Crunch

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It was a humid afternoon in late September, the kind of weather that makes an apple feel slightly greasy to the touch. Outside Fairway, the supermarket on Broadway at Seventy-fourth Street that is a fixture of the Upper West Side, shoppers were hurrying to beat the rain. Moms were clutching the hands of small children in a post-school-day daze, while elderly ladies barrelled through the entrance wielding wheeled walkers and snarling, "Ex-*CUSE* me!"

SweeTango a new hybrid of Honeycrisp and Zestar.

SweeTango, a new hybrid of Honeycrisp and Zestar.Photograph by Grant Cornett

Inside, in a claustrophobic produce aisle that was piled high with apples and musky with the scent of ripeness, stood twenty-eight-year-old Dan Glickberg, Fairway's executive vice-president and the great-grandson of the store's founder, Nathan Glickberg. He watched as his customers tried to decide among the twelve varieties of apples on display. There was a new apple in town, SweeTango, and Glickberg wanted his customers to know about it, but he wasn't pushy. He wore the placid expression of a man who has heard every conceivable complaint and experienced every possible eccentricity when it comes to food.

An older woman with blond highlights approached.

"This is a great apple, Ma'am," Glickberg said, and held up the newcomer. "Great apple," he repeated, and smiled.

"I want to make strudel," the woman said, in a German accent.

"Well, this is a fantastic eating apple. It's crisp and it's juicy."

"But for strudel?"

"Golden Delicious would be good for strudel, Ma'am. But why don't you take one of these to eat?"

He handed the apple to her. She looked it over, and then sniffed the calyx, the apple's bottom. It was a large apple, but not supersized, like the Fujis down the aisle. It had sunburned shoulders, yellow sides, and a splash of green around the stem bowl, and it was freckled with "lenticels," through which it was imperceptibly breathing. Like young Glickberg, the

SweeTango was of fortunate lineage—its father was Zestar, which Fairway also had in stock, and its mother was the famous Honeycrisp, which Fairway would be getting a little later in the season.

The woman shrugged. “O.K., I will let you know,” she said, putting the apple into her cart.

“She will, too,” Glickberg said, watching her walk away.

This was SweeTango’s second fall in the city. In its débutante season, supplies were so limited that few New Yorkers got to taste it; this year, there were three times as many nationwide. Tweets from SweeTango’s Twitter account and posts on its Facebook page tracked the apple’s progress from Minnesota, where it was bred, to stores around the country. Like Honeycrisp, SweeTango has much larger cells than other apples, and when you bite into it the cells shatter, rather than cleaving along the cell walls, as is the case with most popular apples. The bursting of the cells fills your mouth with juice. Chunks of SweeTango snap off in your mouth with a loud cracking sound. Although a crisp texture is the single most prized quality in an apple—even more desirable than taste, according to one study—crispness is more a matter of acoustics than of mouthfeel. Vibrations pass along the lower jaw and set the cochlea trembling. Biting into a really crisp apple, one feels, in the words of Edward Bunyard, the author of “The Anatomy of Dessert,” “a certain joy in crashing through living tissue, a memory of Neanderthal days.”

But, no matter how celebrated its parents, any new apple in the Big Apple is going to face a tough crowd.

“Have you tried SweeTango?” Glickberg asked another customer. “If you like a crisp apple, this one is good.”

“Too expensive,” the woman said. It was $2.99 a pound, which was a dollar more than the Gala and Fuji apples, but a lot less than the SweeTango was selling for online (twelve for thirty-eight dollars, on one site).

Video From The New Yorker

For the Love of Bread

The next customer began filling a bag with them. “I just like the way they look,” she said.

Another woman stopped in front of SweeTango. “Now, I read about these new apples on the Web, and I think this was one of them.”

“Probably was.”

“What are they like?”

“Very crisp and very sweet.”

“Oh, good. My dogs will like them.”

Glickberg nodded.

“Well, we share them,” the woman went on. “I have four dogs.” She lowered her voice conspiratorially. “I have to peel them for one. He doesn’t like the skin.”

