

Is Comeback Impossible For Lordly Chestnut Tree Of 60 Years Ago?

by Gordon B. Seavey

With the first tinge of fall coloring along the roadside and pastures, Grandpa, as a little boy, remembers when his grandfather used to hike with him through the woods and fields to gather chestnuts, sometimes by the bushelsful.

They were sweet and wonderful to eat, especially if toasted on the top of the kitchen range until they split open. Grandma was careful always to warn that the thick, brown covering must be pricked with a knife to let out the steam. Otherwise they might explode all over her spotless kitchen.

These tasty nuts grew on the American chestnut, a tree that sometimes reached a height of 100 feet. But alas, this lordly tree has been wiped out and no longer exists in a mature form.

Its demise was first noticed in New York City in 1904. The

cause was a previously unknown fungus, *Endothia parasitica*, a blight destined to be more destructive to the chestnut than any epidemic disease has ever been to human beings.

It spread through Middlesex County just about the period of World War I. The tops started dying back, the bark turning yellowish and cracking into messy "cankers." In a few years, the woods were full of leafless skeletons.

Financial Loss

The economic blow was great. The blight spread at the rate of about 25 miles per year until, by the early forties, it reached the last stronghold of healthy trees in the Great Smoky Mountains.

The timber, light in weight, straight grained, was highly resistant to decay. It was used for firewood, utility poles and railroad ties, many an old structure in this area, whether it be a house, barn or shed, was framed with chestnut. It was widely used as fence posts as they would stand weathering for years. In other areas the timbers were used in mines and tannin was produced for treating leather.

It was a lovely shade tree, fast growing and well-described by Longfellow as the "spreading chestnut tree." In the spring, it was loaded with creamy-white blossoms.

But its commercial value surpassed all the oaks, maples, tulip poplars and hickory.

Every fall showers of big, sweet, shiny-brown nuts pattered down from prickly burs. It was a field day for game birds, squirrels, deer, mice and men.

Will the American chestnut (not to be confused with the horsechestnut) ever stage a comeback?

Some think so, many hope so.

Dr. Richard A. Jaynes of the Connecticut Agricultural Experiment Station who has been working on the project for nearly twenty years, thinks there may be a cure for the blight. It won't be overnight nor will it be easy.

A Possible Cure

The new treatment, as described in the most recent issue of Science Magazine, calls for a counter fungus which is placed in the bleeding bark, neutralizing the blight fungus. He says that he and his co-

workers have found a way to cure individual cankers. "The big question now is whether this new strain will establish itself and spread naturally," Mr. Jaynes reports.

It cannot be said that the American chestnut is dead, but it never grows to manhood. A stroll through a forest of deciduous or mixed woods, or even along the roadside, will show young sprouts coming from old roots buried beneath the surface.

Brushlike in appearance with smooth bark, the shoots bear leaves five to ten inches long, slender, evenly toothed on the edges and smooth top and bottom. Sometimes they may reach twenty feet and perhaps six inches through the main stem. But then the bark will begin to show fissures permitting the air-borne fungus to enter. A cankerous growth then appears, encircling the trunk and cutting off the flow of sap.

Lined with Velvet

Eventually a tree may mature sufficiently to bear fruit, a very prickly bur a couple of inches in diameter. Inside in a velvety case may be one to five dark brown sweet-meated nuts. Usually these are sterile, but Dr. Franklin Roth and Paul Miliotis of Boxborough among others, have been collecting the solid ones, hoping to eventually produce a miracle—a long living American chestnut tree.

A private group in Maryland has been experimenting with cobalt treatment of chestnut seeds, hoping to speed the process of mutation so that a seed will evolve which will be resistant to blight.

Some are trying to grow Chinese or Japanese chestnut in this country with success. The owners of Nashoba Woodlands are testing a few of the former variety, although they haven't reached sufficient age to bear fruit.

Jaynes reports that the development of blight-resistant hybrid chestnuts goes on and blight-resistant trees for orchards or as a source of food for wildlife, and for home or yard plantings can now be had.

But when grandma stuffs the turkey this Thanksgiving, she'll have to use chestnuts of a variety other than those very special American ones!