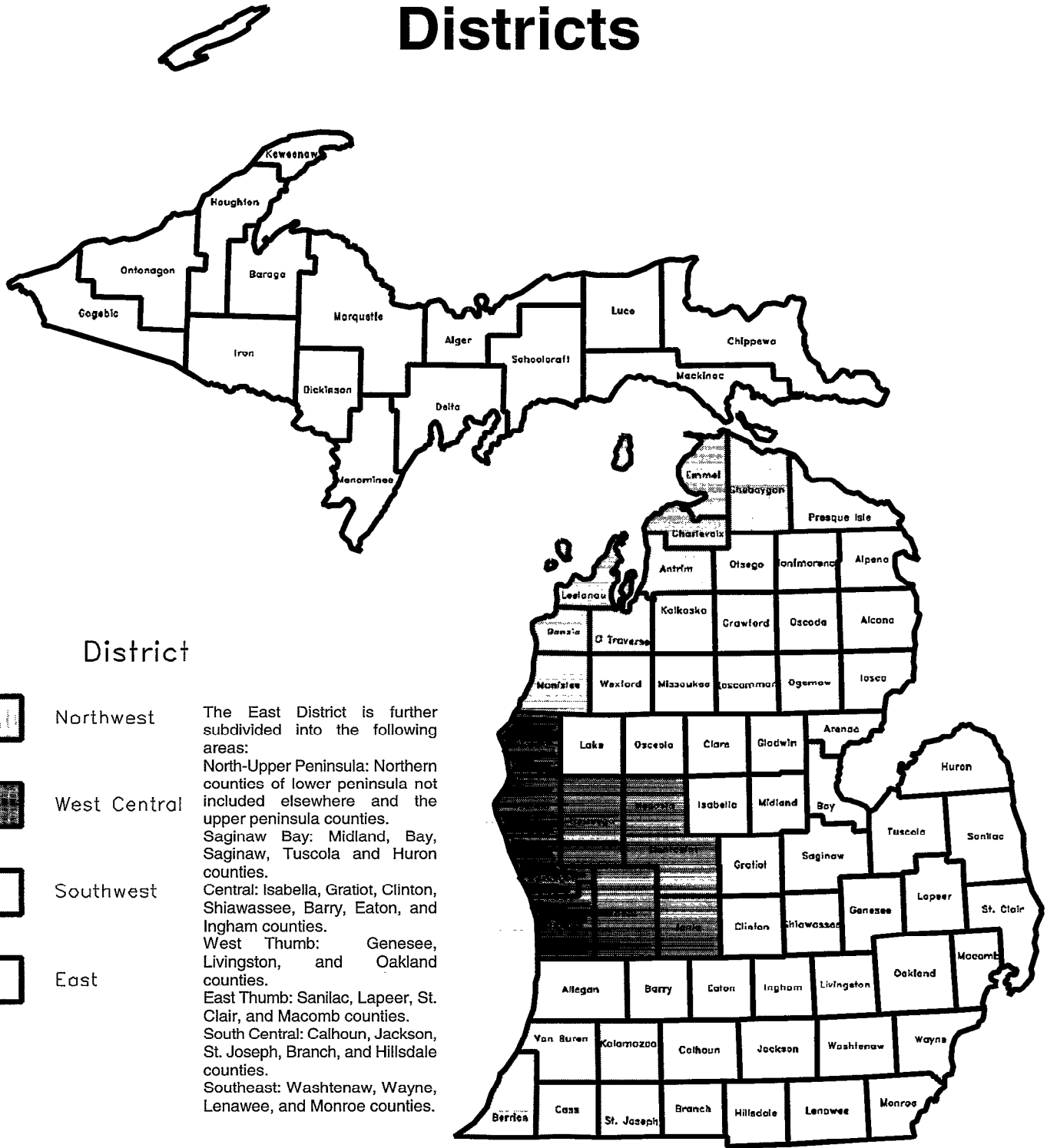
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Michigan Fruit Districts



All Fruit

There were 138,760 acres of fruit on commercial operations at the end of 1997. That compares with 143,250 acres at the end of 1994. The 1994 figure does not include strawberries, which were added to the fruit rotational survey in 1997. If the 1,400 acres of strawberries were excluded from the 1997 total, the decline in acres from 1994 to 1997 would be 5,890 acres (4.1 percent). The drop from 1991 was 9,640 acres (6.6 percent).

The number of fruit farms fell to 2,305, 231 less (9.1 percent) than in 1994 and 375 fewer (14.0 percent) than at the end of 1991. A commercial fruit farm was defined

as having at least one acre of any single fruit species (or 0.1 acre of brambles or strawberries).

The geographic concentration of fruit varied substantially. The top five apple counties accounted for 60 percent of the total apple acres. The comparable figures for tart cherries and blueberries were 75 percent and 95 percent, respectively. The leading counties with fruit acres were: Van Buren, Berrien, Leelanau, Oceana, and Kent. They had 59 percent of the acres of fruit in Michigan.

Table 1.—All fruit: Number of farms and acres by county and district

County and district	Total farms	Apples	Cherries, tart	Cherries, sweet	Blueberries	Grapes	Peaches
Antrim	40	620	2,160	890	4	3	42
Benzie	38	1,200	1,250	340	5	21	9
Grand Traverse	127	1,100	4,450	1,850	5	210	23
Leelanau	182	2,300	7,850	4,000	0	200	45
Manistee	44	1,800	1,100	340	6	2	125
Charlevoix, Emmet	14	80	190	30	0	4	6
Northwest	445	7,100	17,000	7,450	20	440	250
Ionia	28	1,650	0	0	0	1	10
Kent	132	12,000	390	48	22	8	100
Mason	35	1,700	1,860	490	33	5	250
Montcalm, Mecosta	20	1,050	5	9	25	3	25
Muskegon	46	2,500	320	3	1,050	1	90
Newaygo	23	2,100	270	7	80	1	75
Oceana	114	3,600	8,050	530	110	20	1,350
Ottawa	157	4,200	205	43	4,910	1	100
West Central	555	28,800	11,100	1,130	6,230	40	2,000
Allegan	124	1,300	380	35	2,600	80	490
Berrien	431	7,100	2,550	135	940	5,800	2,400
Cass	27	1,050	350	5	15	640	45
Kalamazoo	26	450	170	5	45	380	15
Van Buren	367	7,100	1,880	70	6,700	4,500	550
Southwest	975	17,000	5,330	250	10,300	11,400	3,500
North	39	110	3	6	25	2	3
Saginaw Bay	40	130	22	8	125	4	17
Central	55	790	3	7	48	9	15
West Thumb	40	580	3	2	92	11	24
East Thumb	53	1,000	25	41	110	18	113
South Central	40	550	7	2	25	60	13
Southeast	63	940	7	4	25	16	65
East	330	4,100	70	70	450	120	250
State total	2,305	57,000	33,500	8,900	17,000	12,000	6,000

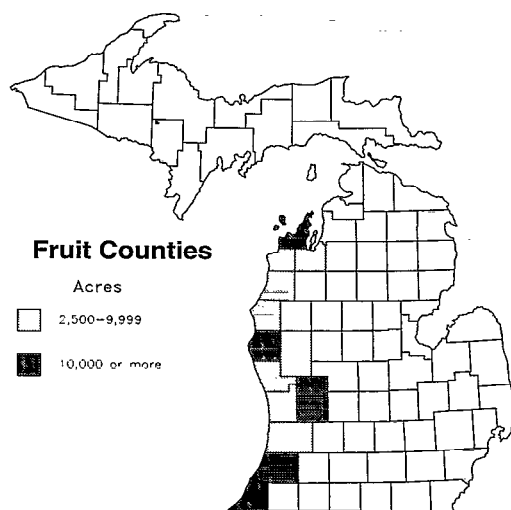


Table 1.—All fruit: Number of farms and acres by county and district (continued)

County and district	Plums	Pears	Brambles	Apricots	Nectarines	Strawberries	State total	
							1994*	1997
Antrim	2	30	9	2	1	10	3,790	3,773
Benzie	25	16	5	1	0	1	2,925	2,873
Grand Traverse	65	48	8	1	1	8	7,841	7,769
Leelanau	230	28	7	8	1	30	14,141	14,699
Manistee	10	15	12	2	0	65	3,720	3,477
Charlevoix, Emmet	8	3	19	1	0	18	467	359
Northwest	340	140	60	15	3	132	32,884	32,950
Ionia	1	0	8	0	1	6	1,932	1,677
Kent	20	14	31	1	3	60	12,860	12,697
Mason	130	83	0	0	1	7	4,443	4,559
Montcalm, Mecosta	1	2	5	0	1	17	1,088	1,143
Muskegon	1	9	0	0	3	9	3,940	3,986
Newaygo	8	31	0	1	6	4	2,748	2,583
Oceana	190	250	4	13	1	35	14,655	14,153
Ottawa	24	1	2	0	4	30	10,087	9,520
West Central	375	390	50	15	20	168	51,753	50,318
Allegan	70	135	30	3	4	65	5,644	5,192
Berrien	190	95	150	20	95	160	21,602	19,635
Cass	16	1	9	0	0	63	2,197	2,194
Kalamazoo	4	4	1	0	0	2	1,168	1,076
Van Buren	220	95	50	4	6	90	21,242	21,265
Southwest	500	330	240	27	105	380	51,853	49,362
North	2	4	25	0	0	125	173	305
Saginaw Bay	2	11	10	1	0	75	338	405
Central	3	0	39	0	0	160	979	1,074
West Thumb	4	9	60	0	0	65	1,283	850
East Thumb	13	46	46	1	1	130	2,097	1,544
South Central	2	11	11	0	0	60	830	741
Southeast	9	9	29	1	1	105	1,060	1,211
East	35	90	220	3	2	720	6,760	6,130
State total	1,250	950	570	60	130	1,400	143,250	138,760

* Excludes strawberries.

Apples

Table 1.—Apples: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Antrim ¹	40	31	30	27	790	740	660	700
Benzie	38	27	28	26	1,230	1,160	1,190	1,200
Grand Traverse	70	65	61	63	1,260	1,150	1,100	1,100
Leelanau	63	65	70	68	2,000	2,120	2,150	2,300
Manistee	44	37	36	31	1,820	2,050	2,000	1,800
Northwest	255	225	225	215	7,100	7,220	7,100	7,100
Ionia	38	36	31	26	2,220	1,990	1,900	1,650
Kent	172	145	138	120	12,880	11,800	11,800	12,000
Mason	37	31	31	31	1,620	1,490	1,500	1,700
Montcalm, Mecosta	19	13	11	11	980	960	1,000	1,050
Muskegon	25	18	16	14	2,160	2,250	2,150	2,500
Newaygo	24	23	20	19	1,900	1,910	2,000	2,100
Oceana	105	87	90	83	3,510	3,260	3,500	3,600
Ottawa	61	52	54	45	4,130	3,820	4,150	4,200
West Central	481	405	391	349	29,400	27,400	28,000	28,800
Allegan	71	54	53	44	2,070	1,710	1,600	1,300
Berrien	289	242	233	188	8,290	8,000	7,750	7,100
Cass	28	21	18	18	1,370	1,040	1,000	1,050
Kalamazoo	19	15	13	10	650	640	550	450
Van Buren	130	103	104	90	6,420	6,370	6,700	7,100
Southwest	537	435	421	350	18,800	17,800	17,600	17,000
North	NA	16	15	13	NA	130	120	110
Saginaw Bay	NA	20	18	17	NA	190	150	130
Central	NA	40	38	31	NA	890	850	790
West Thumb	NA	33	31	24	NA	960	950	580
East Thumb	NA	53	49	37	NA	1,760	1,600	1,000
South Central	NA	24	26	20	NA	700	730	550
Southeast	NA	49	46	44	NA	950	900	940
East	243	235	223	186	6,400	5,580	5,300	4,100
State total	1,516	1,300	1,260	1,100	61,700	58,000	58,000	57,000

¹ Includes Charlevoix, Cheboygan, and Emmet.

NA = not available

Table 2.—Apples: Acres by variety and year planted

Year planted	Cortland	Empire	Fuji	Gala	Ginger Gold	Golden Delicious
1962 and before . . .	130	40	0	0	0	1,010
1963-1967	22	0	0	0	0	670
1968-1972	17	69	0	6	0	750
1973-1977	25	175	0	0	0	490
1978	3	100	0	1	0	89
1979	3	58	0	0	0	87
1980	20	170	0	7	0	180
1981	20	185	0	3	0	100
1982	15	290	0	2	0	195
1983	22	310	0	9	0	160
1984	10	285	0	3	0	190
1985	11	310	0	44	0	84
1986	12	140	5	32	1	180
1987	16	145	1	140	1	170
1988	12	125	1	110	0	180
1989	34	150	3	98	0	230
1990	17	180	5	180	14	190
1991	25	165	74	190	22	200
1992	26	190	110	84	22	170
1993	34	200	79	60	15	170
1994	38	76	98	76	19	230
1995	22	39	40	115	36	300
1996	51	18	85	140	81	370
1997	5	20	29	370	29	275
State total	590	3,440	530	1,670	240	6,670
Year planted	Ida Red	Jonagold	Jonamac	Jonathan (regular)	Jonathan (sport)	McIntosh
1962 and before . . .	415	0	0	3,160	92	1,160
1963-1967	260	0	0	555	52	205
1968-1972	525	0	12	270	105	330
1973-1977	740	1	16	250	53	430
1978	300	0	0	31	3	110
1979	180	0	3	37	9	110
1980	390	1	2	97	36	150
1981	170	0	6	35	26	110
1982	180	12	14	59	66	250
1983	205	0	16	70	70	170
1984	170	4	20	75	60	120
1985	145	6	33	79	32	78
1986	84	8	17	23	50	74
1987	74	23	24	46	145	150
1988	62	12	24	45	92	100
1989	77	20	0	90	130	180
1990	41	58	5	97	115	150
1991	59	155	24	85	110	58
1992	60	190	18	85	43	37
1993	53	175	22	32	53	37
1994	48	210	26	34	105	26
1995	49	160	24	39	97	43
1996	72	100	9	36	53	29
1997	31	125	5	30	43	23
State total	4,390	1,260	320	5,360	1,640	4,130

Table 2.—Apples: Acres by variety and year planted (continued)

