

Commodity Spotlight



Ocean Spray Cranberries, Inc.

Cranberry Supply Expands In Response to Higher Demand

Traditionally, cranberries were eaten only with holiday turkeys, but Americans consumers now purchase cranberries year round in many forms, including fresh berries, sauce, juice, and dried fruit. In 1996, Americans consumed the fresh-weight equivalent of 1.6 pounds of cranberries per person. With growing demand and higher prices, production has increased, and the structure of the domestic industry has begun to change with the entry of new firms. Along with the demand for cranberries, environmental constraints to new production in the U.S. has propelled the search for growing areas in nontraditional locations.

The 1996 U.S. cranberry crop totaled 4.67 million barrels (100 pounds), close to the record of 4.68 million in 1994, and up 11 percent from the short 1995 crop. Despite the rebound in production in 1996, the average grower price was a record \$62.50 per barrel, up 17 percent from 1995, bringing the farm value of the 1996 crop to \$292 million. Increase in consumer demand for a variety of cranberry prod-

ucts, and competition among handlers and processors eager to acquire an adequate supply of cranberries, produced the stronger prices. Also supporting strong prices were relatively low stocks of cranberries at the beginning of the 1996 season (September-August)—22 percent below the previous year and the lowest since 1988.

The 1997 cranberry crop is forecast to reach a record 5.04 million barrels. Average production increased 88 percent from the period 1975-79 to 1992-96. Over the same time span, harvested acreage increased 36 percent to a record 34,200 acres in 1996, despite serious limitations to new use of wetlands for cranberry production in recent years. The Cranberry Marketing Committee, an agency of USDA's Agricultural Marketing Service responsible for administering the Federal cranberry marketing order, estimates that harvested acreage in current U.S. producing areas will reach 38,794 by 2000, when recent plantings reach full maturity at 5 years.

Beginning in 1995, Wisconsin production surpassed that of Massachusetts, the traditional cranberry industry leader. In 1996, Wisconsin accounted for 42 percent of production and Massachusetts for 37 per-

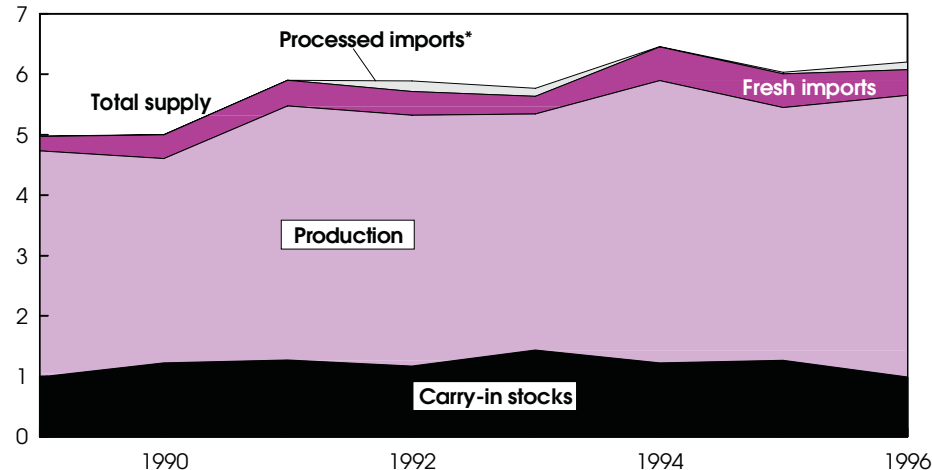
cent. With urban pressure and an already highly developed cranberry industry, Massachusetts has less land available than Wisconsin for expansion of the cranberry industry. The Cranberry Marketing Committee expects an additional increase of 23 percent in harvested acreage in Wisconsin by 2000.

New Jersey, Oregon, and Washington are the other major cranberry producing states, with 10, 7, and 4 percent of production. Increased interest in cranberries may lead to commercial production in other states, including Maine, New York, Minnesota, and Michigan. The state of Michigan offers tax breaks and a technical team to evaluate sites for potential cranberry entrepreneurs in an effort to revive the industry there.

Wetlands such as bogs and marshes are the traditional cranberry production areas. But concern about loss of wetlands and water quality problems has led to Federal regulations restricting new agricultural use of wetlands. Building a new cranberry bed in a wetland today would violate the 1972 Clean Water Act's wetland usage rules in the absence of an Environmental Protection Agency/Army Corps of Engineers permit, which is difficult to obtain. State and local regulations often

U.S. Cranberry Supplies Increase as Rising Production Offsets Declining Stocks

Million barrels



*Fresh-fruit equivalent.

Sources: National Agricultural Statistics Service and Cranberry Marketing Committee, USDA; Bureau of the Census, U.S. Department of Commerce; *Journal of Commerce*, PIERS Database. Economic Research Service, USDA

further limit agricultural use of wetlands. As a result, cranberry producers began developing manmade wetlands about 10 years ago.

