

Ulmus laevis

European white elm, fluttering elm, spreading elm, stately elm, Russian elm



Ulmus laevis (European white elm or fluttering elm) is one of the three elm species native to Europe, with a natural range stretching from central France to the Ural Mountains and the Balkans. The species grows on rich, moist soils in cool floodplain forests, especially along streams and in river floodplains such as those of the Rhine, Elbe, and Danube. It commonly occurs alongside species such as *Quercus robur*, *Fraxinus excelsior*, and *Alnus glutinosa*. *Ulmus laevis* grows very vigorously, forming a semi-open, oval to rounded, irregular crown that reaches twenty-five to thirty-five meters in height and ten to twenty meters in width.

The large, glossy, dark green leaves are asymmetrical and double-serrated, borne on long twigs, and turn yellow in autumn. *Ulmus laevis* is an important host plant for butterflies such as the white-letter hairstreak and the comma butterfly. In March and April, the tree flowers with clusters of red, bell-shaped blossoms on long stalks. The flat nutlets that develop afterwards also hang in clusters on long pedicels. These characteristic fruits are covered with fine hairs that allow them to float, enabling dispersal by water. The bark of the European white elm is gray and deeply grooved, and trees growing in wet locations often develop buttress roots.

The European white elm is largely unaffected by Dutch elm disease, as the elm bark beetle does not favor this species. It is a classic landscape tree that can become very large, though its fast growth historically also led to its use as coppice or as a pollarded tree. While it thrives best in wet habitats along streams and rivers, *Ulmus laevis* can also develop into a strong and attractive tree on a wide range of soil types in drier conditions, in paved areas, and in urban environments.

TYPES OF PLANTING

Tree types: standard trees, multi-stemmed trees, shade trees, characteristic trees

USE

Location: avenue, park, large garden, countryside, ecological zone, windbreak, bioswale, coastal area | **Pavement:** none, open, sealed | **Planting concepts:** Eco planting, Landscape planting, Solid planting

CHARACTERISTICS

Crown shape: rounded, wide oval | **Crown structure:** semi-open | **Height:** 25 - 35 m | **Width:** 10 - 20 m | **Winter hardiness zone:** 5A - 8B

ASPECTS

Wind: tolerant to wind, tolerant to coastal wind | **Soil:** loess, sabulous clay, peaty, light clay, sand, loamy soil | **Nutrient level:** moderately rich in nutrients, rich in nutrients | **Soil moisture level:** dry, moist, wet | **Light requirements:** sun, partial shade | **pH range:** acidic, neutral, alkaline | **Host plant/forage plant:** butterflies | **Extreme environments:** tolerant to salt spray, tolerant to short-term flooding, limited to rare infestation by lice, resistant to Dutch elm disease 3

PLANTKENMERKEN

Flowers: raceme, bell-shaped, discrete, pendulous, small | **Flower colour:** red-violet | **Flowering period:** March - April | **Leaf colour:** green | **Leaves:** deciduous, ovate, big, polished, doubly serrate | **Autumn colour:** yellow | **Fruits:** winged, raceme, nut | **Fruit colour:** brown | **Bark colour:** grey-brown | **Bark:** furrowed, buttress roots | **Twig colour:** pale brown | **Twigs:** bare, vertical branches, long shoots | **Root system:** shallow, extensive, fleshy roots, clinging aerial roots, on own root

