

Commodity Highlight

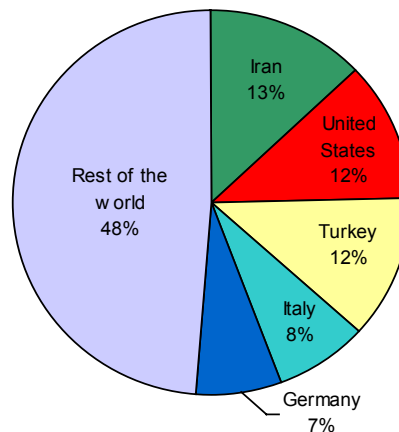
Cherries: Sweet and Tart

Cherries are believed to have originated in Asia and through the centuries have been cultivated across the world. Early settlers brought cherries to America in the 1600s, but modern day cherry production didn't start until the mid-1800s. It was in 1893 that the first commercial tart cherry orchards were established in Michigan. By the 1900s, the tart cherry industry was firmly established in the State. Meanwhile, the first sweet cherry orchard was established in 1847 in western Oregon. It was, however, around the 1870s, when sweet cherry production reached commercial status. Since then, modern day cherry production flourished in America and to this day, the United States is recognized as one of the leaders in world cherry production.

United States is World's Second Largest Cherry Producer

With harvested acreage ranking sixth largest in the world and average per-acre yields well above the world average, the United States is the world's second largest producer of cherries, closely following Iran. Just slightly below the U.S. volume, Turkey is the third largest producer and together, these top three producers grow over a third of the world's cherry output (fig.6).

Figure 6
Top five world producers of cherries*



*Average share of 1997-2001 world production.

Source: Food and Agriculture Organization of the United Nations.

During 1997 to 2001, world cherry production averaged 1.7 million metric tons, up 23 percent from 1990 according to data from the Food and Agriculture Organization of the United Nations. Independently the United States produced an average of 12 percent of the world's output during the same 5-year period, up slightly from a 10-percent share in 1990. Italy and Germany complete the top five producers, with combined production accounting for 15 percent of world output.

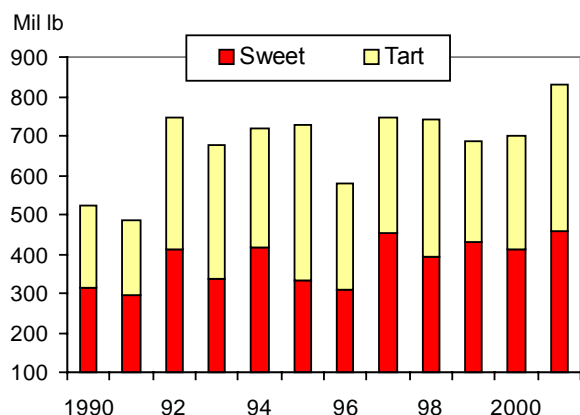
Table 14--Cherries, sweet: Production, utilization, and season-average grower price, United States, 1980 to date

Year	Production		Utilization		Grower price		
	Total	Utilized	Fresh	Processed	Fresh	Processed	All
--Million pounds--							
1980	347.4	336.6	172.9	163.7	36.2	18.8	27.7
1981	309.1	295.0	143.5	151.6	46.8	22.4	34.3
1982	313.2	269.2	135.2	134.0	48.5	21.4	35.0
1983	362.4	337.5	190.2	147.4	39.3	21.5	31.5
1984	363.6	328.5	181.0	147.5	40.0	18.9	30.5
1985	265.0	253.0	106.1	146.9	59.5	25.8	40.0
1986	275.4	273.5	136.6	136.9	54.5	27.6	41.2
1987	430.0	426.0	216.3	209.8	47.7	26.8	37.4
1988	372.4	369.0	174.5	194.6	55.0	25.5	39.4
1989	386.9	381.9	207.0	174.8	46.6	22.7	35.7
1990	313.5	264.7	141.0	123.7	65.5	21.2	44.7
1991	297.1	279.8	133.4	146.4	65.0	33.4	48.4
1992	410.0	383.3	190.0	193.3	60.0	31.5	45.8
1993	336.7	320.8	159.3	161.5	85.0	34.3	59.5
1994	414.2	385.4	198.5	186.9	74.0	28.3	52.0
1995	330.6	305.8	128.5	177.3	112.5	27.6	63.0
1996	308.2	303.4	161.3	142.1	106.0	36.5	73.5
1997	451.5	447.0	230.9	216.1	84.0	39.2	62.5
1998	393.8	387.8	203.9	183.9	76.0	31.8	55.0
1999	432.2	426.5	246.8	179.7	75.0	27.8	55.0
2000	413.0	408.0	241.5	166.5	95.0	26.8	67.0
2001	460.2	438.9	291.3	147.6	83.0	26.4	64.0

