

SUGAR INDUSTRY STRUCTURE

Sugarbeet Production

Sugarbeets are currently grown in 11 states: Michigan, Minnesota, North Dakota, Colorado, Montana, Nebraska, Wyoming, Idaho, Oregon, Washington and California. Sugarbeet production has grown from about 21 million tons in the first half of the 1980s to between 29 and 30 million tons since 1995.

In 2002, there were 5,027 farms producing sugarbeets. This level represented about a 29% decline in sugarbeet producing farms since 1997. Although this decline seems large, the total number of crop producing farms in those same states fell about 12% over the same time period. The largest beet farm reductions took place in California (50%), Nebraska (50%), Wyoming (50%), and Colorado (43%). Harvested beet acreage decreased the most in these same states as well. However, on an aggregate basis, harvested beet acreage fell only 6% from 1997 to 2002.

Average sugarbeet farm size increased from 205 acres in 1997 to 272 acres in 2002. The number of farms averaging less than 500 acres fell between 1997 and 2002, while those exceeding 500 acres grew in number. In comparison with 1997, more production has taken place on larger sized farms. In 2002, 75% of all beet production occurred on farms harvesting more 250 acres. This compares with 64% in 1997. Farms over 500 acres produced 46% of the crop in 2002 and only 33% in 1997; and farms over 1,000 acres produced 18% of the crop in 2002 and only 11% in 1997.

Unlike other crops, sugar crops must be processed soon after being harvested: to either refined beet sugar (sugarbeets) or raw cane sugar (sugarcane). There are no markets for the crops themselves because their chief economic value is as a source for sucrose that requires processing for the recovery of the sugar. Beets can be stored for a period of time in piles adjacent to or otherwise close to the processing facility before the sucrose deteriorates. The implication is that the costs and returns to the sugarbeet (and sugarcane) processors are just as important to the viability of sugar crop farming as are the costs and returns of growing the crop. If a processing facility is shut down, the grower must have available within close proximity an alternative processor destination for the crop or cease producing the sugar crop.

Sugarcane Production

Sugarcane is grown in four States: Florida, Louisiana, Texas, and Hawaii. Sugarcane production has grown from an average of 27.7 million tons in the first half of the 1980s to about 32 million tons in the 2000s. The largest growth has been in Louisiana where production has more than doubled since the early 1980s. Growth in Florida and Texas has been strong as well. Area and yield growth have both been instrumental in accounting for increased sugarcane production. In Hawaii, on the other hand, high costs and better alternative uses for land have meant a reduction in sugarcane production from 8.8 million tons in the early 1980s to 2 million tons in the 2000s.

In 2002, there were 953 farms producing sugarcane. This level represents about a 12 percent decline in sugarcane producing farms since 1997. In percentage terms, the farm number decrease is about the same as for all other farms producing other crops within a particular State, except for Texas where the number of sugarcane farms increased by over 60% and total crop farms decreased by almost 10%. Overall sugarcane area harvested increased about 10% from 1997 to 2002, and average sugarcane farm size increased from 825 acres in 1997 to 1,027 acres in 2002, an increase of over 24%. In relation to sugarbeet farms, the sugarcane farms are much larger: on average 3.75 times larger in 2002.

As was the case with sugarbeet farms, the number of sugarcane farms averaging less than 500 acres fell between 1997 and 2002, while those exceeding 500 acres grew in number. More revealing is figure 10 that shows sugarcane production by farm size ranges. The share of sugarcane production of farms larger than 2,000 acres is disproportionately high: in both 1997 and 2002, the share of production coming from farms larger than 2,000 acres has been in the range of 57-59% of total production. Also, sugarcane farms larger than 500 acres contributed about 91% of total sugarcane production (the corresponding percentage for sugarbeet production was 45%). Sugarcane farms under 250 acres only contributed about 3% of total sugarcane production in both 1997 and 2002.

Sugarcane milling capacity has decreased about 12% since 1992. Capacity changes in Florida mirror this average, while capacity in Louisiana has grown 24% over the period. The largest percentage decreases have been in Puerto Rico (100%) and Hawaii (78%).

Sugar Processing and Refining

While the beet sugar that comes from beet processing is refined and ready for use as a food product, the raw sugar from cane milling must be further refined for use as a food ingredient.

Many refineries have closed, beginning in the 1980s as raw sugar imports decreased due to reduced sugar demand. Reduced demand came from the substitution of high fructose corn syrup (HFCS) for liquid sugar in beverage and other end uses. The refining industry has also been challenged by production increases in the U.S. beet sugar industry.

The number of companies in sugar manufacturing (sugarbeet and sugarcane processing and raw sugar refining) has fallen from 98 in 1967 to 54 in 2002. The number of establishments or facilities with more than 20 employees has fallen from 162 to 62 over the same time period. The numbers of total employees, production workers, and hours worked have fallen in all three sectors. The drop in cane industry employment has been 54% since 1967 and 50% in beet processing employment. In 1967, employment in cane refining was 45% larger than employment in cane processing; by 2002 employment in the two sectors was about equal.

