



November 23, 2011

# Chestnuts Worthy of Song

By MICHAEL TORTORELLO

NAT KING COLE owes an apology to the nation. With “The Christmas Song,” in 1946, Mr. Cole conjured the sentimental image of “chestnuts roasting on an open fire.”

The song’s power is Pavlovian. The strings swoop; Mr. Cole croons. Ten minutes later, we find ourselves pulling into the parking lot at the Shop & Slop, still wearing our house shoes. Alas, when we arrive at the produce aisle, the chestnuts are a grim sight. The glossy brown shells appear dull and spongy. Moldering, even.

Back in the kitchen, the disillusionment grows. The casing seems to be made of stab-proof Kevlar. The chestnut’s astringent pellicle (its pinkish inner skin) is harder to peel than old wallpaper. Bah, humbug to you, Mr. Cole.

Chestnuts should be sweet, crispy and perishable. And the chestnut at the store is bound to disappoint, said Nancy Petitt, a co-owner of [Delmarvelous Chestnuts](#), an 1,100-tree orchard in Townsend, Del.

“They don’t have the fat content that protects things like walnuts and peanuts from degradation,” Ms. Petitt said.

A chestnut demands steady refrigeration, and the European and Chinese imports that dominate the market often sit in warm warehouses or unrefrigerated trucks before getting lost on the sales floor behind the Duraflame logs.

Yet it’s not impossible to find a chestnut worth singing about. One place to look is your backyard. The fresh “culinary chestnut” that you roast in the oven could be the same seed stock you plant in the yard.

Indeed, this is food gardening you can do on a bright day in November, before settling down to watch the Detroit Lions (like the chestnut tree, a great American underdog) play the [Thanksgiving](#) classic.

A dozen-odd growers will mail a few pounds of fine chestnuts in time for the winter holidays. One is Mark Shepard, whose 106-acre orchard in Viola, Wis., called New Forest Farm, lies on a dirt road about two or three hours from anywhere.

Nonetheless, visitors flock to hear Mr. Shepard, 49, expound on why chestnuts should replace corn as a staple of the American diet.

On a blustery afternoon last month, his nut orchard had already been worked over by the “cleanup crew”: Mr. Shepard’s seven hogs, ginger-haired crosses of Berkshires and Tamworths.

But the chestnut harvest is a messy, drawn-out affair. “The chestnuts ripen,” Mr. Shepard said, “and the burr” — the fruit’s outer armor — “opens up, and the nuts fall free on the ground. Look at this tree here. This one still has nuts on it.”

The spiky burr, half-breached by a nut, appeared almost anatomical, a Georgia O’Keeffe painting touched up by Matthew Barney. No paring knife was needed to get at the meat.

“Bite into it widthwise between your incisors,” Mr. Shepard said. “Not your canines, your incisors. And it will just pop out, whole.”

Out of the peel and pellicle, the kernel appeared lightly whorled and the color of an antique piano key. It tasted sweet and crunchy. Faintly grassy, even. “Kind of like carrots,” Mr. Shepard said.

BEFORE going any further, let us address the lingering rumor that the chestnut tree is extinct.

The chestnut tree is not extinct. That said, the American chestnut (*Castanea dentata*, the tree with the toothy leaves) had a worse 20th century than the British Empire, the ice-delivery trade or rhyming poetry.

It was a foreign pathogen that routed this 115-foot-tall giant from the Eastern forest. Starting as a cluster of orange dots, the blight, *Cryphonectria parasitica*, forms a webbed fungal ring and chokes off the tree’s vascular flow. When this parasite hitchhiked into the Americas will probably never be known, although it likely came on infected Asian chestnut stock. The mycologist Sandra Anagnostakis has tracked shipments of Japanese chestnut trees to Flushing, Queens, as early as 1876.

Susan Freinkel, in her absorbing 2007 book, “American Chestnut: The Life, Death and Rebirth of a Perfect Tree,” recounts the ruthless march of the disease across some 200 million acres, from Maine to Georgia. In little more than three decades, Ms. Freinkel writes, “it is estimated the blight killed between three and four billion trees.”