Year planted	Mutsu	Northern Spy	Paula Red	Red Delicious (regular)	Red Delicious (sport)	R I Greening
1962 and before . . .	14	1,030	30	1,680	860	220
1963-1967	19	290	110	430	480	240
1968-1972	83	400	385	330	800	86
1973-1977	54	255	330	200	870	37
1978	6	46	51	41	130	20
1979	11	39	34	22	210	0
1980	17	92	48	36	590	13
1981	13	28	35	50	560	11
1982	13	52	59	75	720	0
1983	33	140	12	110	500	5
1984	20	82	22	74	630	5
1985	59	160	17	68	295	7
1986	61	110	18	19	420	0
1987	39	91	21	19	560	1
1988	17	74	1	11	430	0
1989	38	100	25	29	390	0
1990	13	115	3	15	205	0
1991	39	95	9	13	150	3
1992	18	37	28	7	56	15
1993	22	21	5	3	64	0
1994	14	72	9	10	170	0
1995	21	21	1	27	250	5
1996	18	90	16	6	380	0
1997	8	60	1	25	280	2
State total	650	3,500	1,270	3,300	10,000	670
Year planted	Rome (regular)	Rome (sport)	Spartan	Winesap	Other	State total
1962 and before . . .	710	42	7	380	220	11,200
1963-1967	240	8	9	79	51	3,720
1968-1972	430	37	31	115	69	4,850
1973-1977	440	120	44	70	130	4,730
1978	170	43	5	3	18	1,170
1979	81	24	7	12	43	970
1980	170	61	4	12	24	2,120
1981	100	140	4	2	32	1,630
1982	100	68	26	5	29	2,230
1983	190	46	44	3	35	2,150
1984	150	43	59	14	14	2,050
1985	96	82	23	8	33	1,670
1986	78	80	4	10	34	1,460
1987	67	56	4	13	34	1,840
1988	22	37	21	3	51	1,430
1989	82	105	11	1	27	1,820
1990	61	95	24	7	30	1,620
1991	61	78	26	1	78	1,720
1992	43	46	19	16	80	1,400
1993	5	35	0	2	53	1,140
1994	27	41	3	16	32	1,380
1995	3	17	6	12	43	1,370
1996	20	15	6	15	130	1,740
1997	14	11	13	1	190	1,590
State total	3,360	1,330	400	800	1,480	57,000

Table 3.—Apples: Trees by variety and year planted

Year planted	Cortland	Empire	Fuji	Gala	Gold	Golden Delicious
1962 and before	5,800	3,100	0	0	0	69,600
1963-1967	1,600	0	0	0	0	69,200
1968-1972	1,700	13,600	0	600	0	93,000
1973-1977	3,100	23,600	0	0	0	63,600
1978	400	15,800	0	150	0	13,300
1979	400	9,100	0	0	0	10,900
1980	2,600	25,900	0	1,100	0	21,900
1981	2,400	24,200	0	850	0	13,900
1982	1,900	50,700	0	500	0	25,600
1983	3,500	43,200	0	2,100	0	23,200
1984	1,400	49,100	0	700	0	25,900
1985	1,800	44,700	0	5,700	0	12,900
1986	2,100	23,700	1,700	7,100	400	31,100
1987	2,500	24,000	350	31,200	300	28,500
1988	3,700	21,600	350	32,400	0	28,100
1989	4,700	31,600	800	25,000	0	41,900
1990	2,200	36,200	2,500	58,300	6,800	44,500
1991	4,500	41,200	22,000	57,800	8,600	39,300
1992	6,900	58,400	43,800	24,200	7,300	41,400
1993	8,900	60,200	25,000	22,700	4,000	59,600
1994	14,500	22,500	40,800	40,800	5,900	54,000
1995	7,200	8,400	18,900	40,700	15,700	75,400
1996	14,200	4,800	31,700	57,100	35,800	105,000
1997	1,000	4,400	12,100	161,000	12,200	78,200
State total	99,000	640,000	200,000	570,000	97,000	1,070,000

Year planted	Ida Red	Jonagold	Jonamac	Jonathan (regular)	Jonathan (sport)	McIntosh
1962 and before	29,600	0	0	165,000	5,800	55,000
1963-1967	22,500	0	0	44,300	6,300	17,500
1968-1972	70,300	0	1,400	30,500	12,300	39,300
1973-1977	93,500	400	2,700	29,200	7,400	59,800
1978	41,700	0	0	4,000	350	16,300
1979	23,900	0	450	4,300	1,000	13,500
1980	50,300	250	350	12,100	5,400	19,900
1981	23,700	0	900	5,000	3,000	15,900
1982	24,000	2,000	2,000	8,600	11,400	35,500
1983	29,300	0	2,000	8,600	9,900	28,200
1984	25,400	600	3,000	11,600	10,700	19,500
1985	23,300	900	5,000	13,800	4,300	13,900
1986	15,100	1,300	4,300	3,200	9,400	15,000
1987	12,400	4,750	4,000	7,600	23,900	24,500
1988	9,300	2,600	3,400	8,400	22,500	17,600
1989	13,100	4,000	0	16,000	25,300	34,700
1990	7,800	13,800	2,000	18,100	19,200	26,200
1991	9,500	54,100	7,200	15,400	24,000	14,400
1992	16,200	72,100	3,400	19,500	8,400	5,700
1993	7,900	56,100	10,100	5,700	15,750	7,900
1994	7,500	75,500	6,100	5,900	26,300	7,400
1995	6,700	59,000	5,300	6,900	23,900	7,600
1996	10,700	35,300	4,200	5,700	14,500	5,500
1997	6,300	42,300	1,200	5,600	14,000	4,200
State total	580,000	425,000	69,000	455,000	305,000	505,000

Table 3.—Apples: Trees by variety and year planted (continued)

Year planted	Mutsu	Northern Spy	Paula Red	Red Delicious (regular)	Red Delicious (sport)	R I Greening
1962 and before	1,100	41,600	3,000	99,800	65,800	10,600
1963-1967	2,100	27,100	12,100	37,000	52,500	25,500
1968-1972	8,900	47,200	51,500	36,000	115,000	10,600
1973-1977	8,000	30,700	46,300	23,100	126,000	3,700
1978	850	7,200	7,400	3,900	19,000	2,200
1979	1,550	5,000	4,200	2,800	30,200	0
1980	3,100	10,800	6,100	4,700	105,000	1,600
1981	1,600	3,500	4,400	5,600	93,200	1,400
1982	1,900	6,600	7,000	9,000	142,000	0
1983	4,000	21,900	1,700	13,600	77,700	1,100
1984	2,900	12,700	2,700	11,300	113,000	700
1985	6,800	19,600	2,300	11,300	48,900	1,200
1986	9,200	16,100	2,850	2,500	80,900	0
1987	5,000	14,200	2,800	3,300	94,100	150
1988	2,500	12,700	250	2,100	81,400	0
1989	6,100	16,400	6,100	7,300	80,500	0
1990	1,800	22,000	750	2,100	42,600	0
1991	7,300	15,600	2,400	3,200	44,200	450
1992	2,800	5,800	10,100	900	16,500	2,800
1993	4,600	6,000	700	400	13,100	0
1994	2,100	10,000	1,800	1,800	54,700	0
1995	4,600	3,500	300	7,100	61,700	700
1996	3,800	16,900	2,900	800	117,000	0
1997	1,400	11,900	350	5,400	95,000	300
State total	94,000	385,000	180,000	295,000	1,770,000	63,000
Year planted	Rome (regular)	Rome (sport)	Spartan	Winesap	Other	State total
1962 and before	41,900	3,400	500	19,500	8,900	630,000
1963-1967	19,000	700	800	6,100	5,700	350,000
1968-1972	55,400	5,200	3,600	11,200	7,700	615,000
1973-1977	53,400	19,200	6,300	8,200	16,800	625,000
1978	20,000	8,700	700	350	2,700	165,000
1979	10,900	3,200	900	1,100	6,600	130,000
1980	24,100	9,200	500	1,500	3,600	310,000
1981	13,100	22,400	550	200	4,200	240,000
1982	14,200	9,600	3,100	600	3,800	360,000
1983	26,900	6,500	5,400	300	5,900	315,000
1984	25,000	6,700	7,800	1,700	2,600	335,000
1985	13,300	15,300	3,700	1,000	5,300	255,000
1986	14,300	12,100	550	1,100	6,000	260,000
1987	10,300	9,300	500	1,650	4,700	310,000
1988	3,200	7,400	2,700	500	7,300	270,000
1989	12,400	21,800	2,600	300	4,400	355,000
1990	8,800	20,800	7,500	1,050	10,000	355,000
1991	9,900	16,600	6,300	150	20,900	425,000
1992	6,200	12,700	3,800	4,100	22,000	395,000
1993	600	10,600	0	350	19,800	340,000
1994	5,500	9,600	1,050	4,850	11,400	410,000
1995	600	3,400	950	2,850	13,600	375,000
1996	3,400	3,700	1,800	3,100	32,100	510,000
1997	2,600	1,900	4,400	250	49,000	515,000
State total	395,000	240,000	66,000	72,000	275,000	8,850,000

Table 4.—Apples: Acres and trees by district and variety

Variety	Northwest		Mason-Oceana		Grand Rapids	
	Acres	Trees	Acres	Trees	Acres	Trees
Cortland	72	7,500	110	13,300	205	41,900
Empire	270	48,900	275	41,600	1,975	372,000
Fuji	12	4,800	6	1,100	330	134,000
Gala	110	27,700	115	22,100	1,005	382,000
Ginger Gold	34	13,200	1	200	125	53,400
Golden Delicious	765	110,000	640	82,800	1,940	352,000
Ida Red	1,000	144,000	640	87,000	1,965	252,000
Jonagold	130	39,800	140	28,800	600	224,000
Jonamac	10	3,400	13	1,900	180	42,600
Jonathan (regular)	440	34,400	440	48,400	1,535	131,000
Jonathan (sport)	20	2,500	43	5,500	760	163,000
McIntosh	920	103,000	475	51,500	1,615	212,000
Mutsu	110	16,500	140	19,100	120	17,800
Northern Spy	1,440	169,000	475	50,200	990	104,000
Paula Red	23	3,800	42	12,200	670	91,500
R I Greening	290	31,700	235	20,200	10	900
Red Delicious (regular)	425	32,400	390	34,300	1,120	103,000
Red Delicious (sport)	440	68,800	560	84,200	4,960	876,000
Rome (regular)	150	21,900	280	36,400	1,750	210,000
Rome (sport)	85	18,400	44	6,900	770	152,000
Spartan	49	7,500	11	1,300	265	47,700
Winesap	5	400	15	1,300	270	23,200
Other	300	30,400	210	29,700	340	94,000
State total	7,100	940,000	5,300	680,000	23,500	4,080,000

Variety	Southwest		East		State total	
	Acres	Trees	Acres	Trees	Acres	Trees
Cortland	110	21,000	93	15,300	590	99,000
Empire	720	138,000	200	39,500	3,440	640,000
Fuji	110	34,300	72	25,800	530	200,000
Gala	290	87,100	150	51,100	1,670	570,000
Ginger Gold	25	5,000	55	25,200	240	97,000
Golden Delicious	2,840	455,000	485	70,200	6,670	1,070,000
Ida Red	550	64,700	235	32,300	4,390	580,000
Jonagold	315	111,000	75	21,400	1,260	425,000
Jonamac	92	14,500	25	6,600	320	69,000
Jonathan (regular)	2,660	213,000	285	28,200	5,360	455,000
Jonathan (sport)	790	128,000	27	6,000	1,640	305,000
McIntosh	590	74,600	530	63,900	4,130	505,000
Mutsu	220	32,300	60	8,300	650	94,000
Northern Spy	320	39,300	275	22,500	3,500	385,000
Paula Red	415	53,900	120	18,600	1,270	180,000
R I Greening	130	9,400	5	800	670	63,000
Red Delicious (regular)	965	84,200	400	41,100	3,300	295,000
Red Delicious (sport)	3,500	640,000	540	101,000	10,000	1,770,000
Rome (regular)	1,050	109,000	130	17,700	3,360	395,000
Rome (sport)	415	60,200	16	2,500	1,330	240,000
Spartan	53	5,800	22	3,700	400	66,000
Winesap	450	42,700	60	4,400	800	72,000
Other	390	77,000	240	43,900	1,480	275,000
State total	17,000	2,500,000	4,100	650,000	57,000	8,850,000

Table 5.—Apples: Acres by district and year planted

Year planted	Northwest	Mason-Oceana	Grand Rapids	Southwest	East	State total
1962 and before	1,570	900	3,780	4,100	850	11,200
1963-1967	620	395	1,020	1,280	405	3,720
1968-1972	790	335	2,030	1,460	235	4,850
1973-1977	370	430	1,900	1,700	330	4,730
1978	145	180	600	195	50	1,170
1979	98	130	400	255	87	970
1980	330	240	870	525	155	2,120
1981	190	89	770	485	96	1,630
1982	230	135	1,000	750	115	2,230
1983	340	130	935	540	205	2,150
1984	270	90	890	700	100	2,050
1985	270	215	655	370	160	1,670
1986	125	130	720	360	125	1,460
1987	170	130	905	475	160	1,840
1988	94	135	785	365	51	1,430
1989	250	200	850	380	140	1,820
1990	260	185	720	355	100	1,620
1991	195	270	710	390	155	1,720
1992	100	270	565	325	140	1,400
1993	90	81	565	345	59	1,140
1994	75	175	580	465	85	1,380
1995	98	155	610	440	67	1,370
1996	230	165	790	420	135	1,740
1997	190	135	850	320	95	1,590
State total	7,100	5,300	23,500	17,000	4,100	57,000

Table 6.—Apples: Trees by district and year planted

Year planted	Northwest	Mason-Oceana	Grand Rapids	Southwest	East	State total
1962 and before	77,700	47,300	199,000	261,000	45,000	630,000
1963-1967	66,700	39,800	78,300	130,000	35,200	350,000
1968-1972	96,000	36,000	269,000	188,000	26,000	615,000
1973-1977	47,000	53,600	257,000	213,000	54,400	625,000
1978	23,100	23,100	87,000	24,800	7,000	165,000
1979	12,700	15,500	53,700	33,400	14,700	130,000
1980	42,900	26,700	129,000	84,800	26,600	310,000
1981	27,900	12,100	117,000	70,000	13,000	240,000
1982	31,200	17,400	154,000	140,000	17,400	360,000
1983	55,400	19,200	135,000	79,000	26,400	315,000
1984	41,400	14,000	152,000	110,000	17,600	335,000
1985	46,900	28,100	102,000	53,300	24,700	255,000
1986	22,100	20,100	140,000	56,500	21,300	260,000
1987	28,000	18,800	161,000	74,300	27,900	310,000
1988	15,400	19,500	171,000	54,100	10,000	270,000
1989	43,700	27,500	182,000	69,300	32,500	355,000
1990	49,500	31,500	175,000	78,000	21,000	355,000
1991	44,500	43,500	203,000	94,200	39,800	425,000
1992	20,500	68,100	205,000	64,300	37,100	395,000
1993	18,300	15,800	185,000	101,000	19,900	340,000
1994	18,900	24,600	194,000	148,000	24,500	410,000
1995	18,400	22,400	197,000	119,000	18,200	375,000
1996	51,200	30,800	231,000	141,000	56,000	510,000
1997	40,600	24,600	303,000	113,000	33,800	515,000
State total	940,000	680,000	4,080,000	2,500,000	650,000	8,850,000

