

# Shade Trees in the NJ Conservation Partnership Exhibit

Shade trees come in many shapes and sizes and as a result there should be one just right for your yard. This factsheet will provide information on the available forms and sizes of some under-utilized shade trees that have several unique characteristics making them just right for specific plantings.

**American Elm, *Ulmus americana*:** The first real tree selected exclusively for planting as a shade tree in America was the American elm, *Ulmus americana*. Its selection as a desirable shade tree actually came about due to its undesirable traits as a lumber or firewood species. Thus when loggers and firewood cutters removed the desirable trees from a given area, what remained was the American elm. Americans grew up seeing constructed landscapes that included the remaining elm trees and decided they liked the look and began planting them along streets and avenues in their towns. The form of the American elm was also very pleasing to the eye with the very unique inverted "dust-mop" or **Vase Shaped Form** seen in graphic 1. Disease resistant American elms are available as cultivars; 'Princeton', 'Jefferson', and 'Valley Forge'. We have selected this tree for our exhibit to pay homage to the American tree planting culture and the significant role the elm plays in the American landscape.



**Graphic-1: *Ulmus Americana*, the American elm has made a comeback due to the extensive research to identify and then reproduce disease resistant cultivars.**



**Graphic 2:** Here is an example of the typical columnar tree form of *Carpinus betulus* 'fastigiata' Upright European hornbeam.

**Upright European Hornbeam, *Carpinus betulus*, 'Fastigiata':** This is a small to mid-size but elegant shade tree with an upright crown just perfect for small spaces. It maintains a tight "columnar" crown without pruning and is perfect for anyone with restricted space for tree planting or who wants a well ordered look lining their driveway. This tree is readily available in nurseries throughout New Jersey and is hardy, disease resistant and does well in New Jersey's climate. European hornbeam sports an interesting bark pattern that adds interest in winter and provides a yellow fall color. The leaves are small and easily mulched up with the last grass cutting of the season. This is a small stately tree that was selected for the exhibit based on the unique crown shape; its availability throughout New Jersey and its under-utilization by most landscape architects.

Shade trees provide a myriad of benefits above and beyond aesthetics. They actively work during the day to convert atmospheric Carbon dioxide (CO<sub>2</sub>) through the process of photosynthesis to life giving Oxygen. This process of photosynthesis captures or *sequesters* carbon from CO<sub>2</sub> thus removing it from the atmosphere where many scientists agree there is an excess due to the burning of fossil fuels. Trees act as the planet's

humidifiers and air conditioners by intercepting the warming rays of the sun and releasing moisture obtained by the roots into the air through its leaves. Trees filter airborne pollutants in tons per tree per

year and the shade they produce, when placed properly around your home or office can reduce energy consumption by air conditioners and heating systems.



**Japanese Tree Lilac, *Syringa reticulata*:** Japanese tree lilac is a small (25-35 feet tall) flowering shade tree with an upright spreading crown. It is perfect for street tree plantings especially in height restricted areas below utility lines. Japanese tree lilac flowers later than almost all shade trees and therefore can extend the spring flowering season for those that use it in their landscapes. Japanese tree lilac bears spectacular large creamy-white flower clusters at an early age. This small tree sports a reddish brown cherry-like bark that becomes gray and scaly as the tree ages. Japanese tree lilac is a vigorous tree that is relatively pest free, transplants readily and prefers full sun and a well drained soil.

This tree is extremely under utilized especially when considering the spectacular flowers, vigorous growth and resistance to most diseases and that is why we selected the tree for the exhibit. This is a natural replacement tree for planting in locations once dominated by our native Flowering dogwood. Seek out cultivars such as 'Ivory silk', 'Summer Snow' or 'Regent' selected for their hardiness and showy flowers.

**Southern Magnolia, *Magnolia grandiflora*, 'D.D. Blancher':** This southern broad-leafed evergreen is a real show stopper. Trees grown from seed can reach 80-100 feet and take up a wide spreading location in the home landscape. In a genus (*Magnolia*) known for its large fragrant flowers, this is the granddaddy of them all as 'grandiflora' translates to "large flowers". Their citronella scented flowers do not disappoint as many can reach sizes of 10 inches or more. Southern magnolia is by its name a native to the Southern United States and is the State Tree of Mississippi. Southern magnolia is so spectacular in appearance, that plant breeders have been working on increasing the cold hardiness of this tree and there are cultivars available for NJ homeowners that are hardy to Zone 6. Some examples of these cold hardy cultivars are 'Brackens Brown Beauty', 'Edith Bogue', 'Twenty-four Below' and the exhibit cultivar, 'D. D. Blancher'. Some of these cold hardy cultivars are smaller in size than the species, topping out at 40-60' at maturity. 'Little Gem' is a cultivar selected for its smaller stature, reaching a height of 40' at maturity. Southern magnolia is an eye popping specimen that when combined with the newer, cold hardy cultivars available to NJ homeowners, well, we just had to showcase it in our exhibit for everyone to enjoy!



For additional information:

1. <http://www.extension.umn.edu/yardandgarden/ygbriefs/p425dutchelm-resistant.html>
2. [http://www.cirrusimage.com/tree\\_European\\_hornbeam.htm](http://www.cirrusimage.com/tree_European_hornbeam.htm)
3. [www.ag.ndsu.edu/trees/handbook/th-3-83.pdf](http://www.ag.ndsu.edu/trees/handbook/th-3-83.pdf)
4. <http://www.magnoliasociety.org/>