

THE AMERICAN CHESTNUT

There was a time when the American chestnut was the very heart of our forests. Wild life of many kinds depended on its nuts, which often fell in such abundance as to carpet the floor of the forest. Rural folk depended on the nuts too (as did their livestock), for they were tasty and nutritious. And the American chestnut provided timber unrivalled in quality. Straight-grained and strong, easy to work and rot resistant, chestnut lumber went into everything from barn beams to furniture.

That time is gone. This tree, once the dominant species over much of our Eastern forests, was brought down by a disease. It was not a native disease but an exotic one, an accidentally imported fungus to which our trees had no resistance. From its point of introduction in New York City around the turn of the century, the Asian chestnut blight moved outward at a remarkable pace; fifty years later, all that remained of the species on which so much richness of life depended were millions of acres of dead but still standing stems.

But the time of the chestnut can return. Recent developments in genetics and plant pathology promise that this magnificent tree will again become part of our natural heritage. In 1983, responding to these developments, a group of prominent scientists established The American Chestnut Foundation.

THE AMERICAN CHESTNUT STORY

Not too long ago, the American chestnut was one of the most important trees of forested from Maine south to Georgia, from the Piedmont west to the Ohio valley. In the heart of its range only a few generations ago, a count of trees would have turned up one chestnut for every four oaks, birches, maples and other hardwoods. Many of the dry ridgetops of the central Appalachians were so thoroughly crowded with chestnut that, in early summer, when their canopies were filled with creamy-white flowers, the mountains appeared snow-capped.

And the trees could be giants. In virgin forests throughout their range, mature chestnuts averaged up to five feet in diameter and up to one hundred feet tall. Many specimens of eight to ten feet in diameter were recorded, and there were rumors of trees bigger still.

Native wildlife from birds to bears, squirrels to deer, depended on the tree's abundant crops of nutritious nuts. And chestnut was a central part of eastern rural economies. As winter came on, attics were often stacked to the rafters with flour bags full of the glossy, dark brown nuts. Spring houses and smokehouses were hung with hams and other products from livestock that had fattened on the harvest gleanings. And what wasn't consumed was sold. Chestnut was an important cash crop for many Appalachian families. As the year-end holidays approached, nuts by the railroad car-full were shipped to New York and Philadelphia and other big cities where street vendors sold them fresh-roasted.

The tree was also one of the best for timber. It grew straight and often branch-free for up to fifty feet. Loggers tell of loading entire railroad cars with boards cut from just one tree. Straight-grained, lighter in weight than oak and more easily worked, chestnut was as rot resistant as redwood. It was used for virtually everything - telegraph poles. Railroad ties, paneling, fine furniture, musical instruments, even pulp and plywood.

Then the chestnut blight struck. First discovered in 1904 in New York City, the lethal fungus - Asian organism to which our native chestnuts had very little resistance - spread quickly. In its wake it left only dead and dying stems. By 1950, except for the shrublike spouts the species continually produces (and which also quickly become infected), the keystone species on some nine million acres of eastern forests had disappeared.

For decades plant pathologists and breeders tried to create a blight-resistant tree by crossing our own species with the resistant Chinese tree, but always with unsatisfactory results. Now, advances in our understanding of genetics have shown us where those early researchers went wrong. More importantly, we now know what path we must take to successfully breed an American chestnut with resistance to this deadly invader. We now know we can have this precious tree back. (American Chestnut Foundation.)

chestnut.acf.org

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