

Planting Trees on Residential Lawns

Description

Residential lawns are ideal tree planting locations, particularly in former agricultural areas where few trees exist. Planting trees on home lawns can significantly increase the overall tree cover in the watershed since residential lawns typically constitute a large portion of the plantable area. The key is to educate homeowners about the benefits of trees and provide incentives and assistance with tree planting and care so that the number of trees planted is significant.

Trees on residential lawns provide many benefits, including energy cost savings, shade, habitat for wildlife, esthetic value, privacy, and reduction of stormwater runoff. Trees planted next to buildings can reduce summer air conditioning costs by 40% (Akbari and others, 1992).

Pre-Planting Considerations

- How can I improve the energy efficiency of my home with tree plantings?
 - How can I integrate trees with open turf areas?
 - Can I make the area more attractive with plantings?
 - Is there an opportunity to create habitat for wildlife?
 - How do I manage invasive plants?
 - How do I address potential damage to trees from deer?
 - How do I address potential conflicts between trees and utilities, pavement, and structures?
 - How do I prevent damage to trees from lawnmowers?
 - How do I utilize plantings for visual screening and buffer from wind and noise?
-

Species Selection

Selecting appropriate tree species is key because it can address most site conditions and is often more efficient than trying to change the site characteristics. Select a diverse mix of hardy, native species that are adapted to soils and site conditions.

Use evergreens for screening and to block winter winds. Other desirable species characteristics include the following:

- Tolerates drought
 - Tolerates urban pollutants
 - Tolerates poor or compacted soils
 - Provides food, cover, or nesting sites for wildlife.
-

**Site
Preparation**

- Remove invasive plants such as multiflora rose (may include mowing, cutting, or stump treatment)
- Improve soil drainage if needed (e.g., amend with compost, mix soils to a depth of 6 to 18 inches).

**General
Planting
Guidance**

- Plant a tree to shade the area over your air conditioner and reduce energy use (Figure 27).
- Plant deciduous trees on the west, south, and east sides of the building to block the summer sun (Figure 28).
- Plant a row of evergreens on the north side of the building to block cold winter winds.
- Provide adequate setbacks between trees and buildings, utilities, and pavement.
- Cluster trees to provide shared rooting space and an even canopy, using species that grow at about the same rate so they don't shade each other out. Use mulch rings and mow around the clusters.
- Use trees to delineate borders or provide visual screens.
- Use trees to provide a buffer from noise. To be effective, the buffer should be dense, tall, and wide, and planted close to the source of the noise. Contiguous rows of trees in widths of 16 feet or more are especially effective (TreesAtlanta, no date).

Maintenance

- Plan for low maintenance of trees (frequent watering may not be feasible)
- Use mulch to retain moisture and protect trees from mowers and foot traffic
- Monitor and control invasive plants
- Prune trees where necessary to maintain visibility and safety.

**Potential for
Stormwater
Treatment**

Trees on residential lawns are not likely to have high potential for stormwater treatment since most homeowners are not responsible for providing treatment of runoff from their property. In cases where homeowners are responsible for swales located on their properties, alternating side slope plantings or tree check dams could be used. (See Part 2 of this manual series for tree check dam design.)

**Further
Resources**

Akbari, H., Davis, S., Dorsano, S., Huang, J. and S. Winnett. 1992. *Cooling Our Communities. A Guidebook on Tree Planting and Light-Colored Surfacing*. U.S. EPA. Lawrence Berkeley Laboratory Report LBL-31587.

