

Commodity Highlight: Fresh-Market Spinach

Driven by fresh-market use, the consumption of spinach (*Spinacia oleracea*) has been on the rise in the United States. Per capita consumption of fresh-market spinach averaged 1.4 pounds during 2000-02--the highest since the early 1950s. The fresh market accounted for 60 percent of all U.S. spinach consumed during 2000-02. Much of the growth over the past decade has been due to sales of triple-washed cello-packed spinach and, more recently, baby spinach. These packaged products have been one of the fastest-growing segments of the packaged salad industry.

Since falling to historic lows in the early 1970s, fresh-market spinach consumption has been on an upward trend, peaking at a record 453 million pounds in 2000—more than 7 times greater than in 1970. At the same time, use of processed spinach has been trending lower as consumer demand has shifted toward fresh-market produce over the past 3 decades. In addition to use as a salad green and plate vegetable, this nutritious leafy green has also long enjoyed a reputation as a functional food packed with vitamins and minerals known to be beneficial to human health, such as vitamins C and A, the carotenoid lutein (may promote eye health), iron, folic acid, and magnesium.

The United States is the world's second-largest producer of spinach, with 4 percent of world output, following China (PRC), which accounts for 76 percent of output. A cool-season crop that grows quickly and can withstand hard frosts, spinach is a native of Asia (likely origin in the Persian region) and has been cultivated in China since at least the 7th century. Spinach use was recorded in Europe as early as the mid-13th century, with seed accompanying colonists to the New World.

California (69 percent of 2000-02 U.S. output), Arizona (16 percent), and Texas (5 percent) are the top producing States, with 16 other States reporting production of at least 100 acres (1997 Census). Over the 2000-02 period, U.S. growers produced an average of 704 million pounds of spinach for all uses, with about two-thirds sold into the

Table 14--Fresh-market spinach: Production

State	2000	2001	2002	Change
				2002-03
	--1,000 cwt --			Percent
California	3,420	2,635	3,200	21
Arizona	782	360	945	163
Texas	221	225	242	8
New Jersey	170	204	157	-23
Others 1/	291	285	266	-7
U.S.	4,884	3,709	4,810	30

1/ Includes CO, MD, NY, DE, & VA.

Source: National Agricultural Statistics Service, USDA.

fresh-market (includes fresh-processed). In 1997, spinach was grown on 1,173 U.S. farms—down 8 percent from 1992, but about the same as in 1982.

The farm value of the U.S. spinach crop (fresh and processing) averaged \$162 million during 2000-02, with fresh market spinach accounting for 91 percent. The value of fresh market spinach has more than doubled over the past decade as stronger demand has boosted production and inflation-adjusted prices held constant. California accounts for about two-thirds of the value of both the fresh and processing spinach crops. Average grower cash receipts for spinach during 2000-02 exceed those for such crops as garlic, green peas, pumpkins, and artichokes.

Like other cool-season leafy crops, most (about 97 percent) of the fresh spinach consumed in the United States is produced domestically. Imports (largely from Mexico) totaled about 13 million pounds in 2002, compared with 2 million pounds in 1992. During the last 10 years, exports (largely to Canada) have nearly tripled to 63 million pounds, with much of the growth occurring over the past 5 years.

For the most recent information, see:
<http://www.ers.usda.gov/publications/vgs/>

Table 13--U.S. fresh-market spinach: Supply, utilization, and price

Year	Supply			Utilization			Season-average price		
	Production 1/	Imports 2/	Total	Exports 2/	Domestic	Per capita use	Current dollars 1/	Constant dollars 3/	
	-- Million pounds --						Pounds	-- \$/cwt --	
1980	118.7	0.0	118.7	17.5	101.2	0.44	24.80	43.21	
1990	213.0	2.8	215.8	26.7	189.1	0.76	28.20	32.60	
1998	297.0	5.6	302.6	33.9	268.7	0.97	35.80	34.69	
1999	306.8	3.6	310.4	37.9	272.5	0.98	32.10	30.66	
2000	488.4	7.2	495.6	42.9	452.7	1.60	31.70	29.66	
2001	370.9	15.4	386.3	55.1	331.2	1.16	32.50	29.70	
2002	481.0	13.2	494.2	63.3	430.9	1.49	34.50	31.18	
2003 f	510.0	12.0	522.0	65.0	457.0	1.57	--	--	

-- = Not available. f = ERS forecast. 1/ Source: National Agricultural Statistics Service, USDA except production and price for 1990 w as estimated by ERS based on available State data. 2/ Source: Bureau of the Census, U.S. Department of Commerce. For 1980, exports were adjusted by ERS using Canadian import data. 3/ Constant-dollar prices calculated using GDP deflator, 1996=100.