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Nicholi Vorsa of the Rutgers University Cranberry and Blueberry Research Center at a test bog near Chatsworth.

# Boom in the bogs

## *N.J. finds cranberry industry much to its taste*

By Larry Fish  
Inquirer Staff Writer

Time out of mind, the chief commercial structure in the Pine Barrens hamlet of Chatsworth has been the general store at the crossroads.

But by the time next year's cranberry crop is ready to be gathered in, Chatsworth will be home to a new \$8 million receiving station, where the sour fruit will be washed, sorted and graded.

Chatsworth — population 800 — is about halfway between the Wharton and Lebanon State Forests in Burlington County. It is also

very much at the center of New Jersey's booming cranberry bogs.

About 70 percent of the Garden State's cranberries are grown within five miles of Chatsworth. And within the last 10 years, as Americans have discovered that cranberries aren't just for Thanksgiving anymore, New Jersey's cranberry output has more than doubled, and the price growers receive for a barrel has nearly tripled.

"These have been some of the better times," says Bill Haines, who is one of the state's leading growers and who is credited with introducing a harvesting method that has

done much to boost production.

What may be a record crop is reddening now. About mid-September, the bogs will be flooded thigh-deep, and workers will wade through with machines to brush loose the buoyant berries, which will be skimmed from the water surface.

Last year, New Jersey grew 325,000 barrels (100 pounds to a barrel) of cranberries. That's a state record, although New Jersey is still a distant third behind Massachusetts (1.8 million bbl.) and Wisconsin (1.3 million bbl.), according to the state Agriculture Department.

(See CRANBERRIES on 10-C)

# New Jersey finds cranberry industry much to its liking

**CRANBERRIES, from 1-C**

But the cranberry harvest is important to the state. It had a cash value of \$17 million last year and was New Jersey's third most important fruit crop, after peaches and blueberries.

This despite the fact that bogs occupy only 3,300 acres in the whole state, an amount that hasn't changed much in the last 30 or 35 years. And, berry fans say, most of those acres are in the Pine Barrens where cranberry and blueberry agriculture are relatively benign uses of the land.

But while the acreage has remained nearly constant, the yield per acre has increased nearly tenfold since World War II. In 1947, any grower who got more than 10½ barrels out of an acre was doing well. The average yield now is just under 100 barrels an acre.

The increased production, however, wouldn't have done the growers much good if consumers did not particularly want to buy cranberries, and for a long time, that was pretty much the state of affairs. Cranberries invariably went into the red, gelatinous sauce that was a sideshow to the Thanksgiving turkey. Nobody ate it on the Fourth of July.

"It's got an inelastic demand, mostly seasonal," admits Edward V. Lipman of New Brunswick, a long-time cranberry grower and booster. "So we went to juice, and that was it."

Indeed it was. From out of nowhere about 10 years ago, cranberry juice has become the third-largest selling juice, behind orange and apple. It has nearly 6 percent of the market and is growing.

The agent for the dramatic reversal has been Ocean Spray Cranberries Inc., the cooperative to which Haines, Lipman and 85 percent of the nation's approximately 700 growers belong.

Ocean Spray has successfully developed and promoted the juice both



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**Vorsa holds two varieties of cranberries that he is testing.**

straight and mixed with apple or other flavors. One key was to put the juice in clear glass or plastic bottles, capitalizing on its appealing bright-red color.

Along the way, Ocean Spray has grown from a small-scale processor into a giant. In the fiscal year that ends today, Ocean Spray expects to have sales of \$730 million, up a hefty 17 percent from last year and 429 percent from 10 years ago. The cooperative is now big enough to rank 410 on the Fortune 500 list, and it is climbing.

The prices farmers have gotten for their berries have followed the surge in demand. In 1977, New Jersey growers got an average of \$18.80 a barrel. Last year, the figure was

about \$52.80.

Ocean Spray is building the Chatsworth receiving station to make things easier for growers in the state's most productive region. Until the Chatsworth facility is finished, growers will have to take their crop to the Ocean Spray plant in Bordentown, just south of Trenton.

Even after the Chatsworth receiving station is complete, the Bordentown plant will process the berries into juice or other products. Employment at the Chatsworth facility will be up to 50, mostly seasonal workers.