Source: National Agricultural Statistics Service, USDA.

Figure 7

Total cherry production in the United States



Source: National Agricultural Statistics Service, USDA.

Sweet Cherries Dominate Production

U.S. cherry production changes substantially from year to year, due mostly to weather factors and to some extent due to the alternate-bearing tendency of the trees. Over the last 3 years, the United States produced an average of 370,000 tons (740 million pounds) of cherries. Sweet cherries made up more than half of the volume produced, while tart cherries, also known as “sour cherries”, accounted for the remainder (fig.7).

Ranked as the eighth most valuable fruit and tree nut crop during 2000, commercial cherry production generated \$327 million in U.S. farm cash receipts that year, up from \$135 million in 1980. Sweet cherries accounted for over 80 percent of this value.

Production of both sweet and tart cherries increased during the 1990s relative to the 1980s (tables 14 and 15). Although sweet cherry production dominated overall domestic cherry output, the growth in U.S. tart cherry output, attributed mainly to higher yields per acre, outpaced the expansion in U.S. sweet cherry production during the past decade. Sweet cherry yields averaged about the same during the past two decades, but the expansion in acreage led to the overall increase in production.

Pacific Northwest and Michigan are Leaders in U.S. Cherry Production

Requiring a winter dormant period for proper development and fruit production, cherries are not well adapted to most areas of the United States. Commercial production is concentrated in the northern portion of the country where there is sufficient winter cold to get the cherry buds to open properly in the spring. Also, because summers in the southern and central United States are typically long and hot, cherry growers face more difficulties in controlling for pests and diseases.

Table 15--Cherries, tart: Production, utilization, and season-average grower price, United States, 1980 to date

Year	Production		Utilization		Grower price		
	Total	Utilized	Fresh	Processed	Fresh	Processed	All
--Million pounds--							
1980	218.1	216.2	6.3	209.9	29.5	19.9	20.2
1981	133.2	132.8	4.0	128.8	42.7	44.5	44.5
1982	310.9	244.9	7.4	237.5	27.6	13.7	14.1
1983	154.6	153.6	5.3	148.3	48.5	46.5	46.6
1984	271.6	255.9	7.9	248.0	44.2	24.4	25.0
1985	286.2	280.2	7.6	272.6	33.4	22.1	22.4
1986	224.1	218.4	5.5	212.9	32.3	20.0	20.3
1987	359.0	286.0	9.1	276.9	23.3	7.3	7.8
1988	236.2	233.5	5.0	228.5	43.9	18.2	18.7
1989	264.1	243.0	6.7	236.3	34.4	14.0	14.5
1990	208.8	202.9	5.1	197.8	38.3	17.6	18.1
1991	189.9	189.7	3.7	186.0	45.9	46.4	46.4
1992	335.1	313.0	8.8	304.2	38.9	17.0	17.6
1993	340.4	273.6	5.3	268.3	39.9	11.6	12.1
1994	304.2	296.3	3.5	292.8	43.6	16.0	16.3
1995	395.6	311.2	2.7	308.5	44.4	5.6	5.9
1996	271.8	260.1	2.5	257.6	48.1	15.7	16.1
1997	292.9	283.3	2.6	280.7	56.3	15.5	15.9
1998	348.1	305.6	2.3	303.3	49.4	14.2	14.5
1999	256.1	254.1	1.8	252.3	56.2	21.6	21.8
2000	288.5	281.4	1.8	279.6	57.5	18.4	18.7
2001	369.3	308.1	1.9	306.2	53.8	16.2	16.5

Source: National Agricultural Statistics Service, USDA.

