

Green Ash



Green Ash (*Fraxinus pennsylvanica*)

General Description

A hardy, native, drought and alkali resistant medium to large tree. Since the onset of Dutch elm disease, Green Ash has been over-planted in urban and conservation settings as a replacement for American Elm. The largest tree in North Dakota is 69 feet tall with a canopy spread of 74 feet.

Leaves and Buds

Bud Arrangement - Opposite.

Bud Color - Terminal buds are scaly, dark rusty-brown, and somewhat woolly.

Bud Size - 1/8 to 1/4 inch.

Leaf Type and Shape - Pinnate compound, 5 to 9 stalked leaflets.

Leaf Margins - Sharply-serrate to finely-toothed.

Leaf Surface - A few hairs along main veins below or occasionally pubescent below, glabrous or pubescent twigs and petioles.

Leaf Length - 10 to 12 inches; leaflets 3 to 4 inches.

Leaf Width - 5 to 7 inches; leaflets 1 to 2 inches.

Leaf Color - Bright green on both surfaces, sometimes paler below. Clear yellow fall color, with early leaf drop.

Flowers and Fruits

Flower Type - Dioecious, unisexual flowers are produced in large, dense clusters, hairy; anthers are linear-oblong, on short filaments.

Flower Color - Greenish-yellow.

Fruit Type - Samara, 1 to 2 inches long, with wing lanceolate and decurrent to below the middle of the seed.

Fruit Color - Light-brown to tan in color.

Form

Growth Habit - Variable.

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

Crown Height - 35 to 65 feet.

Crown Width - 30 to 40 feet.

Bark Color - Bark is ash-gray to brownish on older branches and furrowed into close diamond-shaped areas separated by narrow interlacing ridges.

Root System - Roots are shallow, fibrous, and wide spread.

Environmental Requirements

Soils

Soil Texture - Adapted to a wide variety of soil textures.

Soil pH - 6.0 to 8.0.

Windbreak Suitability Group - 1, 1K, 2, 2K, 3, 4, 4C, 5, 6D, 6G, 8, 9C, 9W, 9L.

Cold Hardiness

USDA Zone 2.

Water

Can withstand flooding for short periods of time, moderately-high drought tolerance.

Light

Full sun.

Uses

Conservation/Windbreaks

Medium to tall tree for farmstead and field windbreaks, riparian plantings, and highway beautification.

Wildlife

Seeds are eaten by birds and mammals. Trees provide cover and nesting sites for birds.

Agroforestry Products

Wood - A fine-grained wood suitable for furniture and athletic equipment (bats, handles, etc.).

Medicinal - Used as a diuretic and for sores and itches.

Urban/Recreational

Desirable for home shade and boulevard trees. Tolerates soil compaction.

Cultivated Varieties

Bergeson Ash (*Fraxinus pennsylvanica* 'Bergeson') - Patented, introduced by Bergeson Nursery, Fertile, Minnesota.

Cardan Ash (*F. pennsylvanica* 'Cardan') - A seed strain cultivar released by USDA-NRCS, Plant Materials Center, Bismarck, North Dakota and USDA, Northern Great Plains Research Lab, Mandan, North Dakota.

Dakota Centennial® Ash (*F. pennsylvanica* 'Wahpeton') - Fast growing, upright spreading male tree introduced by NDSU, Fargo, North Dakota.

Kindred Ash (*F. pennsylvanica* 'Kindred') - Introduced by the late Ben Gilbertson, Kindred, North Dakota. A male tree.

Marshall's Seedless Ash (*F. pennsylvanica* 'Marshall's Seedless') - Male, variable spreading to rounded tree.

Patmore Ash (*F. pennsylvanica* 'Patmore') - Introduced by Richard Patmore, Patmore Nursery, Brandon, Manitoba, Canada. A male tree.

Prairie Dome® Ash (*F. pennsylvanica* 'Leeds') - Densely oval to globose, male tree introduced by NDSU, Fargo, North Dakota.

Prairie Spire® Ash (*F. pennsylvanica* 'Rugby') - Dense, narrow upright male tree introduced by NDSU, Fargo, North Dakota.

Summit Ash (*F. pennsylvanica* 'Summit') - Fairly narrow, upright male tree introduced by Summit Nursery, Stillwater, Minnesota.

Related Species

Autumn Blaze White Ash (*Fraxinus americana* 'Autumn Blaze') - Released by Morden Research Station, Morden, Manitoba.

Black Ash (*F. nigra*)

Manchurian Ash (*F. mandshurica*)

Northern Blaze White Ash (*F. americana* 'Northern Blaze') - A new introduction from Jeffries Nursery, LTD, Portage la Prairie, Manitoba. Thicker twigs and hardier than 'Autumn Blaze'.

Pests

Common diseases include stem decay, branch and twig cankers, anthracnose, leaf rust and ash yellows. Common insect pests include cankerworms, ash borers and ash plant bugs.