



Ulmus parvifolia 'Sempervirens' Weeping Chinese Elm¹

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INTRODUCTION

An excellent tree that is surprisingly under-used, Chinese Elm possesses many traits which make it ideal for a multitude of landscape uses (Fig. 1). A fast-growing, deciduous or evergreen tree, Chinese Elm forms a graceful, upright, rounded canopy of long, arching, and somewhat weeping branches which are clothed with two to three-inch-long, shiny, dark green, leathery leaves. This cultivar is almost evergreen in USDA hardiness zones 8b through 10 and has a more weeping habit than the species. Some specimens grow in the typical vase-shaped elm form. In colder regions of the country in fall, these leaves are transformed into various shades of red, purple, or yellow. The tree is evergreen in the southern extent of its range. The showy, exfoliating bark reveals random, mottled patterns of grey, green, orange, and brown, adding great textural and visual interest, especially to its winter silhouette. Chinese Elm can reach 80 feet in height but is more often seen at 40 to 50 feet, making it an ideal shade, specimen, street or parking lot tree.

GENERAL INFORMATION

Scientific name: *Ulmus parvifolia* 'Sempervirens'

Pronunciation: UL-mus par-vih-FOLE-ee-uh

Common name(s): Weeping Chinese Elm, Weeping Lacebark Elm

Family: *Ulmaceae*

USDA hardiness zones: 8 through 10 (Fig. 2)

Origin: not native to North America

Uses: large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); medium-sized parking lot islands (100-200 square feet in size);

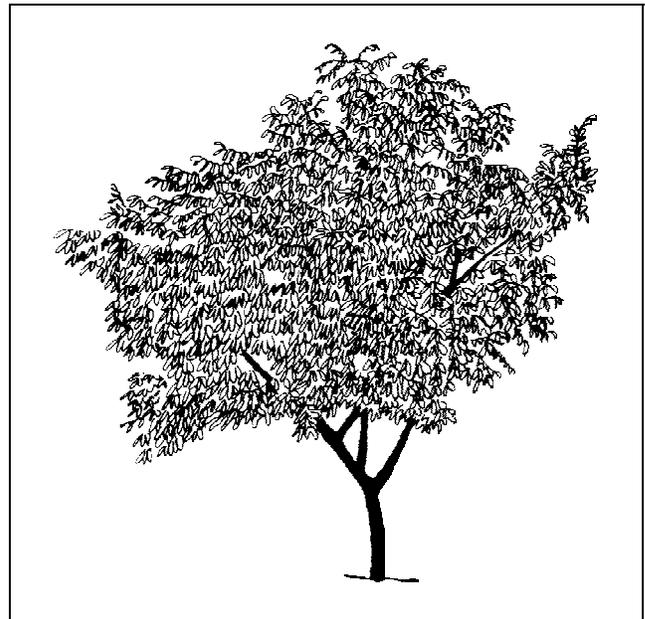


Figure 1. Young Weeping Chinese Elm.

medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; reclamation plant; shade tree; small parking lot islands (< 100 square feet in size); narrow tree lawns (3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

Availability: grown in small quantities by a small number of nurseries

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 35 to 40 feet
Spread: 35 to 50 feet
Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms
Crown shape: spreading; vase shape; weeping
Crown density: open
Growth rate: medium
Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)
Leaf type: simple
Leaf margin: serrate; serrulate
Leaf shape: elliptic (oval); obovate; ovate
Leaf venation: pinnate
Leaf type and persistence: deciduous
Leaf blade length: less than 2 inches
Leaf color: green
Fall color: purple; red; yellow
Fall characteristic: showy

Flower

Flower color: green
Flower characteristics: fall flowering; inconspicuous and not showy

Fruit

Fruit shape: oval
Fruit length: < .5 inch
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; inconspicuous and not showy; no significant litter problem

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; showy trunk; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns

