

Branching out

Demonstration site to educate public about chestnut trees

By Morgan Simmons
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The American Chestnut Foundation has a new partner in its effort to restore the mighty chestnut as king of the forest.

On Saturday, Ijams Nature Center unveiled a demonstration site to educate the public about American chestnuts, a species that once comprised 20 percent of the Appalachian forests from Maine to Georgia.

The demonstration site also includes a handful of chestnut saplings bred for blight resistance.

Ijams Nature Center, a 265-acre nature preserve in South Knoxville, also will be the site of a small chestnut orchard as researchers work toward developing a Tennessee strain that won't succumb to the lethal fungus that destroyed the species in the first half of the 20th century.

"Several of Ijams' neighbors tell me they can remember seeing chestnuts in the 1920s and 1930s," said Ed Yost, park manager. "They used to grow in combination with chestnut oaks, black oaks and white oaks."

The fungal disease that wiped out the American chestnut was discovered in 1904 in New York City.

From there, the blight spread quickly, killing 4 billion trees across 9 million acres of Eastern forests within 50 years.

The fungus persists even today on decaying logs and leaves. Today, all that remains of these forest giants are shrub-sized root sprouts that typically die before they're old enough to bear flowers and fruit.

For 30 years, the American Chestnut Foundation has been backcrossing American chestnuts with the Chinese chestnut to produce a strain that is blight resistant but 97 percent American chestnut in genotype.

Only American chestnuts with natural blight immunity qualify as mother trees, and researchers say the key to success is breeding trees from local environments.

Blight-resistant chestnuts already have been produced at Meadowview Research Farms in Virginia.

Sam McInturff, a member of the American Chestnut Foundation who operates a research orchard in Blount County, said it will take about 10 years to develop similar blight-resistant American chestnuts from genetic stock native to Tennessee.

"We want local genetics, and to do that we have to back up two generations using flowering chestnuts in Tennessee," McInturff said.

In the Cherokee National Forest along the Tennessee-North Carolina line, the U.S. Forest Service is thinning trees and clearing underbrush around surviving chestnut saplings to give the trees more sunlight and growing room.

In addition, land managers in Tennessee and Kentucky are working with the American Chestnut Foundation to plant thousands of saplings on reclaimed surface mining sites.

This spring, Ijams Nature Center expects to plant an additional 15 to 20 backcrossed chestnut trees at Mead's Quarry, an abandoned marble quarry that is part of the nature center.

As the program progresses, more hybrid chestnuts will be planted along the ridge overlooking the quarry, officials with Ijams said.

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