



Commodity Profile: Artichokes

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Overview and Industry Characteristics

Native to the Mediterranean region, artichokes were brought to the United States in the 1800s and first grown in Louisiana by French immigrants and in California by the Spanish. Today artichokes are grown almost exclusively in California.

The artichoke, a thistle-like plant, thrives best in frost-free areas with cool and foggy summers (Simms et al.). The predominant variety of artichoke in California is the Green Globe, which is planted as a perennial, though other varieties are also planted as annuals through direct seeding or transplants depending on the region (Schrader and Mayberry). The marketable portion of the artichoke is the result of harvesting an immature flower. If left to mature, artichokes blossom into a bright purple inedible flower. Artichokes are marketed as fresh, frozen, or canned products.

The state-chartered California Artichoke Board was originally created for generic promotion, research, and grower cooperation, however, since 1999 the majority of its resources have been invested in research (California Artichoke Advisory Board).

Demand

Per capita consumption of artichokes has remained relatively unchanged since the 1980s, ranging from 0.5 to 0.7 pounds (Figure 1). Demand for artichokes is highest during the winter season which also coincides with the period of low supply. The nutritional benefits of artichokes include high levels of potassium, folate, magnesium, and vitamin C. The appearance of fresh artichokes is an important aspect to marketing. Cleanliness, compactness and absence evidence of frost damage all enhance the appearance (Sims et al.). Any defects on the vegetable may make it difficult to sell, despite the fact that eating quality is not necessarily affected.

Exports

The largest exporter of artichokes is Spain, which accounts for 52 percent of world exports. France follows with 17 percent, Italy with 10 percent, and the United States is fourth with 6.5 percent. In 2004 U.S. artichoke exports totaled just over \$4 million.

Canada is the leading export market for U.S. artichokes, followed by Mexico. Combined these two countries account for nearly the entire U.S. export market. Exports to Mexico increased over 500 percent between 2003 and 2004, from \$222 thousand to \$1.4 million. The value of exports to Canada was \$2.6 million in 2004. However exports are negligible compared to imports,

Supply

On a global scale, the world's two largest artichoke producers are Italy (37%) and Spain (22.6%). The United States is ranked eighth in terms of global production, accounting for less than 3 percent of the world total.

Essentially all of U.S. production occurs in California and is concentrated in the Central Coast area, namely Monterey County. Some production also occurs in the southern region of the state. According to 2002 Census of Agriculture data, the number of California artichoke farms has decreased from 113 in 1997 to 93 in 2002. U.S. harvested acreage for artichokes has also been decreasing since a high of 9,800 acres in 1999 to a low of 7,200 acres in 2003, although acreage estimates for 2004 showed a slight increase to 7,500 acres (Figure 2). The total value of artichoke production however, has remained variable, with a high of \$75.7 million in 2003. In 2004 total production of artichokes was valued at \$72 million (Figure 3).

Prices of artichokes in the United States are seasonal and affected by periods of high and low supply. Seventy percent of California's harvest occurs between March and mid-May (Schrader and Mayberry). Prices typically peak during the winter months when supply is low, and drop in March as production reaches its peak. During high production months, smaller artichokes are processed into marinated artichoke hearts in an attempt to increase revenue during times of low prices. Since 1980, average artichoke prices (adjusted for inflation) have been marked by extended periods of increasing and decreasing prices, as notable in figure 4. Prices steadily decreased until 1991 when they turned upwards and rose from \$35.1 per cwt in 1991 to \$82.2 in 1995 (in 2000 dollars). Over the last 15 years, however, prices continued to oscillate. In recent years, prices have shown an upward trend, reaching \$80.7 in 2004 and inflation-adjusted prices for artichokes in the 2000 to 2004 period were higher than what they averaged two decades ago.

Imports

The United States is a net importer of artichokes with the majority of imports being preserved artichokes. As measured by value, Spain provided 79 percent of the total imports and historically has accounted for the majority of U.S. artichoke imports. Other countries exporting artichokes into the United States included Peru with 9 percent of U.S. imports and Chile with 7 percent in 2004 (FAS). The United States imported \$108 million worth of preserved artichokes in 2004, an all time high despite varying import values through the years (Figure 5). At \$1 million, the import value of fresh globe artichokes was much less, with the majority sourced Mexico (85 %) and Peru (13%). The share of imported artichokes in domestic consumption has also been increasing

steadily from less than 24 percent of domestic use in 1990 to 48 percent in 2000, and reached 62 percent by 2004 (Economic Research Service (ERS)).

