

Fruit

The 2002 fruit season was one of the worst in history. The season began with cool weather in March and early April. A week of warm, summer like weather in mid-April caused rapid plant growth. Frost hit the State on April 22, causing significant damage to all fruit crops. The following four weeks were wet and cold. This cold and wet period ended with cold weather and frosts from May 17 through May 21. June and July were hot and dry. Drought conditions reduced both plant and fruit growth. Rain returned in August, helping fruit to develop. Dry weather returned in September and continued until early fall when wet, cool weather returned during the apple and grape harvest.

Michigan growers harvested 500 million pounds of apples from 41,000 acres in 2002. The preliminary farm level value of the crop in Michigan was \$61 million, down 27 percent from 2001. Michigan ranked third in apple production behind Washington and New York.

Tart and sweet cherries were severely damaged by the spring frosts. Buds that did survive the frosts were not pollinated due to cold weather that hampered insect activity. The cool, wet spring caused widespread disease in both crops. Bacterial spot and cherry leaf spot pressure was very high in 2002. In the northwest, bacterial canker infection in sweet cherries was the worst in 27 years. Insect pressure was light throughout the season. Birds were a major difficulty as harvest neared. Tart cherry production was the lowest since 1945. Sweet cherry production was the lowest since 1948. Michigan growers harvested 15 million pounds of tart cherries from 27,000 acres. The preliminary farm level value of the crop in Michigan was \$7.2 million. Michigan ranked second in tart cherry production behind Washington. Sweet cherry growers utilized 2,600 tons from 7,400 acres. The preliminary farm level value of the crop in Michigan was \$2.2 million. Michigan ranked fourth in sweet cherry production behind Washington, California, and Oregon.

Blueberries were not as damaged by the cold, damp spring as other crops. Scattered frost damage in Berrien and Van Buren counties was reported. A common problem in blueberries was

fewer leaves on a bush than fruit. Hot, dry conditions during harvest kept the fruit size of later pickings small. Birds were a major concern during harvest. Michigan growers harvested 64 million pounds of cultivated blueberries from 16,900 acres. The preliminary farm level value of the crop in Michigan was \$52.2 million. Michigan ranked first in blueberry production.

Peaches were significantly damaged by the spring frosts. In southwest Michigan, the frost reduced the crop, but most growers had a fair crop on good peach sites. Lower sites and sites away from Lake Michigan suffered a complete loss. Peaches did not fare much better in southeast Michigan. One bright spot in southeast Michigan was Macomb county, where growers reported a full crop. Peach growers in northern Michigan reported poor yields, but excellent size and quality. Bacterial spot symptoms were common on susceptible varieties. Split pits were common. Oriental fruit moth was a steady problem throughout the season. Michigan growers harvested 14 million pounds of peaches from 4,700 acres. The preliminary farm level value of the crop in Michigan was \$4.5 million.

Grapes suffered from the spring frosts, though not as badly as originally anticipated. In the southwest, juice grapes lost almost all primary buds. Secondary buds began to grow in late May. Wine grapes suffered less, as they begin growth later and are usually on higher, better sites. In the northwest, wine grapes weathered the frosts well and produced a crop of excellent quantity and quality. Vintners across the State reported exceptional quality of both red and white grapes. In the northwest, Pinot Noir showed especially deep color with both good body and balance. Cool, wet conditions in early shoot growth favored Phomopsis, the major disease of 2002. Black rot and downy mildew were not significant. Grape berry moth pressure was heavy throughout the season. Michigan growers harvested 42,700 tons of grapes from 12,300 acres. The preliminary farm level value of the crop in Michigan was \$14.8 million.

