

AESCULUS AND CARYA TREES DESERVE SECOND CONSIDERATION

By Douglas Chapman, Horticulturist, Dow Gardens, Midland, MI

Horsechestnut, Ohio Buckeye, and hickory are trees that may have been overused in the past but deserve a second look; two for large area landscapes and the other for residential landscapes.

Common Horsechestnut (*Aesculus hippocastanum*) is a large upright, oval tree. Commonly, the landscape effective height is 50 to 75 feet, but it has been reported to reach 100 feet in height. This tree is striking when in full bloom during late May with showy yellow and red flowers borne on panicles, five to eight inches long and four to six inches wide. Normally, it is a biennial bloomer. The fruit can be a maintenance problem during the fall but children enjoy collecting and making pipes (fruit is not edible). The foliage is initially light green turning a rich dark green for the summer. The palmately compound leaves with the seven leaflets add a somewhat coarse texture to the plant. When the leaves first unfold, they are light green turning a good dark green for the summer. Fall color is not dependable, but when develops, it

ranges from a poor brown to a light yellow. This fall color, which dependably develops on a few individual trees, may be a reason to select and introduce a new cultivar into the trade.

Although Common Horsechestnut is usually propagated by seed, we have been able to propagate it by cuttage. Cuttings should be taken as soon as elongation is six to eight inches (before flowering). These cuttings are treated with Hormodin No. 3 mixed with 5% Benlate and placed under intermittent mist. Within six weeks, one can expect 80 to 90% rooting. The young trees, with their well-developed, yet coarse root system, should be potted into half-gallon containers, grown for the rest of the summer. This young tree can then be planted out the following spring after being overwintered in controlled storage.

Horsechestnut is a large tree which can be used as a landscape specimen in institutional grounds, golf courses, or parks. It thrives in well-drained, fertile soil. The reported insects or diseases of Common Horsechestnut aren't catastrophic. In



Large Common Horsechestnut normally blooms every other year with showy yellow and red flowers.



Flowers of Ruby Red Horsechestnut are bright red contrasted against a dark green leaf.

Southern Illinois, leaf blotch is a problem, but in Northern Illinois and throughout much of Michigan, leaf blotch need not be a concern. Many have reported Common Horsechestnut to be somewhat weak wooded, but during the most severe ice storm of the century to hit Central Michigan (1975), this tree was least damaged. Nino Mauro, Forester, City of Saginaw, reported that Common Horsechestnut showed little damage, while oak, elm, and Sugar Maple were broken apart due to the storm. *Aesculus hippocastanum* thrives in urban conditions and, because of its density, grass does not thrive under its canopy. Leaving these lower limbs on the tree decreases maintenance, while protecting the trunk from lawn mower damage. Further, leaving the lower branches on enhances the form of these trees.

Ruby Red Horsechestnut (*x Aesculus carnea* 'Briotti') has many of the desirable characteristics of Common Horsechestnut, but lacks fruit which



Shagbark Hickory Leaflets are bright yellow-green during late fall.

can be a maintenance problem. Ruby Red Horsechestnut has the same oval habit but is significantly smaller, reaching only 30 to 50 feet in height. The red flowers are outstanding, being contrasted by an extremely dark green leaf. This tree shows resistance to leaf blotch and isn't affected by leaf scorch (a physiological disease which often defoliates Common Horsechestnut). If a medium-sized tree, which adapts well to residential landscapes as well as parks, is desired, Ruby Red Horsechestnut is a good alternative.

Ohio Buckeye (*Aesculus glabra*) is an effective specimen tree in residential or park landscapes. Its habit is a dense, broad oval, reaching 30 to 40 feet in height. The palmately compound leaf, with five leaflets, is striking as it is one of the first to unfold in the spring. The yellow-green flowers are borne during mid-May on four to seven-inch long by two-inch wide terminal panicles. The flowers are exciting upon close inspection but add little to the



Fruitless Ruby Red Horsechestnut is smaller than the common horsechestnut, exhibits resistance to leaf blotch and scorch, and has bright red flowers.

overall landscape. The summer color is a shimmering bright green followed by a dependable yellow to orange fall color. This medium-sized tree can be effective when used in natural settings or specimens for residential or large area landscapes.

There are no catastrophic insects or diseases of Ohio Buckeye. Leaf scorch (a physiological disease often during late summer) causes defoliation of Common Horsechestnut, but rarely affects the Ohio Buckeye. Although leaf blotch, powdery mildew, and anthracnose can affect the foliage, they rarely cause severe defoliation or damage requiring control. Insects are numerous, but annual spraying isn't needed. A plantsman can watch insect populations, spraying only when necessary.

Shagbark Hickory (*Carya ovata*) is a large tree reaching 60 to 85 feet in height, with a narrow oval habit of growth. The flowers are ineffective. The fruit is edible but adds little to the landscape. It has pinnately compound leaves which are a bright yellow-green early in the spring with the five leaflets showing a brilliant yellow to brown color during late fall. The bark becomes characteristically shaggy in long platelets after the stems reach six to eight inches in diameter.

Hickory is a good companion plant for oak or horsechestnut. It thrives in fertile, yet well-drained soil, although it can adapt to many soil types. Although there are some insects and diseases that affect Shagbark Hickory, none are catastrophic. Hickory is difficult to transplant as it has a very deep taproot — this fact limits its availability in the trade. Landscape use is restricted to institutional grounds, parks, golf courses, or large natural plantings.

In general, Common Horsechestnut, Ohio Buckeye, and Shagbark Hickory are most effectively used in large area or golf course landscapes, while Ruby Red Horsechestnut and, in some instances, Ohio Buckeye fit into residential landscapes. All of these trees thrive in fertile, well-drained soil. In native situations, hickory and oak are climax forests. They require only corrective pruning when young; therefore, are relatively low maintenance. For urban conditions, Ruby Red Horsechestnut is most tolerant, followed by Common Horsechestnut, Ohio Buckeye, and lastly, Shagbark Hickory. These trees can be outstanding additions-variations to the landscape, while requiring relatively little maintenance.

WTT