

# Tree Replacement Guidelines and Options



When it comes time to choose a replacement tree for your landscape there are many options. Help ensure long-term health and value by following a few simple steps.

- Conduct a thorough Site Evaluation**
- Identify the right Tree Characteristics**
- Purchase a Quality Tree**
- Plant the tree correctly**

**Site Evaluation.** Put the “Right Tree in the Right Place.” Don’t waste your money on a tree that won’t survive or one that doesn’t fit into your landscape.

These are the things to consider before you choose which tree you will purchase.

- Hardiness Zone** - Will your tree survive the winter?
- Soil**
  - pH** - Some trees cannot tolerate high pH, others cannot tolerate very low pH
  - Drainage, texture and compaction** - Standing water, droughty areas; trees have different tolerances
  - Size of planting area and depth of soil** (tree lawn, backyard, etc.) - Fit your tree to your landscape
- Physical obstructions**
  - Overhead wires** (Consider short trees or columnar varieties)
  - Proximity to buildings, curbs, and driveways** (Fit your tree to your landscape and keep in mind the ultimate size of the tree)

**Tree characteristics.** There is more than just beauty to think about when selecting what your tree should look like.

- Height of the tree**- Do you need a short or a tall tree?
- Shape of the canopy**- Round, wide spreading, or columnar?
- Evergreen or deciduous?**
- Growth rate**- One that will grow very fast, or one that takes it time?
- Fruit**- Some trees have “messy” fruit (honeylocust, horsechestnut).

Once you have your limitations identified you can narrow down your tree choices and really choose “The Right Tree in the Right Place.” A thorough list of tree characteristics and a comprehensive site evaluation worksheet can be found in “Recommended Urban Trees: Site Assessment and Tree Selection for Stress Tolerance” from the Urban Horticulture Institute at Cornell University.

<http://www.hort.cornell.edu/uhi/outreach/recurbtree/>.

And, check Cornell’s Woody Plant Database to see images of your options and to search for trees by different characteristics <http://woodyplants.mannlib.cornell.edu/>.

See Table 1 for a list of some trees to consider. Disclaimer- not all trees will work for all sites! Conduct a site evaluation.

**Purchase a quality tree.** Make a list of 3-4 tree choices and shop at a nursery you trust; also remember they may be able to order a variety for you. When choosing the one to take home, select a tree that is free of serious insect and disease problems and physical damage and has proper branch arrangements. Also, choose a tree that has been properly grown and has a good sized root ball that free of weeds.



**Steps to thoughtful planting.** Once you have chosen your high-quality, perfectly suited tree at the nursery, follow these basic tree planting steps.

1. Secure your tree during its ride home. Tie up the canopy, tarp the foliage, or place the trees inside a vehicle. Secure the tree to vehicle so it does not roll during transport.
2. Measure your root ball and dig your hole accordingly. The hole should be only as deep as the roots and 3 times the diameter of the ball/container.
  - Remember: The top of the root system should be just below the surface of the soil and the root system may be buried inside the container/ball. Use a probe to find the depth of the roots inside the root ball and subtract that from the height of the ball.
3. Place the tree in the properly dug hole and then remove as much of the wire basket, burlap, and twine as you can. It may take a long time to degrade, and can hinder root growth. Push any of the wire basket or burlap that you cannot cut off into the bottom of the hole, where it will do less harm
4. Or, carefully remove the tree from its container. Check for circling roots and correct problematic ones.
5. Center the tree and backfill. Water and tamp the soil as you backfill to ensure air pockets are eliminated.
6. Do not place excess soil on top of the root system. The top of root system should be just at or below the soil surface and the trunk flare just above the soil surface.
7. Water the tree thoroughly once hole is backfilled.
8. Place 2-4" of woodchips or mulch around the tree, cover as wide of an area as you can. Be sure to leave a gap between the mulch and the tree's trunk. Woodchips and mulch piled up against the trunk can cause disease problems.
9. Deeply water your new tree every few days the first year. Ensure water is penetrating deep into the soil by watering slowly for a long time.
10. Staking trees is usually not necessary. But if you must, use non-damaging material and remove it after one year.

For more information about proper tree planting see:

- "Recommended Urban Trees" <http://www.hort.cornell.edu/uhi/outreach/recurbtree/>. The steps are thoroughly described in the back of the book.
- <http://treesaregood.org> - Tree care web site from the International Society of Arboriculture

**Table 1: Tree Suggestions:** Remember- not all of these trees will be successful for you! Conduct a site evaluation and read up on the tree you want. Each tree's common name is followed by the scientific name and the USDA Hardiness Zone.

Small Trees- under 30'	Medium Trees- under 60'	Tall Trees- over 60'	
Serviceberry <i>Amelanchier spp.</i> – 3b	Red Horsechestnut <i>Aesculus x carnea</i> – 5a	Catalpa <i>Catalpa speciosa</i> - 4a	London Planetree <i>Platanus x acerifolia</i> – 5b
Hornbeam (Ironwood) <i>Carpinus caroliniana</i> – 3b	River Birch <i>Betula nigra</i> – 4a	Hackberry <i>Celtis occidentalis</i> – 3a	Bur Oak <i>Quercus macrocarpa</i> – 3a
Eastern Redbud <i>Cercis canadensis</i> – 3b	Katsura Tree <i>Ceradiphyllum japonica</i> – 5a	Ginkgo <i>Ginkgo biloba</i> – 4b	Northern Red Oak <i>Quercus rubra</i> – 3b
Hawthorn (Washington, Winter King) <i>Crataegus spp.</i> – 4a	Turkish Filbert <i>Corylus colurna</i> – 5a	Honeylocust- thornless <i>Gleditsia triacanthos inermis</i> – 4b	Baldcypress <i>Taxodium distichum</i> – 5a
Hophornbeam <i>Ostrya virginiana</i> – 3b;	Hardy Rubber Tree <i>Eucommia ulmoides</i> – 5b	Kentucky Coffeetree <i>Gymnocladus dioicus</i> – 4a	Basswood <i>Tilia americana</i> – 3a
Columnar Sargent Cherry <i>Prunus sargentii 'Columnaris'</i> – 4a	English Oak <i>Quercus robur</i> – 5b	Tulip Poplar <i>Liriodendron tulipifera</i> – 5b	Hybrid Elm cultivars (Accolade, Danada Charm) <i>Ulmus x species</i> – 3b -5a
Japanese Tree Lilac <i>Syringa reticulata</i> – 3a	Littleleaf Linden <i>Tilia cordata</i> – 3b	Black Tupelo <i>Nyssa sylvatica</i> – 5a	Zelkova <i>Zelkova serrata</i> – 5b

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