Over 85 percent of commercial U.S. sweet cherry production are harvested from orchards in the Pacific Northwestern States of Washington, California, and Oregon according to data from USDA's National Agricultural Statistics Service (NASS). Michigan also produces a significant volume of sweet cherries (about one-tenth of total U.S. production) but it is better known for being the country's dominant producer of tart cherries, producing about three-quarters of the U.S. tart cherry crop.

The 1997 Census of Agriculture reports that 60 percent of all U.S. farms growing sweet cherries and 78 percent of sweet cherry acreage are housed in the leading Pacific Northwestern States. Washington alone accounted for 27 percent of U.S. sweet cherry farms and 30 percent of sweet cherry acreage. Meanwhile, Michigan housed 32 percent of U.S. tart cherry farms and 73 percent of tart cherry acreage during 1997. NASS also reports sweet cherry production in Idaho, Montana, New York, Pennsylvania, and Utah. These five States each account for less than 1 percent of the U.S. sweet cherry crop. New York, the State of Washington, and Utah each produce over 7 percent of total tart cherry output while production in Wisconsin, Pennsylvania, and Oregon range from 2 percent to 4 percent.

Cherries Available in Many Product Forms

In the United States, cherries are consumed in many forms—fresh, frozen, canned, juice, wine, brined, and dried. About 60 percent of the U.S. sweet cherry crop is typically used fresh. Those that cannot be effectively marketed during the short harvest season, or those that do not meet fresh-grade standards (usually those that are undersized and/or blemished) are processed. Maraschino cherries—the kind most often used in drinks or ice cream sundaes—are made from sweet cherries. Unlike other processed cherries, maraschino cherries also require preservation of good fruit appearance and shape in its final form. Brining is the first step in the maraschino process. Nearly 70 percent of the sweet cherries processed in 1999-2001 were brined and used in candies, ice cream, and fruit cakes, as examples. The rest were canned (about 12 percent), frozen, dried, or used for juice.

Eighty-four percent of U.S.-grown fresh-market sweet cherries are from Washington (52 percent) and California (32 percent). Oregon and Michigan, also

important producers of sweet cherries, produce mainly for the processing market.

Very seasonal in nature, fresh-market sweet cherries are marketed from May through early August. California opens the market each year with shipments running from May through June. Shipments from Washington, on the other hand, often begin in June. To minimize any damage to the fruit, all fresh-market sweet cherries are harvested by hand. Processing cherries, on the other hand, are mostly harvested mechanically. Oregon and Michigan growers, however, often manually harvest their sweet cherries as they are used primarily for the manufacture of maraschino cherries.

The principal market for tart cherries is processing. Similar to sweet cherries, the harvesting of tart cherries is also highly seasonal and runs from June through early August. However, because most of these cherries are processed, supplies are available throughout the year. Only less than 1 percent of the U.S. tart cherry crop is for fresh use. The processed products are primarily used in baking and cooking. More than half of the processing cherries were frozen in 1999-2001, more than one-third were canned, and over one-tenth were brined, dried, or used for juice and wine.

Cherries are More than Just a Good-Tasting Fruit

Cherries serve as one among several traditional fruit crops grown in the United States. Aside from its versatility and good taste, cherries boasts the high nutritional value it offers consumers. It is a rich source of antioxidants known to help prevent cancer and heart disease. Cherries also contain compounds that help relieve the pain associated with arthritis, gout, and headaches. Cherries were already popular among U.S. consumers even prior to the 1990s when more emphasis was devoted to research findings reporting on the health benefits of consuming specific fruit and vegetables—that which have proved helpful in boosting overall fruit and vegetable consumption in the United States.

