



Trees are like the lungs of the planet. They breathe in carbon dioxide and breathe out oxygen. Additionally, they provide habitat for birds and other wildlife. But that's not all trees do for us! Planting native trees in your landscape can reduce negative impacts of surface water runoff by intercepting and holding large volumes of precipitation on surface areas (ie: leaves, branches and trunks). The USDA reports that 100 mature trees can reduce runoff caused by rainfall by up to 100,000 gallons. Plant NOW for future generations!



**American hornbeam**

*Carpinus caroliniana*

Tolerant of many conditions; will tolerate light shade. Can take full sun but may scorch in extremely dry locations under drought conditions.

Size: Small

Soil: Moist

Exposure: Shade

Mature height: 30-ft



**black cherry**

*Prunus Serotina*

High salt tolerance. Dark green leaves turn yellow/red in the fall. White tassel-like flowers develop into small red fruits that then turn black in the fall.

Size: Medium

Soil: Moist/Dry

Exposure: Full/part sun

Mature height: 45-ft



**basswood**

*Tilia americana*

Very versatile tree with leaves turning yellow in fall. Small yellow flowers attract bees.

Size: Medium

Soil: All

Exposure: All

Mature height: 60-ft



**black gum**

*Nyssa sylvatica*

Beautiful tree known for lustrous green leaves in summer and consistent colorful red fall foliage. Indiscript flowers are an excellent nectar source for bees.

Size: Medium

Soil: Wet/moist

Exposure: Part sun

Mature height: 50-ft



**bur oak**  
*Quercus macrocarpa*

Very large growing tree that can reach heights up to 100-ft. High drought tolerance. Produces large acorns.

Size: Large  
Soil: All  
Exposure: Full sun  
Mature height: 75-ft



**downy serviceberry**  
*Amelanchier arborea*

White star-shaped flowers in early spring; yellow to red fall color.

Size: Small  
Soil: Dry  
Exposure: Part sun/shade  
Mature height: 25-ft



**downy hawthorn**  
*Crataegus mollis*

White showy flowers give way to red fruits. Tree does have thorns.

Size: Small  
Soil: Moist/dry  
Exposure: Full sun  
Mature height: 20-ft



**fringe tree**  
*Chionanthus virginicus*

Has lovely flower fragrance from fringelike, fleecy flowers that hang in panicles from the branches. Very adaptable small flowering tree; tolerant of air pollution and adapts well in an urban setting.

Size: Small  
Soil: Moist  
Exposure: Full to part shade  
Mature height: 15-ft



**hackberry**

*Celtis occidentalis*

High drought tolerance. Yellow fall color with distinctive corky ridges on bark.

Size: Medium

Soil: Moist/dry

Exposure: All

Mature height: 45-ft



**Kentucky coffee tree**

*Gymnocladus dioica*

Short trunk shade tree with open canopy and long cylindrical seed pods. Male trees will not produce seeds. Very tough tree.

Size: Large

Soil: Moist/dry

Exposure: All

Mature height: 70-ft



**hophornbeam**

*Ostrya virginiana*

Leaves turn a yellowish color in fall and often drop early. Its fruits resemble hops used in the production of beer, hence its name.

Size: Small

Soil: Moist/dry

Exposure: All

Mature height: 30-ft



**paw paw**

*Asimina triloba*

Deep red flower in April/May. Large leaves turning yellow in fall and fruits that resemble a banana.

Size: Small

Soil: Moist

Exposure: All

Mature height: 25-ft



**pecan**

*Carya illinoensis*

Large shade tree with yellow fall color, nuts great for wildlife.

Size: Large

Soil: Moist

Exposure: Shade

Mature height: 60-ft



**river birch**

*Betula nigra*

Features traditional bark of birch trees, with reddish brown bark peeling back revealing lighter. Leathery, diamond-shaped, medium to dark green leaves turn yellow in fall.

Size: Medium

Soil: Moist

Exposure: Full/part sun

Mature height: 60-ft



**red bud**

*Cercis canadensis*

High drought tolerance. Clusters of bright pink blooms in spring and yellow fall color. Great understory tree.

Size: Small

Soil: Moist

Exposure: All

Mature height: 25-ft



**roughleaf dogwood**

*Cornus drummondii*

Bright red fall color and great clusters of white flowers in late spring.

Size: Small

Soil: Moist/dry

Exposure: Part sun/shade

Mature height: 12-ft



**shumard oak**

*Quercus shumardii*

Shiny, dark green leaves often turn a brownish red in late fall. Acorns are usually not produced until the tree reaches 25 years.

Size: Large

Soil: Moist

Exposure: Full/part sun

Mature height: 90-ft



**swamp white oak**

*Quercus bicolor*

Interesting bark with dark green leaves. Faster growing for the oak family and good source of food for wildlife.

Size: Medium

Soil: All

Exposure: Part sun

Mature height: 50-ft



**sugar maple**

*Acer saccharum*

Great shade tree with tremendous fall color. Produces small "helicopter" seeds.

Size: Medium

Soil: Moist/dry

Exposure: Full/part sun

Mature height: 60-ft



**western soapberry**

*Sapindus drummondii*

High drought tolerance. Glossy green leaves turning yellow in the fall. Produces yellow grape-like fruit.

Size: Small

Soil: Moist/dry

Exposure: Full sun

Mature height: 25-ft



**white oak**

*Quicus alba*

Rounded lobed leaves and scaly bark.  
Very long life!

