



# *Ulmus americana* American Elm<sup>1</sup>

Edward F. Gilman and Dennis G. Watson<sup>2</sup>

## INTRODUCTION

This native North American tree grows quickly when young, forming a broad or upright, vase-shaped silhouette, 80 to 100 feet high and 60 to 120 feet wide (Fig. 1). Trunks on older trees could reach to seven feet across. The six-inch-long, deciduous leaves are dark green throughout the year, fading to yellow before dropping in fall. In early spring, before the new leaves unfold, the rather inconspicuous, small, green flowers appear on pendulous stalks. These blooms are followed by green, wafer-like seedpods which mature soon after flowering is finished and the seeds are quite popular with both birds and wildlife. American Elm must be at least 15-years-old before it will bear seed. The copious amount of seeds can create a mess on hard surfaces for a period of time. Trees have an extensive but shallow root system.

## GENERAL INFORMATION

**Scientific name:** *Ulmus americana*

**Pronunciation:** UL-mus uh-mair-ih-KAY-nuh

**Common name(s):** American Elm

**Family:** *Ulmaceae*

**USDA hardiness zones:** 2 through 9 (Fig. 2)

**Origin:** native to North America

**Uses:** reclamation plant; specimen; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

**Availability:** somewhat available, may have to go out of the region to find the tree

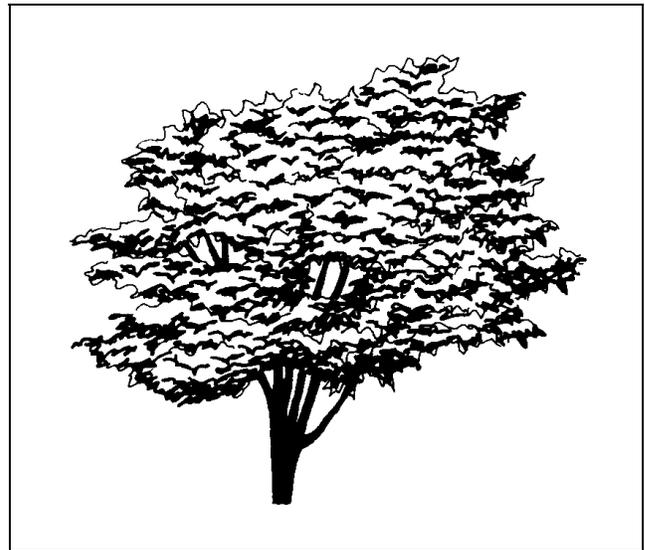


Figure 1. Middle-aged American Elm.