Table 7.—Apples: Acres by rootstock and variety

Variety	Seedling	111	106	7(VII)	26	Mark
Cortland	130	110	52	83	76	22
Empire	90	750	390	1,070	550	150
Fuji	6	39	24	84	120	93
Gala	11	140	120	300	370	180
Ginger Gold	0	12	14	22	69	25
Golden Delicious	1,090	1,290	1,240	1,300	580	140
Ida Red	660	1,060	820	880	250	41
Jonagold	1	130	140	280	270	150
Jonamac	11	69	45	110	28	20
Jonathan (regular)	3,030	630	470	520	120	69
Jonathan (sport)	83	410	280	510	100	40
McIntosh	1,180	510	670	770	350	73
Mutsu	28	140	120	150	94	24
Northern Spy	1,030	270	670	570	320	180
Paula Red	62	290	410	240	100	25
Red Delicious (regular)	1,660	530	350	240	67	13
Red Delicious (sport)	970	2,800	1,720	2,280	1,110	69
RI Greening	250	26	88	57	2	0
Rome (regular)	895	750	510	550	170	14
Rome (sport)	66	360	160	420	100	15
Spartan	7	64	45	160	52	4
Winesap	405	120	92	84	32	7
Other	235	150	220	270	220	46
State total	11,900	10,650	8,650	10,950	5,150	1,400
Variety	9 (IX)	Interstem	Bud 9	Other	Unknown	State total
Cortland	28	2	11	6	70	590
Empire	86	57	4	13	280	3,440
Fuji	96	19	23	0	26	530
Gala	250	16	110	23	150	1,670
Ginger Gold	67	0	7	2	22	240
Golden Delicious	250	47	31	62	640	6,670
Ida Red	80	53	0	26	520	4,390
Jonagold	210	7	17	14	41	1,260
Jonamac	23	0	0	0	14	320
Jonathan (regular)	42	38	0	61	380	5,360
Jonathan (sport)	64	11	2	0	140	1,640
McIntosh	49	37	0	41	450	4,130
Mutsu	4	2	0	9	79	650
Northern Spy	21	23	5	11	400	3,500
Paula Red	33	16	0	3	91	1,270
Red Delicious (regular)	29	32	0	19	360	3,300
Red Delicious (sport)	200	98	15	38	700	10,000
RI Greening	0	0	0	17	230	670
Rome(regular)	82	40	0	19	330	3,360
Rome(sport)	46	20	0	3	140	1,330
Spartan	24	0	7	0	37	400
Winesap	14	3	0	3	40	800
Other	52	9	8	10	260	1,480
State total	1,750	530	240	380	5,400	57,000

Table 8.—Apples: Trees by rootstock and variety

Variety	Seedling	111	106	7(VII)	26	Mark
Cortland	5,400	14,800	7,400	12,000	20,200	6,600
Empire	11,500	105,000	64,300	168,000	136,000	57,600
Fuji	600	6,300	5,600	18,200	44,900	43,200
Gala	1,400	23,800	20,200	69,900	128,000	74,900
Ginger Gold	0	1,600	2,100	4,100	22,500	10,500
Golden Delicious	77,000	171,000	198,000	200,000	155,000	54,900
Ida Red	58,600	133,000	106,000	125,000	47,400	14,400
Jonagold	100	20,300	33,200	49,300	86,800	63,400
Jonamac	1,400	9,900	7,400	19,700	8,500	6,200
Jonathan (regular)	145,000	73,000	61,300	72,500	23,800	25,800
Jonathan (sport)	4,300	62,100	39,300	95,400	31,500	15,400
McIntosh	58,000	66,700	87,000	110,000	85,000	21,000
Mutsu	2,700	15,000	15,300	22,500	17,700	6,200
Northern Spy	39,600	33,200	82,800	74,400	55,200	40,800
Paula Red	5,000	35,800	53,500	34,000	17,900	10,600
Red Delicious (regular)	95,000	64,700	44,600	32,100	11,200	3,700
Red Delicious (sport)	85,000	413,000	333,000	401,000	358,000	22,300
RI Greening	14,500	2,600	11,800	7,800	600	0
Rome (regular)	58,700	93,100	68,100	77,900	33,200	3,000
Rome (sport)	7,600	58,000	24,700	67,600	23,600	6,700
Spartan	700	11,400	5,200	22,100	9,600	2,000
Winesap	20,900	10,700	11,000	9,700	6,300	2,400
Other	12,000	20,000	38,200	46,800	67,100	23,400
State total	705,000	1,445,000	1,320,000	1,740,000	1,390,000	515,000

Variety	9(IX)	Interstem	Bud 9	Other	Unknown	State total
Cortland	17,600	500	5,000	900	8,600	99,000
Empire	39,400	15,000	2,200	1,700	39,300	640,000
Fuji	50,700	9,000	13,800	0	7,700	200,000
Gala	138,000	10,300	68,500	4,700	30,300	570,000
Ginger Gold	38,700	0	4,200	700	12,600	97,000
Golden Delicious	108,000	8,700	15,400	9,700	72,300	1,070,000
Ida Red	21,100	9,700	0	3,100	61,700	580,000
Jonagold	139,000	2,900	12,000	3,400	14,600	425,000
Jonamac	12,300	0	0	0	3,600	69,000
Jonathan (regular)	8,800	5,200	0	5,600	34,000	455,000
Jonathan (sport)	32,400	2,300	1,100	200	21,000	305,000
McIntosh	11,900	7,800	0	4,700	52,900	505,000
Mutsu	2,100	300	0	1,200	11,000	94,000
Northern Spy	5,800	4,900	2,600	1,500	44,200	385,000
Paula Red	9,600	2,900	0	400	10,300	180,000
Red Delicious (regular)	4,200	3,400	0	1,700	34,400	295,000
Red Delicious (sport)	45,600	15,600	7,500	8,900	80,100	1,770,000
RI Greening	0	0	0	1,400	24,300	63,000
Rome (regular)	15,500	6,200	0	1,900	37,400	395,000
Rome (sport)	13,600	2,900	0	400	34,900	240,000
Spartan	7,500	0	3,500	0	4,000	66,000
Winesap	6,500	500	0	400	3,600	72,000
Other	26,700	1,900	4,200	2,500	32,200	275,000
State total	755,000	110,000	140,000	55,000	675,000	8,850,000

Table 9.—Apples: Acres and trees by district and rootstock

Rootstock	Northwest		Oceana-Mason		Grand Rapids	
	Acres	Trees	Acres	Trees	Acres	Trees
Seedling	1,650	92,000	1,110	72,000	4,380	262,000
111	830	120,000	1,070	146,000	4,520	640,000
106	1,820	245,000	750	104,000	2,480	394,000
7(VII)	640	105,000	900	143,000	5,280	862,000
26	520	120,000	170	39,000	3,050	805,000
Mark	150	43,000	150	50,000	720	284,000
9(IX)	50	24,500	30	9,300	980	417,000
Interstem	40	5,600	10	1,400	160	34,000
Bud 9	10	6,000	0	0	225	131,000
Other	30	4,900	120	13,300	90	14,000
Unknown	1,360	174,000	990	102,000	1,615	237,000
State total	7,100	940,000	5,300	680,000	23,500	4,080,000

Rootstock	Southwest		East		State total	
	Acres	Trees	Acres	Trees	Acres	Trees
Seedling	3,940	237,000	820	42,000	11,900	705,000
111	3,860	488,000	370	51,000	10,650	1,445,000
106	3,160	523,000	440	54,000	8,650	1,320,000
7(VII)	3,250	502,000	880	128,000	10,950	1,740,000
26	770	245,000	640	181,000	5,150	1,390,000
Mark	250	99,000	130	39,000	1,400	515,000
9(IX)	490	244,000	200	60,200	1,750	755,000
Interstem	150	32,000	170	37,000	530	110,000
Bud 9	2	1,200	3	1,800	240	140,000
Other	133	21,800	7	1,000	380	55,000
Unknown	995	107,000	440	55,000	5,400	675,000
State total	17,000	2,500,000	4,100	650,000	57,000	8,850,000

Table 10.—Apples: Number of farms and acres with 500 or more trees per acre by size group

High density size group	1994		1997	
	Farms	Acres	Farms	Acres
Less than 1 acre	20	10	16	10
1-4.9 acres	27	65	37	100
5-9.9 acres	13	105	12	85
10-24.9 acres	8	130	16	265
25-49.9 acres	9	340	14	450
50 acres or more	3	350	10	890
State total	80	1,000	105	1,800

Table 11.—Apples: Number of farms and acres with 500 or more trees per acre by district

District	1994		1997	
	Farms	Acres	Farms	Acres
Northwest, Oceana-Mason, and East . . .	15	90	21	160
Grand Rapids	32	460	43	990
Southwest	33	450	41	650
State total	80	1,000	105	1,800

Table 12.—Apples: Number of farms and acres by size group

Size group	1986		1991		1994		1997	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	506	2,100	430	1,730	415	1,700	355	1,500
10-29 acres	469	8,100	362	6,300	350	6,000	285	5,100
30-99 acres	389	21,400	349	18,670	329	17,700	304	16,500
100-199 acres	99	13,000	109	14,500	117	15,500	104	14,200
200 or more acres	52	17,100	50	16,800	49	17,100	52	19,700
State total	1,515	61,700	1,300	58,000	1,260	58,000	1,100	57,000

Table 13.—Apples: Trees and percent of total by variety

Variety	1986		1991		1997	
	Trees	Percent	Trees	Percent	Trees	Percent
Cortland	36,000	0.6	45,800	0.7	99,000	1.1
Empire	319,000	5.5	426,000	6.3	640,000	7.2
Fuji	(1)		17,400	0.3	200,000	2.3
Gala	(1)		182,000	2.7	570,000	6.4
Ginger Gold	(1)		10,200	0.2	97,000	1.1
Golden Delicious	582,000	10.0	698,000	10.3	1,070,000	12.1
Idared	568,000	9.8	595,000	8.8	580,000	6.6
Jonagold	(1)		65,900	1.0	425,000	4.8
Jonamac	(1)		20,900	0.3	69,000	0.8
Jonathan (regular)	634,000	10.9	544,000	8.0	455,000	5.1
Jonathan (sport)	(2)		162,000	2.4	305,000	3.4
McIntosh	489,000	8.4	536,000	7.9	505,000	5.7
Mutsu	66,000	1.1	89,800	1.3	94,000	1.1
Northern Spy	332,000	5.7	348,000	5.1	385,000	4.4
Paula Red	183,000	3.2	188,000	2.8	180,000	2.0
R I Greening	74,000	1.3	65,400	1.0	63,000	0.7
Red Delicious (regular)	560,000	9.7	434,000	6.4	295,000	3.3
Red Delicious (sport)	1,077,000	18.6	1,380,000	20.3	1,770,000	20.0
Rome (regular)	506,000	8.7	438,000	6.4	395,000	4.5
Rome (sport)	(2)		169,000	2.5	240,000	2.7
Spartan	44,000	0.8	60,200	0.9	66,000	0.7
Winesap	74,000	1.3	70,900	1.0	72,000	0.8
Other	256,000	4.4	253,500	3.7	275,000	3.1
State total	5,800,000		6,800,000		8,850,000	

¹ Included in other or not yet grown.

² Sport and regular not differentiated.

Table 14.—Apples: Acres of other varieties grown

Variety	Acres	Trees
Akane (Prime Red)	19	3,300
Braeburn	110	47,000
Connell Red	9	1,050
Criterion	8	1,200
Early Blaze	14	1,300
Early Gold	54	9,700
Elstar	14	4,300
Enterprise	2	350
Fortune	13	1,550
Gold Rush	15	3,850
Golden Russet	5	750
Golden Supreme	34	8,500
Granny Smith	90	12,600
Grimes Golden	80	2,500
Honeycrisp	160	37,000
Jerseymac	120	19,000
Jonafree	21	2,400
Liberty	6	1,100
Lodi	16	2,100
Macoun	8	950
Melrose	2	300
Mollies Delicious	4	600
Ozark Gold	50	8,000
Pristine	3	1,700
Redfree	29	11,200
Snow	15	1,200
Spy Gold	11	1,300
Steele Red	11	400
Suncrisp	3	600
Transparent	6	300
Tydeman Red	7	1,100
Viking	4	550
Vista Bella	4	700
Wagner	11	550
Wayne	41	5,200
Wealthy	37	1,450
Williams Pride	2	800
Winter Banana	43	6,800
Wolf River	9	750
Other	390	71,000
State total	1,480	275,000

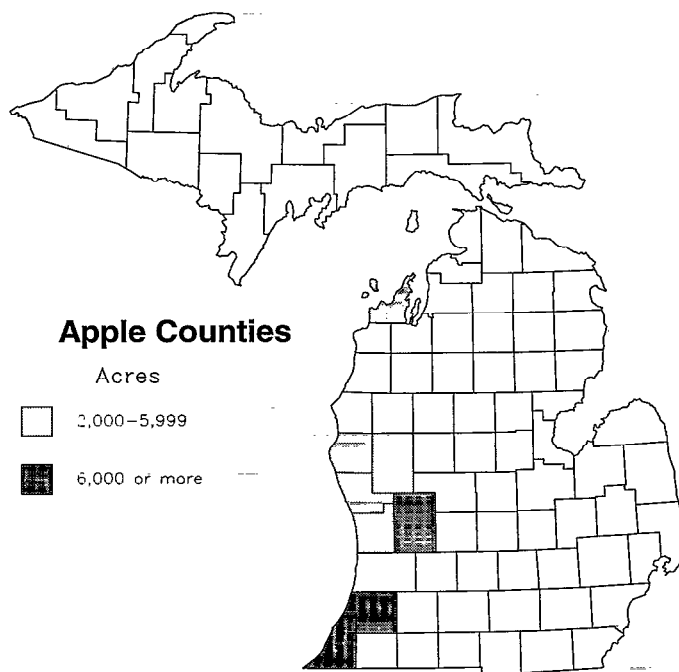
Table 15.—Apples: Number of farms with other fruit acres by size group

Apple size group	Apples		Apricots		Blueberries		Brambles	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	355	1,500	20	15	28	870	40	60
10-29 acres	285	5,100	16	12	24	380	13	30
30-99 acres	304	16,500	15	13	8	125	14	65
100-199 acres	104	14,200	6	7	4	15	5	25
200 acres or more	52	19,700	5	8	1	10	2	50
State total	1,100	57,000	62	55	65	1,400	74	230

Apple size group	Cherries, sweet		Cherries, tart		Grapes		Nectarines	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	109	1,250	105	2,500	55	560	17	15
10-29 acres	85	1,300	115	4,900	32	470	10	13
30-99 acres	102	1,370	151	8,100	35	1,550	20	33
100-199 acres	33	670	52	3,700	12	350	7	50
200 acres or more	18	810	28	4,200	5	170	3	4
State total	347	5,400	451	23,400	139	3,100	57	115

Apple size group	Peaches		Pears		Plums		Strawberries	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	113	400	56	100	59	100	19	35
10-29 acres	106	1,030	50	200	48	185	15	60
30-99 acres	124	1,790	64	340	65	420	23	185
100-199 acres	44	840	16	95	14	180	11	70
200 acres or more	21	840	5	165	15	165	3	80
State total	408	4,900	191	900	201	1,050	71	430

In May of 1998 violent wind storms destroyed thousands of apple trees in the Grand Rapids area of the West Central Fruit District. The data published here are as of the end of the 1997 season and do not take into account these losses. It has been estimated that about 60,000 trees were destroyed immediately by the storms. Another 60,000 were tipped over and not broken, but half of these died later. In addition, about 100,000 damaged trees were killed by fire blight. Most of the estimated 190,000 trees killed directly or indirectly by the storms were recent plantings.