Sources

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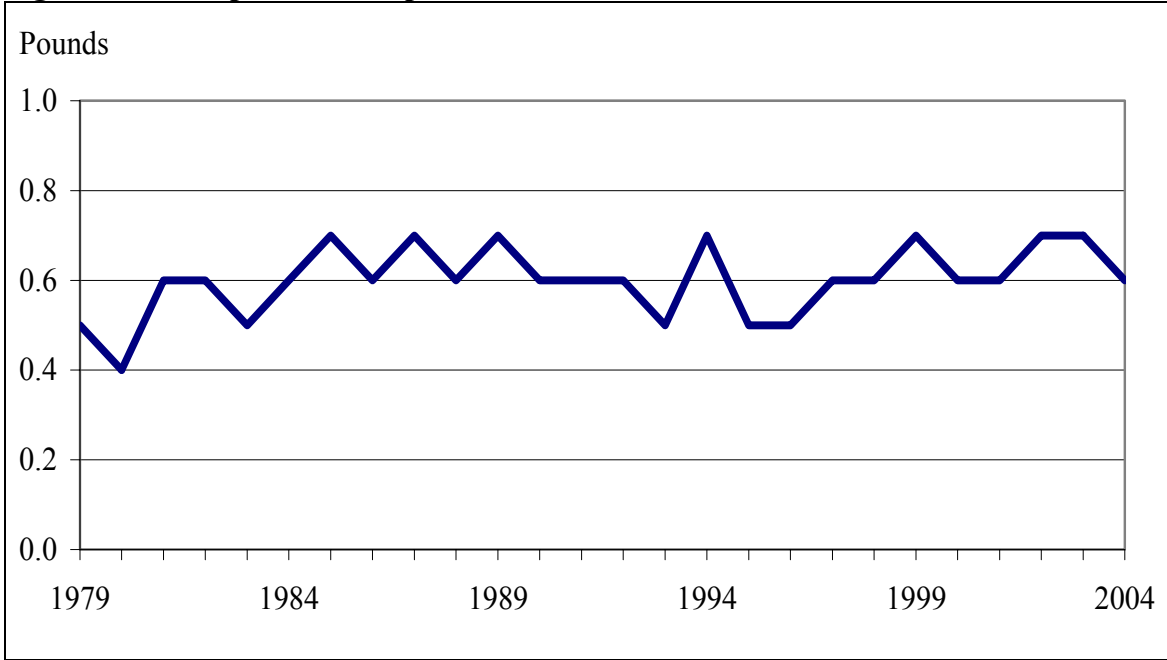
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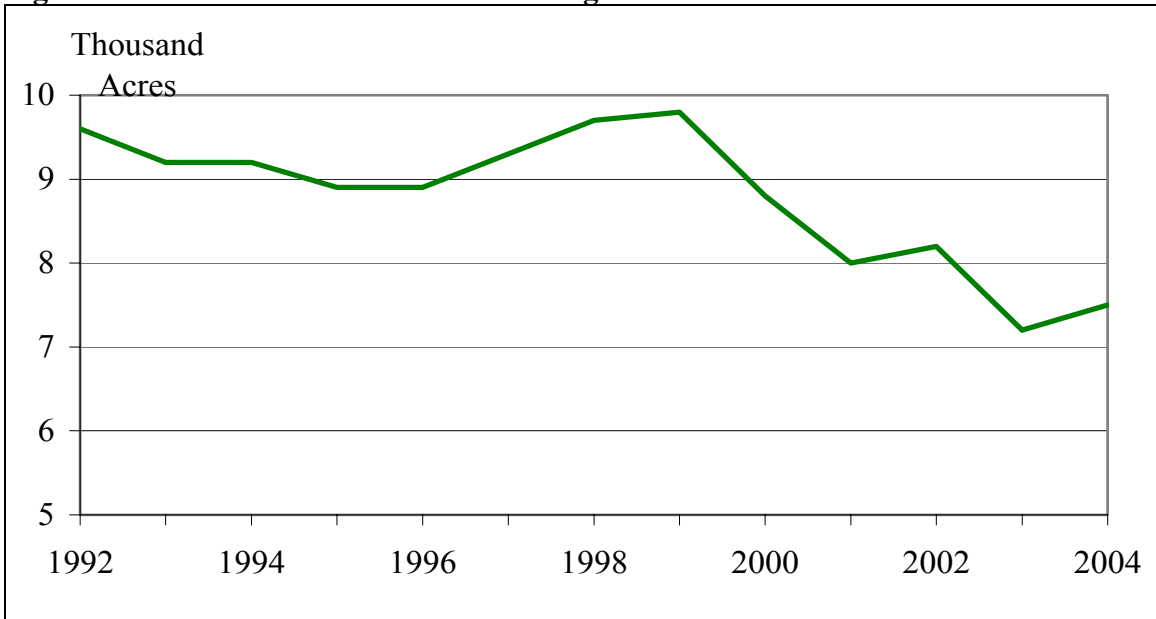
FIGURES