Like every invention, SweeTango is both a work of individual genius and a product of its times. As a piece of intellectual property—branded, patented, and trademarked—it has more in common with the apple on my laptop than the one I used to carry in my lunchbox. Anyone can judge for himself how it tastes—very sweet, though saved from saccharine, in my opinion, by a lemony finish—but to appreciate what SweeTango represents, as a product and as a cultural construct, it helps to understand something about its antecedents. And since apples and humans go way back—Thoreau begins his essay “Wild Apples” by noting, “It is remarkable how closely the history of the Apple-tree is connected with that of man”—a little backstory is necessary.

Malus pumila, of the family Rosaceae and the tribe Pyreae, was domesticated some four thousand years ago, in the fruit forests of what is now southeastern Kazakhstan, near the city of Almaty. Frank Browning, the author of “Apples,” reports seeing apple trees growing up through cracks in the pavement there. The wild horses of the nearby steppe liked to eat apples, and could cover long distances, carrying the seeds in their guts. Apples travelled westward along trade routes, and show up in Persia around the time of Alexander the Great, and in Europe not long after; the Romans cultivated them widely. (The apple in the Garden of Eden was most likely a pomegranate, or possibly an orange.) The species came to the New World with the first European settlers, in the form of seeds, and the pioneers, as they pushed westward, took apples with them.

By the time of the Civil War, there were many kinds of apples growing across the United States, but most of them didn’t taste very good, and as a rule people didn’t eat them. Cider was cheaper to make than beer, and many settlers believed fermented drinks were safer than water. Everyone drank hard cider. President John Adams drank a tankard before breakfast. Babies drank it before going to bed. At the end of the nineteenth century, when Carry Nation took up her axe in the service of the temperance movement, she likely employed it on apple trees as well as saloons. By the beginning of the twentieth century, the apple had a serious public-relations problem.

The solution, as Michael Pollan relates in his book “The Botany of Desire,” was to promote the eating of apples as a healthy snack. J. T. Stinson, a fruit specialist, first used the phrase “An apple a day keeps the doctor away” at the St. Louis World’s Fair, in 1904. (He adapted the slogan from the traditional English proverb “An apple before going to bed keeps the doctor from earning his bread.”) Many cider-makers had long prized the chance seedlings, discovered in their fields and orchards, that yielded unexpectedly delectable eating apples. As the industry moved away from cider-making and toward table fruit, some of these apples

were named, propagated by cloning—the method of grafting a piece of one tree onto the trunk of another, which produces fruit that is an exact genetic copy of the first tree's—and promoted like pop stars. The Northeast had Jonathan, Esopus Spitzenburg, and Blue Pearmain (Thoreau's favorite); the South claimed Winesap, Sally Gray, and Disharoon; the Midwest boasted Hawkeye and Detroit Red; and from the West came the Gravenstein and the Yellow Newtown Pippin. Their flavors were shaped by their respective climates—the shorter the growing season the tarter the apples tended to be.

In the twenties and thirties, refrigerated railcars allowed growers to transport apples over great distances, and, thanks to cold-storage warehouses, wholesalers and retailers could keep them for long periods of time. As regional markets gave way to supermarket chains, the number of available apple varieties shrank, and those which endured shed their regional associations. By the nineteen-sixties, most supermarkets carried three types of apple: McIntosh, a small, tart apple that John McIntosh had found growing on his farm in Ontario, Canada, in 1811; Red Delicious, originally the Hawkeye, a sweet apple discovered on a farm in Iowa in the eighteen-seventies; and Golden Delicious, found in a hay field in West Virginia in the eighteen-nineties. Apple breeders tweaked these apples, to enhance their industrial potential—they had to be durable, long-lasting, and attractive—generally at the expense of texture and taste (unlike many fruits, apples can look wonderful and taste terrible, and so they lend themselves to horticultural sleight of hand). Price, rather than quality, became the determining factor, as growers and retailers engaged in a headlong race to see who could produce the largest yields and the lowest prices. By the sixties, the apple industry had managed to turn the perfect convenience food—a tasty, healthy, portable, durable snack wrapped in an edible peel—into the insipid and cottony hardball that soured several generations of children on apples. Today, the average American eats less than half as many apples in a year as the average European eats. And that's where the story of SweeTango begins.

