

## The Trees of the Future

With our “new normal” weather producing more damaging winds we have become wary of having large trees surrounding our roofs and power lines. Accompanied by days of rain, a named or even a nameless storm can cause a large oak to tip itself out of its hole with expensive consequences.

Small trees are now quite in favor. They do provide cooling shade, just not ‘high shade’. One other concern arising from climate change and the concomitant extension of the range of pests and diseases that attack trees is the importance of avoiding a monoculture. It is a disaster when the same species swamp a neighborhood and suddenly succumb to an invasive pest. (Think about all those Elm Streets with no elms!)

Diversity is so important that there is a rule-of-thumb developed by a tree person at the National Arboretum in Washington, D.C.--\_ the magic numbers 30%, 20%, 10%. This translates into never using more than 30% of plants from one plant family; 20% from one genera; 10% from one species.

Fortunately we live where appropriate small trees abound. There are dozens of them to choose from, just be sure to choose a variety. To illustrate, let’s consider one of the best small trees that is the native *Carpinus caroliniana* also called the American hornbeam, blue beech, or ironwood. It belongs to the Betulaceae family (the Birch family). The *Carpinus* is a genus of 35 to 40 species of deciduous woodland trees and ‘*caroliniana*’ designates the specific species found in our area. You may have heard this tree referred to as musclewood because of its sinuous trunk. The leaves are not lawn-smothering-large but about an inch wide and two inches long. The flowers are inconspicuous but are followed by small seeds developing in clusters of tiny leaf-like bracts. In the fall the squirrels turn themselves upside down and inside out in attempts to harvest them. This tree is recommended as being storm-resistant.

A related tree, *Ostrya virginiana*, also belongs to the Betulaceae family and is called American hophornbeam as well as ironwood. It has white hop-like clusters develop in summer and turn brown in fall. The *Acer* (Maple) family is large, providing fall color worldwide. Many of them are large and stately but others are smaller, such as *Acer griseum*, the paperbark maple, with its attractively peeling bark. It has dark green 3-palmate lobed leaves and generally does not exceed 30 feet in height. Another maple has simple ovate leaves as you can decipher from its name, *Acer carpiniifolium*, the hornbeam maple. This is a good choice for a tree that remains a moderate size.

Three maples to avoid are *Acer negundo*, *A. platanoides* and *A. saccharium*. The first, *A. negundo* is the box elder and is a magnet for the box elder bugs as well as being a rapidly growing tree that dies quickly and is also prone to storm damage. *A. platanoides* is the Norway maple which has become an invasive weed tree in many parts of the country. The last, *A. saccharium* is the pretty silver maple but it grows too large and has surface roots that make a lawn under it impossible and it is also short-lived.

*Aesculus pavia*, the red buckeye has bright red candelabra blooms in spring and brown nuts in fall. It is a small tree that is able to grow well in the shade of a house. It is just one of many small trees that are becoming popular because they do remain an unthreatening size. There are new varieties of dogwoods, especially the cross of the native dogwood with the *Cornus kousa* that results in a tree more vigorous than either parent. There are crabapples, small magnolias, little leaf lindens, lacebark elms.

By definition a tree is a single-stemmed woody plant whose height when full grown is at least 15 feet. Some do clump, as do redbuds, birches, and service berries and then there are dwarf species designed to be both designed to be both trees and well under 15 feet. A tree can be a large mistake, difficult to fix, so take your time deciding what will go where.

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