

Urban Update



Ohio Department of Natural Resources Division of Forestry
Southeast Ohio Community Forestry Newsletter

Summer 2003



Where are the Cool Parking Lots?

On a hot sunny day, would you rather sit down in a nice shady spot or broil in the blazing sun? Your car feels the same way. And you know how it feels to climb into the driver's seat after it has been baking out in an unshaded parking lot.

Parking lots dominate the landscape in our growing urban world and yet these areas are often the least hospitable places. What's more, these areas are helping to contribute to many problems such as stormwater overflow, air and water pollution, climate change, crime, sprawl, and the fragmentation of communities.

One way to mitigate the problem is to plant trees and landscaping around and in parking lots. Trees and greenery absorb stormwater, abate pollution, muffle noise, and calm traffic. But establishing trees in parking lots doesn't just happen. This is an extreme environment and few trees and plants have evolved to thrive in the expanse of the average parking lot. However, with planning, impetus, commitment, and maintenance, trees and greenery can survive and thrive to

Look inside to register for the Southeast Ohio Tree Care Conference September 4th, 2003

The first thing to do is enact landscaping ordinances requiring planting around parking areas and other infrastructure. Some towns require up to 50% tree cover over pavement in 15 years using computer models to project future shade. Other ordinances specify numbers of trees and plants according to lot size and location. Either way, landscape ordinances must be backed up with planning, enforcement, good species selection and short and long-term maintenance.

Trees can reduce the surface temperatures of asphalt by 36 degrees F, cabin temperatures in vehicles by over 47 degrees, and fuel tank temps by nearly 7 degrees.

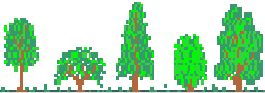
How to do Parking Lots Right

Strengthen ordinances

- Develop enforcement and monitoring of landscaping on par with other infrastructure improvement programs.
- Link inspection fees to issuance of building permits.
- Require interest-bearing bonds to pay for improvement through out the life of the project.

Design

- Reduce parking ratios to decrease numbers of unused parking spaces
- Identify peripheral and overflow parking areas and consider permeable or pervious paving, grass and increased landscaping in less used areas.
- Narrow the width of aisles. In many cases, aisle widths exceed standards.
- Increase planting island widths to 8 feet. Plant in clusters.
- Use one-way aisles, angled parking, and shared parking to reduce parking lot size.



Affecting Human Behavior with Trees

Researchers at the University of Illinois have proven what nature lovers have known for years-trees improve more than just landscapes! Studies found the presence of trees can significantly enhance interpersonal relations and living conditions. These studies found that exposure to nature and trees improve concentration abilities in children with attention deficit disorder. When a child

- Use trees and landscaping to mitigate stormwater overflow.
- Reduce conflicts between trees, lighting and signage by coordinating placement. **Reduce light height and allow eye level signage.**
- Move parking areas behind buildings whenever possible.

Promote regular tree care; water, mulch and fertilizer.

- Use structural soil mixes to increase soil volume and reduce soil compaction.
- Use living ground covers and shrubs to enhance tree health and aesthetics.
- Remove stakes after one year.
- Prune trees that impair sight lines visibility
- Replace trees and other plants that die.

To learn more, contact the Center for Urban Forest Research USDA Forest Service at <http://cufr.ucdavis.edu>

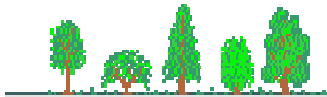
was exposed to trees before undertaking a task requiring concentration, the child was better able to complete the task.

Another finding was the reduction of crime in inner city areas where trees are present. Treed inner city areas were found to have 48% fewer property crimes and 56% fewer violent crimes than those areas devoid of trees.

While cities often avoid planting greenery as a crime prevention tactic believing that trees and shrubs hide criminals and their activities, this study found that trees, shrubs and flowers do

not block views, promote crime or create hiding places for criminal activity.

Researchers purport the contrary, finding that trees and greenery actually create a softer, calmer and more pleasant atmosphere where human stress, fatigue and crime are less likely. The researchers describe an inverse relationship between nature and negative human behavior.



To learn more on how trees affect human behavior, check out University of Illinois Consumer and Environmental Sciences at www.herl.uiuc.edu



Get That Oak an Accountant

May 12, 2003
from COREY KILGANNON
New York Times

If trees had cocktail parties, the 40-year-old Callery pear that grows on Rivington Street, on the Lower East Side of Manhattan, could certainly hold its own.

It might introduce itself by its formal name, *Pyrus calleryana*, and brag about its trunk diameter (25.4 inches), its height (24 feet) and its impressive shade canopy (1,746 square feet).

If the tacky "How much do you make?" question came up, the pear tree could document its net worth at \$1,192, and say that some of its earnings come from the 527.67 grams of pollutants it saves from human lungs every year, a value to society that economists put at \$2.59. These figures would surely send the out-of-town trees fishing forlornly for the acorns in their martinis.

