Ohio Buckeye
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(*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.