

Ohio Buckeye



Ohio Buckeye (*Aesculus glabra*)

General Description

A medium-sized tree with an oval to rounded crown. Unique characteristics include palmate compound leaves, terminal candle-like flowers and large globose fruits. The largest tree in North Dakota is 49 feet tall with a canopy spread of 38 feet.

Leaves and Buds

Bud Arrangement - Opposite.

Bud Color - Brown, prominent scales.

Bud Size - Large, 1/2 to 1-1/5 inches long.

Leaf Type and Shape - Palmate compound, leaves with 5 and rarely 7 leaflets, leaflets are elliptic to obovate.

Leaf Margins - Acuminate, cuneate, and finely serrate.

Leaf Surface - Pubescent when young beneath, nearly glabrous when mature.

Leaf Length - 6 to 9 inches; leaflets 3 to 5 inches.

Leaf Width - 5 to 6 inches; leaflets 1 to 2 inches

Leaf Color - Medium green; yellow to amber fall color.

Flowers and Fruits

Flower Type - Upright panicles.

Flower Color - Greenish-yellow.

Fruit Type - Obovoid capsule, dehiscent, 1 to 2 inches long, with a prickly husk.

Fruit Color - Light brown, nutlike ovule or "buckeye," dark brown, glossy.

Form

Growth Habit - Dense, broad-oblong crowns, becoming rounded with age.

Texture - Medium-coarse, summer; coarse, winter.

Crown Height - 20 to 40 feet.

Crown Width - 20 to 35 feet.

Bark Color - Thick, ashy gray, deeply furrowed and plated.

Root System - Forms a tap root.

Environmental Requirements

Soils

Soil Texture - Adapted to a variety of soils, prefers moist loams. Leaf scorch is a problem on dry sites.

Soil pH - 5.0 to 7.5.

Windbreak Suitability Group - 1, 3, 4, 4C.

Cold Hardiness

USDA Zone 3.

Water

Not drought resistant. Needs adequate moisture during drought, or leaf scorch may become a problem.

Light

Full sun.

Uses

Conservation/Windbreaks

Medium height tree for farmstead windbreaks and riparian plantings.

Wildlife

Nuts are eaten by wildlife, including squirrels.

Agroforestry Products

Medicinal - Extracts of related species are used for fevers and as a source of quercitrin.

Urban/Recreational

Good specimen tree for landscaping. Attractive flowers and fall colors. Several hardy hybrid selections below are superior to the species.

Cultivated Varieties

None.

Related Species

Autumn Splendor Buckeye (*Aesculus x arnoldiana* 'Autumn Splendor') - Excellent, University of Minnesota introduction, semi-glossy, emerald green foliage, red-purple fall color. Good resistance to leaf scorch.

Homestead Buckeye (*A. x* 'Homestead') - Superior SDSU hybrid introduction, reddish-orange fall color, dense crown.

Yellow Buckeye (*A. flava*) - Good foliage quality, sufficient winter hardiness.

Common Horse-chestnut (*A. hippocastanum*) - Not hardy in North Dakota.

Pests

Susceptible to leaf scorch, leaf blotch and powdery mildew. No major insect pests. Extracts of *Aesculus* species are toxic to some insect pests.