

## Chapter 4

# The Honeycrisp: a Sweet, Tart Jump-Start for a Sagging Limb of the Apple Industry

*The Honeycrisp apple has brought much-needed revenue to small family-run orchards in the upper Midwest and New York state. Developed by professor James Luby and research scientist David Bedford at the Minnesota Agricultural Experiment Station, the apple was introduced to the public in 1991 and sells at a premium price because of a sweet-tart flavor and firm texture that appeals to a wide range of consumers.*



Photo courtesy of the New York Apple Association

Things looked pretty grim in the 1980s and 1990s for upper Midwest apple growers. Paralleling the plight of many family farms, century-old orchards were going from tidy tree-lined rows to gnarled, ramshackle woodlots.

Cheap overseas fruit forced sections at an alarming rate. Big Washington state orchards dominated retail store sales. In fact, it got so bad that small orchards that already had to deal with challenges like a short growing season and muscle-straining labor were sometimes selling apples for less than they cost to produce. But help was on the way. And its source wasn't a government program or market upswing, but an apple with almost magical properties.

### Matchmaking in the New Millennium

What are the properties of this magic fruit and where does it come from? It marries sweetness

sought by some and tartness touted by others, and it thrives in the hard climate of northern-tier states. Though the original apple hails from Kazakhstan's Heaven's Gate Mountains, the Honeycrisp hails from Minnesota, Land of Ten Thousand Lakes.

Professor Jim Luby and research scientist David Bedford, who work at the Minnesota Agricultural Experiment Station at the University of Minnesota, introduced the Honeycrisp to the public in 1991. They are part of a program that has developed 23 apple varieties since 1908; each new variety takes about 25 years to develop. Despite being scientists, Luby and Bedford practice a technique for developing apples that looks a lot like old-fashioned match making. They take one apple variety that, on its own, might be lacking and combine with another, possessing strengths that the

first lacks, with hopes of a fruitful union.

As in human conception, the egg cell in the flower needs to be fertilized to develop into the embryonic tree contained in the apple seed. Flowers are hand-pollinated in the field, with the pollen of one apple applied to the blossom of another.

Pollinating is conducted in batches of several hundred flowers; the large number of fertilized seeds created helps give a sense of the genetic range produced by this union. These seeds mature



Photo courtesy of the New York Apple Association

into trees and bear fruit in five to seven years. What develops, to follow the analogy, are children who may or may not resemble the parents. Bedford and Luby select the best offspring.

At any given time, the Minnesota Agricultural Experiment Station has hundreds of apple varieties, or cultivars, growing. It's part of Luby and Bedford's job to taste them all, sometimes as many as 500 in a day. They're in search of fruit that brings together a troika of characteristics: appearance, flavor and texture. And when they find an apple, like the Honeycrisp, that has all these, it becomes a candidate for cloning.

Though the word "cloning" sounds high-tech, the practice of grafting a cutting of the desired variety to a rootstock dates back to Roman times. "Cloning is the easy part," says Luby. "Sorting through all the varieties — that's the hard part."

To date, the University of Minnesota has sold more than 3 million Honeycrisp trees, and a portion of revenues go back into the fruit breeding program to develop new varieties.

### Upsetting the Apple Cart

In the early 1990s, Luby and Bedford, and a handful of aficionados at the artisan end of the fruit business, knew they had something special. "The Honeycrisp had outstanding texture, crispness, and juiciness," says Luby. "It stood out among thousands of varieties." But there remained the job of bringing the product to the public. And somehow convincing them — if this apple was to work economic as well as

gustatory magic — that it was a great fruit worth paying a premium for.

"If the customer looked down at the paperwork during a sales call, I knew he wouldn't buy. But if he looked up at the ceiling, I knew I had a chance," says Dennis Courtier, owner of Pepin Heights Orchard Inc. in Minnesota's bluff country along the Mississippi River. Courtier is a long-time grower-shipper-packer who handles about a quarter of the Honeycrisps grown in the U.S and helped blaze a trail for this new kid on the apple block.

### Small-Scale Goes Big-Time

The Honeycrisp's road was slow and, at first, uphill. Consumers were used to generic varieties available at grocery chains selling for less than a dollar a pound. But somewhere in the mid-nineties, as Courtier and others were hand-selling Honeycrisps to specialty markets, consumer tastes were changing. Suddenly, there were organics, slow foods and micro brews. Small-scale was big time. And big stores, though by no means going away, seemed to compete for a different consumer.

By the late 1990s, a pound of Honeycrisps retailed for \$2.50. And they were selling. Stores couldn't keep them on the shelves. That was good news to growers who took a chance on planting this experimental variety in the mid- and late '90s.

A third of Courtier's growers went out of business in the hard times between 1990 and 2000. But those who switched to Honeycrisps are doing well. "They're sending their kids to

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Shefelbine  
Orchards

college — and not necessarily on a scholarship,” Courtier says. “At the end of the day,” he says, “consumers are willing to pay a higher price for a better product.”

Doug Shefelbine of Shefelbine Orchards in Holmen, Wis., is a case in point. “Eighty percent of my customers will buy nothing but Honeycrisp. I don’t think we’d be growing apples if we didn’t grow Honeycrisp,” he says.

Specialty varieties like the Honeycrisp are important, says Shannon Shaffer, membership and communications manager for the U.S. Apple Association. “They keep consumer excitement going. They’re vital to the industry.”

## **A Way of Life Goes On**

The Honeycrisp has helped smaller growers in Minnesota, Wisconsin, upper Michigan and northern New England whose profit margins per apple need to be higher. Honeycrisps are not without their challenges — trees sometimes produce only biannual crops, need frequent calcium spraying and require picking in small batches — but orchard owners have never been known for liking things easy. And now, the metal cider presses, gray wood crates, John Deere tractors, and orchards themselves that have served so many North Country generations can go on. And a very traditional form of business, and living, can continue.

— By John Motoviloff