Favorite Thanksgiving dish gets 'upscale' breeding

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A pint of ripe Crimson Queen cranberries. Credit: Nick Vorsa

Families gathering around the Thanksgiving table this year will enjoy a traditional side dish that's been given some "upscale" breeding – cranberries.

While this year's version of the age-old staple will look or taste no different than servings of yore, a new cranberry hybrid is helping growers increase production and improve fruit quality for the annual fall feast. It is also helping them meet the increasing year-round demand for juices, fruit drinks, and "craisins" that health-conscious people

increasingly prefer.

"Ten years ago, the cranberry industry suffered a severe economic crisis," said Nicholi Vorsa, research professor in the Department of Plant Biology and Pathology at Rutgers University and inventor of the new hybrid. "Increasing labor, fuel and material costs coupled with stringent environmental regulations have placed considerable economic pressure on cranberry growers. Without productivity improvements, many would have to abandon growing this uniquely American fruit, a livelihood that is often a multigenerational family endeavor."

Working at the university's Marucci Blueberry-Cranberry Research Center in Chatsworth, Vorsa led an effort to develop a cranberry plant that delivered higher yields, ripened earlier in the season, and had vines that grew faster and resisted weeds and disease better than previous varieties. Until now, growers cultivated selections from wild bogs or relied on first-generation hybrids from the 1940s and 1950s that provided little genetic improvement.

The higher yields from Vorsa's new hybrid, named Crimson Queen, mean that fewer new acres of environmentally sensitive wetlands have to be developed to meet increased demand. The earlier ripening helps growers get their product to market in time for the annual Thanksgiving feast.

The faster growing plants help growers by producing fruit in newly planted or renovated fields a full year earlier. Cranberry beds planted with Crimson Queen hybrids come into full production in three to four years, versus the four to five years of traditional varietals. The hybrid's hardiness reduces the need for herbicides and pesticides, cutting costs and reducing environmental harm.

Vorsa received a patent for the Crimson Queen hybrid in 2007. Rutgers

licensed the hybrid and two companion varieties to more than 40 grower-members of the Ocean Spray cooperative. Rutgers began receiving royalties on its patent this year.

Earlier this month, the Research and Development Council of New Jersey awarded Vorsa a 2008 Thomas Alva Edison patent award. The Council issues these awards annually to recognize New Jersey inventions in business categories that benefit the state's economy, including agriculture.

Crimson Queen is only the second cranberry in the history of the United States to be patented.

"The earlier patented hybrid improved the fruit's red color but didn't improve yield and proved to be susceptible to early rot," Vorsa said. "So until Crimson Queen came along, growers had to rely on traditional unpatented varietals."

Crimson Queen plants are now grown in Wisconsin, Massachusetts and New Jersey – the first, second and third leading cranberry producing states in the U.S. They are also grown in the Canadian provinces of British Columbia, Nova Scotia and Quebec.

Source: Rutgers University