Apricots

Table 1.—Apricots: Number of farms and acres by district

District	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Northwest	42	37	22	19	120	96	55	15
West Central	31	27	18	14	50	32	30	15
Southwest	62	55	35	35	60	47	33	27
East	12	6	4	7	10	5	2	3
State total	147	125	79	75	240	180	120	60

Table 2.—Apricots: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-4 acres	117	74	73	100	75	45
5 acres or more	8	5	2	80	45	15
State total	125	79	75	180	120	60

Table 3.—Apricots: Acres and trees by year planted

Year planted	Acres	Trees
1983 and before	22	2,030
1984-1988	19	2,250
1989-1993	14	1,350
1994-1997	5	620
State total	60	6,250

Table 4.—Apricots: Acres and trees by variety

Variety	Acres	Trees
Goldcot	35	4,030
Harglow	3	320
Veecot	2	200
Other	20	1,700
State total	60	6,250

Blueberries

Table 1.—Blueberries: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Northwest	4	9	10	9	25	30	30	20
Muskegon	36	35	34	31	930	1,150	1,090	1,050
Ottawa	137	130	128	107	4,540	5,250	5,550	4,910
Other counties	17	20	23	23	230	250	280	270
West Central	190	185	185	161	5,700	6,650	6,920	6,230
Allegan	84	90	92	79	1,770	2,450	2,700	2,600
Berrien	78	77	74	67	960	1,000	985	940
Van Buren	222	216	202	183	5,110	6,300	6,560	6,700
Other counties	6	6	5	6	50	50	55	60
Southwest	390	389	373	335	7,890	9,800	10,300	10,300
East	40	53	57	57	485	520	550	450
State total	624	636	625	562	14,100	17,000	17,800	17,000

Table 2.—Blueberries: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-9 acres	315	280	255	1,250	1,200	1,000
10-29 acres	176	185	165	2,900	3,050	2,800
30-99 acres	112	130	108	6,400	7,250	6,150
100-199 acres	25	22	26	3,500	3,050	3,450
200 or more acres	8	8	8	2,950	3,250	3,600
State total	636	625	562	17,000	17,800	17,000

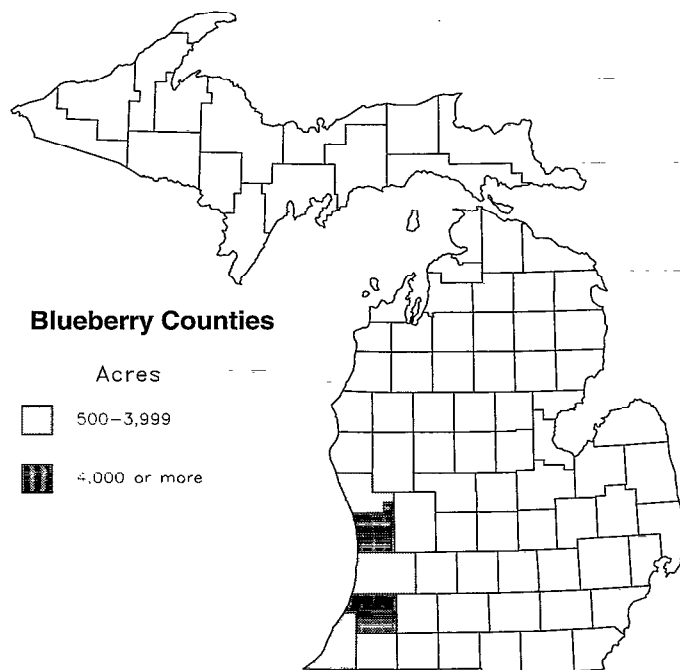


Table 3.—Blueberries: Acres by district and variety

Variety	District			State total
	Northwest and East	West Central	Southwest	
Berkeley	15	45	110	170
Bluecrop	75	2,025	2,400	4,500
Bluejay	2	113	145	260
Blueray	115	265	135	515
Bluetta	3	67	105	175
Burlington	3	67	90	160
Collins	5	26	24	55
Coville	5	12	38	55
Duke	2	113	175	290
Earliblue	16	34	30	80
Elliott	7	853	580	1,440
Jersey	120	1,950	4,910	6,980
Nelson	4	19	27	50
Northland	17	9	69	95
Patriot	38	18	49	105
Rancocas	12	8	140	160
Rubel	5	440	1,145	1,590
Spartan	16	26	33	75
Other	10	140	95	245
State total	470	6,230	10,300	17,000

Table 4.—Blueberries: Acres of other varieties grown

Variety	Acres
Pemberton	45
Stanley	45
Weymouth	46
Brigitta	11
Concord	8
Other	90
State total	245

Table 5.—Blueberries: Acres by bushes per acre and year planted

Year planted	Bushes per acre				State total
	870 or less	870.1-1,088	1,088.1-1,244	1,244.1 or more	
1967 and before ...	1,820	2,980	1,580	550	6,930
1968-1972	230	730	425	95	1,480
1973-1977	170	630	500	70	1,370
1978-1982	210	670	790	180	1,850
1983-1987	300	700	1,195	165	2,360
1988-1992	95	500	965	230	1,790
1993-1997	75	340	695	110	1,220
State total	2,900	6,550	6,150	1,400	17,000

Table 6.—Blueberries: Acres by variety and year planted

Year planted	Variety						
	Berkeley	Bluecrop	Bluejay	Blueray	Bluetta	Burlington	Collins
1967 and before	77	945	5	217	40	46	15
1968-1972	49	500	19	96	20	8	16
1973-1977	22	535	8	42	21	28	15
1978-1982	1	670	55	30	37	29	1
1983-1987	8	870	67	66	31	18	4
1988-1992	3	700	90	48	13	20	3
1993	1	81	0	1	4	0	0
1994	8	83	15	8	4	11	0
1995	1	43	0	5	3	0	1
1996	0	55	1	1	1	0	0
1997	0	18	0	1	1	0	0
State total	170	4,500	260	515	175	160	55

Year planted	Variety						
	Coville	Duke	Earliblue	Elliott	Jersey	Nelson	Northland
1967 and before	28		53	34	4,150	0	2
1968-1972	12	1	12	10	585	0	1
1973-1977	2		6	46	555	0	8
1978-1982	5	2	4	145	665	0	18
1983-1987	4	1	1	435	695	0	9
1988-1992	3	78	2	415	170	5	34
1993	0	77	0	95	28	2	7
1994	0	68	0	61	52	8	12
1995	1	16	1	52	43	1	1
1996	0	16	0	64	23	27	1
1997	0	31	1	83	14	7	2
State total	55	290	80	1,440	6,980	50	95

Year planted	Variety					
	Patriot	Rancocas	Rubel	Spartan	Other	State total
1967 and before	8	87	1,110	3	110	6,930
1968-1972	0	13	110	0	28	1,480
1973-1977	2	15	53	1	11	1,370
1978-1982	25	30	100	21	12	1,850
1983-1987	23	15	79	18	16	2,360
1988-1992	34	0	115	24	33	1,790
1993	2	0	3	1	8	310
1994	2	0	10	1	7	350
1995	7	0	8	1	6	190
1996	1	0	2	3	5	200
1997	1	0	0	2	9	170
State total	105	160	1,590	75	245	17,000

Table 7.—Blueberries: Acres and percent of total by variety

Variety	1986		1991		1997	
	Acres	Percent	Acres	Percent	Acres	Percent
Berkeley	180	1.3	210	1.3	170	1.0
Bluecrop	3,270	23.2	4,150	25.3	4,500	26.5
Bluejay	110	0.8	250	1.5	260	1.5
Blueray	460	3.3	550	3.4	515	3.0
Bluetta	160	1.1	190	1.2	175	1.0
Burlington	*		110	0.7	160	0.9
Collins	*		46	0.3	55	0.3
Coville	*		38	0.2	55	0.3
Duke	*		61	0.4	290	1.7
Earliblue	*	3.8	75	0.5	80	0.5
Elliott	530		970	5.9	1,440	8.5
Jersey	6,490	46.0	7,270	44.3	6,980	41.1
Nelson	*		*		50	0.3
Northland	*		110	0.7	95	0.6
Patriot	60	0.4	150	0.9	105	0.6
Rancocas	90	0.6	140	0.9	160	0.9
Rubel	1,340	9.5	1,440	8.8	1,590	9.4
Spartan	30	0.2	92	0.6	75	0.4
Other	1,380	9.8	548	3.3	245	1.4
State total	14,100		16,400		17,000	

* Included in other.

Table 8.—Blueberries: Irrigated and nonirrigated acres by variety

Variety	Not irrigated	Drip (trickle)	Subterranean	Traveling gun	Overhead sprinkler	Other	State total
Bluecrop	1,080	605	100	860	1,840	15	4,500
Elliott	360	175	25	310	565	5	1,440
Jersey	2,630	900	170	1,415	1,850	15	6,980
Rubel	620	225	55	345	335	10	1,590
Other	710	295	120	450	910	5	2,490
State total	5,400	2,200	470	3,380	5,500	50	17,000

Table 9.—Blueberries: Acres with irrigation by county and district

County and district	Total acres	Acres with overhead irrigation	Acres with other irrigation	Acres not irrigated
Muskegon	1,050	400	350	300
Ottawa	4,910	2,430	1,790	690
Other counties	270	120	80	70
West Central	6,230	2,950	2,220	1,060
Allegan	2,600	520	1,080	1,000
Berrien	940	70	310	560
Van Buren	6,700	1,800	2,400	2,500
Other counties	60	10	10	40
Southwest	10,300	2,400	3,800	4,100
East and Northwest	470	150	80	240
State total	17,000	5,500	6,100	5,400

Brambles

Table 1.—Brambles: Number of farms and acres by county and district

County and district	Farms			Acres		
	1991	1994	1997	1991	1994	1997
Northwest	20	22	41	30	30	60
West Central	18	18	31	35	40	50
Berrien	28	33	35	100	130	150
Other counties	22	24	25	65	70	90
Southwest	50	57	60	165	200	240
Jackson, Washtenaw, Livingston and Oakland	14	12	17	150	70	85
Other counties	53	53	66	160	160	135
East	67	65	83	310	230	220
State total	155	162	215	540	500	570

Table 2.—Brambles: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-4 acres	124	128	189	170	170	280
5-9 acres	20	21	14	120	130	90
10 acres or more	11	13	12	250	200	200
State total	155	162	215	540	500	570

Table 3.—Brambles: Acres by variety and year planted

Year planted	Autumn Bliss	Bristol	Canby	Chilli-wack	Heritage	Latham	Other	State total
1982 and before	0	0	37	0	37	8	13	95
1983-1987	0	17	21	6	56	4	26	130
1988-1992	2	4	34	15	40	7	38	140
1993	4	1	1	1	5	1	7	20
1994	3	5	14	1	5	1	11	40
1995	4	1	12	1	12	1	34	65
1996	6	1	4	1	13	2	13	40
1997	6	1	2	0	7	1	23	40
State total	25	30	125	25	175	25	165	570

Table 4.—Brambles: Acres by district and variety

Variety	Northwest and West Central	East	Southwest	State total
Autumn Bliss . . .	6	13	6	25
Bristol	2	2	26	30
Canby	19	58	48	125
Chilliwack	4	7	14	25
Heritage	11	100	64	175
Latham	15	4	6	25
Other	53	56	56	165
State total	110	240	220	570

Table 5.—Brambles: Acres of other varieties grown

Variety	Acres
Algonquin	6
Black Hawk	6
Boyne	8
Brandywine	4
Chester	5
Illini Hardy	6
Jewel	17
Lowden Purple	3
Mammoth	6
Nova	4
Redwing	10
Reveille	4
Royalty	10
Thornfree	5
Titan	14
Tulameen	5
Other	52
State total	165

Cherries, sweet

Table 1.—Cherries, sweet: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Antrim	46	39	34	34	1,040	950	880	920
Benzie	38	31	22	24	620	360	350	340
Grand Traverse ..	134	108	98	100	2,540	2,060	1,750	1,850
Leelanau	173	152	145	150	4,360	3,800	3,750	4,000
Manistee	32	25	26	22	320	300	270	340
Northwest	423	355	325	330	8,880	7,470	7,000	7,450
Mason	35	27	25	24	580	500	480	490
Oceana	60	50	41	38	610	560	540	530
Other counties ...	53	45	36	28	210	140	110	100
West Central	148	122	102	90	1,400	1,200	1,130	1,120
Berrien	79	59	61	54	210	180	160	135
Van Buren	26	22	21	20	110	75	75	70
Other counties ...	25	22	15	14	45	55	45	45
Southwest	130	103	97	88	365	310	280	250
East	30	56	41	37	150	70	90	80
State total	731	636	565	545	10,795	9,050	8,500	8,900

Table 2.—Cherries, sweet: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-9 acres	358	301	280	1,120	980	850
10-29 acres	192	182	170	3,440	3,150	2,800
30-99 acres	80	73	85	3,610	3,070	3,850
100 acres or more	6	9	10	880	1,300	1,400
State total	636	565	545	9,050	8,500	8,900

