

American Elm

Ulmus americana

Common names:

American Elm, White Elm, Gray Elm, Soft Elm

Pronunciation:

UL-mus a-mer-i-KA-na

Family:

Ulmaceae

Genus:

Ulmus

"For, long before the white men came, Elms were council trees for Indian tribes, later the meeting place for treaty-making. between whites and Indians, and then the favorite house site of the first settlers, who spared the Elms when they razed all other trees....[A] great old Elm appears like a fountain of vegetation -- the trunk as the primary jet gushing upward and forking as it rises, then the jets again forking, the forks spreading out and falling as if by gravity in a hundred branchlet streams that become a thousand streamlet twigs and a million drops of spattering foliage... [B]ecause of its fundamental architectural form, this is the ideal street tree, for its branches meet across the road in a vaulted arch that permits passage of the highest vehicles."

(excerpt from Donald Culross Peattie, A Natural History of Trees of Eastern and Central North America)

Dutch Elm Disease (DED), spread by the Elm Bark beetle, has ravaged this iconic American tree starting in 1930's. Some large specimens still exist in West Newbury, but most of our Elms have not been so fortunate. It is possible to save an Elm with fungicide injections if the infestation is caught early enough. All native species of elm are susceptible to DED, including the American Elm and the Slippery Elm. Some Asiatic elms have a higher degree of resistance to DED, and the Chinese Elm, *Ulmus parvifolia*, is used in developing DED resistant hybrids.

Quick ID Tips

- Double-toothed leaves have asymmetric, uneven base
- Vase-shaped tree with arching branches
- Deeply ridged bark with intersecting ridges appearing as a crisscross pattern

Details

- Broadleaf deciduous tree that grows to over 75 ft. with arching branches forming a vase shape.

- Leaves alternate, simple, 7.5-15 cm, ovate-oblong, unequal at base, doubly serrate (toothed), glossy dark green above, 13-18 parallel veins from midvein to the teeth.
- Flowers perfect, in groups of 3-4, the anthers are bright red, the ovary and styles are light green, and the calyx is green tinged with red above the middle; they appear in spring before the leaves.
- Fruit rounded, disc-like samara, about 12 mm long, greenish sometime with a reddish tinge, maturing in early summer.
- Prefers sun and rich, moist, soils but grows under a variety of conditions.
- Once extensively used as a street and lawn tree, Dutch Elm Disease (DED) has changed that. DED is caused by the fungus *Ophiostoma novo-ulmi* through its transmission by the Elm Bark Beetle. The term "Dutch" in the name of the disease is a reference to plant pathologists in the Netherlands who did much early work on the disease.
- Although mature American elms are no longer common in eastern North America, some still exist, including in West Newbury. Two large elms still remain in front of the Grant Farm stand on Main Street.
- Signs of DED in an elm are rust-colored insect frass in tree crotches, shotgun holes in the bark caused by emerging beetle larvae, and "shepherd's crook" curvature of twigs accompanied by yellowing and falling foliage even in spring and summer. Brown streaks and discolored rings can be found in twigs and branches.
- Newer varieties of *Ulmus americana* show varying degrees of resistance to DED and are often recommended for planting. These include the following varieties: Jefferson, New Harmony, Prairie Expedition, Princeton, and Valley Forge. Caution is advised because no varieties of the American Elm are 100% resistant. Hybrid elms that include around 5% of the Chinese Elm genome are also resistant to DED.
- Hardy in USDA Zone 3-9. Native from Newfoundland to Florida, west to the Rocky Mountains.
- In early days, the supple strength of elm wood made it useful for wagon wheel hubs, heavy duty flooring, barrel staves, chopping bowls, and agricultural equipment.
- Evening Grosbeaks, a colorful large-beaked finch, are known to be fond of mature Elm seeds.



plant habit, spring flowering



development of fruit (seeds and samara)



fruit (seeds), spring



leaf arrangement



leaf



leaf margin and tip



leaves, fall



trunk bark



winter twigs and buds

Source:

- Oregon State University Landscape Plants
<https://landscapeplants.oregonstate.edu/plants/ulmus-americana>
- David Sibley, *The Sibley Guide to Trees* (Knopf 2009)