## DESCRIPTION

**Height:** 70 to 90 feet

**Spread:** 50 to 70 feet

**Crown uniformity:** symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

**Crown shape:** vase shape

**Crown density:** moderate

**Growth rate:** fast

**Texture:** medium

1. This document is adapted from Fact Sheet ST-649, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.

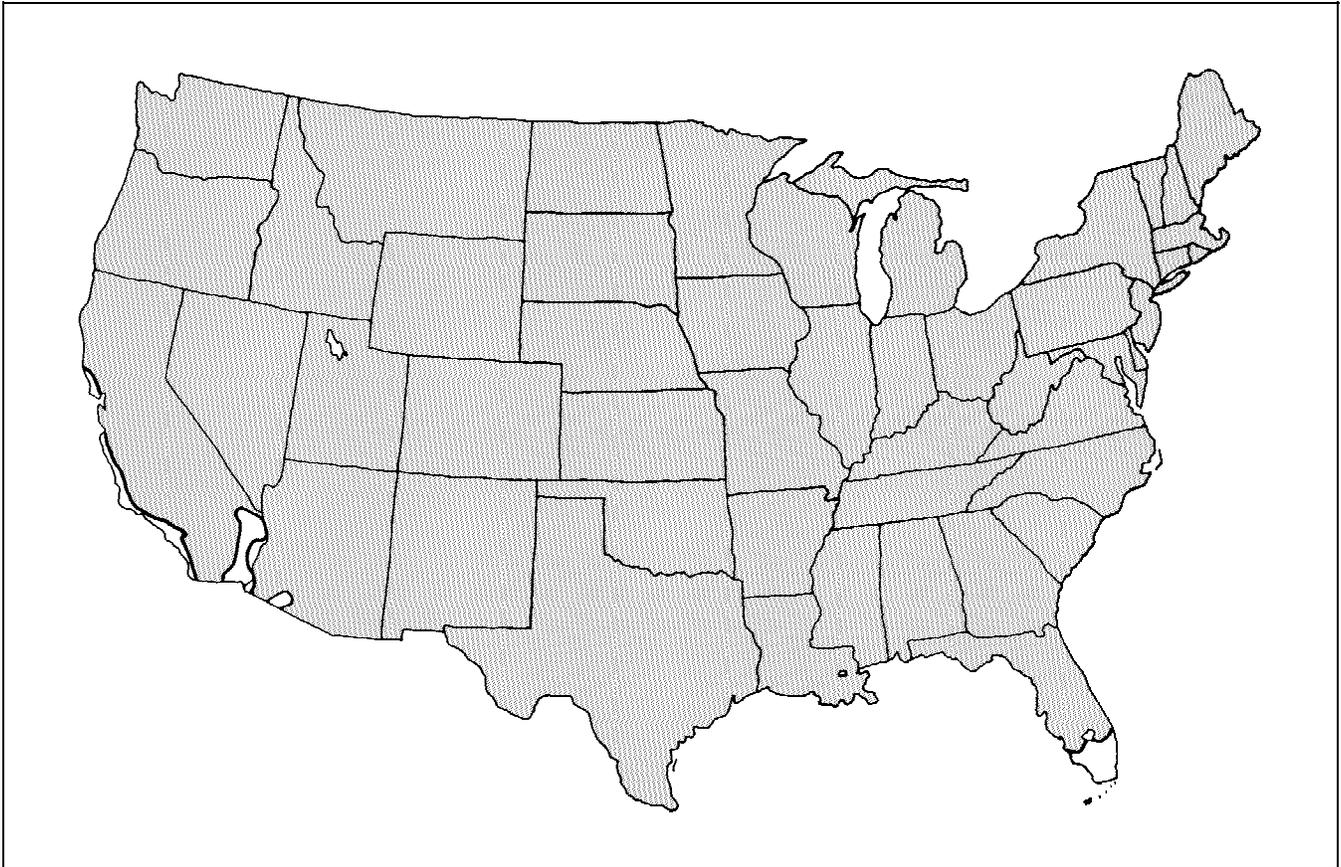


Figure 2. Shaded area represents potential planting range.

### Foliage

**Leaf arrangement:** alternate (Fig. 3)

**Leaf type:** simple

**Leaf margin:** double serrate

**Leaf shape:** oblong; ovate

**Leaf venation:** pinnate

**Leaf type and persistence:** deciduous

**Leaf blade length:** 4 to 8 inches; 2 to 4 inches

**Leaf color:** green

**Fall color:** yellow

**Fall characteristic:** showy

### Flower

**Flower color:** green

**Flower characteristics:** inconspicuous and not showy; spring flowering

### Fruit

**Fruit shape:** round

**Fruit length:** .5 to 1 inch; < .5 inch

**Fruit covering:** dry or hard

**Fruit color:** green

**Fruit characteristics:** attracts birds; inconspicuous and not showy; fruit, twigs, or foliage cause significant litter

### Trunk and Branches

**Trunk/bark/branches:** grow mostly upright and will not droop; not particularly showy; should be grown with a single leader; no thorns