David Bedford, its inventor, is a wiry, bushy-browed, sixty-year-old horticulturist, who speaks with a residual drawl from his early years in North Carolina, where his father was a preacher and his mother was an amateur biologist. As a child, he loved all kinds of fruit except apples. "I can still remember that Red Delicious apple—that sweet but overripe smell and that mealy soft texture," he told me. "Kids trade their snacks, but no one would trade for a Red Delicious."

Bedford attended Wheaton College in Illinois, where, as a biology major, he became interested in plant breeding, and where he tasted a really good apple for the first time. Another student had brought a bushel back from Michigan. "I said, 'Oh, my gosh, this is what I've been missing.' It was the beginning of my awakening." Upon graduation, he worked for three years in a nursery in Rapid City, South Dakota, and then went back to school for a master's degree in horticulture at Colorado State University. In 1979, he took a job at the University of Minnesota's horticultural station, which maintains one of only three large-scale apple-breeding programs in the country.

In the United States, apple production happens mainly in the shoulders of the nation—Washington State is the largest producer, and New York is the next largest. Not surprisingly, each of those states has a breeding program, at Washington State University and at Cornell. Minnesota is twenty-third among the twenty-nine apple-growing states, in volume of production; up through the eighteen-fifties almost no apples grew there, because it was too cold. Its breeding program was born not of abundance but of necessity. “I wouldn’t live in Minnesota,” Horace Greeley once said, while visiting the state, “because you can’t grow apples here.” That remark inspired a cantankerous apple breeder named Peter Gideon to prove Greeley wrong with an apple he named Wealthy, after his wife. The success of the Wealthy apple, introduced in 1861 and still grown in heritage orchards around the country, was the inspiration for the university’s apple-breeding program, in 1878, which was followed by the founding of the Minnesota Agricultural Experiment Station, where Bedford works. The station was built with funds authorized by the Hatch Act of 1887, which provided research-and-development money to land-grant universities for the promotion of agriculture.

Over the course of its existence, the “U” ’s breeding program has released twenty-seven new varieties of apples. Their names—Beacon, Haralson, Prairie Spy—are not widely known outside the state, but they are cherished by Minnesotans. At harvest time, it is not uncommon to see enormous buses—the kind you see taking gamblers to casinos on the East Coast—pull up in front of roadside stands around the state and disgorge scores of apple tourists. For growers, the university’s breeding program meant a steady supply of new varieties that could withstand the state’s cold winters and hot summers. The market was tiny, but that meant the university’s breeders didn’t face the commercial pressure felt by breeders in New York and Washington.

For Bedford, this was both good and bad. “When I started here, in 1979, Red Delicious was still king—it ruled the empire in the Star Wars universe of apples, as it were—and I remember thinking to myself, Oh, gosh, is this really what the world wants from an apple? It was so discouraging! It was big and it was red, but that’s all it was.” On the other hand, he added, “we weren’t breeding apples for the industry, and we were not breeding apples for middlemen—they didn’t want anything to do with us Northern hillbillies up here with our cold-hardy apples. We never worked with Red Delicious here, so we had a totally different set of germplasm in our apples. Which, it eventually turned out, was a very good thing.”

When Bedford assumed control of the apple-breeding program, in the early eighties, the U.S. apple industry was poised for a profound transformation. Something like the pre-industrial world of apples, where an apple lover had the choice of many varieties, was returning, not through heirlooms but through new breeds of super apples from other countries. Instead of standing mostly for places and people, the new apples would stand for images, sounds, and ideas—Royal Gala, Pink Lady, Jazz. This transformation had begun in 1975, when a Washington grower named Grady Auvil introduced a tart, green, hard-fleshed apple originally from Australia that Maria Ann Smith, a farmer’s wife, had discovered growing on the family’s compost pile in New South Wales, in the eighteen-sixties. The Granny Smith

apple was widely propagated in New Zealand, became famous in the United Kingdom in the nineteen-sixties as the logo on the Beatles' Apple Records, and, on arriving in the United States, expanded the pantheon of supermarket apples to four, demonstrating to apple breeders everywhere that U.S. consumers would respond favorably to a new apple. In the early seventies, President Nixon had imposed price freezes on all foods except fresh produce. Grocery retailers, looking to increase profits, expanded their produce sections. After controls were lifted, they continued to seek out new varieties of fruits and vegetables that could be marketed at a premium.