But while the parasite devastated the chestnut’s limbs and trunk, it somehow spared the root collar. So “there are millions of American chestnuts out in the woods,” said Sara Fitzsimmons, 34, who coordinates the north-central Appalachian tree-breeding program at the American Chestnut Foundation. “Most of them are sprouts. Sometimes they fruit.”

After 5 or 10 years, though, a storm will knock down a branch on the new tree, or a mouse will

girdle a strip of bark. And the exposed cambium will fall victim to another roving spore.

For more than 20 years, the American Chestnut Foundation has been laboring at its research farm in Meadowview, Va., to develop an enduring American tree. The idea, in short, is to cross the American chestnut with blight-resistant Asian trees, then “backcross” the kids — breeding them with a pure American tree — to restore the classic characteristics of the parent. In the past few years, 10,000 to 15,000 promising seedlings have been reintroduced into national forests and local arboreta, Ms. Fitzsimmons said. (A few of these seeds are starting to drop into the home garden: see “Sowing Whatever Doesn’t Get Roasted.”)

But a century into the pandemic, most Americans have never seen a chestnut tree. Ted Kozlowski, 55, manager of Lasdon Park, Arboretum and Veterans Memorial, in Somers, N.Y., spotted what looked like the distinctive, jagged leaf of *Castanea dentata* while he was clearing a line for a deer fence in 1994.

“I’ve been trained in forestry, I know trees,” he said. “After we felled it and cut it down, I said — ,” and then Mr. Kozlowski uttered the type of expletive that a professional forester might use after applying a chainsaw to a lost national treasure.

Nine more American chestnuts remained, though, and nurturing that small grove turned into a “pet project.”

Now, the Lasdon arboretum has a 500-tree experimental plantation that Mr. Kozlowski describes as one of the biggest and best kept in the state. Yet the trees, across a field to the right of the main gate, rarely attract visitors.

“It’s a showcase for someone who’s especially interested in American chestnuts,” Mr. Kozlowski said. “Otherwise, it’s just a bunch of trees.”

LIKE so many things these days, chestnuts now come from China — specifically, from the Chinese chestnut tree, *Castanea mollissima*. It is a species unto itself, less than half the height of the American tree, with a rounded growth habit and a whitish lanugo, or fuzz, on the leaves.

The Chinese chestnut’s great virtue is that it is mostly resistant to the blight: after infection, the cankers heal over. For the last 15 years, Mr. Shepard has been mating Chinese chestnuts with American stock.

He said he has planted “about a zillion.” His dream is an orchard full of trees that will bear sweet nuts early and often, fight off the fungus and endure the spiteful Wisconsin winters.

The reality, he said, is “I cut a lot of trees down.”

Mr. Shepard advocates an agronomical method he calls STUN, for “Sheer, Total, Utter Neglect.”

That means no potting mix, no fertilizer, no extra watering. A weak tree won't survive, which is Mr. Shepard's objective.

The best time in New York to order and plant chestnut seedlings is probably mid-April. (Mr. Shepard sells them in bundles of 10.) But if the ground isn't frozen, it's not too late to sow seeds now.

What's the best approach? "You put them in the ground, and they grow," Mr. Shepard said.

On a backyard scale, he recommends cutting the bottom off a five-gallon bucket (a large tomato can or a short stovepipe will work, too). Bury the bucket so the lip is level with the earth. Then fill it close to the brim with compost or dirt. (A sandy, slightly acid soil will help; wet clay won't.) Scatter, say, two dozen chestnuts on top and cover the seeds with an inch of dirt.

Ms. Fitzsimmons proposes laying the seeds on their sides — that is, with the points facing right or left, an orientation that gives the shoot an easier path to sunlight. But she conceded that there is no team of squirrels rearranging nuts on the forest floor.

In the north country, a heap of mulch might shelter the nut from a killing freeze, Mr. Shepard said. Or it might introduce a pest or a pathogen, Ms. Fitzsimmons countered. You're on your own with this call.

Unless the spirit of the season has left you eager to feed all the critters in creation, plan to cover the top and bottom of the bucket with a rigid wire screen, like 1/4-inch hardware cloth. Which animals could be a particular nuisance? "Raccoons, blue jays, the squirrels, the deer, the chipmunks, groundhogs, rabbits," Ms. Fitzsimmons said. "You name it."

