

Japanese Elm



Japanese Elm

(*Ulmus davidiana*
var. *japonica*)

General Description

A hardy spreading umbrella-shaped tree native to Japan and northeastern Asia. This species is reported to be highly resistant to Dutch Elm disease and is used to develop resistant cultivars.

Leaves and Buds

Bud Arrangement - Alternate.

Bud Color - Brownish.

Bud Size - 1/8 to 1/4.

Leaf Type and Shape - Simple, obovate to elliptical, oblique base.

Leaf Margins - Doubly-serrate.

Leaf Surface - Rough and hairy above, hairy beneath, with small axillary tufts.

Leaf Length - 3 to 4½ inches.

Leaf Width - 1½ to 2 inches.

Leaf Color - Dark green; yellow fall color.

Flowers and Fruits

Flower Type - Polygamo-monoecious.

Flower Color - Greenish-red.

Fruit Type - Winged samara, with the seed in the center.

Fruit Color - Brownish.

Form

Growth Habit - Round-headed.

Texture - Medium, summer; medium, winter.

Crown Height - 35 to 55 feet.

Crown Width - 25 to 35 feet.

Bark Color - Grayish-brown, young branchlets densely hairy and tuberculate, yellowish-brown.

Root System - Fibrous, spreading.

Environmental Requirements

Soils

Soil Texture - Prefers moist, well-drained loams.

Soil pH - 5.5 to 8.0.

Windbreak Suitability Group - 1, 1K, 3, 4, 4C, 5.

Cold Hardiness

USDA Zone 2.

Water

Moderately drought tolerant.

Light

Full sun.

Uses

Conservation/Windbreaks

Medium tree for farmstead or field windbreaks, and riparian plantings.

Wildlife

No documented value, other than seeds. Buds and twigs are likely used as food by birds and mammals.

Agroforestry Products

Wood - Firewood, pallets, crates.

Medicinal - Some elms have been used as a demulcent, an astringent, diuretic, and for inflammation, burns, cold sores and wounds.

Urban/Recreational

Recommended for trial plantings. Could be useful as a boulevard, specimen and shade tree.

Cultivated Varieties

Discovery/Freedom Elm (*U. davidiana* var. *japonica* 'Discovery' and 'Freedom') - Released by Dr. Wilbert Ronald, Jeffries Nurseries Ltd., and Rick Durand; Prairie Shade Consulting Services, Portage la Prairie, Manitoba. Promising selections.

Jacan Elm (*Ulmus davidiana* var. *japonica* 'Jacan') - Released by Morden Research Station, Morden, Manitoba.

Thomson Elm (*U. davidiana* var. *japonica* 'Thomson') - Released by PFRA Nursery, Indianhead, Saskatchewan.

Related Species

American Elm (*Ulmus americana*)

Hybrids with good to excellent Dutch Elm disease resistance, including several newer hybrid elms from crosses of Siberian Elm (*U. pumila*) and Japanese Elm (*U. davidiana* var. *japonica*) e.g., Sapporo Autumn Gold Elm (*U. x* 'Sapporo Autumn Gold'), Cathedral Elm (*U. x* 'Cathedral') and New Horizon Elm (*U. x* 'New Horizon'). Sapporo Autumn Gold Elm has fine-textured leaves similar to Siberian Elm, whereas the Cathedral and New Horizon Elms have coarser-textured leaves similar to American Elm, which may become more popular with consumers.

Rock Elm (*U. thomasi*)

Slippery Elm (*U. rubra*)

Pests

More Dutch Elm disease resistant than most other elms. No other serious pest problems.