In the eighties, the Fuji, a large, sweet apple that was originally bred in Japan, was brought to the U.S., and quickly caught on. That decade, Braeburn and Gala apples, both from New Zealand, were also introduced to the U.S., to great acclaim; the Gala is now one of the most popular apples in many parts of the country. To Bedford these successes demonstrated that "if the consumer is given choices, and if they realize, by eating some of these apples, how good an apple can be, then the market can't keep supplying lousy apples, because the consumer is not going to tolerate that." The other thing the new apples proved, Bedford added, was that "an apple doesn't have to look that good. The original Fuji was an ugly apple. It showed that if the flavor was pleasing, the customer could get past the appearance." Meanwhile, Red Delicious began to decline. Washington produced roughly sixty million bushels in 1995; the state produces a little more than half that much now. In 2002, Congress spent ninety-two million dollars to assist struggling apple growers.

Bedford's apple laboratory, a thirty-acre parcel of rolling land about thirty miles west of Minneapolis, is planted with about twenty thousand apple trees. In May, during blossom time, Bedford and his student assistants make crosses between promising varieties: taking pollen from one variety and swabbing it onto the stamen of another, and then bagging those flowers to keep pollen from other trees out. Although the apple that grows on that branch will be true to the mother tree's DNA, the seeds will be heterozygous, combining equal and unique parts of both parents' genes so that every seed is distinct—another thing apple trees and humans have in common. Bedford hopes to get the best characteristics of both parents into the offspring, while producing an apple with an identity all its own. "Some apples look great but don't pass those traits on," he told me, "while others are not so great-looking but make good parents." Each one of the three to five thousand seeds that result from a season of crosses will be unlike all the others and will produce a different tree. Bedford plants the seeds in a greenhouse, and grafts the budding trees onto outdoor rootstock the following summer. In about five years, he will have four thousand or so brand-new apples to taste.

In the fall, during the apple harvest, Bedford tastes apples from blossom times past, up to five hundred apples a day, in the hope of finding that one apple in ten thousand that will be released as a commercial variety. I spent an afternoon with him in early September, walking through long rows of young trees, and tasting apples of every imaginable size, shape, hue, and flavor, from musky melonlike apples to bright lemony apples and apples that tasted like

licorice. “We don’t actually swallow, and we don’t really even have time to spit,” Bedford explained. “You just kind of hold a bit in your mouth for a while, until you get the flavor, and then let it fall out.”

If a tree produces exceptionally good apples for several years in a row, it achieves élite status and is awarded a number. Four clones are made from the mother tree’s wood, and those trees are grown in another orchard on the property, under commercial conditions. To evaluate the élite trees, Bedford carries a field notebook with twenty categories on a page, which, in addition to the “organoleptics”—all the sensory stuff, like flavor, texture, and color—include tree size, shape, and yield. He scores each category from one to nine. He generally continues these yearly evaluations for a decade or longer, in order to subject the trees to a representative range of extreme summers and winters and drought and flood, and in the hope of ferreting out all the quirks that apple trees are heir to. Some are wild in their youth but eventually settle down, while others bear fruit every other year; some bear smaller fruits as the trees age, while others drop their apples before they’re ripe.

Finally, a truly outstanding apple is named, the tree is patented, and clones are released to nurseries, where thousands of copies of the trees are made and sold to growers, for which the university collects a royalty of around a dollar per tree during the life of the patent. Large color posters of the five apples released during Bedford’s time at the agricultural station decorate his office, their swollen flesh glistening with beads of moisture, like centerfold pinups in a mechanic’s shop.

As we walked the rows, Bedford carried a can of orange spray paint. If an apple wasn’t reasonably tasty—and only two of the scores of varieties we tasted made the grade—and if he determined the apple to be fully ripe (which he did by cutting it open with a long-bladed knife and spraying iodine on the flesh; the starch in an unripe apple will turn black) then he coldly marked the tree for extermination by spraying orange paint on its trunk. That day, I watched him terminate dozens of unique hybrids whose like the world will never see again, and by the end of the day I had a newfound respect for the breeder as the godlike master of his domain, the ultimate arbiter of life and death in the orchard.