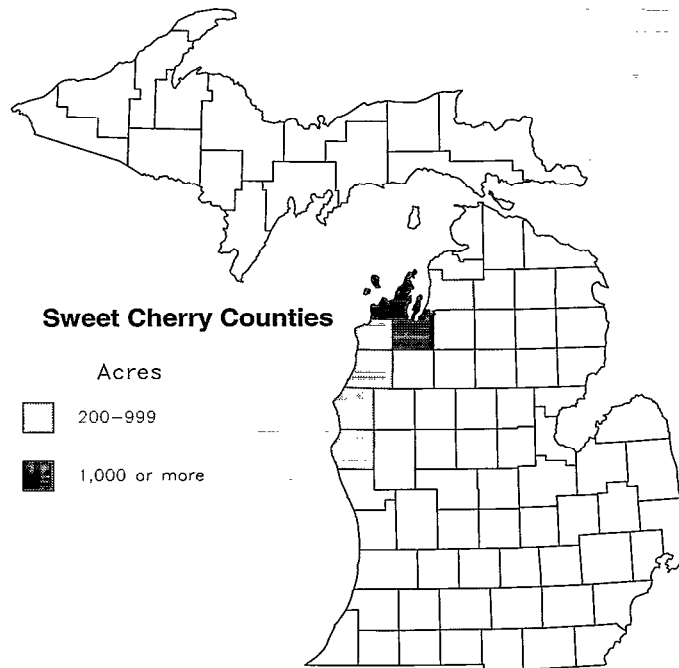


Table 3.—Cherries, sweet: Acres by variety and year planted

Year planted	Cavalier	Emperor Francis	Gold	Hardy Giant	Hedelfingen	Napoleon	Rainier
1962 and before	1	125	130	35	150	270	4
1963-1967	0	83	100	15	60	115	3
1968-1972	0	250	125	14	99	190	26
1973-1977	16	179	185	4	75	150	26
1978	1	70	105	5	15	69	12
1979	1	92	140	5	35	105	20
1980	9	95	190	0	41	110	29
1981	4	54	130	1	11	21	31
1982	20	44	118	0	15	82	20
1983	3	98	76	1	14	22	1
1984	18	61	66	1	5	22	2
1985	4	41	61	2	34	22	12
1986	9	56	110	0	2	36	10
1987	6	80	77	3	11	29	1
1988	9	84	120	2	26	7	21
1989	14	57	135	1	18	27	21
1990	14	36	98	4	16	13	12
1991	11	35	31	1	9	4	29
1992	3	15	5	0	4	11	9
1993	3	16	22	0	7	3	10
1994	8	51	81	0	11	18	2
1995	3	33	34	0	26	19	1
1996	2	57	62	4	16	25	0
1997	1	38	69	2	5	20	8
State total	160	1,750	2,270	100	705	1,390	310

Year planted	Sam	Schmidt	Ulster	Van	Windsor	Other	State total
1962 and before	9	203	0	30	66	7	1,030
1963-1967	12	115	0	6	23	8	540
1968-1972	28	103	9	9	23	44	920
1973-1977	35	34	3	2	7	24	740
1978	8	5	4	3	0	13	310
1979	18	22	3	3	1	5	450
1980	33	20	5	3	1	14	550
1981	31	24	22	2	0	9	340
1982	15	6	12	2	0	6	340
1983	48	6	15	1	0	25	310
1984	25	10	35	1	0	4	250
1985	15	35	26	4	0	4	260
1986	27	8	11	0	0	1	270
1987	28	10	50	21	0	4	320
1988	14	5	49	8	0	5	350
1989	23	3	86	26	0	9	420
1990	5	6	47	2	0	7	260
1991	8	3	30	4	3	2	170
1992	3	9	19	1	0	11	90
1993	2	1	26	4	0	6	100
1994	19	0	28	1	0	11	230
1995	20	7	22	2	0	23	190
1996	33	8	7	7	1	28	250
1997	21	22	11	3	0	10	210
State total	480	665	520	145	125	280	8,900

Table 4.—Cherries, sweet: Trees by variety and year planted

Year planted	Cavalier	Emperor Francis	Gold	Hardy Giant	Hedelfingen	Napoleon	Rainier
1962 and before	70	9,600	10,500	2,840	11,000	21,900	260
1963-1967	0	5,980	8,800	1,500	4,830	8,880	260
1968-1972	0	22,000	10,700	1,100	8,860	17,400	2,360
1973-1977	1,260	16,800	18,500	290	6,240	12,600	2,700
1978	80	7,100	10,000	380	1,640	6,860	1,120
1979	90	9,630	13,500	530	2,890	9,300	1,880
1980	830	8,800	18,700	0	4,150	10,300	2,700
1981	550	5,330	14,200	110	1,090	2,030	3,410
1982	2,100	4,400	12,000	0	1,430	7,110	2,210
1983	320	9,950	7,880	110	1,850	2,240	140
1984	2,010	5,690	6,310	90	590	1,820	200
1985	400	3,800	6,020	150	3,490	2,030	1,020
1986	750	5,150	9,940	0	200	3,340	940
1987	710	7,510	7,750	230	900	2,800	80
1988	920	8,300	12,200	280	2,460	650	1,960
1989	1,620	5,680	14,200	100	2,050	2,750	2,690
1990	1,460	3,540	10,100	490	1,380	1,370	1,440
1991	1,100	3,110	3,250	140	540	350	3,620
1992	300	1,490	580	0	480	1,600	1,260
1993	400	1,700	2,310	0	690	320	1,280
1994	900	5,520	8,850	0	990	1,730	210
1995	320	3,310	3,630	0	3,230	1,980	90
1996	200	5,760	7,310	420	1,560	2,440	0
1997	110	3,850	7,770	240	460	2,200	1,070
State total	16,500	164,000	225,000	9,000	63,000	124,000	32,900
Year planted	Sam	Schmidt	Ulster	Van	Windsor	Other	State total
1962 and before	750	14,600	0	2,900	5,000	580	80,000
1963-1967	950	8,720	0	550	1,780	650	42,900
1968-1972	2,300	8,600	820	700	2,150	3,110	80,100
1973-1977	3,090	3,200	280	240	480	2,520	68,200
1978	750	440	370	320	0	1,240	30,300
1979	1,820	1,880	240	250	80	510	42,600
1980	3,110	1,840	410	260	70	1,330	52,500
1981	3,140	2,410	2,340	190	0	800	35,600
1982	1,400	480	1,040	180	0	450	32,800
1983	4,750	490	1,580	100	0	2,490	31,900
1984	4,100	1,070	3,970	110	0	340	26,300
1985	1,460	2,710	2,350	410	0	360	24,200
1986	2,580	660	1,150	0	0	90	24,800
1987	2,710	990	5,040	2,100	0	380	31,200
1988	1,420	500	4,980	780	0	450	34,900
1989	2,570	330	9,210	2,700	0	1,300	45,200
1990	500	440	4,810	200	0	770	26,500
1991	890	350	3,060	400	210	180	17,200
1992	350	740	1,880	110	0	1,110	9,900
1993	270	130	2,700	350	0	550	10,700
1994	1,900	0	2,940	110	0	1,150	24,300
1995	2,380	590	2,290	340	0	2,440	20,600
1996	3,500	760	790	800	130	3,830	27,500
1997	2,410	2,070	1,150	300	0	1,170	22,800
State total	49,100	54,000	53,400	14,400	9,900	27,800	843,000

Table 5.—Cherries, sweet: Acres and trees by district and variety

Variety	Northwest		West Central		Southwest and East		State total	
	Acres	Trees	Acres	Trees	Acres	Trees	Acres	Trees
Cavalier	125	12,400	25	2,600	10	1,500	160	16,500
Emperor Francis	1,655	154,000	90	9,400	5	600	1,750	164,000
Gold	1,815	176,500	450	47,900	5	600	2,270	225,000
Hardy Giant	85	7,300	12	1,300	3	400	100	9,000
Hedelfingen	500	44,000	65	6,600	140	12,400	705	63,000
Napoleon	1,210	105,600	160	16,800	20	1,600	1,390	124,000
Rainier	225	21,500	80	10,800	5	600	310	32,900
Sam	370	35,900	81	9,800	29	3,400	480	49,100
Schmidt	540	43,000	73	7,000	52	4,000	665	54,000
Ulster	480	48,300	35	4,400	5	700	520	53,400
Van	110	10,300	14	1,500	21	2,600	145	14,400
Windsor	100	7,700	15	1,200	10	1,000	125	9,900
Other	235	22,500	20	2,700	25	2,600	280	27,800
State total	7,450	689,000	1,120	122,000	330	32,000	8,900	843,000

Table 6.—Cherries, sweet: Acres of other varieties grown

Variety	Acres	Trees
Attica	19	2,300
Bing	4	300
Hartland	6	850
Lapin	5	550
Nelson	75	7,600
Royalton	6	650
Somerset	3	550
Stella	11	1,000
Vega	29	2,600
Vista	32	3,100
Other	90	8,300
State total	280	27,800

Table 7.—Cherries, sweet: Trees and percent of total by variety

Variety	1986		1991		1997	
	Trees	Percent	Trees	Percent	Trees	Percent
Cavalier	NA		8,800	1.0	16,500	2.0
Emperor Francis	113,000	12.3	140,000	16.5	164,000	19.5
Gold	187,000	20.3	207,000	24.4	225,000	26.7
Hardy Giant	NA		8,600	1.0	9,000	1.1
Hedelfingen	66,000	7.2	60,700	7.2	63,000	7.5
Napoleon	247,000	26.8	165,000	19.5	124,000	14.7
Rainier	17,000	1.8	26,200	3.1	32,900	3.9
Sam	28,000	3.0	37,900	4.5	49,100	5.8
Schmidt	91,000	9.9	64,100	7.6	54,000	6.4
Ulster	NA		35,800	4.2	53,400	6.3
Van	NA		14,600	1.7	14,400	1.7
Windsor	54,000	5.9	24,300	2.9	9,900	1.2
State total	920,000		847,000		843,000	

NA = not available

Cherries, tart

Table 1.—Cherries, tart: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Antrim	62	46	42	38	2,990	2,610	2,600	2,350
Benzie	46	36	29	27	1,840	1,260	1,300	1,250
Grand Traverse	141	117	115	105	6,200	4,650	4,600	4,450
Leelanau	193	171	164	151	8,740	7,730	7,700	7,850
Manistee	50	39	32	25	1,930	1,580	1,200	1,100
Northwest	492	409	382	346	21,700	17,830	17,400	17,000
Kent	32	14	16	12	990	620	630	390
Mason	34	31	30	27	2,290	1,960	1,920	1,860
Muskegon	14	11	10	8	770	620	520	320
Newaygo	14	10	9	9	520	430	370	270
Oceana	151	111	99	77	8,520	8,010	8,350	8,050
Other counties	27	20	17	11	460	280	210	210
West Central	272	197	181	144	13,550	11,920	12,000	11,100
Allegan	37	26	22	19	620	480	420	380
Berrien	206	147	138	102	3,960	3,920	3,300	2,550
Cass	20	12	11	7	540	430	450	350
Kalamazoo	10	9	9	8	140	170	160	170
Van Buren	98	79	70	54	3,340	3,270	2,130	1,880
Southwest	371	273	250	190	8,600	8,270	6,460	5,330
East	48	54	33	25	150	180	140	70
State total	1,183	933	846	705	44,000	38,200	36,000	33,500

Table 2.—Cherries, tart: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-9 acres	236	200	140	970	850	600
10-29 acres	320	295	230	5,680	5,150	4,100
30-99 acres	292	270	260	15,300	14,400	13,600
100-199 acres	65	57	50	8,500	7,600	6,700
200 acres or more	20	24	25	7,750	8,000	8,500
State total	933	846	705	38,200	36,000	33,500

Table 3.—Cherries, tart: Acres and trees by variety

Variety	Acres	Trees
Balaton	140	16,600
Galaxy	620	69,700
Montmorency	32,650	3,634,000
Other	90	9,700
State total	33,500	3,730,000

Table 4.—Cherries, tart: Acres by district and year planted

Year planted	District			State total
	Northwest	West Central	Southwest and East	
1971 and before . .	1,020	245	155	1,420
1972	285	185	40	510
1973	140	160	55	355
1974	260	305	85	650
1975	520	335	80	935
1976	600	475	125	1,200
1977	1,015	500	230	1,745
1978	1,250	725	415	2,390
1979	1,565	700	315	2,580
1980	1,610	925	505	3,040
1981	1,240	675	270	2,185
1982	895	760	230	1,885
1983	590	515	225	1,330
1984	620	330	315	1,265
1985	615	425	320	1,360
1986	595	370	210	1,175
1987	460	450	250	1,160
1988	435	285	180	900
1989	315	270	150	735
1990	280	255	165	700
1991	250	435	150	835
1992	435	370	75	880
1993	465	375	160	1,000
1994	610	460	235	1,305
1995	520	220	110	850
1996	260	175	215	650
1997	150	175	135	460
State total	17,000	11,100	5,400	33,500

Table 5.—Cherries, tart: Trees by district and year planted

Year planted	District			
	Northwest	West Central	Southwest and East	State total
1971 and before	103,000	24,000	15,000	142,000
1972	29,000	18,000	4,000	51,000
1973	14,000	16,500	5,500	36,000
1974	26,000	30,500	8,500	65,000
1975	54,000	35,000	8,000	97,000
1976	64,000	51,000	13,000	128,000
1977	112,000	55,000	24,000	191,000
1978	138,000	79,000	44,000	261,000
1979	179,000	77,000	33,000	289,000
1980	184,000	103,000	53,000	340,000
1981	143,000	77,000	28,000	248,000
1982	103,000	83,000	25,000	211,000
1983	68,000	56,500	24,500	149,000
1984	71,000	36,000	34,000	141,000
1985	71,000	47,000	35,000	153,000
1986	68,000	42,000	23,000	133,000
1987	53,000	50,000	27,000	130,000
1988	50,500	33,000	19,500	103,000
1989	36,500	30,000	17,500	84,000
1990	32,500	27,500	19,000	79,000
1991	29,000	52,000	17,000	98,000
1992	51,000	42,500	8,500	102,000
1993	54,000	44,500	18,500	117,000
1994	72,500	53,500	27,000	153,000
1995	61,000	25,500	12,500	99,000
1996	30,500	20,500	25,000	76,000
1997	17,500	20,500	16,000	54,000
State total	1,915,000	1,230,000	585,000	3,730,000

