

Aesculus pavia: Red Buckeye¹

Edward F. Gilman, Dennis G. Watson, Ryan W. Klein, Andrew K. Koeser, Deborah R. Hilbert and Drew C. McLean²

Introduction

Red buckeye is a small North American native tree, capable of reaching 25 to 30 feet tall in the wild though is most often at 15 to 20 feet high when grown in cultivation. Red buckeye is most popular for its springtime display of 3- to 6-inch-long, upright, terminal panicles composed of 1.5-inch-wide, red flowers, which are quite attractive to hummingbirds. These blooms are followed by flat, round capsules that contain bitter and poisonous seeds. The large, dark green, palmate leaves usually offer no great color change in fall and often drop as early as late September.

General Information

Scientific name: *Aesculus pavia* Pronunciation: ESS-kew-lus PAY-vee-uh Common name(s): red buckeye Family: *Sapindaceae* USDA hardiness zones: 6A through 9A (Fig. 6) Origin: native to the southeastern United States, extending west to northeastern Texas and as far north as southern Illinois

UF/IFAS invasive Assessment Status: Native

Uses: reclamation; tree lawn 3–4 feet wide; tree lawn 4–6 feet wide; tree lawn > 6 ft. wide; street without sidewalk; deck or patio; specimen; container or planter; highway median; shade



Figure 1. Full Form - *Aesculus pavia*: red buckeye Credits: Gitta Hasing

- 1. This document is ENH223, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date November 1993. Revised December 2018. Visit the EDIS website at https://edis.ifas.ufl.edu for the currently supported version of this publication.
- Edward F. Gilman, professor emeritus, Environmental Horticulture Department; Dennis G. Watson, former associate professor, Agricultural Engineering Department; Ryan W. Klein, graduate assistant, Environmental Horticulture Department, Gainesville, FL 32611; Andrew K. Koeser, assistant professor, Environmental Horticulture Department, UF/IFAS Gulf Coast Research and Education Center (GCREC), Wimauma, FL 33598; Deborah R. Hilbert, graduate assistant, Environmental Horticulture Department, GCREC; and Drew C. McLean, biological scientist, Environmental Horticulture Department, GCREC; UF/IFAS Extension, Gainesville, FL 32611.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. For more information on obtaining other UF/IFAS Extension publications, contact your county's UF/IFAS Extension office. U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension.



Figure 2. Range

Description

Height: 15 to 20 feet Spread: 15 to 25 feet Crown uniformity: symmetrical Crown shape: round, pyramidal Crown density: moderate Growth rate: moderate Texture: coarse

Foliage

Leaf arrangement: opposite/subopposite Leaf type: palmately compound; made up of 5 to occasionally 7 leaflets Leaf margin: serrate, double serrate Leaf shape: elliptic (oval), obovate



Figure 3. Leaf - *Aesculus pavia*: red buckeye Credits: Gitta Hasing

Leaf venation: pinnate Leaf type and persistence: deciduous Leaf blade length: 7 to 12 inches; leaflets are 2 to 6 inches Leaf color: dark green and smooth on top, paler green underneath Fall color: no color change Fall characteristic: not showy

Flower

Flower color: bright red Flower characteristics: very showy; emerge in clusters on panicles Flowering: spring



Figure 4. Flower - *Aesculus pavia*: v buckeye Credits: Gitta Hasing

Fruit

Fruit shape: round
Fruit length: ½ to 1 ½ inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: attracts squirrels/mammals; showy;
fruit/leaves a litter problem
Fruiting: mid-summer



Figure 5. Fruit - *Aesculus pavia*: red buckeye Credits: Gitta Hasing

Trunk and Branches

Trunk/branches: branches droop; not showy; typically multi-trunked; no thorns Bark: light gray and smooth, becoming irregularly ridged and breaking into plates with age Pruning requirement: needed for strong structure Breakage: Resistant Current year twig color: brown Current year twig thickness: thick Wood specific gravity: unknown

Culture

Light requirement: full sun or partial shade, shade tolerant Soil tolerances: clay; sand; loam; acidic; well-drained; occasionally wet soil Drought tolerance: high Aerosol salt tolerance: none

Other

Roots: not a problem Winter interest: yes Outstanding tree: yes Ozone sensitivity: unknown **Verticillium wilt susceptibility:** resistant **Pest resistance:** resistant to pests/diseases

Use and Management

The coarse, open structure and the light brown, flaky bark is quite attractive and offers great winter landscape interest. Branches arise from the typically straight trunk at a wide angle, forming a durable structure. There are many, smalldiameter branches with an occasional upright, aggressive one growing as large as the trunk. Main branches begin forming low on the trunk and remain there when grown in the full sun.

The tree is best used as a novelty patio tree or as part of a shrubbery border to add bright red color for several weeks in the spring and coarse texture during the rest of the year. Plant it in a medium- to large-sized residential landscape



Figure 6. Bark - *Aesculus pavia*: red buckeye Credits: Gitta Hasing

as a very coarse accent. Extremely coarse in winter without leaves, red buckeye will attract attention with the bright brown or tan bark reflecting the rays of the sun. Lower branches can be removed to allow for clearance beneath the crown, but the tree looks its best planted in the open to allow branches to fully develop to the ground.

Red buckeye will flower well in rather dense shade but takes on its best form when grown in full sun with some afternoon shade on moist, well-drained soil. It is native along moist stream banks and is not very drought-tolerant.

The cultivar 'Atrosanguinea' has deeper red flowers. 'Humilis' is a low or prostrate shrub with small panicles of red flowers. Hybrids between *Aesculus pavia* x *Aesculus sylvatica* have been seen, bearing red and yellow flowers.

Red buckeye is easily grown from seed, with plants flowering after three years.

Pests and Diseases

No pests or diseases are of major concern.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. University of Florida Institute of Food and Agricultural Sciences.