“I’d like to give a tree a couple chances, but I just don’t have the mouth time for that,” Bedford explained. “So it’s one strike and you’re out. With all these new trees coming on each year, you won’t have space unless you thin out the duds.” He sprayed another tree trunk with the mark of death. “But it is kind of nerve-racking, because you want to give the tree a chance to do its best. No one wants to be known as the guy who killed the next Honeycrisp.”

Bedford was very nearly that guy. In 1982, the year he took over the breeding program, he was looking through the trees that his predecessor in the job wanted removed. One was MN 1711, a variety that had achieved élite status and been cloned, but had not done well for several years. The mother tree had been damaged by a particularly cold winter the year before, and the four clones had been marked for termination. In studying the data, however, Bedford noticed that the mother tree had been planted in one of the lowest, wettest parts of

the orchard. “So I thought, We’ll give that apple one more year,” he said. That apple turned out to be Honeycrisp. Released in 1991, thirty-one years after the original cross was made, it has become the apple of Bedford’s dreams—the humble Minnesota apple that made it onto the national, and then the international, stage. It brought a new kind of texture to apples: flesh that was crunchy but not hard or dense. “That changed the whole game,” Fred Wilklow, the owner of Wilklow Orchards, told me one Saturday this fall when I dropped in at the greenmarket in Borough Hall, Brooklyn, to buy some of his apples. As we were talking, another customer overheard the word “Honeycrisp.”

“Oh, my God, Honeycrisp—they are the best!” she said.

“See what I mean?” Farmer Fred said.

“What’s amazing about Honeycrisp,” Brian Nicholson, the president of Red Jacket Orchards, in New York’s Finger Lakes region, told me recently, “is that it brings in people who don’t even like apples that much—people who prefer peaches or berries or whatever. So it just expands the apple’s share of the fruit basket, and that helps all growers.” The patent, which expired in 2008, combined with sales rights abroad, earned the University of Minnesota more than ten million dollars in royalties, making it the third-most-valuable invention ever produced there, after Ziagen, a drug used to treat H.I.V., and a vaccine that prevents P.R.R.S., a reproductive and respiratory virus in pigs. In 2006, the Association of University Technology Managers named Honeycrisp one of twenty-five innovations that changed the world, along with Google and the V-chip.

Dennis Courtier, the owner of Pepin Heights Orchards, is a stocky, in-your-face guy in his late fifties. He walks with his legs slightly apart, as if he had just climbed off a motorcycle, and has a puffy upper lip that gives him a pugilistic appearance. His orchards sit atop five-hundred-foot-high bluffs that overlook the Mississippi River at Lake City, in the southeastern corner of Minnesota. Turkey buzzards hover in the air around the edges of the bluff, borne aloft by convection breezes rising from the river that warm the apples on cold nights and cool them on hot days. In August, the diurnal changes in temperature combine with the “ethylene cascade” to help the apple redden and get sweet.

Courtier’s father grew apples, mostly Red Delicious, on the same spot, but the business was marginal, and when Dennis told him he wanted to take over, his parents tried to talk him out of it. But Courtier had spent time working in an orchard in Londonderry, New Hampshire, where, he told me, “the growers were scientific in their approach. I thought, Gee, there’s a hell of a lot more to this than loading crates onto a truck.” He went on, “Coming from a tiny apple-producing state like Minnesota, with no local infrastructure, forced me to go out into the world and get more ideas. Also I got a sense of the big picture, and how Pepin fit into it. I could see how the apple industry was going to drive prices down, and how the only way guys like me were going to survive was to plant unusual varieties and grow them to a higher standard, and charge a premium for them.”

In the eighties, Courtier tried planting some of the newer apples—Fujis and Galas. Although the Minnesota growing season was too short for the Fuji, the Gala did very well for him. As the Gala caught on around the country, however, and more acreage was planted, the same market forces that had destroyed the Red Delicious began to sap flavor from the Gala. As Courtier said, “Once enough trees get planted in the ground, a certain number of them are going to be different. You get what we call ‘sports,’ or limb mutations. Growers look for mutations that are redder—retailers like them because they think customers buy with their eyes. The original Gala was a yellow apple with a red cheek on it, but they started to get redder, and they got called Royal Gala, and then Regal Gala—each one redder than the last.” A solid-red apple also hides bruises, so it is going to get the highest “pack-out”— the fewest number of apples lost to cosmetic defects. “It doesn’t matter if the apple is green on the inside when the marketplace is telling you that color is more important than taste,” Courtier said.