Figure 1. Per Capita Consumption of Artichokes, 1979-2004



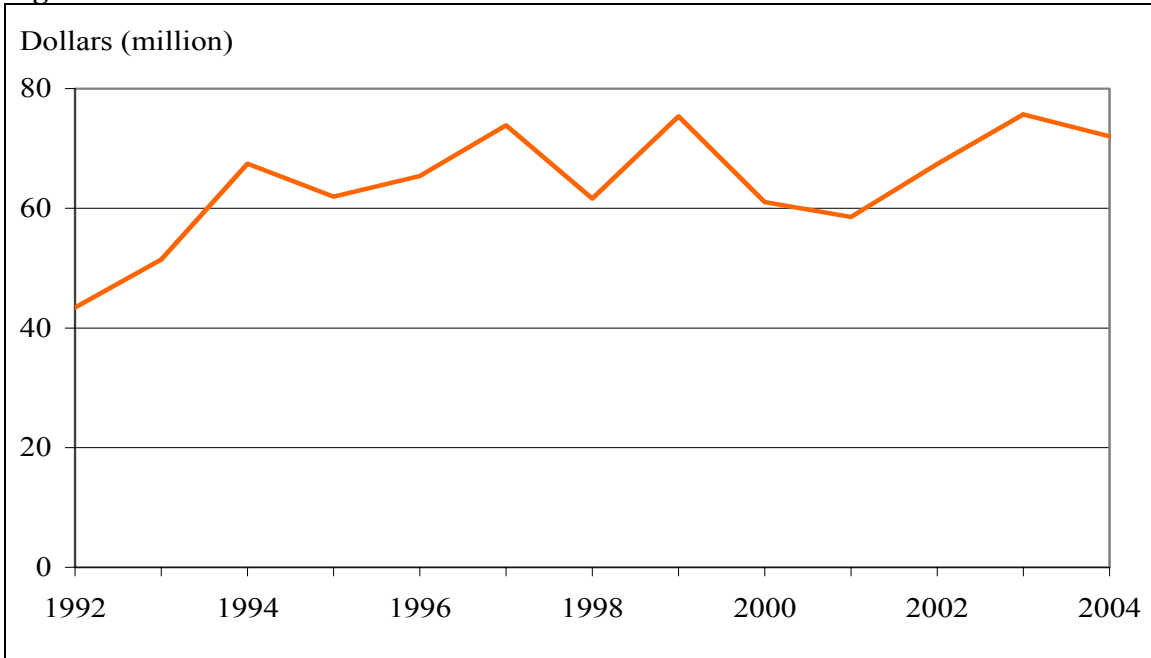
Source: USDA Economic Research Service, *Vegetables and Melons Yearbook*