On average, Americans consume an average of 1.5 pounds of fresh and processed cherries annually. Consumption, especially of fresh cherries, varies widely from year to year, due to annual variations in domestic production. Imports of fresh, canned, and

frozen cherries do little to help stabilize supplies because they each represent very small volumes relative to what is produced domestically.

Americans consume more frozen cherries each year than fresh. During the 1990s, U.S. consumption of frozen cherries averaged 0.71 pound per person, fresh-weight equivalent. About 90 percent of this average consumption were tart cherries. U.S. fresh cherry consumption, on the other hand, averaged 0.46 pound per person for the same period, almost all of which were sweet cherries. Canned consumption, meanwhile, averaged 0.28 pound per person, with over 85 percent tart cherries.

Average per capita consumption of fresh sweet cherries declined 18 percent during the 1990s relative to the 1980s. For the same period, average per capita consumption of frozen cherries also declined but only slightly. Average fresh-market sweet cherry production increased during the 1990s, but rising export demand since the late 1980s has limited the amount of cherries available for domestic consumption (fig.8). Unlike fresh-market cherries, frozen cherries are storable and therefore inventories help to smooth out wide swings in production. In addition, frozen cherry exports are small in volume relative to domestic supplies.

Fresh cherry exports during 2001 were at a record-high, but the record-large domestic crop helped boost consumption. At 0.78 pound per person, U.S. sweet cherry consumption in 2001 was the highest since 1976.

U.S. Sweet Cherries Lead in World Fresh Cherry Exports

U.S. sweet cherry growers continue to remain competitive in the international market. Due to strong demand overseas and higher export prices relative to domestic prices, U.S. sweet cherry growers, mainly in Washington and California, have expanded the role of foreign markets to the domestic industry over the last two decades. Increasing in volume, exports averaged 34 percent of domestic production during the 1990s, up from an average of

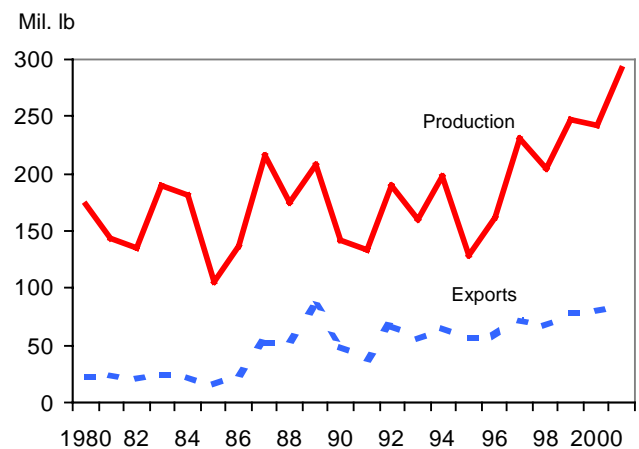
21 percent during the 1980s and about triple the average share during the mid-1970s. The average per unit export value of U.S. sweet cherries during 1995-2000 was substantially higher than that of the world, including leading exporters, reflecting premium prices U.S. growers received for the high-quality sweet cherries they marketed internationally.

Technological advances in production and marketing helped boost export demand over time. The United States is the world's largest cherry exporter, accounting for a quarter of the average volume exported during 1995-2000. Hungary, Turkey, Spain and Italy complete the top five exporters. Together, these five leading exporters supply approximately 65 percent of the world's export volume, based on data from the United Nations Statistical Office.

Japan continues to dominate the export market for U.S. sweet cherries, taking in over 40 percent of all U.S. shipments. Despite the recent economic slowdown in Japan, U.S. fresh cherry shipments to this important export market remained large during 2001, at 39.7 million pounds. Canada, Taiwan, Hong Kong, and the United Kingdom are also important markets with a combined share of over 40 percent of U.S. sweet cherry exports.

Figure 8

U.S. fresh sweet cherries: Production and exports



Sources: National Agricultural Statistics Service, U.S. Department of Agriculture and Bureau of the Census, U.S. Department of Commerce.