Size: Medium

Soil: Moist

Exposure: All

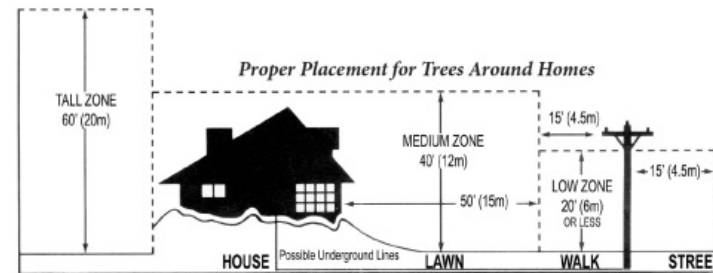
Mature height: 60-ft

## 1 When to Plant

Ideally, trees are planted during the dormant season — in the fall after leaf drop or in early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. Healthy balled and burlapped or container trees; however, can be planted throughout the growing season if given appropriate care.

## 2 Choose the Right Tree for the Right Space and Call DigRite

Be sure the tree you select is a good choice for where you wish to plant. Be aware of overhead utility lines, proximity to buildings and sidewalks, etc. Additionally, you must call DigRite at 811 to locate all underground utilities prior to digging. *Safety first!*



*The illustration indicates approximate tree placement in relation to utility lines.*

## 3 Gather your Tools and Take Measurements Before Digging

Tools include a shovel, hand rake, measuring tape, and a pair of pruners. First measure the diameter of the container or root ball, then triple it - this is the diameter your hole should be dug. For example, if the diameter of the container is 14 inches, you will want the diameter of your hole to be 42 inches.



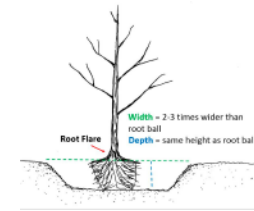
## 4 Find the Root Flare

The root flare, or trunk flare, is where the trunk expands at the base of the tree. You may need to remove 1-4 inches of topsoil to find it. Next, gently remove the tree from the container or remove the burlap. Use the measuring tape to measure from the base of the root ball to the root flare. This measurement is how deep your hole should be.



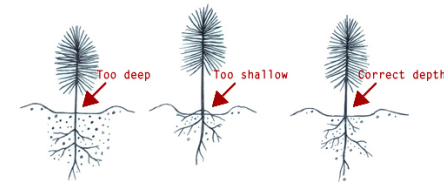


**5 Dig a Shallow, Broad Planting Hole**  
Holes should be three times wider than the root ball, but only as deep as the root ball. Digging a broad planting pit breaks up the surrounding soil and provides newly emerging tree roots room to expand.



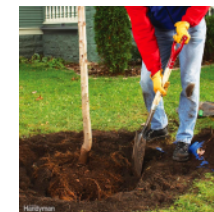
**6 Inspect Root Balls for Circling or Girdling Roots**  
Straighten, cut, or remove them.

**7 Place the Tree at the Proper Height**  
Take care to dig the hole to the proper depth — and no more. The majority of a tree's roots develop in the top 12 inches of soil. If the tree is planted too deep, new roots will have difficulty developing because of a lack of oxygen.



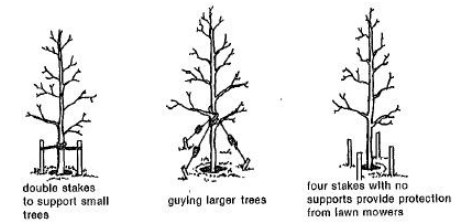
**8 Straighten the Tree in the Hole**  
Before filling your hole (backfilling), have someone view the tree from several directions to confirm it is straight. Once planted, it is difficult to reposition the tree.

**9 Fill the Hole with the Excavated Soil**  
Pack soil around the base of the root ball to stabilize it. If the root ball is wrapped, carefully cut and remove any fabric, plastic, string, and/or wire from around the trunk and root ball to prevent girdling and to facilitate root growth. Fill the remainder of the hole, firmly packing the soil to eliminate air pockets that may dry out roots. Further reduce air pockets by watering periodically while backfilling. Avoid fertilization at the time of planting.



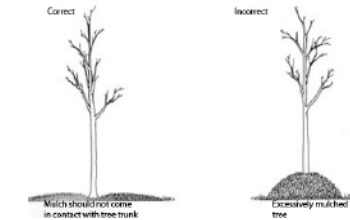
## 10 Stake the Tree, if Necessary

Studies show that trees establish more quickly and develop stronger trunk and root systems if they are not staked at the time of planting. Staking may be required; however, when planting on windy sites. One or two stakes used in conjunction with a wide, flexible tie material on the lower half of the tree will hold the tree upright and minimize injury to the trunk, yet still allow movement. Remove support staking and ties after the first year of growth.



## 11 Mulch the Base of the Tree

Mulch is organic matter spread around the base of a tree to hold moisture, moderate soil temperature extremes, and reduce grass and weed competition. A 2- to 4-inch layer is ideal. More than 4 inches may cause a problem with oxygen and moisture levels. Piling mulch right up against the trunk of a tree may cause decay of the living bark.



## 12 Provide Follow-up Care

Keep the soil moist, but not waterlogged. Water trees at least once a week, barring rain, and more frequently during hot, windy weather. If you get more than 1 inch of rain, you may not need to water that week. When the soil is dry below the surface of the mulch, it is time to water. You will need to use a screwdriver or other tool to dig below the mulch.



Other follow-up care may include minor pruning of branches damaged during the planting process. Prune sparingly after planting and delay necessary corrective pruning until a full season of growth in the new location has occurred.