Before the stems bud in springtime, replace the leaf-shredding screen with a deer-proof grow tube. You'll need to groom at least two survivors. Chestnuts "don't like to self-pollinate," she said.

Mr. Shepard will leave his seedlings to do their thing for almost a year and a half, transplanting them the spring after they first sprout. For a small city lot or suburban yard, he proposes what he calls "a horticultural heresy," or a kind of down-and-dirty graft. Stick three seedlings in the same hole and then dig another three-seedling hole about 15 or 20 feet away. This conserves space while increasing the odds that a couple of plants will flower at the same time.

The trees typically begin fruiting in five to seven years. It's a long wait. Until then, when the open fire beckons, you can always dip into a cache of chestnuts in the crisper.

That's the promise of Thanksgiving in America: You can have your chestnut and eat it, too.

## **Sowing Whatever Doesn't Get Roasted**

CHRISTMAS should come in October. By the time Thanksgiving rolls around, most chestnuts have been off the trees for six weeks or more. As the chestnut grower Charlie NovoGradac said in an e-mail, "I know of no other article of fresh produce where grocery stores wait and won't offer the article at its freshest."

Even when a chestnut seed is stored properly — in the refrigerator crisper, in a perforated Ziploc bag filled with damp peat moss — the kernel may cure and shrink away from the shell.

By now, most orchardists have sold out of their special seed stock, from trees that ignore cold winters, shrug off the blight, and bear large and easily peeled nuts. But domestic "culinary chestnuts" may yet grow into seedlings. (It helps if the nuts haven't been steam-sterilized to kill off the larvae of the chestnut weevil.)

Ron Samascott, whose family runs Samascott Orchards, in Kinderhook, N.Y. (518-758-7224 or [samascott.com](http://samascott.com)), discovers "a lot of volunteers" growing in the woods, he said, in a stand of trees that date to the 1950s. "I think that's the squirrels burying the nuts, and they sprout."

Mr. Samascott is down to his last 100 pounds of nuts, which should be for sale Saturday morning at the 82nd Street, St. Stephen's Greenmarket in Manhattan (between First and York Avenues) and Sunday morning at the Columbia Greenmarket (Broadway, between 114th and 116th Streets).

The Empire Chestnut Company (330-627-3181 or [empirechestnut.com](http://empirechestnut.com)), in Carrollton, Ohio, wins endorsements from other growers, and offers an impressive variety of chestnut cultivars and species, like Allegheny chinkapin seeds (*Castanea pumila*). Seed orders (starting at \$12.20 a pound) may be finished for the season, but there's always spring, when Empire ships bare root stock (\$8.50 each).

Mark Shepard will ship cold-hardy, hybrid chestnuts (\$10 a pound) and bare root stock (\$50 for a bundle of 10 trees) from his Wisconsin nursery, Forest Agriculture Enterprises (747-333-8733 or [forestag.com](http://forestag.com)). Maybe they get the blight, maybe they don't. That's life.

Gardeners with tree-mortality anxiety have two alternatives: raise blight-resistant Asian trees or join the American Chestnut Foundation (828-281-0047 or [acf.org](http://acf.org)). Longstanding members (who pay \$40 a year) have already been offered a small supply of potentially blight-resistant seeds from newly developed American chestnut trees, said Sara Fitzsimmons, the group's science coordinator for the north-central Appalachians. Sponsor members (\$300) can jump ahead in line.

Or for \$17 to \$22, Chestnut Charlie's (a.k.a. Mr. NovoGradac) will send four pounds of chestnuts from one of his 1,500 trees in Lawrence, Kan. (785-841-8505 or [chestnutcharlie.com](http://chestnutcharlie.com)). Mr. NovoGradac cautioned that he stores his chestnuts for the table, not the garden. But at this price,

why not try a pound in the ground and eat the rest?

That leaves Italian chestnuts: the whoppers that show up in grocery stores. European imports have historically been fumigated. Yet based on Ms. Fitzsimmons's casual experiments, she said, "You can experience between 20 to 50 percent germination."

And the hot chestnuts from the pushcart in Midtown? Those are dead to the world.