

## Strawberries

		<u>1998-2000 Average</u>	<u>Percent Change, 1990s</u>
<b>strawberries</b>	Area	18,689 hectares	-(2.2) percent
	Production	801,012 m. tons	+ (34.0) percent

### Strawberry Production in the United States – 1990-2000

**Industry Size and Location.** Strawberries have become an increasingly important part of the U.S. fresh fruit industry over the last twenty years, today ranked second after fresh apples in industry value. While fifty five percent of U.S. strawberry area is in California it accounted for 83 percent of production during 1998-00 due to yields averaging 64 m. tons per hectare compared to 34 m. tons in Florida and less than 12 in most other states. California is able to achieve these higher yields in part due to its extended shipping seasons in its numerous production regions. During the 1998-00 period, on average, Florida accounted for 11.4 percent of area and 10.4 percent of production, followed by Oregon with 12.3 percent and 4.8 percent, respectively. North Carolina, New York, Washington and Michigan accounted for most of the remainder, producing during a short summer season.

Over the decade the strawberry industry experienced impressive yield gains allowing production to expand 34 percent despite a 2.2 percent decline in area harvested. California's share of production increased by four points, due to declining area and production in most other states except Florida and North Carolina.

While the strawberry industry consists of both fresh and processed sectors the bulk of production has always been for the fresh market. The share sold in the fresh market has shown no trend since the mid-1980s, ranging from 69 to 75 percent, depending on market conditions. One of the strengths of the California industry is its dual usage nature, allowing product to move into the freezer market (usually about 25 percent) when fresh prices are low. Oregon freezes a significant share of its production in contrast to Florida, Michigan and the other remaining states, which focus on the fresh market.

**Industry Structure.** The structure of the strawberry shipping industry is still quite fragmented. There are about 200 marketers of fresh strawberries nationally with around 90 in California alone and approximately 50 in Florida. In California five grower-shippers and cooperatives are estimated to handle and market just over half of the crop, with the industry leader share estimated at around 20 percent.

Structure is much more fragmented at the grower level. According to the 1997 Census of Agriculture there were 7,141 strawberry growers nationally but only 3 percent, each producing on 50 acres or more, accounted for 54 and 80 percent, respectively, of area and production. Hence, there are almost 7000 growers generating only twenty percent of total volume. In Oregon there are about 230 growers and 11 processors while there are about 400 commercial growers in California (although the Census reported 831).

**Demand Trends.** Over the last two decades strawberries have experienced one of the highest rates of consumption growth of all fruit and vegetable crops, with per capita consumption growing by 38 percent between 1990 and 2000. Per capita consumption of strawberries was 2.7 kg in 2000, in all forms, up from 2.0 in 1990. Both fresh and processed consumption grew; however, fresh increased by 48 percent from 1.5 kg per capita in 1990 to 2.2 in 2000 while processed grew by only nine percent. New information on the health benefits of berry consumption (the presence of antioxidants that retard the aging process) continues to stimulate consumption in the berry category as a whole.

A major stimulus to consumption growth over the last twenty years was expanded domestic supplies and availability as the industry transitioned from seasonal to year-round production. This shift was primarily due to the adoption of new varieties and production practices, which enabled the California industry to market from January through November with production moving seasonally from San Diego in the south to the Watsonville-Salinas area which accounts for almost half of the state's production. California's low supply in the heart of winter is supplemented by production in Florida.

Trade is a relatively minor factor in both the fresh and processed strawberry industries. The U.S. is a net exporter of fresh strawberries but the trade balance is small. While fresh strawberry exports grew by about 20 percent over the decade they still represent only 10 percent of fresh production and imports represent only about 6 percent of national fresh consumption. Mexico is the primary source of fresh imports, contributing 91 percent in 2000. The principal export market is Canada; accounting for about 80 percent of fresh strawberry exports in 2000, with Mexico the second most important market, followed by Japan. Exports to Japan and Mexico grew rapidly over the decade while the Canadian market seems to be maturing. Frozen strawberry trade has also grown over the last decade and the U.S. is a net importer in most years. Still, imports accounted for only 16 percent of the frozen industry pack in 1999. Just as for fresh, Mexico is the primary supplier as it produces frozen berries with specific attributes sought by U.S. commercial users.

## **Strawberries – 2010.**

The outlook for strawberries is favorable, due to growing domestic demand and the current strong competitive position of the U.S. strawberry industry, led by California. This is despite the eventual loss of the fumigant methyl bromide, used as a standard part of the production technology package in California and Florida. The U.S. will lose methyl bromide in 2005 (unless lack of alternatives causes an extension to be granted), however, experimentation with alternatives causes many California growers to be optimistic about the post methyl bromide outlook. Some growers have already eliminated methyl bromide without sacrificing yields and others assert that if methyl bromide is indeed lost it will just mean that growers will have less ability to produce on marginal ground, a flexibility which methyl bromide afforded.

Mexico can continue its usage until 2015 and some in the U.S. industry routinely cite this as putting them at an unfair competitive disadvantage. In reality, methyl bromide is largely not used in the strawberry industry located in Central Mexico, where yields are much lower and an effective methyl bromide technology package, appropriate for local growing conditions, has never been developed. Although it is used somewhat in the small industry located in Baja California, water constraints limit expansion there, and the bulk of production doesn't compete with California's main season since it occurs in the winter when California volumes are low.

While potentially lower yields in the California and Florida industries in the absence of a substitute for methyl bromide would indeed reduce the competitive gap with Mexico, the U.S. may still be quite competitive. This is because the initial gap, California's in particular, is quite large. In short, Mexico is currently not in a position to offset major reductions in U.S. production volumes without sizable investments from U.S. producers to transfer their production there. If production does decline after 2005 Florida will be more affected than California since its season is shorter and its yields are so much lower than California. Also, if producing in Mexico were to become a more attractive option than in California, California grower-shippers would readily shift operations partially there, and still largely control the strawberry sector and equipment needs. Unlike growers in Florida, California producers have a history of producing in Mexico when a crop obtains a strategic advantage there.

However, further growth in consumption is expected over the upcoming decade as the berry category receives more attention in the food press and consequently, in both retail and foodservice establishments. Expanded demand may mitigate any potential adverse consequences of the loss of methyl bromide as consumers may be willing to pay more for strawberries if production costs rise, meaning that the market may adjust to a higher cost US-grown strawberry without significant downsizing of domestic production.