In the late eighties, Courtier began to hear from David Bedford about MN 1711, and he signed up to be one of its test growers. The apple proved “persnickety” to grow and harvest—the fruit ripened unevenly, so the trees required four pickings, rather than the standard two—but the texture and flavor were “off the charts,” Courtier said. “Once we saw how much people liked the taste of it, we planted as many as we could.” Honeycrisp prospered, and today Courtier is the largest grower in Minnesota. He was determined not to let the marketplace destroy this apple. “We always said that if we find a red sport on a Honeycrisp we would burn it.”

But still there were problems. “Terroir turned out to be very important for this apple,” Courtier explained. “A lot of growers just grew it in the wrong spot, or didn’t know how to grow it at all. Hey, these things don’t come with an owner’s manual! Also, it’s a mid-to-late-September apple, but some growers started jumping the market by harvesting unripe apples in early September.” The quality varied widely, and as consumers found they could not count on the Honeycrisp crunch every time, the brand suffered. And, despite Courtier’s best efforts, “red drift” began to set in. “You can see them getting redder,” he said. “The wheel is turning again, and one day the red sports will take over and Honeycrisp will be just as flavorless as the next apple.”

To Bedford and his colleagues at the university, who had spent more than three decades developing Honeycrisp, that didn’t seem right. Bedford told me, “It’s like Nabisco releasing a baked wheat chip and saying, ‘O.K., you can take this, make it to your own standards, and when you’re done call it a Triscuit.’ ” In 2003, as a result of a four-billion-dollar state budget deficit, the breeding program’s budget had been slashed by nearly two-thirds and it was depending on the royalties the Honeycrisp generated to support its work. Hurting the brand could damage the whole program.

Meanwhile, Bedford had his eye on a new apple, MN 1914, one of the offspring of a 1988 cross he made of Honeycrisp and Zestar, another Minnesota-bred apple. He mentioned it to Courtier, who visited the mother tree, tasted the apple, and loved it. “It had everything

Honeycrisp had, and it had this other thing, too, this tropical thing," Courtier recalled. In 2006, the university released it as a named variety. But instead of an "open release," which meant that anyone could grow the apple, the university decided to release MN 1914 as a "managed variety," or what's known in the business as a "club apple." The university would grant a license to an outside company, which would establish a consortium that could market and grow the apple nationally. Growers could apply to the consortium for permission to grow the apple and, if accepted, would be obliged to sign a lengthy contract stipulating how and where they could grow it, as well as where they could sell it.

Managed varieties of apple had been pioneered by Australia's state-run apple-breeding program in the nineties, with its Pink Lady variety, and the Honeycrisp had been released as a managed variety in Europe in 2000. But no large-scale university breeding program had ever released a managed variety of apple in the U.S. As Jim Luby, the head of the Fruit Breeding Program at the university and Bedford's boss, explained to me, "There was some discussion about how this would be perceived by the state's growers." After all, the new apple, like the twenty-six varieties that had come before it, had been created, in part, with public funds (though, with budget cuts, the tax-based share of the funding was declining). And, as a land-grant institution, the university had a long and distinguished record of passing its agricultural advances along to the state's farmers. Nevertheless, in the interest of quality control, and to maximize the revenue stream from the apple, the university decided to manage the release. Also, in addition to patenting the apple tree, which was called Minneiska, the university would trademark the apple itself. Growers would be obliged to pay royalties on both the tree and its fruit.

The university asked for proposals to lead the consortium from some of the state's growers. Pepin Heights Orchards won the job. Bedford and Courtier came up with a name for the apple, SweeTango, and Courtier called the consortium, with some hubris, Next Big Thing. Minnesota growers who did not wish to join were allowed to plant up to a thousand trees—subsequently increased to three thousand—but could sell the apples only at farmers' markets, local grocery stores, and farm stands. Only Next Big Thing was entitled to sell the apples commercially—i.e., to wholesalers and grocers. "When you sell the apples at your farm stand, people know who grew them," Luby explained. "But when you sell them to a grocery store you the grower are anonymous, as far as the consumer is concerned, and that's where quality issues creep in. We wanted to avoid that." Growers outside Minnesota weren't allowed to grow SweeTango at all, unless they joined Next Big Thing.