Virtually all expansion of cranberry acreage in the U.S. in the last 5 years has been on these artificial wetlands. However, yields on manmade wetlands lag behind those on natural wetlands, leading producers to search for cranberry varieties that perform better in this new environment.

New Products & New Firms

The cranberry harvest begins in mid-September. Fresh berries are exported to Canada for the Canadian Thanksgiving holiday in early October. By the end of October most berries have been harvested. Fresh berries for the U.S. holiday market remain in storage and are packed later. But only 5 percent of the U.S. cranberry harvest in 1996 went for fresh use, continuing a steady decline generated by weak consumer demand for fresh berries and the higher profit margin in cranberry juice.

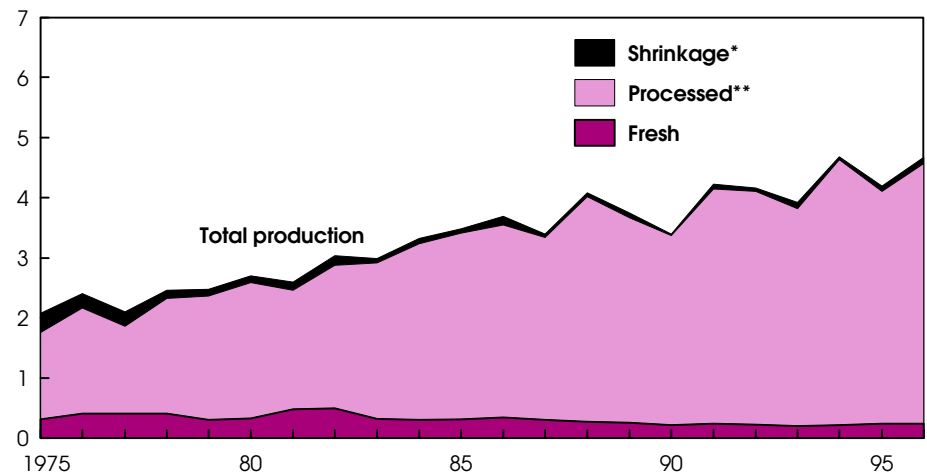
The industry estimates that about 90 percent of processed cranberries currently go to juice, and about 10 percent to sauce and other products such as dried cranberries. Ocean Spray, the large grower cooperative whose brand name is synonymous with cranberries, is credited with lifting the cranberry from its minor role as a sauce to accompany turkey to its current identity as a product to be consumed year round. In the late 1960's, Ocean Spray introduced cranberry juice cocktail. Blended cranberry juice drinks (e.g., cranberry-apple juice) have also become very popular.

Demand for cranberry juice increased further after the *Journal of the American Medical Association* confirmed in 1994 that drinking cranberry juice helps fight urinary tract infections. New products such as dried sweetened cranberries, sold by Ocean Spray under the trademark name of Craisins, are also catching on with consumers.

The Ocean Spray cooperative dominates the industry, with members in the U.S.,

Processed Products Driving Increases in U.S. Cranberry Production

Million barrels



*Shrinkage refers to cranberries paid for by processors and lost because of dehydration and berry breakdown after delivery. **Mostly juices.

Source: National Agricultural Statistics Service, USDA

Economic Research Service, USDA

Canada, and Chile. In 1996 it reported sales revenue of approximately \$1.4 billion. The cooperative provides growers a wide range of services, encompassing production planning, pesticide and environmental management expertise, processing, marketing, distribution, new product development, and advertising (including promotions by Sarah Ferguson, Duchess of York).

In the mid-1980's, Ocean Spray controlled 85 percent of U.S. cranberry production. Ocean Spray has traditionally tried to maximize grower returns by expanding markets rather than production. Growers have renewable 3-year marketing contracts with Ocean Spray for purchase of production from a specified number of acres. Ocean Spray growers can produce additional acres of cranberries outside their contracts, but they must market the product through other channels. Over time, high returns have led to a growth in production outside of the cooperative and to an increase in competition from independent processors.

In recent years independent processors, eager to develop market share, have enticed some growers away from Ocean Spray. Although Ocean Spray still controls the majority of the U.S. cranberry

crop, its share has declined. The cooperative recently opened membership to new producers—the first time in many years.

Ocean Spray's market strength is in processed products, a sector it shares with Northland Cranberries, Tropicana, Minute Maid, Veryfine, and several other firms that produce for the private-label market. As Ocean Spray reduced its production for the fresh market, opportunities developed for other firms to target that sector.

Northland, once Ocean Spray's largest grower, has become the largest independent grower of cranberries in the U.S. by specializing in production of fresh cranberries sold under its brand name. The company estimates it now supplies 22 percent of the fresh market. In 1996, Northland owned 1,935 harvested acres in Wisconsin and Massachusetts, up from 958 in 1992, and purchased cranberries under contract from additional acres. Northland now also markets its own brand of juice. The company reported 1996 sales of \$37.6 million and is aggressively searching for new production to increase market share. Decas Cranberry Sales and Hiller Cranberry Sales also market fresh berries.