Actually, these arboreal achievements are known because the pear tree was one of 322 New York City street trees

included in a Neighborhood Tree Survey in New York.

"We hope that the price tags will help people realize the real value of street trees as assets and financial investments, as well as foster a sense of public stewardship," said Steven Romalewski, of the New York Public Interest Research Group, which helped run the survey. According to Mr. Romalewski, New Yorkers need to better acquaint themselves with their street trees, perhaps even care for them. In a city where nothing impresses like cash, the tree price tags help to put the introductions in a language New Yorkers understand. It also may be helpful in getting city government and private groups to invest in maintenance and planting.

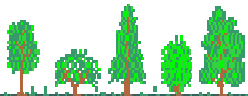
"People always knew there was some vague benefit to trees, but you could never quantify it, but once you have the methodology to equate trees with dollars, now you're talking. It's no longer about hugging trees because they're good, but because you have hard data in a language more effective in the public dialogue." Said a participant.

The city currently values its estimated 5 million trees at about \$1,000 each and credits them with \$9.5 million a year in antipollution benefits. But thousands of trees are lost to the city's peculiar stresses each year, including constant assault from pollution, vandalism, dog waste, poor soil in compacted spaces, lack of water and sunlight, and blows from cars and trucks.

Faced with a dwindling tree population in 1990, the city has planted about 100,000 street trees since 1997 and has removed about 50,000 dead ones, Ms. Watt said. But smaller budgets have slowed this. The city allocated funds for 10,000 tree plantings in fiscal year 2003, compared with 19,000 plantings in 2000, she said. In dollars, the city has budgeted only \$3.8 million for tree plantings in fiscal year 2004, compared with \$7 million in 2003. The average cost of putting a tree in a sidewalk pit is \$590.

But aside from the financial investment the city makes in trees, their fiscal worth is not easily quantified. Some have long argued that their value is far-reaching. They cool the city, saving millions of dollars in air-conditioning bills. By buffering rainstorms, they prevent the need for larger, costlier storm-water runoff systems. Leafy blocks mean higher real estate prices and can draw shoppers to commercial areas. And then there are the many aesthetic intangibles. For example, what price is a bird's song?

"Trees are working hard for us every day, and this is giving a bit of recognition back to them," said Matthew Arnn, a landscape architect who directs the New York City Metro Initiative, a United States Forest Service program. "Maybe with a real, hard dollar value on street trees, people will see them as more than just street furniture and that they can pay real dividends."



The Logan Elm & Oak

September 4, 2003

ODNR, Division of Forestry
360 East State Street, Athens, Ohio

Tree Care Conference



Featuring the famous Dave Leonard from Lexington Kentucky with The newest Tools for Tree Health including an **air knife**, and a **Resistograph**. He will be demonstrating the use of various tools for dealing with soil problems. He will also feature his Resistograph and how he uses it to deliver detailed information about the inside of tree trunks, wood and



2003 Southeast Ohio Tree Care Conference Registration Form

To register, please complete this form, detach and return with payment to:

Name: _____

Address: _____

City/State/Zip: _____ email: _____

of Participants at \$15.00 each = \$ _____

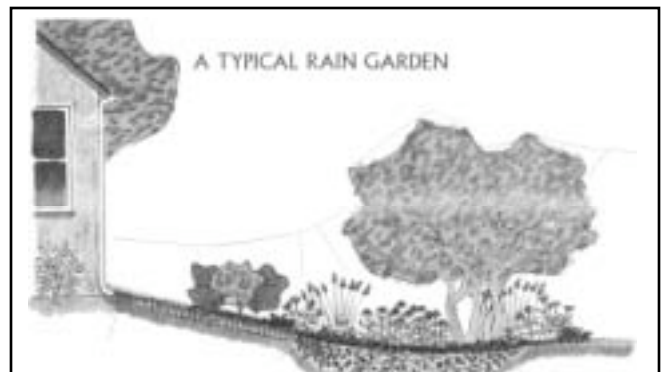
Make checks payable to: Athens SWCD
Registration Deadline is Aug. 30th.

Athens SWCD
70 N. Plains Rd., Suite
107

THE OHIO TREE CARE ASSOCIATION
Questions?
Please call:
Cathy at
(740) 797-9686
or Ann at
(740) 589-9910

Rain Gardening is Storming The Country!

What is rain gardening? It's a garden designed to capture and clean stormwater. What's stormwater? It's runoff from gutters, driveways, lawns, parking areas and other impermeable surfaces. Rain gardens can slow and absorb stormwater which reduces flooding, filters pollutants and cleans



erosion. Rain gardens are being designed and planted all over America in commercial and residential areas. They are beautiful while protecting water quality and reducing flooding. Contact Ann Bonner for more information on how to establish a rain garden in your community.

The EPA estimates that half of all stormwater pollutants originate from residential landscapes.

Ann Bonner, Urban Forester
ODNR, Division of Forestry
360 East State Street
Athens, Ohio 45701
740-589-9910



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