Fruit: Record highs and lows

Crop	Unit	Record high		Record low		Year estimates started
		Quantity	Year	Quantity	Year	
Apples	Million pounds	1,200	1999	53	1945	1889
Blueberries	Million pounds	87	1993	34	1992	1992
Cherries, sweet	Tons	37,500	1978	500	1945	1925
Cherries, tart	Million pounds	380	1964	15	2002	1925
Grapes	Tons	87,200	2000	4,200	1889	1889
Peaches	Million pounds	255	1945,1946	7.4	1918	1889
Pears	Tons	48,600	1964	1,400	2002	1889
Plums	Tons	25,000	1971	250	2002	1919
Strawberries	1,000 cwt	451	1940	42	2002	1928

Fruit: Acres harvested and value of production, 1998-2002

Item	Unit	1998	1999	2000	2001	2002
Acres harvested	1,000 acres	127	124	121	116	112
Value of production	1,000 dollars	205,010	249,763	218,999	218,234	145,721

Fruit: Acres, production, and value, 1998-2002

Fruit and Year	Bearing acres	Yield	Production		Price	Value of production
			Total	Utilized		
	<i>Acres</i>	<i>Pounds</i>	<i>Million pounds</i>	<i>Million pounds</i>	<i>Dollars per pound</i>	<i>1,000 dollars</i>
Apples						
1998	54,000	18,500	1,000	960	0.087	83,200
1999	52,000	23,100	1,200	1,180	0.088	103,465
2000	48,500	16,500	800	795	0.093	74,065
2001	44,500	20,900	930	900	0.094	84,330
2002	41,000	12,200	500	495	0.124	61,223
Blueberries ¹						
1998	16,400	2,990	49	49	0.618	30,260
1999	16,600	4,220	70	70	0.781	54,660
2000	16,700	3,710	62	62	0.889	55,140
2001	16,800	4,170	70	70	0.712	49,840
2002	16,900	3,790	64	64	0.816	52,240
Cherries, tart						
1998	28,400	9,260	263	229	0.140	32,162
1999	28,100	6,580	185	185	0.228	42,134
2000	28,500	7,020	200	200	0.182	36,370
2001	27,400	10,800	297	242	0.184	44,412
2002	27,000	556	15	15	0.479	7,192
Peaches						
1998	5,000	8,600	43.0	42.5	0.272	11,546
1999	4,600	5,000	23.0	23.0	0.237	5,440
2000	4,800	9,900	47.5	45.5	0.249	11,340
2001	4,600	9,130	42.0	42.0	0.298	12,503
2002	4,700	2,980	14.0	14.0	0.318	4,452
	<i>Acres</i>	<i>Tons</i>	<i>Tons</i>	<i>Tons</i>	<i>Dollars per ton</i>	<i>1,000 dollars</i>
Cherries, sweet						
1998	7,900	4.43	35,000	33,000	562	18,551
1999	7,700	3.51	27,000	26,500	534	14,149
2000	7,600	2.76	21,000	21,000	490	10,290
2001	7,400	3.11	23,000	23,000	482	11,092
2002	7,400	0.36	2,700	2,600	855	2,222
Grapes						
1998	12,300	5.72	70,400	70,400	282	19,820
1999	11,700	6.40	74,900	74,900	281	21,083
2000	12,500	6.98	87,200	87,200	277	24,156
2001	12,300	2.35	28,900	28,500	355	10,110
2002	12,300	3.47	42,700	42,500	347	14,757
Pears						
1998	900	5.60	5,040	4,800	271	1,302
1999	850	5.88	5,000	4,900	265	1,300
2000	800	6.50	5,200	5,200	270	1,402
2001	800	5.75	4,600	3,900	297	1,160
2002	800	1.75	1,400	1,400	318	445
Plums						
1998	1,100	3.27	3,600	3,600	300	1,080
1999	900	4.44	4,000	3,750	299	1,120
2000	800	4.50	3,600	3,300	261	861
2001	800	4.50	3,600	3,600	358	1,289
2002	800	0.31	250	240	358	86

¹ Harvested acres.

Apples: Stocks in cold and controlled atmosphere storage ¹

Month	Crop year				
	1998	1999	2000	2001	2002
	<i>1,000 pounds</i>				
October		525,756	416,923	484,244	237,062
November	405,993	534,061	343,731	392,432	216,805
December	347,729	382,346	294,088	343,380	173,503
January	241,038	357,336	238,013	261,696	130,325
February	177,725	264,771	215,482	199,318	99,044
March	101,682	193,012	160,481	178,996	58,155
April	58,357	127,684	104,512	78,303	22,467

¹ End-of-month stocks.