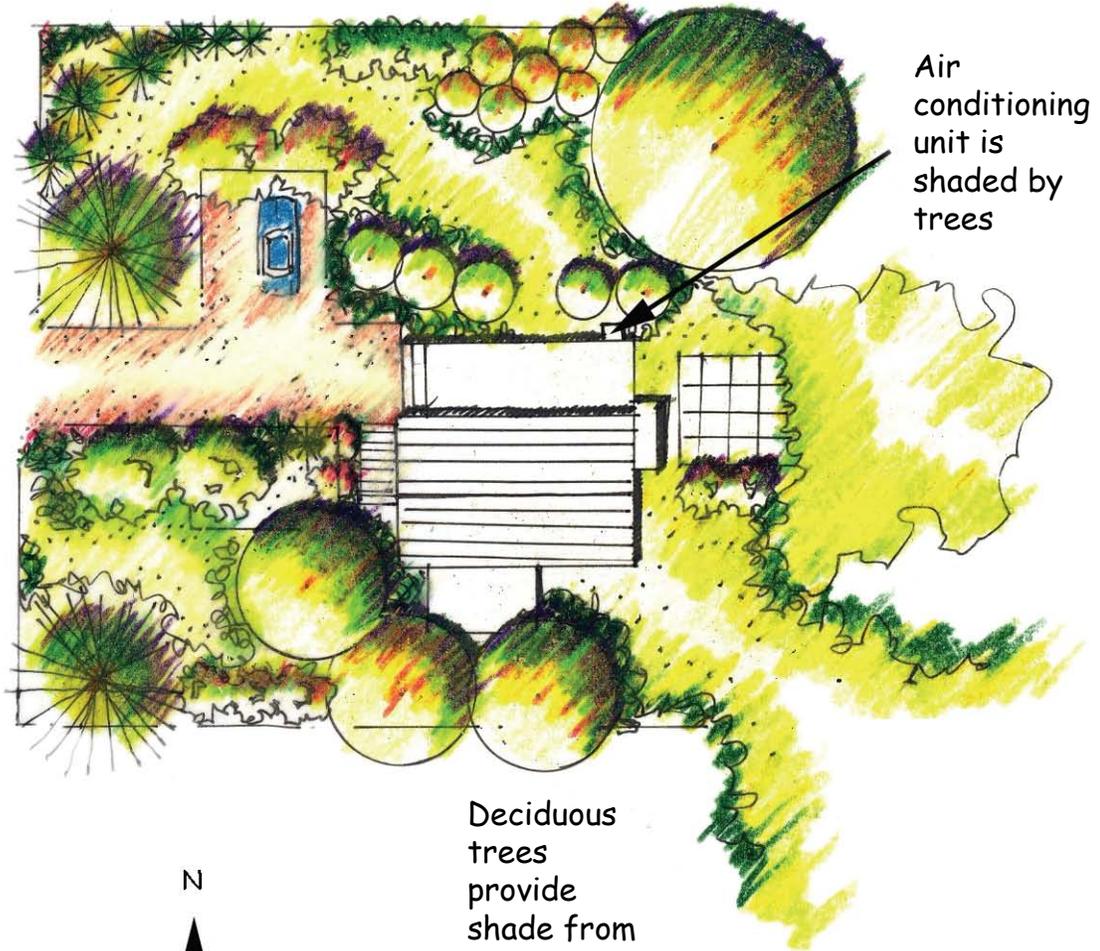
Planting Trees Around Your Home. Fact Sheet available on The Forest Where We Live Web site: www.lpb.org/programs/forest/plantguide.html

Trees Atlanta. No Date. *Facts*. Website: www.treesatlanta.org/facts.html



Figure1. Strategically placed trees shade the air conditioning unit, providing energy savings

Evergreens block winter winds



Air conditioning unit is shaded by trees

Deciduous trees provide shade from the summer sun

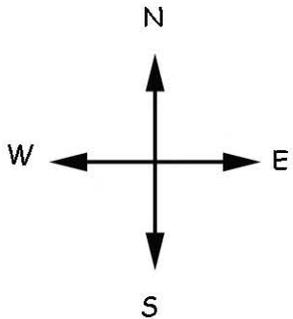


Figure 2. Planting trees on residential lawns

This fact sheet was excerpted from:

Cappiella, Karen; Schueler, Tom; Wright, Tiffany. 2005. Urban Watershed Forestry Manual. Part 1: Methods for Increasing Forest Cover in a Watershed. NA-TP-04-05, Newtown Square, PA: p 68-71. USDA Forest Service, Northeastern Area State and Private Forestry.

This information was developed by:

Center for Watershed Protection
8390 Main Street, 2nd Floor
Ellicott City, MD 21043
www.cwp.org

and

USDA Forest Service
Northeastern Area State and Private Forestry
11 Campus Boulevard, Suite 200
Newtown Square, PA 19073
www.na.fs.fed.us