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Going Abroad To Grow Cranberries

Cranberry prices in the U.S. remain high, but the industry faces environmental constraints to expanding production. As a result, many processors, handlers, growers, and entrepreneurs are looking into the potential for cranberry production in other countries.

Canada's wetland use regulations for agriculture are less restrictive than in the U.S., allowing the industry there to grow in response to high demand across the border. Traditionally, British Columbia dominated Canadian production, accounting for 98 percent of bearing acres in 1994. Between 1994 and 1997, Canadian bearing acres in cranberry production increased 42 percent to 3,761 acres, and Quebec became a significant production area with 20 percent of total acreage, leaving British Columbia with only 78 percent.

Almost all producers in British Columbia belong to Ocean Spray, and their production is shipped fresh to the U.S. When Ocean Spray recently increased membership, British Columbia gained a large share of the new contracts—bearing acres increased 13 percent from 1994 to 1997. British Columbia production for 1996 was 399,500 barrels, compared with 73,934 barrels in Quebec. In 1997, production area in Quebec is 702 acres, up 29 percent from 1996, with an additional 598 planted, nonbearing acres. About 50 percent of the cranberry acreage in Quebec belongs to the Ocean Spray cooperative.

Cranberry production is increasing in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, and Ontario. Production in these provinces rose from 45 bearing acres in 1994 to 118 bearing acres in 1997. The Canadian government offers tax incentives for new production in some areas.

Producers and investors have also looked to Chile as a source of commercial production. Chile exported a very small amount of fresh cranberries to the U.S. in 1994 but apparently now intends to focus

on the cranberry juice concentrate market. Chile's third harvest in 1996, following years of research and pilot efforts, produced 441 barrels from 700 planted hectares. In 1997, planted acreage is estimated at 1,000 hectares, and plans call for expanding to 1,500 hectares by 2000.

Cranchile, owned by a U.S. businessman and the largest company producing cranberries in Chile, has built a large juice concentrate plant with a capacity of over 30,000 metric tons. Northland Cranberries has agreed to purchase 20 percent of Cranchile's production. In addition, Ocean Spray has one member in Chile. The industry in Chile is so new, however, that its potential for commercial supply remains uncertain.

Northland also has a joint venture with the Irish Peat Board—a 7-acre project in its fifth year of testing and evaluating. Other areas that appear to have potential for cranberry production include Russia, the Baltics, and Eastern Europe.

Trade—A Small Part Of U.S. Cranberry Market

Canada has been the primary source of U.S. cranberry imports. In calendar-year 1996, *fresh* imports from Canada totaled 424,437 barrels, over 99 percent of all U.S. fresh cranberry imports and 78 percent of total Canadian cranberry production. Denmark and Russia supplied the remaining fresh cranberry imports in 1996.

Cranberry imports from Europe are generally assumed to be the European cranberry, *Vaccinium oxycoccus*, not the North American cranberry, *Vaccinium macrocarpon*, grown in the U.S. The Food and Drug Administration allows both the North American and European varieties to be labeled as cranberry. The European cranberry grows wild in northern Europe, and when U.S. prices are high the wild berries are harvested and sent to the U.S. The majority of imports from Europe arrive as juice concentrate rather than as fresh or frozen berries.

The U.S. imports only a small amount of *frozen* cranberries—13,058 barrels in calendar year 1996. Canada has been the traditional source, accounting for at least 95 percent of all frozen imports from 1992 to 1995, with the remainder supplied by Sweden. In 1996, however, Estonia and Russia entered the market. As imports of Canadian frozen cranberries fell 11 percent, Estonia captured 52 percent of U.S. imports, leaving Canada with only 40 percent, with the remaining 8 percent split between Sweden and Russia.

No official trade statistics exist for cranberry *concentrate*, but concentrate imports for the 1996 crop year are estimated at a record 107,200 barrels, fresh-fruit equivalent, a small amount compared with the 4.3 million barrels of U.S. production used for processing. Imports of concentrate began in the early 1990's. From 1993 to 1996, 43 percent of concentrate imports came from Sweden, 24 percent from Finland, 15 percent from the Netherlands, 8 percent from Austria, 4 percent from Germany, 3 percent from Russia, and 2 percent from Chile. Sweden and the Netherlands both serve as concentrate processing centers for berries grown in other places.

Although U.S. cranberry exports are growing, consumers in most countries are not very familiar with the North American berry. Exports as a percent of U.S. production increased from 3 percent in marketing-year 1987 to 10 percent in 1996, according to the Cranberry Marketing Committee. As late as 1990, most cranberries were exported in fresh form, but by 1996, less than 4 percent of exports were fresh. Sales to Canada have always dominated fresh cranberry exports, and the United Kingdom has become an important new market. No official U.S. trade statistics exist for processed cranberry exports.

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