Apples: Utilization and price, 1998-2002

Year	Fresh market		Processing		Total	
	Quantity	Price per lb	Quantity	Price per lb	Quantity	Price per lb
	<i>Million pounds</i>	<i>Dollars</i>	<i>Million pounds</i>	<i>Dollars</i>	<i>Million pounds</i>	<i>Dollars</i>
1998	320	0.140	640	0.060	960	0.087
1999	370	0.145	810	0.062	1,180	0.088
2000	260	0.147	535	0.067	795	0.093
2001	270	0.170	630	0.061	900	0.094
2002	150	0.223	345	0.805	495	0.124

Apples, processing: Utilization and price, 1998-2002

Year	Canned		Frozen		Juice and cider		Other	
	Quantity	Price per lb						
	<i>Million pounds</i>	<i>Dollars</i>						
1998	230	0.073	100	0.086	300	0.041	10	0.050
1999	255	0.072	160	0.082	380	0.045	15	0.060
2000	190	0.078	120	0.085	215	0.048	10	0.083
2001	220	0.072	115	0.082	280	0.042	15	0.065
2002 ¹								

¹ Published in January 2004.

Blueberries: Utilization and price, 1998-2002

Year	Production		Fresh market		Processed	
	Total	Utilized	Quantity	Price per pound	Quantity	Price per pound
	<i>Million lbs</i>	<i>Million lbs</i>	<i>Million lbs</i>	<i>Dollars</i>	<i>Million lbs</i>	<i>Dollars</i>
1998	49	49	16	0.860	33	0.500
1999	70	70	18	1.130	52	0.660
2000	62	62	19	1.250	43	0.730
2001	70	70	21	1.090	49	0.550
2002	64	64	22	1.210	42	0.610

Cherries, sweet: Production and utilization, 1998-2002

Year	Total production	Utilized production							
		Fresh		Canned		Brined		Other ¹	
		Quantity	Price per ton	Quantity	Price per ton	Quantity	Price per ton	Quantity	Price per ton
	<i>Tons</i>	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>
1998	35,000	700	1,400	4,700	580	24,500	530	3,100	598
1999	27,000	950	1,500	3,900	540	19,300	470	2,350	650
2000	21,000	600	1,680	900	500	15,000	430	4,500	528
2001	23,000	1,000	1,280	700	450	15,500	440	5,800	460
2002	2,700	200	2,540	280	1,000	1,700	630	420	864

¹ Frozen, juice, etc.

Cherries, tart: Utilization, 1998-2002

Year	Production		Fresh market	Processed					
	Total	Utilized		Canned		Frozen		Other ¹	
				Quantity	Price per pound	Quantity	Price per pound	Quantity	Price per pound
	<i>Million lbs</i>	<i>Million lbs</i>	<i>Million lbs</i>	<i>Million lbs</i>	<i>Dollars</i>	<i>Million lbs</i>	<i>Dollars</i>	<i>Million lbs</i>	<i>Dollars</i>
1998	263	229	1.0	65.0	0.147	150	0.139	13.0	0.064
1999	185	185	1.0	69.0	0.239	100	0.230	15.0	0.144
2000	200	200	1.0	80.0	0.187	110	0.181	9.0	0.106
2001	297	242	1.0	80.0	0.179	151	0.189	10.0	0.098
2002	15	15	0.1	6.5	0.460	8	0.500	0.4	0.340

¹ Juice, wine, and dried.

Cherries, tart: Production by region, 1998-2002

Region	1998	1999	2000	2001	2002
	<i>Million pounds</i>				
Northwest	186	108	109	183	3
West Central	59	48	71	84	4
Southwest and other	18	29	20	30	8
Michigan	263	185	200	297	15

Cherries, tart, frozen: Stocks in cold storage, 1999-2002, crop years

Month	East North Central region ¹				48 States total ²			
	1999	2000	2001	2002	1999	2000	2001	2002
	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>	<i>1,000 pounds</i>
July	141,216	135,748	135,786	65,585	162,135	166,000	158,160	81,794
August	131,875	133,294	151,858	58,797	156,754	160,497	174,165	78,729
September	126,300	115,570	137,019	52,852	149,070	141,514	155,033	74,498
October	114,435	110,116	124,835	45,814	136,220	133,210	144,013	66,942
November	105,799	101,551	111,568	39,524	125,343	122,339	129,620	59,721
December	98,574	95,628	109,652	36,543	116,364	115,042	127,215	54,724
January	88,934	90,638	101,979	32,558	105,384	107,783	117,143	48,085
February	82,887	83,994	101,197	26,030	97,224	98,810	115,834	38,771
March	72,641	75,583	94,168	23,580	84,957	88,595	106,150	34,968
April	67,478	68,465	85,579	19,409	78,475	78,721	96,170	27,766
May	57,753	58,553	78,357	12,440	66,628	66,095	86,138	18,375
June	53,578	50,822	68,655	8,681	61,412	56,927	75,159	12,684

¹ Illinois, Indiana, Michigan, Ohio, and Wisconsin.

