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## Commodity Profile: Dried Plums (Prunes)

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### **History**

Prune trees were introduced to North America in 1856 by Louis Pellier, a French nurseryman, who brought cuttings from France to the Santa Clara Valley of California (Alston et al.). By 1870, there were 650 acres of prune trees in California. In 1900, California dried prune orchards covered approximately 90,000 acres and dried prune packing plants had spread throughout the state. Today, California produces nearly 100 percent of U.S. dried plums (i.e. dried prunes), and accounts for roughly 70 percent of world production (California Dried Plum Board (CDPB) and Prune Bargaining Association (PBA)).

### **Industry Characteristics**

Today the fresh fruit is mechanically harvested and dehydrated shortly thereafter. Only specific varieties of plums can be dried and used without severe fermentation. “French prune,” a descendent of “La Petite d’Agen” variety, is the most prevalent variety. The majority of dried plum production in California is concentrated in the Sacramento, Santa Clara, Sonoma, Napa and San Joaquin valleys.

### **Marketing**

In 2001 the Food and Drug Administration agreed to officially re-identify prunes as dried plums after a request by the industry and the California Prune Board—which subsequently also changed its name to the California Dried Plum Board. The name change was done in an attempt to overcome the negative perception of prunes being a laxative for the elderly. Prunes were heavily promoted in 1985 as a high fiber fruit in order to capitalize on advertising efforts by cereal companies publicizing high fiber diets as a preventative against cancer (CDPB). Today, marketing efforts by the CDPB still highlight the nutritional value of dried plums, noting that they are a large source of antioxidants, fiber, vitamins and minerals.

Dried prune production is overseen by a federal marketing order approved in 1949 by the dried prune producers. The Prune Marketing Committee was created to provide enforcement of the provisions of the order which include minimum grade and size

standards as well as reserve pools. A separate organization, the California Dried Plum Board (formerly the California Prune Board), was created through a state marketing order for dried plums in an attempt to increase worldwide demand.

The dried plum industry chain is comprised of growers, processors, and retailers. There are relatively few processors. The increased mechanization of the industry has led to a more concentrated processing sector responsible for the dehydration of dried plums in a processing facility rather than by the grower on the field. Over half of the growers in California belong to Sunsweet Growers Inc. Sunsweet Growers Inc. is the U.S. industry's largest, and only producer-owned processing/marketing cooperative for dried plums. In addition, approximately 20 independent dried plum processors are in operation in California, a small number of whom process the majority of dried plums marketed by independent growers (PBA). The Prune Bargaining Association was voluntarily developed to represent these independent growers in securing a selling price with independent processors.

### **Demand**

In 2004 per capita consumption of dried plums was estimated at 0.44 pounds. Consumption was highest in 1990, but generally decreased from its peak of 0.74 pounds per capita in 1990 (Figure 1). Notably, per capita consumption of dried plums increased in 2001 after the lowest value of 0.39 pounds in 2000—the year the name was changed.

Several factors have been shown to significantly influence the demand for dried plums. Some studies have reported that dried plum consumption is higher in older people, but it is unclear whether this trend is likely to continue. It has been suggested that older generations preferred dried plums because fresh fruit was not available year round. This would imply that younger generations accustomed to year-round fruit production are likely to consume fewer dried plums as they enter into older age. An alternative theory is that preference for dried plums increases with age, which would mean higher consumption rates would continue in future generations. (Alston et al.).

Increased health consciousness could increase consumption of dried plums as diets continue to include more fruits and vegetables. Also, improvements in technology for pitting have increased the percentage of pitted dried plums sold for consumption from less than 2 percent in 1961 to 86 percent by 2004. Marketing efforts have focused on increasing the use of dried plums in a variety of baking and cooking practices. For more information on demand factors and the CDPB promotion program see the Giannini Foundation Research Report by Alston et al. listed in the sources.

### **Exports**

Over time, the dried plum industry has moved from the majority of crop going into domestic supply, to an export-oriented industry, eventually making the United States the world's largest exporter of dried plums. U.S. dried plums are currently exported to over 50 countries (Foreign Agricultural Service (FAS)). Compared to the early 1950s when 83 percent of all shipments were domestic, by 2004 that share had fallen to 60 percent.