Figure 2. U.S. Artichoke Harvested Acreage



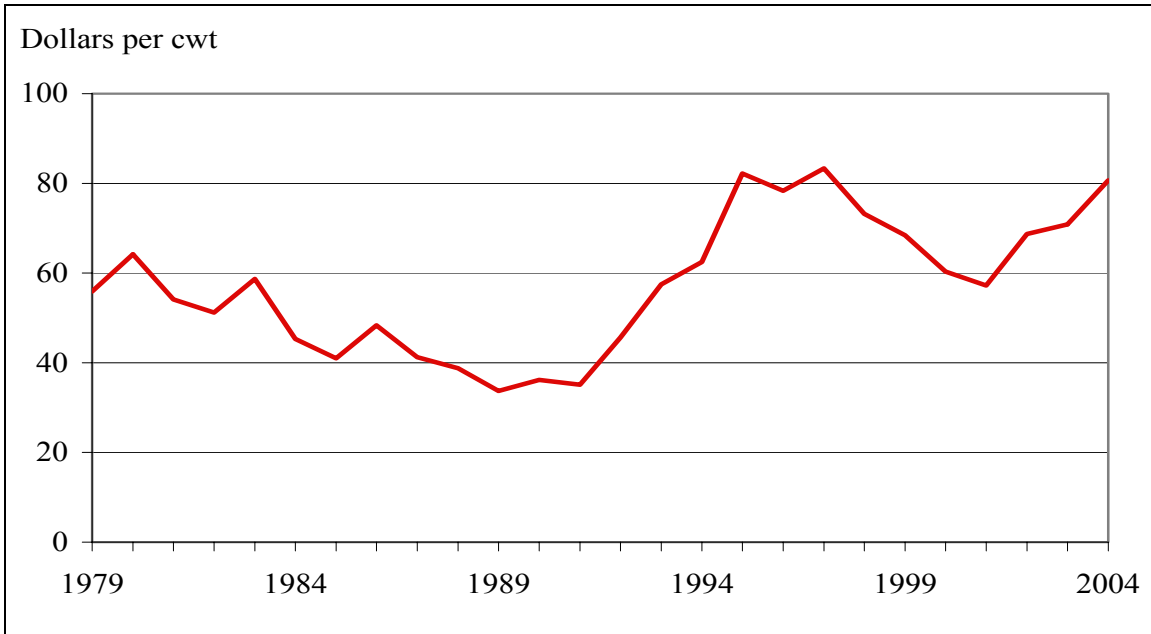
Source: USDA Economic Research Service, *Vegetables and Melons Yearbook*

Figure 3. U.S. Value of Production of Artichokes



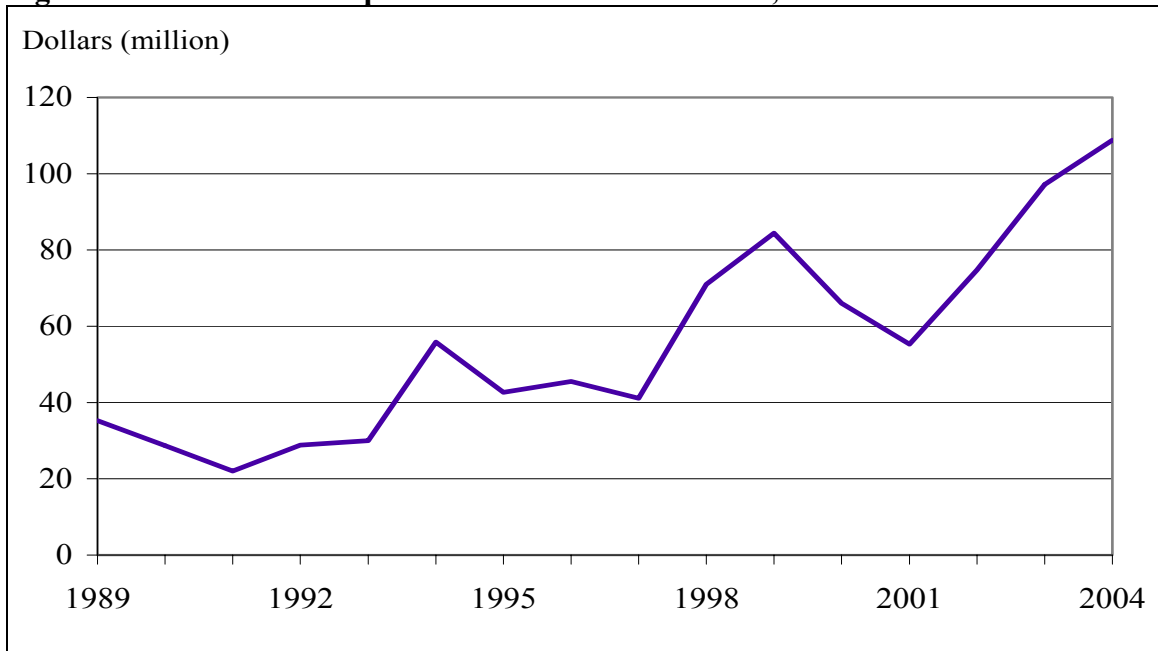
Source: USDA Economic Research Service, Vegetables and Melons Yearbook

Figure 4. Average U.S. Artichoke Prices (year 2000 inflation-adjusted dollars), 1979-2004



Source: USDA Economic Research Service, Vegetables and Melons Yearbook

Figure 5. Value of U.S Imports of Preserved Artichokes, 1989-2004



Source: USDA Foreign Agricultural Service