

# Have You Hugged A Tree Today?

## The Kindest Thing You Can Do For A Tree Is To Stop Growing Grass Up To Its Base -- Instead, Cover Its Root Zone With Mulch Or Plantings Appropriate For Conditions

April 22, 2001|By Carolyn Ulrich. Special to the Tribune.

Trees in the modern world have it tough. In the good old days, they lived in self-sustaining communities, surrounded by family and friends, and nourished by food they grew themselves.

Nowadays, like most of America, they have moved to the cities. Uprooted from their rural origins, they live alone, alienated and subjected to unspeakable conditions such as salt, pollution and tree wells on fiery hot summer sidewalks. Oblivious picnickers even drop burning coals on their feet.

Trees in city and suburban back yards usually have an easier time of it. Still, they would be happier if homeowners wouldn't persist in running grass right up to the base of their trunks. Research at The Morton Arboretum in Lisle and elsewhere has shown that when grass roots and tree roots compete for water and nutrients within the same square footage, the grass wins. Remove the grass and cover the space with an organic mulch, and the trees quickly start producing more roots.

Gary Watson, senior research scientist at the arboretum, studied the effects of grass, mulch and bare soil on the root density (production) of several tree cultivars during the 1980s. He found that roots growing under mulch improved (increased) 195 percent compared to those under grass. Those growing in bare soil had a 113 percent improvement. Hard to argue with results like that.

But say you don't like the look of mulch. Not to worry. "Shrubs, ground covers and perennials can be planted in the mulched, turf-free areas around trees," Watson wrote in the arboretum's Plant Information Bulletin (Spring 1989). "While still offering some competition to the trees, the roots of these plants are more similar to the tree roots."

The question then becomes what to plant. Many perennials and shrubs can grow in shade, and many can be content in the shade of trees. But variables such as the amount of shade, soil type, soil moisture, and tree root size need to be considered.

Tim Boland, curator of horticultural collections at the arboretum, stresses that all shade is not alike. It can be light, moderate or dense, so a plant that grows well under the fairly open honey locust or Kentucky coffee tree could struggle under a conifer or Norway maple. A tree that's pruned high will let in more light than the same tree with low branches.

As to soils, most in this area are clay, but clay may be dry or moist. Some soil is very sandy loam, while that of the dunes area can be pure sand. In addition, there are some situations (such as under a mature silver maple) that are simply not worth the struggle. Maybe you can establish ground covers such as vinca, ivy or wintercreeper, but learning to be happy with a finely textured organic mulch may be the best you can do.

Rosalind Reed, landscape designer of Rosalind Reed Associates in Oak Park, strongly agrees that some battles are not worth fighting. "It's just wrong to ask a yew to go under a maple with a 24-inch-wide trunk," she says, and she's leery of fiddling around under mature oaks. "Planting under mature trees can be asking for trouble."

Caveats aside, Reed still has multiple suggestions of shade-loving plants for both sandy and clay soils that are fairly low-maintenance. She stresses that "sandy" and "clay" are relative terms and that "heavy" and "light" might be more to the point. She also regards organic soil amendment as the key to any garden success.

## Shade-lovers

To start the year off, Reed suggests planting spring-blooming snowdrops and crocus bulbs (in the fall), which thrive in either type of soil, and follow up with species tulips for the sandy soil and miniature daffodils for the clay.

"Daffodils do better in clay than tulips," she has said, "and the foliage of the miniatures goes away fairly quickly." Adding wildflowers, she suggests native columbine (*Aquilegia canadensis*) for light-soil areas and Virginia bluebell (*Mertensia virginica*) for clay.

### Moving through the year, Reed makes the following recommendations:

- **Shrubs for clay:** fothergilla, the variegated green and gold euonymous, junipers (in light shade) and the honeysuckle 'Emerald Mound,' which forms a nice 4-foot-high rounded backdrop for other plants. It will take "the worst conditions," Reed says.
- **Shrubs for sandy or clay soil:** yews, viburnums and oak leaf hydrangea (*Hydrangea quercifolia*), which has good drought tolerance. Japanese maples can work, but they are easier to grow in light soils than heavy.
- If you must have rhododendrons: Reed has found that PJM rhododendrons or the 'Northern Lights' little leaf azaleas can succeed in lighter soils.
- **Grasses for clay:** liriopse and ribbon grass. "Never plant the ribbon grass in moist soils. It will take over the world," cautions Reed.
- **Grasses for sandy soil:** Sedges such as *Carex* or Northern sea oats (*Chasmanthium*). Sedges in general seem tolerant of drought and shade.
- **Vines:** Sweet autumn clematis (*Clematis paniculata*) for clay and climbing hydrangea for lighter soils.
- **Perennials for summer and fall:** Black-eyed Susan (*Rudbeckia fulgida*), *Corydalis lutea*, Japanese anemone and toad lily (*Tricyrtis*) will grow in either soil. A little shade keeps black-eyed Susan and the Japanese anemone from getting too aggressive.
- **Perennials that perform adequately in both soils when given extra water:** *Brunnera macrophylla*, lungwort (*Pulmonaria*), which does better in heavier soil, *astilbe* and *cimicifuga*. Also: Asiatic lilies.

