

# Tree Maintenance

by Colleen Heraty

Trees add more than character to the grounds you manage. They provide shade, and can lower cooling costs of adjacent structures. They form natural barriers that provide privacy and block noise. They reduce storm water runoff by intercepting, storing, and using water. They even promote clean and healthy air, as their leaves release large amounts of pure oxygen.

By recognizing their many needs, you can create a healthy environment that will allow trees to thrive. They will repay you and your grounds with many benefits for generations to come.

## Establishment

To install healthy trees, you first need to choose tree species that will thrive in your planting environment. Selecting the wrong tree type can lead to years of problems for you, and for your trees.

Determine whether your choice prefers sun or shade. Does it need alkaline or acid soil? How much space does the particular species need to grow and flourish?

- **Variety:** Try to plant a wide variety of species at your facility. This strategy will help prevent disease and insect infestations from destroying large percentages of trees. In Illinois, a recent study revealed that half of the tree species in urban areas are maples, and that only six tree species



Trees add beauty to your facility, among many functional benefits.

make up 86 percent of all state trees. This lack of variety helped Dutch elm disease destroy many beautiful trees in the region.

- **Soil:** Have your soil tested through a local garden center or extension office to determine pH and nutrient levels. These offices can give you information on which tree species will do well at your location.

- **Weather:** For urban planting, the "heat-island" effect sometimes requires selection of more drought-tolerant trees, particularly in areas with extensive pavement. Also, if your community uses salt to clear icy roads in the winter, you may want to factor salt tolerance into your species selection.

According to the Morton Arboretum in Lisle, IL, the most serious airborne pollutant in the Midwest is deicing salt used on roadways. Highly susceptible species should not be planted near major roads that are frequently salted.

## After-care

I've often heard arborists and landscapers complain that after installing or caring for a tree, they have returned to find that it's being neglected. Trees need maintenance their entire lives, but care is particularly crucial during the establishment period after a tree has been transplanted to a new location. Only approximately five percent of a transplanted tree's root system is immediately available to absorb water, so extra care is needed.

Regular watering is essential to a tree's early survival. Mulch and proper pruning techniques will also help ensure a healthy life.

- **Adding mulch:** At planting time, spread a four-inch layer of shredded bark or organic mulch over the entire planting area outside the watering basin. This will help conserve soil moisture, inhibit weed growth, and prevent baking of the soil by the sun.

Mulch will improve soil fertility and soil structure as it degrades into the soil. Avoid "volcano mulching," which is caused by applying too much mulch around the base of the tree. This creates an ideal condition for diseases to thrive.

When planting tree wells or narrow strips, it may be

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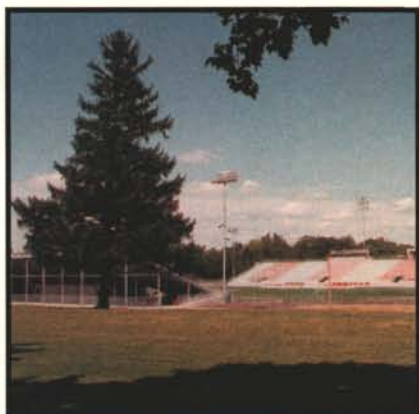
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necessary to use a thinner layer of mulch. Shredded bark is preferable on slopes, as it won't slip as easily as bark chips.

- **Tree guards, grates, and paving:** In areas of high pedestrian traffic, tree grates may be used to protect your new trees. The grates are available in a variety of materials, but the most durable and aesthetic — and most costly — are cast iron.

Trees will often outgrow their grate holes. This can cause serious stress and structural problems for the plants. Make sure the materials you choose allow your trees to expand over time.

Bricks offer an alternative method of protection. Lay a pattern of bricks on a two-inch bed of washed sand around your trees. As their trunks increase in diameter, individual bricks can be removed. Brick paving should be generally sloped away from the tree trunk so excess runoff does not drain toward the tree in winter.

- **Pruning:** Prune established trees annually. However, avoid topping trees at all costs! Topping trees destroys tree beauty, tree defense systems, and tree dignity.


Proper pruning eliminates diseased or damaged growth. It removes narrow, V-shaped forks that lack strength, and reduces toppling and wind damage by thinning the crowns. Pruning helps maintain growth within space limitations, and it preserves trees' natural appearance.

For more information on proper pruning techniques, visit [www.greenindustry.com](http://www.greenindustry.com), and review the March issue of *Arbor Age* magazine on-line.

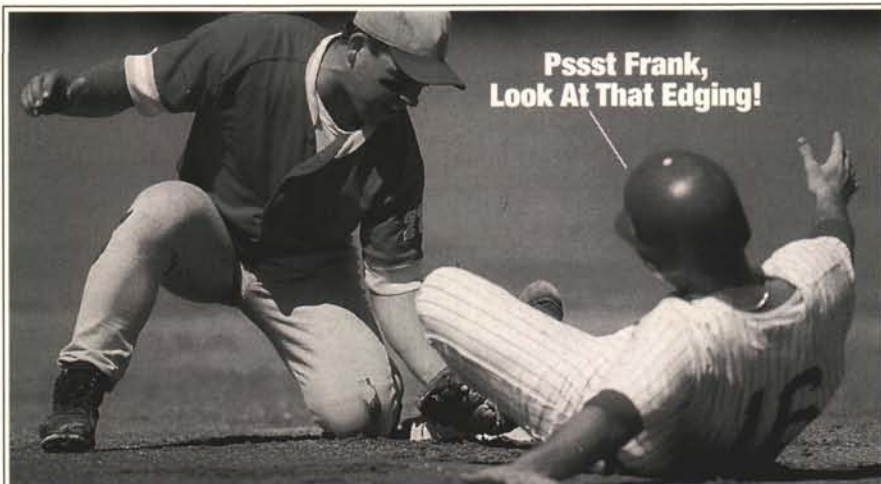
- **Staking and guying:** Staking and guying serve as support systems for new trees, but they are not always necessary. Proper nursery conditions give trees enough space to grow, and they allow them to blow freely in wind

to develop natural strength without artificial support. When deciduous trees don't grow in proper conditions, they have difficulty developing trunk taper, and they're incapable of holding themselves up.

Two stakes should be placed on a tree's trunk, one on either side and both as low as possible. For lines, use rubber or another material that won't damage the trunk.

Stakes should never be left on a tree for more than two growing seasons. At the end of this period, the tree should be fully established. If it's not, there's a problem with the landscaping. 

*Colleen Heraty is editor of Arbor Age magazine. For more information, contact: [cheraty@mail.aip.com](mailto:cheraty@mail.aip.com).*



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