

LAST STAND FOR THE OLD CHESTNUT

Remnant in Monmouth studied to revive mighty tree

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On a walk through a park in Monmouth County three years ago, Tony Rosati made a couple of important finds.

And not a moment too soon.

The pair of American chestnut trees Rosati spotted were quickly added to the short list of only a few places in New Jersey where this species, on the brink of extinction, could be studied.

While American chestnut trees continue to be decimated by a stubborn blight, Monmouth County inexplicably hosts a healthy population, one that preservationists covet in their attempt to revive these leafy icons.

"There's something going on, and we don't know what it is," said Bob Summersgill, past president of the Pennsylvania chapter of the American Chestnut Foundation. "Those trees have some sort of a natural resistance. That's why we're so anxious to cross them."

For four years now, Monmouth County has collaborated with the foundation and Penn State to breed a disease-resistant strain of the species, once so plentiful on the East Coast that one in every four trees in a forest was an American chestnut.

Treasured for its lumber and its edible nuts, the American chestnut once soared 100 feet high and lorded over forests from Maine to Florida, reaching as far west as the Ohio Valley. But a disease imported to the United States around 1904 spread rapidly through the woodlands, wiping out between 3 and 4 billion American chestnut trees within a few decades. By the 1950s, they were practically extinct.

Rosati, a network engineer from Middletown, donates his time with other foundation volunteers and the county's Shade Tree Commission bagging and pollinating the trees' flowers in the spring and collecting the nuts in the fall. Biologists use those nuts to grow American chestnut seedlings and to breed a strain of the species they hope won't succumb to blight.

The project also relied on nuts collected from trees in Morris and Passaic counties, but blight took most of them, too. Only one of the four trees harvested in the past is still

alive, said Ron Farr, environmental scientist and forester for the North Jersey District Water Supply Commission.

"When you have a tree that was that dominant in the landscape, it seems there should be some effort to return it to its importance among the trees in the state of New Jersey," said Farr, a foundation volunteer. "This is a legacy project to return a keystone species back to the forests of New Jersey."

Summersgill said he knows of only two mature American chestnuts north of Route 22. Monmouth County park manager Ken Thoman said the county has a few dozen large American chestnuts and a few hundred smaller ones, primarily in its parks.

He's at a loss to explain why Monmouth appears to have the highest concentration. Maybe it's because the parks system has done an inventory of its trees for decades, he surmised. Or perhaps the trees, affected earlier than other areas of the state by the disease, somehow developed a natural resistance.

"There may be something peculiar about our area. It could be a better strain of the hypervirulence that serves to inoculate the trees," he said. "We have some big trees surviving, seeding on their own, which I think a lot of people will be shocked to hear."

But their size is not on the grand scale of years past. The largest trees in the county rise about 50 feet, half the height of the pre-blight days.

Next to blight, deer are the greatest enemy of the trees. Although blight kills the trees, it doesn't kill their roots. But the shoots that emerge from the roots are often gobbled up by deer before getting a chance to grow higher than 4 1/2 feet.

Thoman said several of the parks that have a healthy American chestnut population once were private property where residents undoubtedly hunted deer. But because the deer population continues to grow in Monmouth, parks employees are taking great pains to fence off the young trees, particularly a new orchard planted in Deep Cut Park in Middletown.

This year's harvest in Monmouth County from four trees proved to be bountiful. Rosati initially anticipated collecting between 200 and 250 nuts, but expects it now to be closer to 400.