Don't forget annuals and tropical houseplants. Reed maintains that the "toughest, most durable plants are bromeliads, and their strappy foliage doesn't look out of place in a naturalistic garden." For a dramatic new look, space five of them 30 inches apart with an underplanting of impatiens. Or place above-ground containers under your trees, and rotate them as they flush in and out of bloom.

## Planting Guidelines

Whatever you plant, stay as far away from the main trunk of mature trees as possible. Boland recommends planting in the outer two-thirds of the tree canopy. A tree's important feeder roots are located in the top 12 inches of soil and extend far beyond the dripline, but these roots are small, rather like capillaries in humans, and as such, will regrow if they're damaged slightly during the digging of small holes.

**Never Rototill under a tree.** And, after planting, mulch and water well to promote quick root recovery and to help the new plantings get established.

### DRY SHADE/CLAY SOIL

Woodland geranium (*Geranium maculatum*)

Columbine (*Aquilegia canadensis*)

Amsonia tabernaemontana

### Other suggestions:

Hardy ageratum (*Eupatorium coelestinum*), Crested Iris (*Iris cristata*)

Lily-of-the-Valley, Small Solomon's seal (*Polygonatum biflorum*)

Great Solomon's seal (*Polygonatum commutatum*), Bloodroot (*Sanguinaria canadensis*)

False Solomon's Seal (*Smilacina racemosa*), Pachysandra

Violets

### Grasses and grasslike plants:

Feather reed grass (*Calamagrostis brachytricha*)

Northern sea oats (*Chasmanthium latifolium*)

Many carex species

### Ferns:

Marginal shield fern

Japanese wood fern

Florist's wood fern

Sensitive fern

New York fern

Male fern

### SANDY/LIGHT SOIL

1. Black-eyed Susan (*Rudbeckia fulgida*)

2. Snowdrop

3. Crocus

#### 4. Species tulip

#### Other Sandy/Light Soil plant suggestions:

Asiatic lilies, Brunnera macrophylla, Carex glauca or most sedges

Northern sea oats (Chasmanthium latifolium), Cimicifuga

Climbing [hydrangea](#), Columbine (Aquilegia canadensis)

Corydalis lutea, Honeysuckle 'Emerald Mound'

Oakleaf hydrangea, Pulmonaria

Viburnums, Yews

(Note: For a client who insisted on azaleas or rhododendrons, Rosalind Reed suggested PJM rhododendrons or little leaf azaleas of the 'Northern Lights' series, which need soil amendments no matter what kind of soil you start with.)

#### **MOIST SHADE**

1. Hosta

2. Turtlehead (Chelone obliqua)

3. Goat's beard (Aruncus dioicus)

4. Meadow rue (Thalictrum aquilegifolium)

5. Dwarf iris (Iris pumila)

#### Other suggestions:

Meadow anemone (Anemone canadensis), Columbine (Aquilegia spp.), Wild ginger (Asarum canadense)

Hosta (Hosta spp.), Crested iris (Iris cristata), Yellow flag iris (Iris pseudacorus)

Dwarf iris (Iris pumila), Roof iris (Iris tectorum), Blue flag iris (Iris versicolor)

Virginia bluebells (Mertensia virginica)

#### **Ferns:**

American maidenhair fern (Adiantum pedatum), Sensitive fern (Onoclea sensibilis)

Cinnamon fern (Osmunda cinnamomea), Interrupted fern (Osmunda claytoniana)

Royal fern (Osmunda regalis), Rabbit's foot fern (Polypodium aureum)

American wall fern (Polypodium virginianum),

#### **Grasses and grasslike plants:**

Carex elata

Palm [branch](#) sedge (Carex muskingumensis)

Weeping sedge (Carex pendula)