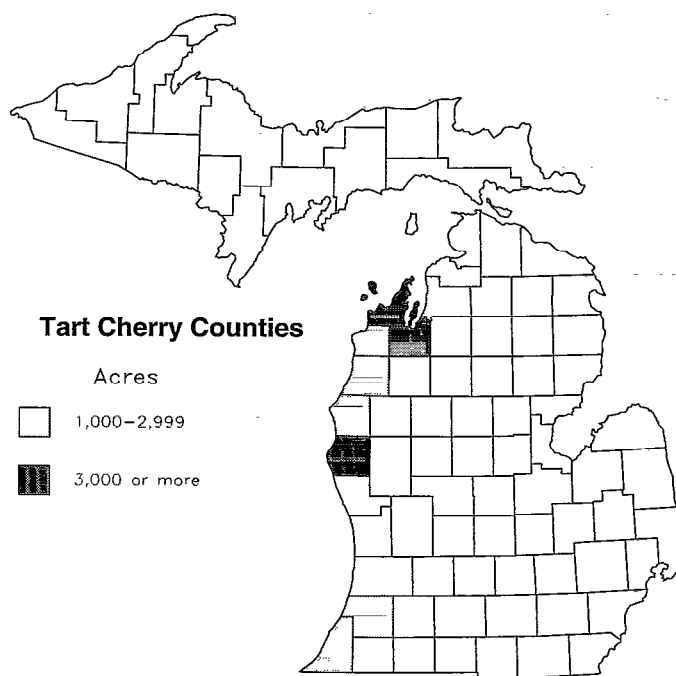
Table 6.—Cherries, tart: Acres by district and rootstock

Rootstock	District			
	Northwest	West Central	Southwest and East	State total
Mahaleb	14,270	9,550	4,630	28,450
Mazzard	2,530	1,400	630	4,560
M X M2	55	55	55	165
M X M60	65	30	30	125
Other	80	65	55	200
State total	17,000	11,100	5,400	33,500

Table 7.—Cherries, tart: Number of farms with other fruit acres by size group

Tart cherry size group	Cherries, tart		Apples		Apricots		Blueberries		Brambles		Cherries, sweet	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	140	600	94	2,700	7	9	8	170	15	35	75	370
10-29 acres	230	4,100	134	6,400	14	17	4	15	7	30	125	1,430
30-99 acres	260	13,600	163	11,000	15	29	8	144	5	49	170	3,900
100-199 acres	50	6,700	39	4,400	2	4	1	1	3	6	31	1,150
200 acres or more ...	25	8,500	21	4,100	1	1	0	0	0	0	17	1,400
State total	705	33,500	451	28,600	39	60	21	330	30	120	418	8,250

Tart cherry size group	Grapes		Nectarines		Peaches		Pears		Plums	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
1-9 acres	23	420	9	13	63	540	30	90	32	70
10-29 acres	30	1,120	10	40	81	1,050	35	195	37	180
30-99 acres	24	1,160	9	26	72	1,260	31	190	45	480
100-199 acres	6	200	1	1	20	790	7	65	13	175
200 acres or more ...	0	0	0	0	13	460	4	150	8	155
State total	83	2,900	29	80	249	4,100	107	690	135	1,060



Grapes

Table 1.—Grapes: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Grand Traverse	--	--	--	18	--	--	--	210
Leelanau	--	--	--	15	--	--	--	200
Other counties	--	--	--	7	--	--	--	30
Northwest	17	12	20	40	155	180	300	440
Berrien	423	333	315	244	5,770	6,100	6,100	5,800
Van Buren	181	150	134	122	4,390	4,500	4,700	4,500
Other counties	57	44	42	33	1,180	1,100	1,080	1,100
Southwest	661	527	491	399	11,340	11,700	11,880	11,400
West Central and East	43	36	38	51	105	140	120	160
State total	721	575	549	490	11,600	12,020	12,300	12,000

Table 2.—Grapes: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-9 acres	279	254	223	1,270	1,100	900
10-29 acres	192	193	164	3,160	3,200	2,750
30-99 acres	86	78	80	4,380	4,000	4,150
100 or more acres	18	24	23	3,190	4,000	4,200
State total	575	549	490	12,000	12,300	12,000

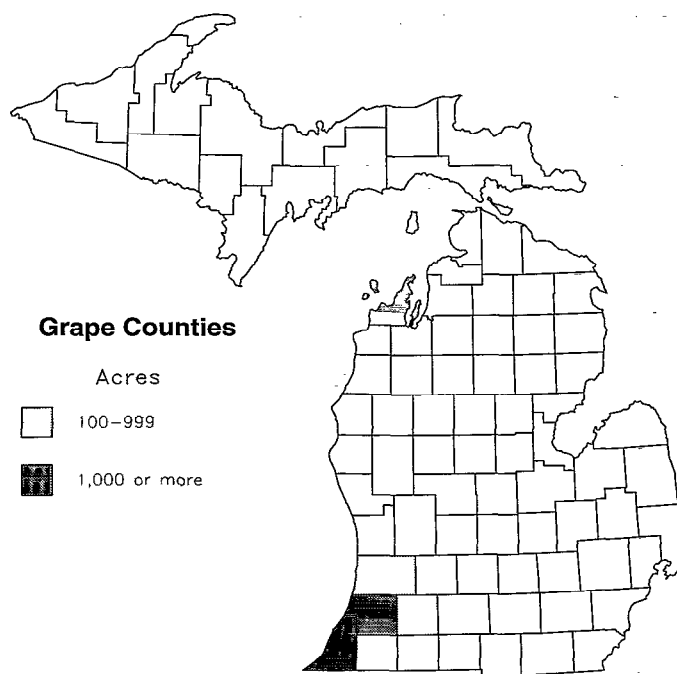


Table 3.—Grapes: Acres by variety and year planted

Year planted	Concord	Chardonnay	Foch	Niagara	Seyval	Vidal Blanc	Vignoles	White Riesling	Other	State total
1967 and before ..	6,280	0	0	405	0	1	0	0	34	6,720
1968-1972	915	0	1	125	9	13	10	0	17	1,090
1973-1977	535	10	32	130	41	15	21	23	63	870
1978-1982	230	16	3	70	29	64	16	26	41	495
1983-1987	135	13	1	250	4	6	2	15	19	445
1988-1992	435	88	10	695	7	2	43	25	115	1,420
1993	50	10	2	120	0	2	0	21	30	235
1994	34	13	0	52	0	0	1	5	10	115
1995	59	0	0	51	0	0	2	23	20	155
1996	13	5	0	57	0	2	0	9	19	105
1997	14	5	1	295	0	10	0	3	22	350
State total	8,700	160	50	2,250	90	115	95	150	390	12,000

Table 4.—Grapes: Acres by district and variety

Variety	District			State total
	Northwest	West Central and East	Southwest	
Concord	9	11	8,680	8,700
Chardonnay	114	1	45	160
Foch	7	3	40	50
Niagara	3	107	2,140	2,250
Seyval	10	5	75	90
Vidal Blanc	1	4	110	115
Vignoles	33	2	60	95
White Riesling	114	1	35	150
Other	149	26	215	390
State total	440	160	11,400	12,000

Table 5.—Grapes: Acres by trellis and variety

Variety	Trellis				State total
	Geneva Double Curtain	4-Arm or Umbrella Kniffen	Single Wire Cordon	Other	
Concord	1,370	2,200	5,030	100	8,700
Chardonnay	2	45	19	94	160
Foch	5	1	37	7	50
Niagara	215	910	1,115	10	2,250
Seyval	0	22	46	22	90
Vidal Blanc	0	71	39	5	115
Vignoles	13	36	34	12	95
White Riesling	1	20	9	120	150
Other	24	105	141	120	390
State total	1,630	3,410	6,470	490	12,000

**Table 6.—Grapes: Acres of other varieties
grown**

Variety	Acres
Aurore	24
Baco Noir	14
Bianca	3
Cabernet Franc	17
Cabernet Sauvignon	3
Canadice	2
Cascade	4
Cayuga White	16
Chambourcin	29
Chancellor	19
Chardonel	8
Chelois	8
De Chaunac	34
Delaware	16
Fredonia	21
Gamay Noir	13
Gewurtztraminer	11
Himrod	6
Merlot	18
Pinot Gris	33
Pinot Meunier	2
Pinot Noir	39
Other	50
State total	390

Table 7.—Grapes: Acres and percent of total by variety

Variety	1986		1991		1997	
	Acres	Percent	Acres	Percent	Acres	Percent
Concord	9,840	84.8	9,610	80.1	8,700	72.5
Niagara	885	7.6	1,530	12.8	2,250	18.8
French hybrids	550	4.7	600	5.0	520	4.3
Viniferas	115	1.0	160	1.3	435	3.6
Other	210	1.8	100	0.8	95	0.8
State total	11,600		12,000		12,000	

Nectarines

Table 1.—Nectarines: Number of farms and acres by district

District	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Northwest	14	11	11	7	10	9	9	3
West Central	22	24	21	16	40	52	33	20
Southwest	65	64	57	39	120	200	185	105
East	6	5	4	3	5	4	3	2
State total	107	104	93	65	175	265	230	130

Table 2.—Nectarines: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-4 acres	89	84	61	105	115	85
5 acres or more	15	9	4	160	115	45
State total	104	93	65	265	230	130

Table 3.—Nectarines: Acres and trees by year planted

Year planted	Acres	Trees
1983 and before	3	320
1984-1988	32	3,780
1989-1993	85	16,500
1994-1997	10	1,400
State total	130	22,000

Table 4.—Nectarines: Acres and trees by variety

Variety	Acres	Trees
Fantasia	42	7,000
Harko	3	330
Red Gold	36	5,950
Summer Beauty	5	820
Sunglo	21	3,600
Other	23	4,300
State total	130	22,000

Peaches

Table 1.—Peaches: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Leelanau	38	25	26	15	140	85	50	45
Manistee	24	21	20	17	160	190	170	125
Other counties	67	40	37	31	220	135	80	80
Northwest	129	86	83	63	520	410	300	250
Kent	70	47	31	18	600	400	220	100
Mason	27	20	17	17	320	300	250	250
Muskegon	10	10	8	7	170	250	160	90
Newaygo	15	10	9	5	270	280	190	75
Oceana	83	69	69	66	790	1,150	1,500	1,350
Ottawa	25	15	15	14	170	160	100	100
Other counties	6	8	6	8	140	90	30	35
West Central	236	179	155	135	2,460	2,630	2,450	2,000
Allegan	58	44	43	32	790	580	530	490
Berrien	269	206	188	160	3,640	3,350	2,620	2,400
Van Buren	74	62	49	45	900	920	580	550
Other counties	23	17	12	11	210	100	70	60
Southwest	424	329	292	248	5,540	4,950	3,800	3,500
East	67	106	71	69	280	300	250	250
State total	856	700	601	515	8,800	8,290	6,800	6,000

Table 2.—Peaches: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-9 acres	472	420	352	1,530	1,300	1,100
10-29 acres	162	130	111	2,590	2,150	1,800
30-99 acres	75	54	46	3,590	2,550	2,200
100-199 acres	4	6	6	580	800	900
State total	713	610	515	8,290	6,800	6,000

Table 3.—Peaches: Acres by variety and year planted

Year planted	Arkansas-9	Baby Gold-5	Bellaire	Canadian Harmony	Cresthaven	Fayette	Garnet Beauty
1977 and before . . .	0	9	5	14	10	0	17
1978-1982	0	54	6	71	26	6	19
1983-1987	0	145	9	100	33	15	19
1988-1992	43	380	80	145	83	28	12
1993	23	190	2	9	1	27	2
1994	73	89	17	2	6	22	1
1995	29	44	8	4	5	3	7
1996	27	39	4	8	5	2	0
1997	50	10	9	2	1	2	1
State total	245	960	140	355	170	105	78
Year planted	Glohaven	Jim Dandee	Loring	Newhaven	PF-12A	PF-15A	PF-17
1977 and before . . .	11	0	2	14	0	0	0
1978-1982	29	14	13	20	0	0	0
1983-1987	39	10	98	93	0	0	0
1988-1992	66	31	76	81	6	7	26
1993	6	8	1	4	12	4	21
1994	2	11	1	3	11	15	19
1995	9	1	4	3	71	19	80
1996	5	1	9	1	21	13	28
1997	3	1	6	1	14	4	26
State total	170	77	210	220	135	62	200
Year planted	PF-23	Redhaven	Redskin	Stellar Series	Suncrest	Other	State total
1977 and before . . .	0	135	21	0	0	7	245
1978-1982	0	415	49	0	2	66	790
1983-1987	0	390	100	0	14	105	1,170
1988-1992	25	490	86	23	32	190	1,910
1993	28	65	1	4	0	32	440
1994	8	45	3	4	1	37	370
1995	36	52	2	7	0	56	440
1996	21	59	10	15	0	52	320
1997	27	79	3	20	1	55	315
State total	145	1,730	275	73	50	600	6,000

Table 4.—Peaches: Trees by variety and year planted

Year planted	Arkansas-9	Baby Gold-5	Bellaire	Canadian Harmony	Cresthaven	Fayette	Garnet Beauty
1977 and before . . .	0	1,140	640	1,410	1,040	0	2,160
1978-1982	0	6,450	700	8,840	3,090	620	2,470
1983-1987	0	22,300	1,070	12,600	3,720	2,300	2,210
1988-1992	4,100	50,000	11,100	21,400	10,000	4,340	1,370
1993	3,100	23,900	220	1,250	120	5,400	270
1994	10,100	11,700	1,620	280	600	2,940	140
1995	3,910	5,640	1,060	920	750	650	850
1996	4,170	5,060	690	1,050	750	250	0
1997	6,820	1,810	1,100	450	130	300	130
State total	32,200	128,000	18,200	48,200	20,200	16,800	9,600
Year planted	Glohaven	Jim Dandee	Loring	Newhaven	PF-12A	PF-15A	PF-17
1977 and before . . .	1,300	0	200	1,960	0	0	0
1978-1982	3,290	2,210	1,540	2,600	0	0	0
1983-1987	4,850	1,610	10,900	12,500	0	0	0
1988-1992	9,700	5,180	10,500	11,400	700	1,760	5,550
1993	1,190	1,340	200	540	2,900	590	5,700
1994	220	2,090	130	450	1,500	4,200	3,500
1995	1,390	150	510	880	13,000	3,800	13,700
1996	940	160	1,240	130	3,250	2,700	5,000
1997	420	160	780	140	3,450	750	5,350
State total	23,300	12,900	26,000	30,600	24,800	13,800	38,800
Year planted	PF-23	Redhaven	Redskin	Stellar Series	Suncrest	Other	State total
1977 and before . . .	0	15,900	2,450	0	0	700	28,900
1978-1982	0	51,900	6,290	0	200	8,100	98,300
1983-1987	0	49,200	13,200	0	1,640	13,900	152,000
1988-1992	5,500	64,400	12,000	8,300	5,200	29,500	272,000
1993	4,700	9,250	130	700	0	5,400	66,900
1994	1,400	6,450	400	750	130	5,500	54,100
1995	7,400	7,600	420	1,170	0	11,000	74,800
1996	4,300	11,800	1,510	2,900	0	10,900	56,800
1997	5,600	12,500	500	4,680	130	11,000	56,200
State total	28,900	229,000	36,900	18,500	73,000	96,000	860,000