According to Food and Agricultural Organization of the United Nations (FAO), globally, the United States accounts for 48 percent of world exports followed by Chile (13 %) and France (12 %). France exports roughly 40 percent of its total production and Chile exports as much as 90 percent of total production (FAS).

As shown in Figure 2, the leading export market for U.S. dried plums in 2004 was Japan with shipments valued at nearly \$36 million, followed by Germany with \$17.8 million and Italy with \$10.7 million (FAS). France remains a major competitor with the United States for the European market (FAS). As a result of the EU-Chile Free Trade Agreement enacted in 2003, the U.S. dried plum industry is expected to lose a greater share of the European market to Chile given that imports from Chile now enter the EU duty free while U.S. imports are subject to a 9.6 percent tariff (FAS). U.S. imports to the EU decreased 9 percent in 2004 from the previous year in which the agreement was enacted (FAS). In 2004, Germany was the world's largest import market for dried plums, followed by Japan as the second largest (FAO).

### **Supply**

In 2002 total dried plum bearing acreage dropped below 80,000 acres for the first time in over 10 years. Estimated acreage in 2004 was 72,000 (Figure 3). U.S. dried plum value of production in 2003 was \$129.7 million, but declined in 2004 to a total value of \$72 million (NASS). Production value decreased in 2004 due to a mid-March hot spell which led to significantly reduced yields. The 2004 crop size was the smallest since 1920, when official estimates began (FAS).

The dried plum industry also has experienced some variability in prices from year to year. The price for dried plums, expressed in inflation-adjusted 2000 dollars, peaked in 1993 at \$1,276 dollars per ton and was followed by 19 years of declining prices until climbing to even higher prices of \$1375 per ton (Figure 4). The dramatic price increase in 2004 was largely a result of tightened supply.

### **Imports**

U.S. dried plum imports have been negligible. However, imports have increased in recent years from less than \$1 million in 2000 to a total of only \$6.2 million in 2004, with the majority coming from France and Argentina.