Fred Wescott, an apple grower in Elgin, Minnesota, had also wanted to lead the SweeTango consortium. He didn't really mind that he lost out to Dennis Courtier, he said. "What bothers me is the way the university set this up. Dennis Courtier is the big winner, and we are the losers, and it didn't have to be that way." By denying Minnesota growers the right to grow and market the SweeTango as they see fit, he went on, including selling it commercially, the university was threatening their livelihood; many of the state's growers were unhappy with the SweeTango model, he added. "Let's say this turns out to be another Honeycrisp, one of

the biggest national varieties—which I don't think it will, because it's not an apple of that calibre—but if it did, and we weren't able to grow it for commercial production, that would have a devastating impact on our business. Devastating."

Another grower, Karl Townsend, noted that both Cornell and Washington State University were preparing to release new varieties of apples, which out-of-state growers would not be able to grow, while all in-state growers could. (In New York, growers must join an industry-wide coöperative, New York Apple Growers.) "Why couldn't the university have come up with a hybrid model like that as opposed to the model of letting one grower, Pepin Heights, control the whole thing? It would have brought just as much revenue for the university." I mentioned quality control. "That is all smoke," Wescott replied. "Look, the amount of apples grown in Minnesota is minuscule—we are talking about a couple hundred thousand boxes of fruit, out of two hundred and thirty million boxes grown nationwide. Most of SweeTango is coming from Nova Scotia, Washington, New York, and Michigan. And, based on the SweeTangos I am seeing in the store, the quality varies just as widely as any other apple.

"And that's another thing," Wescott added, his voice rising. "I'm seeing SweeTangos grown in Michigan being marketed in grocery stores in Minnesota as a local variety, right alongside the varieties we are growing. So in effect what's happening is the university has become our competitor, and they have a great advantage, because they're the only ones that have this new apple everyone is bragging on, and you know how people in Minnesota are when it comes to apples."

I could understand why Wescott would see Dennis Courtier as the villain, but I had also heard Courtier described as a "visionary" by an out-of-state grower—Brian Nicholson, of Red Jacket Orchards—for more or less the same reasons. In any case, Courtier's ambitions are larger than Minnesota. Pepin Heights and the university have discussed a multiyear plan to take SweeTango to Europe, the Antipodes, and the Far East, where its candy-sweet flesh is expected to appeal to Asian palates. I once asked Courtier if his plan was world domination. "I'm just trying to grow a great apple," he replied, "and I don't know how else you do it."

SweeTango may prove to be the crown on Minnesota's unlikely triumph as an apple-breeding state, but it will be a crown of thorns to some. It could only have come from Minnesota, but its potential is too great to give it to Minnesota's growers without restrictions. It appears that what's best for an apple is not always best for the people who grow it. In the case of SweeTango, the apple's interests prevailed.

I went back to Fairway not long ago, to get some more SweeTangos. I had come to love the apple, and although I agree with a friend of mine who described the taste as "Photoshopped," I found myself remembering the crunch of the apple's flesh against my teeth. It was like hearing with your mouth, or tasting music. I wanted that experience again.

I couldn't find any SweeTangos in the produce aisle, and when I asked an employee where they had gone she had no idea what I was talking about. I followed her around while she asked several clerks where the apple had gone. One thought it might be upstairs in Organic (I checked; it wasn't); another suggested I return in a couple of weeks. Finally, a third clerk, who was wheeling a pallet of Gala apples along the aisle, told me there were some boxes downstairs, and he would go and bring one up.

I bought as many SweeTangos as I could carry, walked out onto Broadway, and stood on the sidewalk with an apple in my hand, my fingers not quite encircling its girth, feeling the chill of the Fairway basement in the center of my palm. I stared at the skin, and the lenticels gazed indifferently back at me, as I contemplated man's long and sometimes discordant relationship with this fruit. Then I set my teeth on its skin, and crunched. ♦