Table 5.—Peaches: Acres and trees of other varieties grown

Variety	Acres	Trees
Alberta	12	1,700
Biscoe	12	1,700
Candor	12	1,600
Encore	11	1,750
Harbelle	14	1,750
Harbinger	4	450
Harbrite	15	2,000
Harcrest	15	2,600
Harrow Beauty	5	700
Harrow Diamond	15	2,950
Jayhaven	43	5,700
Jersey Dawn	27	3,150
Jersey Glo	4	450
PF-1	47	9,950
PF-27A	25	6,000
PF-5B	21	5,250
PF-Other	44	8,500
Redkist	39	4,900
Reliance	5	550
Sweethaven	18	2,200
Sweet Sue	12	1,150
Other	200	31,000
State total	600	96,000

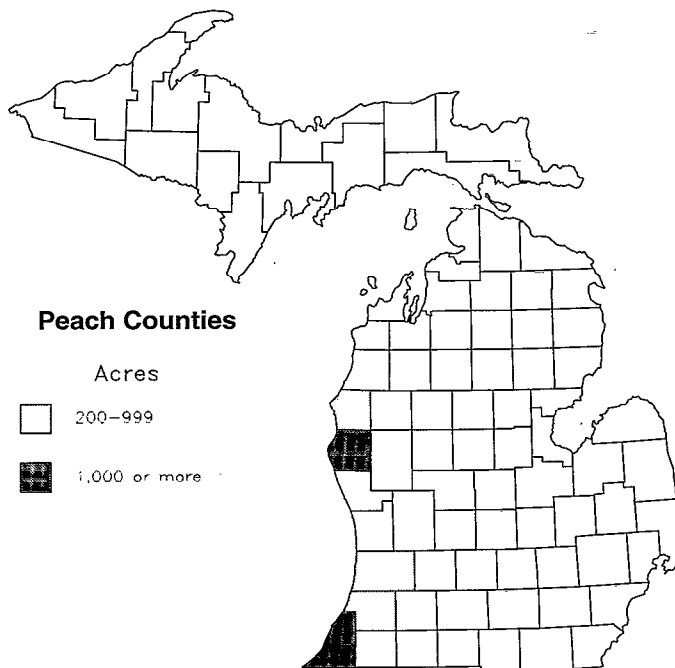
Table 6.—Peaches: Acres and trees by district and variety

Variety	West Central		Southwest		Northwest and East		State total	
	Acres	Trees	Acres	Trees	Acres	Trees	Acres	Trees
Arkansas-9	230	30,000	15	2,200	0	0	245	32,200
Baby Gold-5	895	119,000	60	8,300	5	700	960	128,000
Bellaire	40	5,300	85	11,100	15	1,800	140	18,200
Canadian Harmony	95	15,500	230	29,300	30	3,400	355	48,200
Cresthaven	37	5,100	120	13,800	13	1,300	170	20,200
Fayette	1	150	103	16,500	1	150	105	16,800
Garnet Beauty	16	1,800	48	6,000	14	1,800	78	9,600
Glohaven	19	2,100	115	16,400	36	4,800	170	23,300
Jim Dandee	7	1,900	60	9,600	10	1,400	77	12,900
Loring	5	500	190	23,400	15	2,100	210	26,000
Newhaven	17	2,000	175	24,600	28	4,000	220	30,600
PF-12A	34	6,700	90	16,500	11	1,600	135	24,800
PF-15A	12	2,400	49	11,200	1	200	62	13,800
PF-17	30	6,000	165	32,000	5	800	200	38,800
PF-23	17	3,450	120	24,000	8	1,450	145	28,900
Redhaven	420	58,000	1,070	140,000	240	31,000	1,730	229,000
Redskin	1	100	250	34,000	24	2,800	275	36,900
Stellar Series	11	2,100	60	16,000	2	400	73	18,500
Suncrest	13	1,400	35	5,600	2	300	50	7,300
Other	100	16,500	460	74,500	40	5,000	600	96,000
State total	2,000	280,000	3,500	515,000	500	65,000	6,000	860,000

Table 7.—Peaches: Trees and percent of total by variety

Variety	1986		1991		1997	
	Trees	Percent	Trees	Percent	Trees	Percent
Arkansas-9	*		*		32,200	3.7
Baby Gold-5	64,000	6.1	106,000	9.6	128,000	14.9
Bellaire	*		23,800	2.2	18,200	2.1
Canadian Harmony	76,000	7.2	99,900	9.1	48,200	5.6
Cresthaven	55,000	5.2	63,200	5.7	20,200	2.3
Fayette	14,000	1.3	19,300	1.8	16,800	2.0
Garnet Beauty	31,000	3.0	23,600	2.1	9,600	1.1
Glohaven	61,000	5.8	50,000	4.5	23,300	2.7
Jim Dandee	*		15,300	1.4	12,900	1.5
Loring	43,000	4.1	59,300	5.4	26,000	3.0
Newhaven	24,000	2.3	37,900	3.4	30,600	3.6
PF-12A	*		*		24,800	2.9
PF-15A	*		*		13,800	1.6
PF-17	*		*		38,800	4.5
PF-23	*		*		28,900	3.4
Redhaven	445,000	42.4	388,000	35.3	229,000	26.6
Redskin	71,000	6.8	74,900	6.8	36,900	4.3
Stellar Series	*		*		18,500	2.2
Suncrest	13,000	1.2	17,400	1.6	7,300	0.8
Other	153,000	14.6	121,400	11.0	96,000	11.2
State total	1,050,000		1,100,000		860,000	

*Included in other or not yet grown.



Pears

Table 1.—Pears: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Antrim	8	7	7	7	40	34	30	30
Benzie	9	6	4	4	40	16	16	16
Grand Traverse ..	15	13	7	6	100	84	55	48
Leelanau	16	11	9	8	40	38	34	28
Other counties ...	8	8	9	8	20	18	25	18
Northwest	56	45	36	33	240	190	160	140
Mason	15	11	10	12	100	64	69	83
Oceana	31	21	19	17	270	210	250	250
Other counties ...	51	36	23	21	160	96	81	57
West Central	97	68	52	50	530	370	400	390
Allegan	38	31	25	20	290	230	170	135
Berrien	79	61	42	32	270	180	150	95
Van Buren	33	27	21	17	200	180	115	95
Other counties ...	5	8	3	3	20	10	5	5
Southwest	155	127	91	72	780	600	440	330
East	89	75	54	50	150	140	100	90
State total	397	315	233	205	1,700	1,300	1,100	950

Table 2.—Pears: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-4 acres	236	164	148	360	280	220
5-9 acres	43	37	29	260	230	180
10-19 acres	24	23	20	290	290	250
20 acres or more	12	9	8	390	300	300
State total	315	233	205	1,300	1,100	950

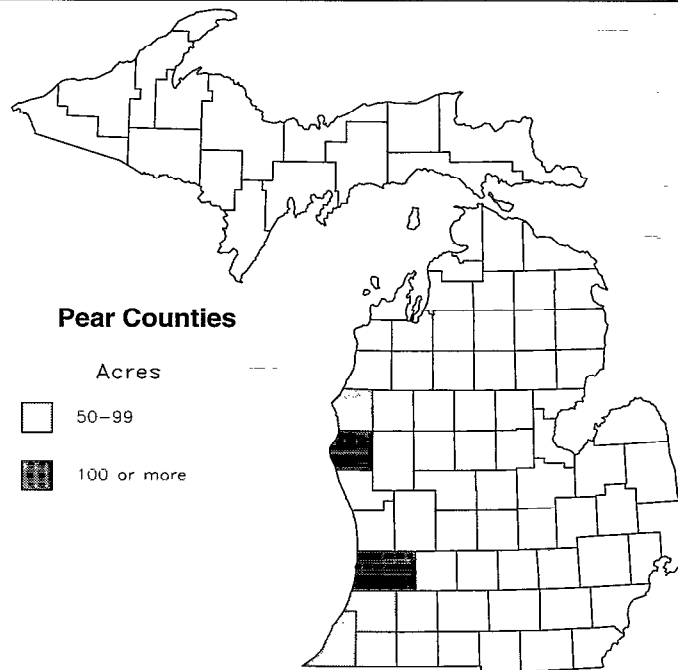


Table 3.—Pears: Acres and variety by year planted

Year planted	Bartlett	Bosc	Other	State total
1972 and before	605	56	29	690
1973-1982	53	9	8	70
1983-1992	55	28	17	100
1993	17	1	2	20
1994	22	3	5	30
1995	12	1	5	18
1996	10	1	2	13
1997	6	1	2	9
State total	780	100	70	950

Table 4.—Pears: Trees and variety by year planted

Year planted	Bartlett	Bosc	Other	State total
1972 and before	64,400	4,700	2,600	71,700
1973-1982	5,500	800	900	7,200
1983-1992	6,000	3,150	2,450	11,600
1993	2,050	110	240	2,400
1994	2,910	500	590	4,000
1995	1,500	170	580	2,250
1996	1,250	130	270	1,650
1997	790	140	270	1,200
State total	84,400	9,700	7,900	102,000

Table 5.—Pears: Acres and trees by district and variety

Variety	Northwest and East		West Central		Southwest		State total	
	Acres	Trees	Acres	Trees	Acres	Trees	Acres	Trees
Bartlett	185	17,800	345	41,800	250	24,800	780	84,400
Bosc	31	3,200	25	2,100	44	4,400	100	9,700
Other	14	1,500	20	2,300	36	4,100	70	7,900
State total	230	22,500	390	46,200	330	33,300	950	102,000

Table 6.—Pears: Acres and trees of other varieties grown

Variety	Acres	Trees
Asian	9	1,540
Clapp's	32	3,150
D'Anjou	3	450
Kieffer	3	250
Red Sensation	2	250
Spartlett	6	610
Other	15	1,650
State total	70	7,900

Plums

Table 1.—Plums: Number of farms and acres by county and district

County and district	Farms				Acres			
	1986	1991	1994	1997	1986	1991	1994	1997
Grand Traverse	44	27	18	13	360	250	160	65
Leelanau	59	36	31	22	600	330	280	230
Other counties	38	24	18	8	275	135	60	45
Northwest	141	87	67	43	1,235	715	500	340
Mason	21	18	17	10	230	210	180	130
Oceana	50	38	31	17	610	450	370	190
Other counties	61	42	31	16	445	280	150	55
West Central	132	98	79	43	1,285	940	700	375
Allegan	23	13	16	8	130	110	95	70
Berrien	111	88	73	52	400	310	220	190
Van Buren	54	42	42	29	610	400	300	220
Other counties	17	11	9	5	160	75	50	20
Southwest	205	154	140	94	1,300	895	665	500
East	62	78	39	35	80	50	35	35
State total	540	417	325	215	3,900	2,600	1,900	1,250

Table 2.—Plums: Number of farms and acres by size group

Size group	Farms			Acres		
	1991	1994	1997	1991	1994	1997
1-4 acres	249	204	135	400	340	225
5-9 acres	82	56	35	500	350	235
10-19 acres	50	41	33	670	510	440
20 acres or more	36	24	12	1,030	700	350
State total	417	325	215	2,600	1,900	1,250

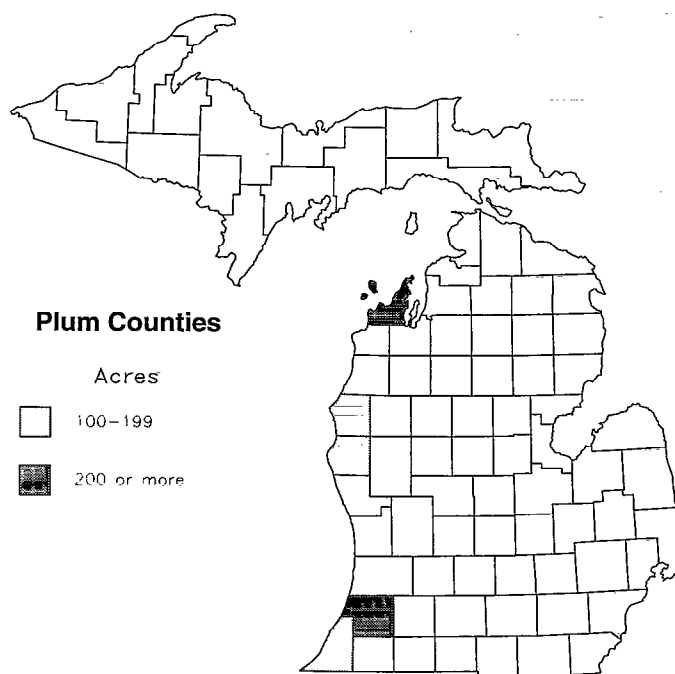


Table 3.—Plums: Acres by variety and year planted

Year planted	Damson	Stanley	Other	State total
1977 and before	50	130	10	190
1978-1982	14	265	21	300
1983-1987	30	340	20	390
1988-1992	5	100	20	125
1993	5	57	14	76
1994	12	30	6	48
1995	1	8	9	18
1996	6	33	17	56
1997	2	36	8	46
State total	125	1,000	125	1,250

Table 4.—Plums: Trees and variety by year planted

Year planted	Damson	Stanley	Other	State total
1977 and before	5,700	13,600	1,100	20,400
1978-1982	1,650	28,600	2,450	32,700
1983-1987	3,700	42,500	2,300	48,500
1988-1992	600	11,700	2,600	14,900
1993	700	6,600	1,600	8,900
1994	1,450	3,700	750	5,900
1995	130	1,300	1,170	2,600
1996	800	4,500	2,050	7,350
1997	270	4,500	980	5,750
State total	15,000	117,000	15,000	147,000

Table 5.—Plums: Acres and trees by variety and district

Variety	Northwest and East		West Central		Southwest		State total	
	Acres	Trees	Acres	Trees	Acres	Trees	Acres	Trees
Damson	95	10,800	10	1,200	20	3,000	125	15,000
Stanley	245	26,000	340	39,000	415	52,000	1,000	117,000
Other	35	4,400	25	3,100	65	7,500	125	15,000
State total ...	375	41,200	375	43,300	500	62,500	1,250	147,000

Table 6.—Plums: Acres and trees of other varieties grown

Variety	Acres	Trees
Bluefre	29	3,600
Burbank	3	310
Empress	2	210
Italian	4	470
Methley	8	1,130
Ozark Premier	8	930
Santa Rosa	2	250
Shiro	8	1,000
Valor	7	800
Other	54	6,300
State total	125	15,000

