

Honeycrisp: The Apple Of Minnesota's Eye

University of Minnesota



As university labs go, it's hard to top the one where Jim Luby and David Bedford work. It features a 30-acre orchard that's the proving ground for the University of Minnesota's internationally known apple-breeding program.

And it's where, in 1991, the two researchers introduced a new apple that would captivate consumers around the globe and revive a flagging industry back home in Minnesota and nearby states.

They named it Honeycrisp.

It had this amazing texture in your mouth—an explosive crunch, and then the juice filled your mouth,” says Luby, who supervises the university's fruit-breeding programs.

Growers gushed about Honeycrisp's amazing taste: simultaneously tart and sweet. The New York Times excitedly called it “the iPod of apples” and “already a legend in its time.

New apple varieties take two decades or more to develop. Honeycrisp required cross-pollination of hundreds of

blossoms by hand—what Luby calls “kind of a dating and mating service”—growing and grafting seedlings onto outdoor rootstock, waiting several years for the trees to grow and bear fruit, cloning a few test trees and waiting several more years, then testing for taste and discarding those apples that don’t make the grade for any reason.

Small wonder, then, that Honeycrisp is one of just 27 new apple varieties released by the Minnesota Agricultural Experiment Station since 1908.

With some 20,000 unique apple seedlings in the ground at one time and more in the university’s pipeline, the odds of making it all the way to commercial success are minuscule: usually listed as 1 in 10,000, although Luby says Honeycrisp “raised the bar for everyone,” to two or three times that level. And to think it almost didn’t happen.

Bedford’s predecessor as manager of the university’s apple-breeding program had all but given up on MN 1711, as Honeycrisp was originally known. When Bedford took over in 1982, he decided to give it another chance. It turned into one of the best decisions he ever made.

The resulting fruit, patented in 1990, is now one of the top six apples grown in the United States, and the fastest growing in terms of production in the last decade, according to the U.S. Apple Association. This, despite prices that run two or three times higher than its competition.

“*Honeycrisp has changed how people experience apples. It’s world-renowned for its taste and crunch. It’s basically set the industry standard.*”

Anne Hall, University of Minnesota, Office for Technology Commercialization

In 2006 Honeycrisp was declared one of “25 Innovations That Changed the World” by the Association of University Technology Managers. The award recognized the apple’s “almost magical properties,” including its ability to survive in harsh climates, and a storage life of about seven months.

“*That customers were willing to pay double or more for Honeycrisps was great news for growers, especially small, family-run orchards in the Upper Midwest and New York looking for an economic booster shot from new products.*”

It was also a welcome boon for the University of Minnesota. Royalties on Honeycrisp and Honeycrunch (as it’s known in Europe) have exceeded \$14 million, making MN 1711 the university’s third-most-profitable invention ever.

Honeycrisp’s U.S. patent expired in 2008 but money continues to come in from overseas licensing. The royalties have helped fund additional academic research in agriculture and other areas. Today, 80 percent of all apples grown in Minnesota were developed at the university.

Honeycrisp, though, is the one that captured Minnesotans’ hearts. In 2006, at the urging of elementary schoolchildren, it was named the official state fruit.

This story was originally published in 2018.

To see available technologies from research institutions, [click here](#) to visit the AUTM Innovation Marketplace.