Lipman is something of a rarity among the state's growers because his bogs are not in the Pine Barrens but in Ocean County, where most

other growers have long since been crowded out by urbanization from the beachfront communities.

That is not likely to happen in the Pines because of the Pinelands Protection Act of 1979, which severely restricted the kinds of construction permitted in the area.

The act was not popular with most Pines residents, including growers, who saw it as tantamount to confiscation of their land. But Lipman says it may have been a good thing after all.

"When the federal and state people passed the Pinelands legislation, they said in the legislation that they would do everything they could to help the indigenous agriculture — cranberries and blueberries," Lipman says, adding that the "tremendous cooperation" from the government on the new Chatsworth facility is partial payment on that pledge.

"I think if not for the Pinelands legislation, we would have been severely impacted by urban sprawl," he says, the same way the bogs were pushed out of Ocean County.

In the Pines, growers have access to what cranberries need most: water in large quantities. As a rule of thumb, an acre of cranberries needs an acre of reservoir.

Cranberry plants are always thirsty, but the only time they are kept covered with water is over the winter after the harvest. The plants and roots cannot survive bitter cold, and water under an ice sheet rarely gets colder than 32 degrees.

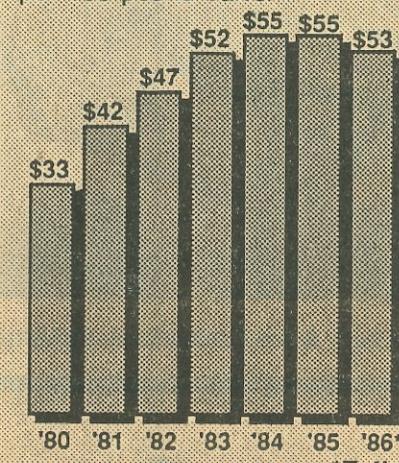
"We take the water off in April," or as soon as the danger of frost is past, Lipman says. "The vines blossom, and they grow all summer long. We do ditch work and weed work. Around the 15th or the 20th of September, the berries have enough color we can start the harvest."

Before the early 1960s, harvest was done by scoops, wooden boxes with comblike teeth at the open end.

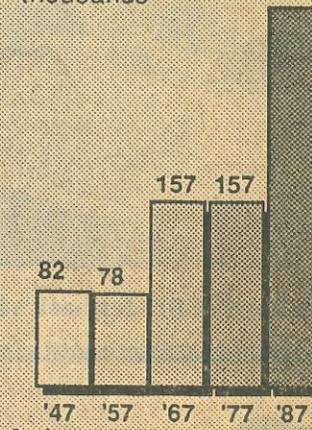
Cranberry plants are low vines that grow in thick, tangled mats low to the ground. The scoops left some berries, but worse, they ripped up

## New Jersey's cranberry industry

Average cash receipts paid per 100-pound barrel



Cranberry production, in 100-pound barrels, in thousands



SOURCE: N.J. Dept. of Agriculture

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many of the vines. Bill Haines says he first saw water harvesting in the bogs of the Pacific Northwest. Its introduction in New Jersey has been one big reason why the state's yield shot up, growers say.

So far, improved strains of the cranberry plant have not had a great deal to do with increased production, but that is beginning to change.

Wild cranberries are native to swampy areas of New Jersey and other East Coast states, and commercial growers still use the wild varieties. Cranberry vines are perennials; one of Ed Lipman's bogs in Toms River has been producing from the same plants since at least 1875.

When better cranberries are built, New Jersey probably will build them. The Rutgers University Cranberry and Blueberry Research Center, tucked away in the Pines south of Chatsworth, is studying improvements for the two berries, which are members of the same genus.

Nicholi Vorsa, a geneticist breeder at the research station, explains that one of his goals is to develop a selection that will produce at more consistent levels, year in, year out.

For instance, he says, cranberries depend on insect pollination, but the truth is that bees aren't particularly fond of the plants. Many growers watch as bees they have imported to work the bogs have buzzed off into the woods in search of something more appealing.

"We're working on varieties that will set whether they get pollinated or not," Vorsa says, and there are also problems of disease resistance — root rot is a looming worry — and weed control to tackle.

Growers also praise the center for its work on insect protection. In addition to its state funding, the research center receives grants from the growers; Vorsa says he hopes to persuade Ocean Spray to ante up for his program.