Strawberries

Table 1.—Strawberries: Number of farms and acres by county and district

County and district	Farms		Acres	
	1995	1997	1995	1997
Kent	15	10	90	60
Leelanau	12	7	100	30
Manistee	12	9	110	65
Oceana	9	5	105	35
Ottawa	7	7	30	30
Other counties	43	36	95	80
Northwest and West Central	98	74	530	300
Berrien	26	23	250	160
Van Buren	11	11	80	90
Other counties	15	13	140	130
Southwest	52	47	470	380
Houghton	8	7	40	30
Lapeer	5	5	30	30
Lenawee	9	8	40	35
Macomb	8	6	65	60
Washtenaw	9	8	55	50
Other counties	91	85	570	515
East	130	119	800	720
State total	280	240	1,800	1,400

Table 2.—Strawberries: Number of farms and acres by size group

Size group	Farms		Acres	
	1995	1997	1995	1997
1-4 acres	162	137	440	280
5-9 acres	58	52	360	320
10-19 acres	48	42	570	520
20 or more acres	12	9	430	280
State total	280	240	1,800	1,400

Table 3.—Strawberries: Acres by variety and year planted

Year planted	Allstar	Earliglow	Guardian	Honeoye	Jewel	Red Chief	Other	State total
1992 and before	43	30	7	44	33	16	47	220
1993	41	16	62	34	42	5	30	230
1994	46	17	2	27	33	5	40	170
1995	40	16	13	66	38	8	49	230
1996	45	28	24	63	80	9	51	300
1997	35	18	12	41	59	12	73	250
State total	250	125	120	275	285	55	290	1,400

Table 4.—Strawberries: Acres by district and variety

Variety	District			State total
	Northwest and West Central	East	Southwest	
Allstar	49	78	123	250
Earliglow	28	74	23	125
Guardian	5	48	67	120
Honeoye	72	180	23	275
Jewel	70	119	96	285
Red Chief	8	45	2	55
Other	68	176	46	290
State total	300	720	380	1,400

Table 5.—Strawberries: Acres of other varieties grown

Variety	Acres
Annapolis	39
Cavendish	32
Delmarvel	16
Glooscap	6
Kent	46
Lateglow	32
Latestar	19
Lester	8
Midway	28
Mohawk	6
Northeaster	5
Primestar	4
Scott	4
Sparkle	18
Winona	7
Other	20
State total	290

Survey Methods

The list sampling frame maintained by the Michigan Agricultural Statistics Service was the primary source of names of commercial fruit farms. Commercial meant any operation with at least one acre of any of the twelve fruits on the inventory. (For brambles and strawberries, the minimum was one-tenth acre.) Data for all fruit was collected for every qualifying operation.

Questionnaires and cover letters were mailed to fruit farms on the list frame October 17, 1997. Large farms were sent only a cover letter informing operators that a NASDA data collector would contact them to collect the requested data. Growers who responded to the 1994 Fruit Survey were given a printout of their responses to that inventory. Data collection continued until the spring of 1998.

The apple section of the survey instrument is shown at the end of this section. Farmers were asked to complete, by block (vineyard or plantation), the block name or number, the county, township and section where that block was located, variety, rootstock or trellis, year of planting, trees, acres, and spacing for each variety in the block. Each line within a block represents a different

variety, rootstock, year of planting, or plant spacing.

These detailed data were obtained for 90 percent of the farms. Of those, 27 percent were returned by mail, 40 percent were completed by telephone, and 23 percent were done by personal interview. Eight percent refused to do the inventory and two percent were unable to be contacted. Estimates of total acres of each fruit were made from various sources for the farms for which detailed block records were not available.

The completion rates of the detailed data varied by district and fruit type. They were calculated by dividing the total acres with complete block data by those acres summed with estimated acres for refusals and inaccessible. These rates are shown as percentages in the accompanying table. Inverses of those completion rates were used to expand detailed data to total acreage totals by fruit and district. The higher the completion rate for a district and fruit, the more accurate are the detailed data shown in the two-way and three-way tables of this bulletin.

Completion rates: Percent of acreage completed by fruit and district

District	Apples	Apri-cots	Blue-berries	Bram-bles	Cherries, sweet	Cherries, tart	Grapes	Necta-rines	Peaches	Pears	Plums	Straw-berries	State total
Northwest	84.1	88.0	94.7	92.9	85.1	84.7	89.4	100.0	80.0	89.3	73.8	89.1	84.7
Oceana-Mason	66.5												68.5
Grand Rapids	81.2												84.9
West Central		66.7	99.0	88.2	82.5	69.9	57.1	88.0	72.8	78.5	62.1	73.4	
Southwest	81.2	86.7	93.0	70.0	84.3	78.9	95.0	98.9	82.2	96.1	92.4	90.5	87.1
East	82.7	100.0	94.0	93.5	77.8	70.6	99.0	100.0	82.8	70.4	70.2	88.2	84.3
State total	80.3	83.1	95.2	83.5	84.7	78.9	94.8	96.8	79.0	85.2	76.8	86.5	83.4



National
Agricultural
Statistics
Service

Michigan Fruit Inventory-1997



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

Telephone: (517) 377-1834
Facsimile: (517) 377-1829
E-mail: nass-mi@nass.usda.gov

October, 1997

Dear Grower:

Michigan's fruit industry needs updated information for planning, marketing, and production forecasting. The last survey was conducted in 1994. This project initiates the third cycle of the Michigan Department of Agriculture's Rotational Specialty Crop Survey. Response to this survey is voluntary and not required by law, however, your voluntary cooperation in reporting the acreage and number of trees you operated in 1997 is needed. A computer printout of your report will be returned to you for your records. Your report is strictly confidential. Thank you for your help.

David D. Kleweno
State Statistician

Marty Saffell
Statistician

If not growing fruit, check reason below and give new operator's name.

1. Farm sold.
2. Retired from farming.
3. Entire farm rented to others.
4. Farming, but not growing fruit.

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

If you receive more than one of these forms, please complete one, mark any other "duplicate," and mail in all forms.

Farm Name: _____
 Partner's Name(s): _____
 Address: _____
 City: _____ Zip: _____
 New Operator Name: _____
 Address: _____
 City: _____ Phone: _____

SAMPLE

***** Please read instructions on next page before proceeding. *****

Report for all land you operate (include land you rent from others, but exclude land you rent to others).

List the total acres in your operation, for each fruit grown.

Crop	Total Acreage
Apples	001
Tart Cherries	101
Sweet Cherries	151
Blueberries	201
Grapes	301
Peaches	401

Crop	Total Acreage
Plums	501
Pears	601
Brambles	701
Strawberries	751
Apricots	801
Nectarines	851

INSTRUCTIONS

Please report only for acreage of fruit you operate. Include land rented from others. **Exclude** land rented to others.

If you participated in the 1994 Fruit Survey, you will find enclosed a printout of the blocks you reported in 1994. Space has been left on these printouts for you to update the information. Check the varieties on the block record and update them. Your updated copy of the 1994 printout should be returned with this questionnaire in which you should report on new blocks acquired or planted since 1994. If it is easier, you may use the printout as a reference only and list all of your blocks in this questionnaire. All of your fruit blocks must be accounted for between the updated printout and the questionnaire.

If you did not receive a printout from the 1994 survey, draw a line in the questionnaire for each block in your operation. Use the name or number that you use to identify each block. Each block should have its own distinctive name or number. List the county, township and section where the block is located. Include all bearing and non-bearing blocks. Exclude abandoned blocks.

Enter the appropriate variety and rootstock codes on the lines and complete the remaining cells for each variety in the block. Round acreage to the nearest tenth of an acre. To separate blocks, draw a line across the hash marks. **See examples below.** If you need space for additional blocks, continue on the extra pages provided in the questionnaire.

It is important that we receive a response from you. If you are not able to complete and return the questionnaire by mail, a representative of our office will contact and assist you. If there are any questions or if you need assistance in completing this inquiry, call our office at (800) 453-7501.

Example for Apples

Use code if given. If not write in variety name.

Block (Name or number)	County (Name)	Township (Name)	Section (Number)	Variety (Code or name)	Rootstock code	Year planted	Trees (Number)	Acres	Spacing
Home Farm	Van Buren	Keeler	1	022	1	1968	525	5•0	20 x 20
Jones Place	Van Buren	Keeler	8	Sport Red Delicious	5	1982	530	4•0	16 x 20
Jones Place	Van Buren	Keeler	3	012	5	1982	125	1•0	16 x 20

Example for Cherries

Use code if given. If not write in variety name.

Block (Name or number)	County (Name)	Township (Name)	Section (Number)	Variety (Code or name)	Rootstock code	Year planted	Trees (Number)	Acres	Spacing
Home	Grand Traverse	Xavier	5	Schmidt	2	1981	2,400	24•0	20 x 20
Home	Grand Traverse	Xavier	5	163	2	1981	600	6•0	20 x 20
North Forty	Grand Traverse	Xavier	4	111	1	1990	660	5•5	18 x 20

Apples

VARIETY	CODE	VARIETY	CODE	VARIETY	CODE	VARIETY	CODE
Braeburn	035	Empire	015	Idared	019	Jonathan, Sport	023
Cortland	011	Rome	028	Jerseymac	021	McIntosh	024
Delicious, Golden	012	Gala	017	Jonagold	020	Mutsu	025
Delicious, Regular*	013	Ginger	042	Jonamac	046	Northern Spy	026
Delicious, Sport Red**	014	Honeycrisp	065	Jonathan	022	Paulared	027
						Other (specify)	

*Regular Delicious (Code 013) includes all strains developed before Starkrimson.

**Sport (Code 014) includes Starkrimson and other strains developed afterwards.

Rootstocks

ROOTSTOCK	CODE	ROOTSTOCK	CODE	ROOTSTOCK	CODE
Seedling			5	Interstem	9
111		111	6	Bud 9	10
106		9 (IX) & 9 clones	7	Other (specify)	
7 (VII)			8		

Block (Name or number)	County (Name)	Township (Name)	Section (Number)	Variety (Code or name)	Rootstock code	Year planted	Trees (Number)	Acres	Spacing
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x
								•	x

To help insure complete coverage of this fruit inventory, please list the name and address of two fruit growers near you. All information will be kept confidential.

NAME

ADDRESS

POB

_____	_____	_____
_____	_____	_____

Are you involved in more than one fruit operation? YES _____

If YES -- Please identify that operation NAME: _____

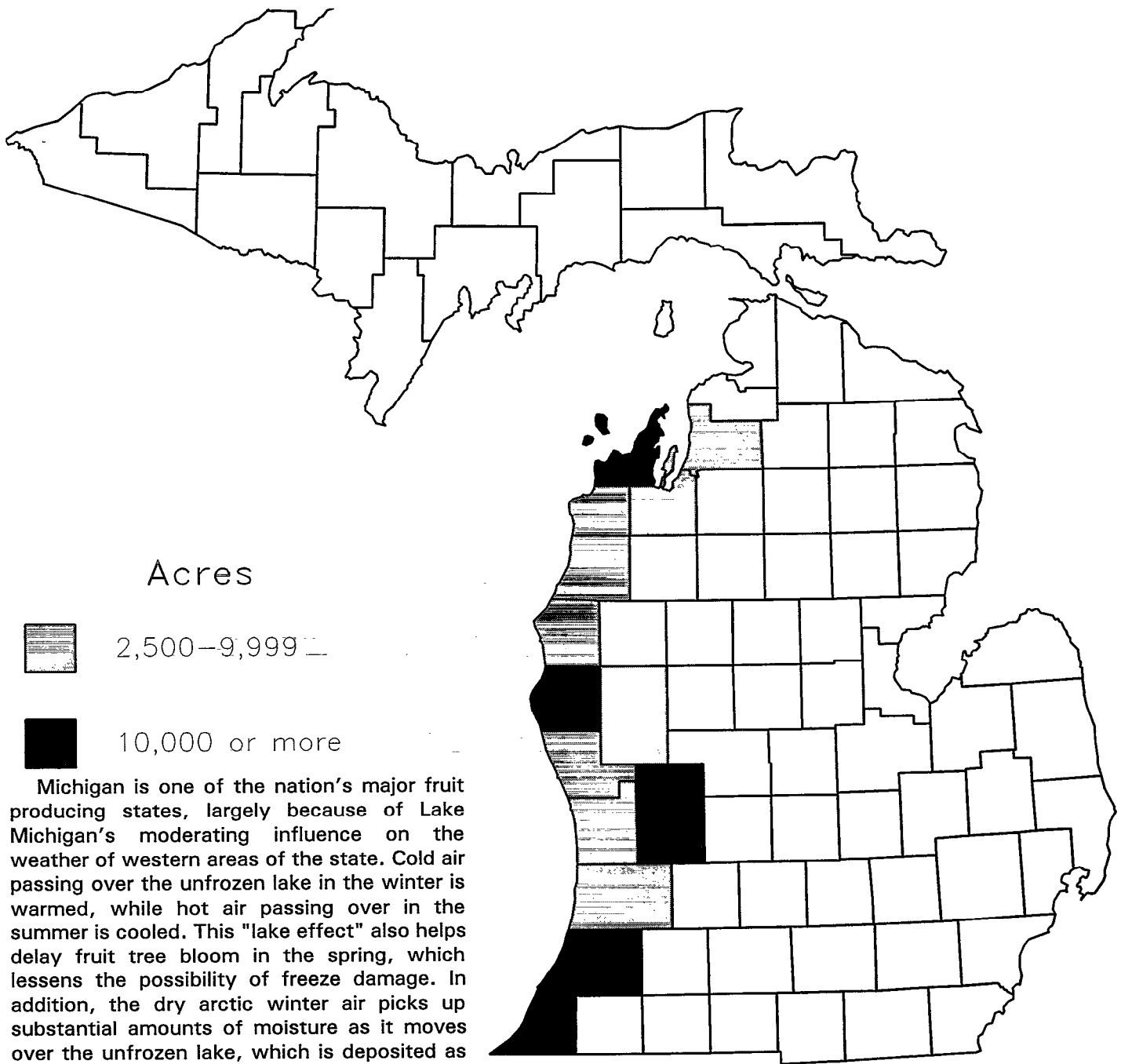
ADDRESS: _____

Comments:

Your Name _____ Phone _____

For Office Use On	999	Status Code
Enumerator: _____	1 = Int 2 = Tel	3 = Mail 4 = Ref 5 = Inac

Michigan Fruit Counties, 1997



Michigan is one of the nation's major fruit producing states, largely because of Lake Michigan's moderating influence on the weather of western areas of the state. Cold air passing over the unfrozen lake in the winter is warmed, while hot air passing over in the summer is cooled. This "lake effect" also helps delay fruit tree bloom in the spring, which lessens the possibility of freeze damage. In addition, the dry arctic winter air picks up substantial amounts of moisture as it moves over the unfrozen lake, which is deposited as "lake effect" snow, providing moisture for the fruit trees as well as insulating their root systems.