² Excluding Alaska and Hawaii.

Grapes: Processed utilization and value, 1998-2002

Year	Concord	Niagara	Other	Total		
				Utilized production	Price per ton	Value
	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>1,000 Tons</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998	53.8	13.7	2.5	70.0	278	19,460
1999	57.3	14.4	2.7	74.4	278	20,683
2000	64.5	19.1	3.1	86.7	274	23,756
2001	19.0	7.0	2.2	28.2	350	9,870
2002	25.3	13.9	3.0	42.2	344	14,517

Grapes: Processed for wine by category, 1998-2002 ¹

Year	Hybrids		Vinifera		Other		Total		
	Quantity	Price per ton	Value of production						
	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998							2,500	775	1,938
1999							2,900	700	2,030
2000							3,100	825	2,558
2001							2,200	940	2,068
2002	1,300	425	1,650	1,330	50	250	3,000	920	2,760

¹ Quantity and price per ton by category first published in 2002.

Peaches: Utilization and value, 1999-2002

Year	Fresh Market			Processing		
	Production	Price per pound	Value of production	Production	Price per ton	Value of production
	<i>Million lbs</i>	<i>Dollars</i>	<i>1,000 dollars</i>	<i>Million lbs</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998	31.5	0.315	9,923	11.0	295	1,623
1999	11.0	0.320	3,520	12.0	320	1,920
2000	29.5	0.280	8,260	16.0	385	3,080
2001	27.0	0.375	10,125	15.0	317	2,378
2002	10.6	0.370	3,922	3.4	312	530

Plums: Utilization and value, 1998-2002

Year	Fresh Market			Processing		
	Production	Price per Ton	Value of production	Production	Price per ton	Value of production
	<i>Tons</i>	<i>Dollars</i>	<i>1,000 dollars</i>	<i>Tons</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998	1,200	390	468	2,400	255	612
1999	1,100	440	484	2,650	240	636
2000	1,250	270	338	2,050	255	523
2001	1,800	442	796	1,800	274	493
2002	60	600	36	180	278	50

Strawberries: Acres, production and value, 1998-2002

Year	Total	Harvested	Yield	Production	Price per cwt	Value of production
	<i>Acres</i>	<i>Acres</i>	<i>Cwt</i>	<i>1,000 cwt</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998	1,500	1,400	68	95	74.60	7,089
1999	1,400	1,400	64	90	71.20	6,412
2000	1,200	1,200	69	83	74.00	6,145
2001	1,000	900	56	50	93.60	4,682
2002	1,000	900	47	42	90.60	3,804

Strawberries: Utilization and value, 1998-2002

Year	Fresh Market			Processing		
	Production	Price per cwt	Value of production	Production	Price per cwt	Value of production
	<i>1,000 cwt</i>	<i>Dollars</i>	<i>1,000 dollars</i>	<i>1,000 cwt</i>	<i>Dollars</i>	<i>1,000 dollars</i>
1998	82	79.00	6,478	13	47.00	611
1999	71	78.00	5,538	19	46.00	874
2000	66	81.00	5,346	17	47.00	799
2001	44	100.00	4,400	6	47.00	282
2002	36	98.00	3,528	6	46.00	276

Refrigerated warehouses: Number and capacity, October 1, 2001 ¹

Type	Number	Usable freezer space	Usable cooler space	Controlled atmosphere
		<i>1,000 cu ft</i>	<i>1,000 cu ft</i>	<i>1,000 bushels</i>
Apple	181		29,742	7,537
General-public	25	47,423	7,783	
General-private and semi-private	22	12,446	6,240	

¹ Conducted biennially.