

Sneezing? Blame the boy trees

Preference for males aggravates allergy problems

Roger Witherspoon  
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For more than half a century, tree-planting programs nationwide have been purposely biased against the female sex.

It's not personal. The preference for male trees, first promoted by the U.S. Department of Agriculture in 1950, is aimed at sparing municipalities the cost of cleaning up after berries, swirling puffballs or foul-smelling seeds produced by female trees.

"We've always been advised to use the male," said Dennis Rocks, the public works director in Suffern. "I know from way back there is some problem with the females."

Yet male trees come with their own problems: They're the ones that produce pollen, which female trees attract. So what results from the single-sex tree-planting guideline is an abundance of pollen that can aggravate respiratory problems.

Localities throughout the country - including Westchester, Rockland and Putnam counties - plant thousands of trees annually in parks, along roadways and throughout neighborhoods to beautify an area and help cleanse the air. The majority of these trees are male, cloned by the millions by a handful of Midwestern suppliers.

The trees are chosen not just for their aesthetics, but for their ability to survive a region. The ginkgo, for example, is the most common urban tree because it is extremely hardy. But you won't find many government-planted female ginkgos.

"Which sex you plant makes a difference when you deal with a ginkgo tree," said Ken Uhle, landscape architect for the Westchester Parks Department, which plants about 300 trees annually. "The fruit of a female ginkgo tree has a very foul odor."

Female ornamental plants, such as winterberries and hollies, get more of a break. Westchester plants one male ornamental for every five to 10 females, Uhle said. That's because in order to create the ornamental berries, the males need the females.

But the overwhelming use of nonornamental male trees results in areas receiving tons of pollen in the air with fewer natural receptors. Health officials say that abundance of pollen can trigger allergies, related respiratory illnesses and serious asthmatic attacks.

For example, one of the more common landscape shrubs is an evergreen called the yew, which is often found around the foundations of homes. These shrubs are in the taxus family and provide the basis for taxol, a chemotherapy drug used to treat breast cancer.

"The yews are exceptionally poisonous," said Thomas Leo Ogren, author of "Safe Sex in the Garden." "Every part of the plant is poisonous, including the pollen. You'll see these in front of homes, and people believe window screens can provide some protection. But you can pass 1,000 grains of pollen through each square hole in a standard window screen. You'll get people waking up with headaches and sore throats and they don't know why. If you plant a female yew, suddenly the whole problem is solved. What really happened is that they were no longer getting poisoned every night."

Albuquerque, N.M., is one of the few cities in the country that regulates tree planting, adopting its policy in 1997, two years after the death of 5-year-old Carlos Sanchez at the city's Rio Grande Zoo. Russ Zumwalt, the state's chief medical investigator, said the child was on a school field trip and had been active and playful during lunch. Suddenly, Zumwalt said, "he crawled under a bench and had an acute bronchial asthma attack and died."

"It was never clear what the triggering event was," Zumwalt said. "Could it have been pollen? Yes. Pollen can trigger an attack, any allergenic stimulus can trigger an asthmatic attack. We just don't know for sure."

Dan Gates, a member of Albuquerque's Environmental Health Department, which oversees the city's pollen reduction program, said trees there are considered a health issue.

"Typically, we encourage female trees," Gates said. "We have a restriction on male trees in general and a ban on certain types of trees. We've banned all cypress, mulberry and elm, and you can have a male juniper or cedar, but it cannot exceed 2 feet tall when it is mature. If you want it taller, you have to plant female trees.

"Pollen is fascinating," Gates said, "but in large quantities it can be dangerous. People who are not allergic to pollen generally, if they are exposed to enough, will have some type of reaction. Most people don't think of pollen as an air-quality issue, but it is."

The sex of trees and shrubs takes two forms, said Todd Forrest, a tree expert at the New York Botanical Garden.

"The most common street trees, such as maples, oaks, and sycamores, are called monoecious and have both male and female flowers on the same tree," Forrest said. "Dioecious trees, such as ginkgoes, willows, poplars and mulberries, have male and female flowers on separate trees."

Trees with both sexes trap much of their own pollen. Male clones, however, produce twice as much pollen and release it all to the environment.

When choosing trees, Forrest said, municipal officials should first consider the level of maintenance required.

Many of the trees and shrubs planted by Westchester, Rockland and Putnam are provided by Hardscrabble Farms in North Salem, which recently provided trees for Lasdon Park in Somers and Playland Amusement Park in Rye.

"Typically the trees are mostly male," said Adam Pokorne, Hardscrabble Farms' sales manager. "But it's not a decision made here. That's what the industry produces all over the United States. It's not just trees. Small shrubs like spirea or boxwood are mostly male."

Hardscrabble gets its trees from the massive Bailey Nursery in St. Paul, Minn., one of the nation's largest tree producers, which annually grows thousands of tree clones, called cultivars, on its 5,000 acres.

"There are certain trees that we propagate the male only, including the ginkgo, Kentucky coffee tree, poplar and cottonwood trees," said Zak Baxter, a salesman for the nursery. "We especially use clones for ginkgoes, that's the most widely used tree in any urban setting. It's prehistoric. It's been around for hundreds of thousands of years. It has no pest problems or disease problems and handles a wide range of urban conditions. It's probably the toughest urban tree there is."

Ogren, the author, said cloned trees are all patented and named, so municipalities can order a specific brand and be assured of consistency.

"If it's a clone, then it's a male clone," Ogren said. "They don't sell female clones."

Tree buyers often make the mistake of assuming that the fluffy, cottony seeds produced by cottonwoods, poplars and willows cause their allergy problems, Ogren said.

"But seeds from female trees are not a problem," Ogren said. "They don't affect you at all. The allergies are from the pollen produced by all the male cloned trees."

Though the national antipathy toward female trees began with the encouragement to plant males to eliminate the mess made by females, it accelerated in 1982 when the USDA distributed a booklet, "Genetic Improvement of Urban Street Trees," which promoted cloning male trees.

"Prior to 1982, the USDA was encouraging planting male dioecious trees," Ogren said. "In 1982, they said that with trees of both sexes, if you only took cuttings from the branch that was male, you would get a new cultivar that would be all-male and you wouldn't have any seed pods. Today, if you go to buy a honey locust tree, it will be seedless."

"They are making trees and shrubs that never existed in nature," Ogren said.

Reach Roger Witherspoon at [rwithers@thejournalnews.com](mailto:rwithers@thejournalnews.com) or 914-696-8566.

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