**Pruning requirement:** requires pruning to develop strong structure

**Breakage:** susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

**Current year twig color:** brown

**Current year twig thickness:** thin

**Wood specific gravity:** 0.50

### Culture

**Light requirement:** tree grows in part shade/part sun; tree grows in full sun

**Soil tolerances:** clay; loam; sand; acidic; alkaline; extended flooding; well-drained

**Drought tolerance:** high

**Aerosol salt tolerance:** moderate

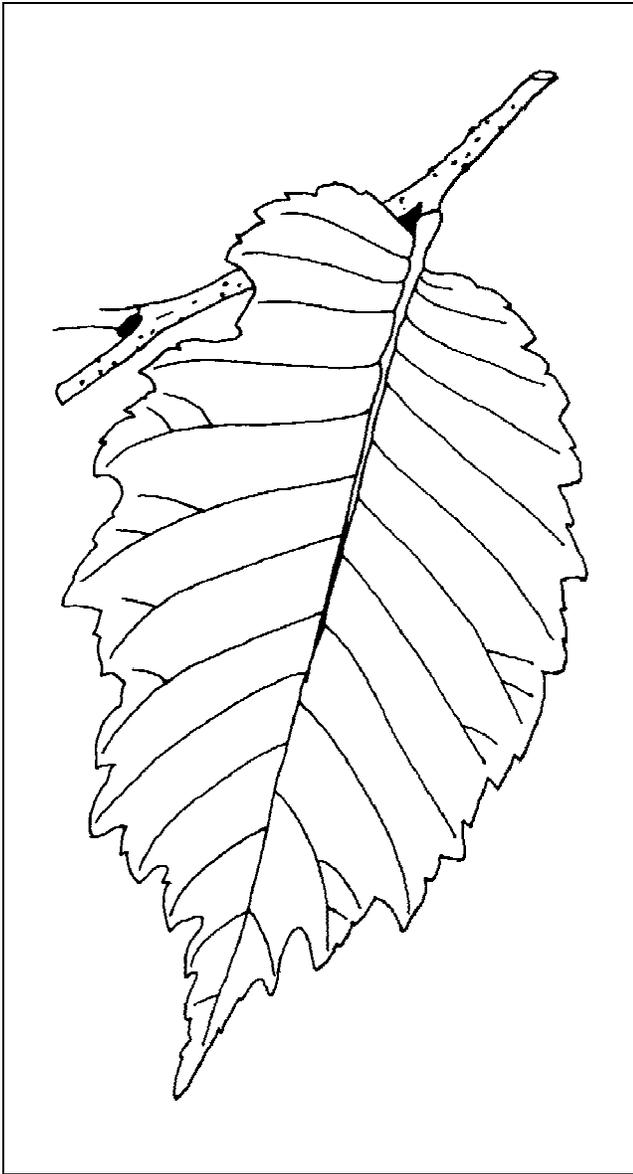


Figure 3. Foliage of American Elm.

**Soil salt tolerance:** good

**Other**

- Roots:** surface roots can lift sidewalks or interfere with mowing
- Winter interest:** no special winter interest
- Outstanding tree:** not particularly outstanding
- Invasive potential:** little, if any, potential at this time
- Ozone sensitivity:** tolerant
- Verticillium wilt susceptibility:** susceptible
- Pest resistance:** very sensitive to one or more pests or diseases which can affect tree health or aesthetics

**USE AND MANAGEMENT**

Once a very popular and long-lived (300+ years) shade and street tree, American Elm suffered a dramatic decline with the introduction of Dutch elm disease, a fungus spread by a bark beetle. The wood of American Elm is very hard and was a valuable timber tree used for lumber, furniture and veneer. The Indians once made canoes out of American Elm trunks, and early settlers would steam the wood so it could be bent to make barrels and wheel hoops. It was also used for the rockers on rocking chairs. Today, the wood that can be found is used mainly for making furniture.

American Elm should be grown in full sun on well-drained, rich soil. If you plant American Elm, plan on implementing a monitoring program to watch for symptoms of Dutch elm disease. It is vital to the health of existing trees that a program be in place to administer special care to these disease-sensitive trees.

Propagation is by seed or cuttings. Young plants transplant easily.

**Pests**

Many pests may infest American Elm, including bark beetles, elm borer, gypsy moth, mites, and scales. Leaf beetles often consume large quantities of foliage.

**Diseases**

Many diseases may infect American Elm, including Dutch elm disease, phloem necrosis, leaf spot diseases, and cankers. American Elm is a host for Ganoderma butt rot.