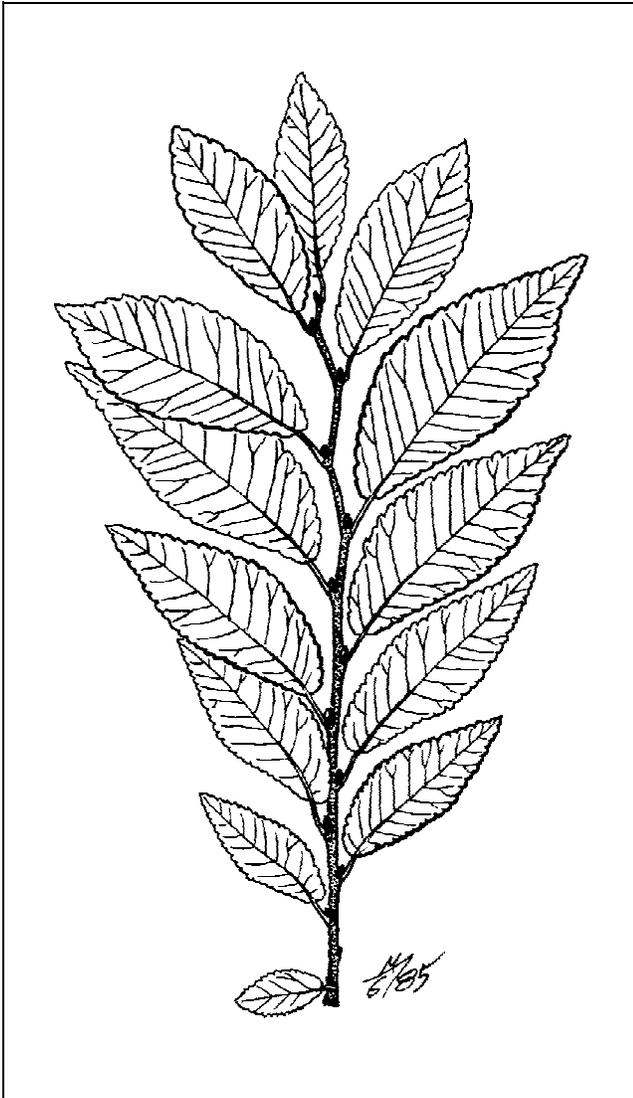


Figure 3. Foliage of Weeping Chinese Elm.

Pruning requirement: requires pruning to develop strong structure

Breakage: resistant

Current year twig color: brown; gray

Current year twig thickness: thin

Culture

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

Soil tolerances: clay; loam; sand; acidic; occasionally wet; alkaline; well-drained

Drought tolerance: high

Aerosol salt tolerance: moderate

Other

Roots: surface roots are usually not a problem

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: tree has outstanding ornamental features and could be planted more

Invasive potential: little, if any, potential at this time

Verticillium wilt susceptibility: susceptible

Pest resistance: long-term health usually not affected by pests

USE AND MANAGEMENT

Select trees with branches spaced along one trunk. It is not essential that this trunk be straight. Buy from nurseries who understand how to train and prune this tree for street and parking lot use, otherwise you may be trimming and pruning low drooping branches on a regular basis. In addition, please do not confuse it with *Ulmus pumila*, the Siberian elm. This tree is far inferior to *Ulmus parvifolia* and should not be planted, except perhaps in extreme climates such as western Oklahoma and Texas where the limits of most other trees are tested.

Chinese Elm is often topped in the nursery to create a full head of foliage and branches originate from one point on the trunk. There is not enough room on the trunk to support this type of branch structure, and some may split out from the tree as it ages. This tree may take more effort to properly train and prune than some other species but it is well worth the effort. It will have a long service life in urban areas with proper training early on.

The root system is comprised of several very large-diameter roots which can grow to great distances from the trunk. These are usually located fairly close to the surface of the soil and can occasionally lift sidewalks. They can get into sewer lines causing severe damage. But they are usually not a problem and should not be cause to eliminate this tree from your urban tree planting program. The Chinese Elm species is among the top urban trees on most recommended tree lists in the south and mid-west.

Chinese Elm will grow in full sun on a wide range of soils, adapting easily to extremes in pH (including alkaline) or moisture, and tolerates cold, urban heat, and wind. Trees will look their best, though, when grown in moist, well-drained, fertile soil but they adapt to drought and the extremes of urban sites. Very

suitable for street tree pits, parking lot islands, and other confined soil spaces.

Many other cultivars are available: 'Catlin' is dwarf; 'Drake', USDA hardiness zones 7 to 9, has small, dark green leaves, sweeping, upright branches forming a rounded crown, and greater leaf retention being almost evergreen in California and Florida; 'Dynasty' has smooth, dark grey bark, smaller leaves and is vase-shaped, with red fall color in the north; 'Frosty' has a small (0.75-inch-long), white-margined leaf which may revert back to green; 'True Green' has glossy, deep green leaves, a graceful, round-headed outline, and tends to be evergreen; and 'Pendula', with weeping growth habit.

Propagation is by cuttings, or grafts.

Pests

Borers and chewing insects infest Elm. It shows considerable resistance to elm leaf beetle and Japanese beetle.

Diseases

It is usually resistant to Dutch Elm Disease and phloem necrosis. Trunk cankers may develop on young trunks where soil is excessively wet. Twig blight is also a problem.