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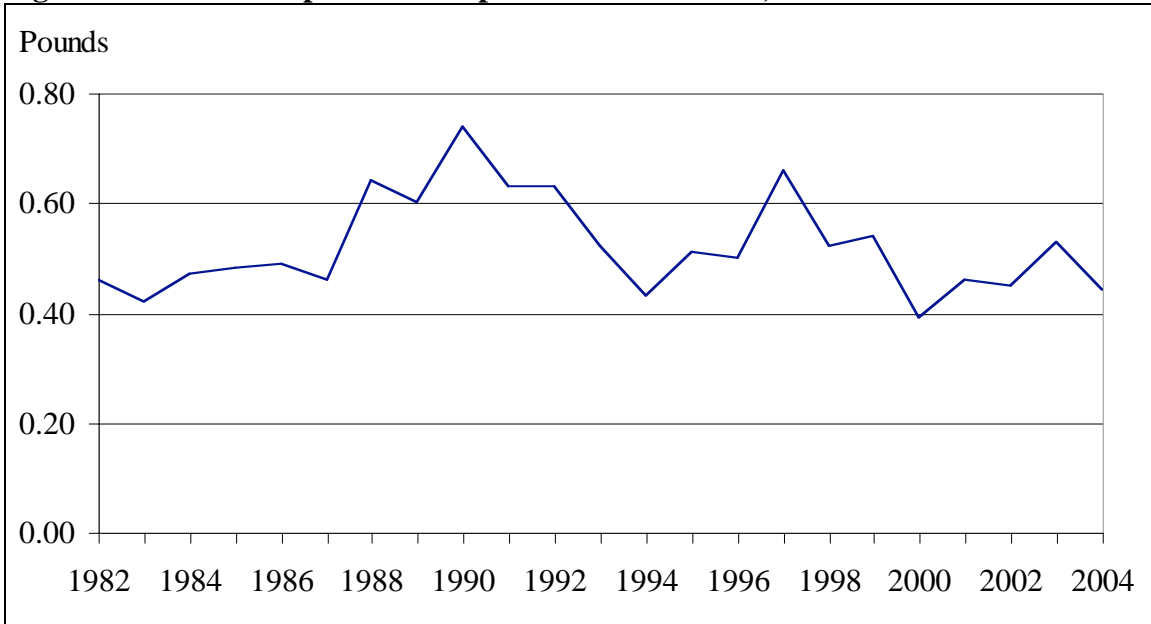
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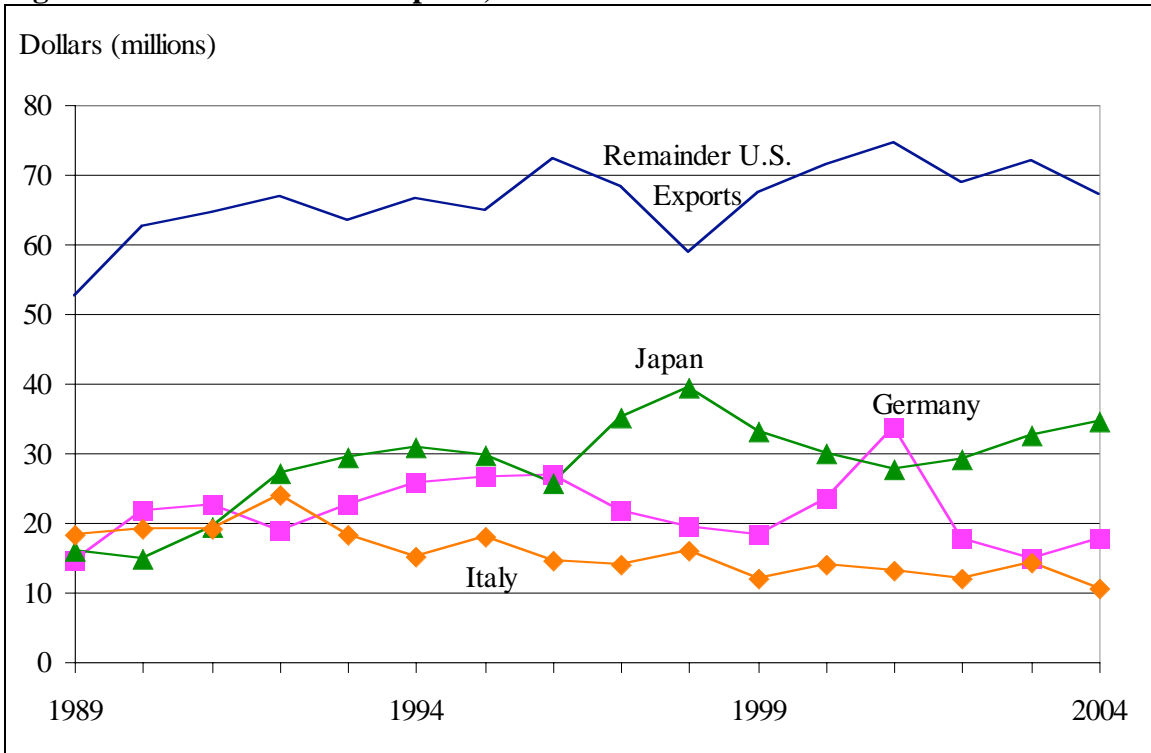
**FIGURES**

**Figure 1. U.S. Per Capita Consumption of Dried Plums, 1982-2004**



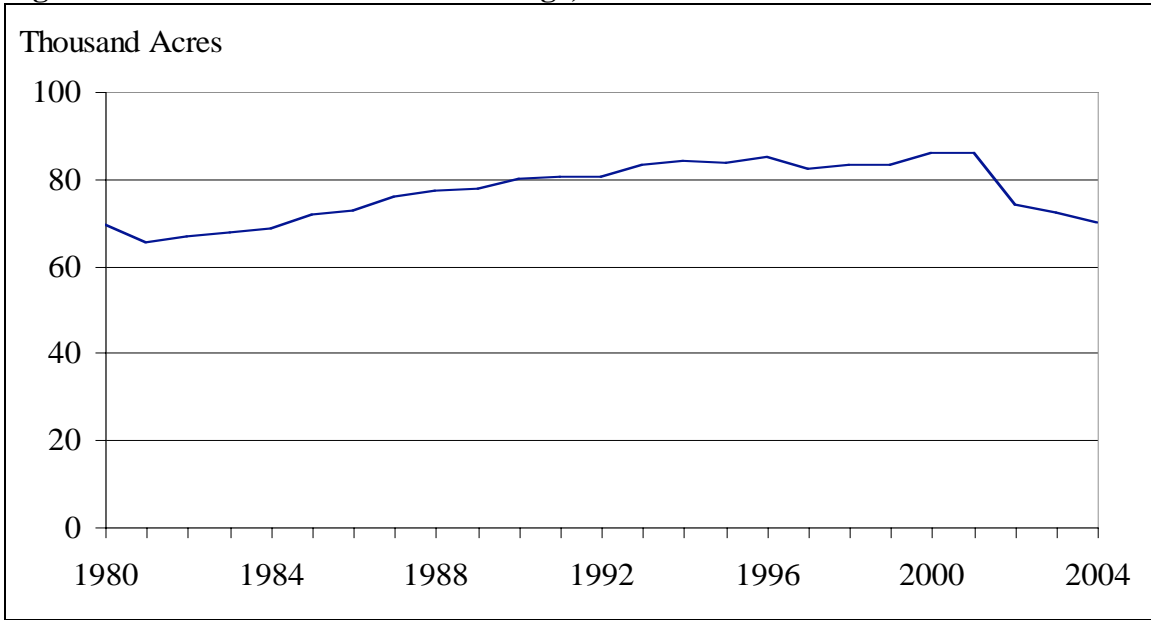
Source: USDA Economic Research Service, Fruit and Tree Nut Yearbook

**Figure 2. U.S. Dried Plum Exports, 1989-2004**



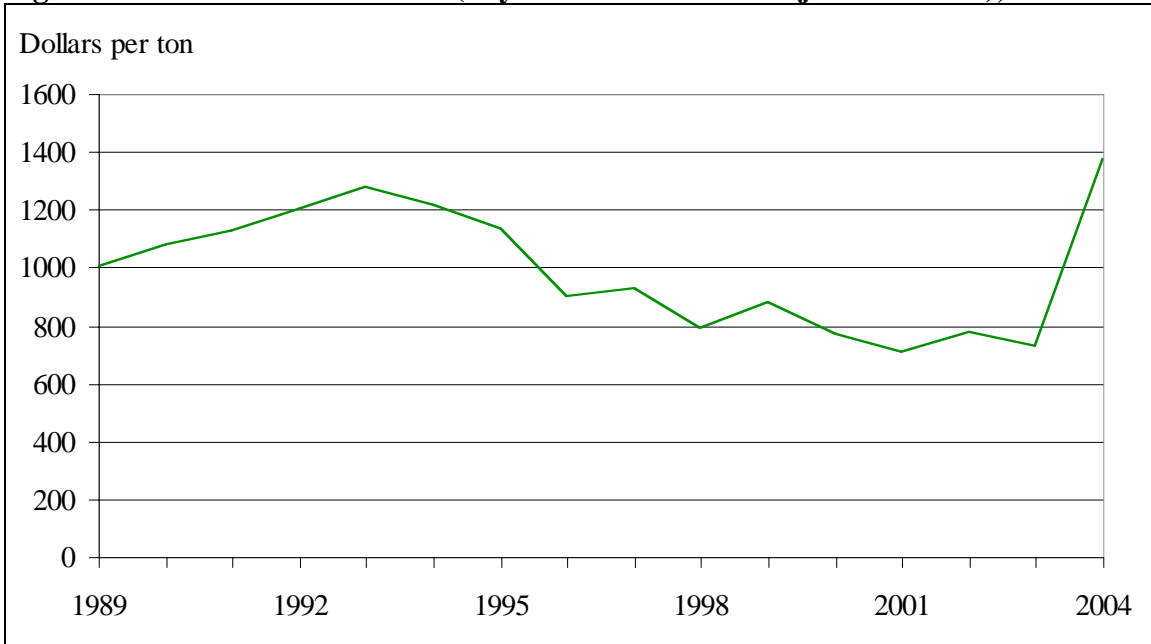
Source: USDA Foreign Agricultural Service

**Figure 3. California Dried Plum Acreage, 1992-2004**



Source: USDA Economic Research Service, *Fruit and Tree Nut Yearbook*

**Figure 4. U.S. Dried Plum Price (in year 2000 inflation-adjusted dollars), 1989-2003**



Source: USDA Economic Research Service, *Fruit and Tree Nut Yearbook*