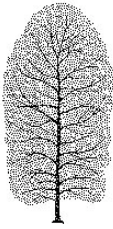


Liriodendron tulipifera - Tuliptree, Tulip Poplar or Yellow Poplar (*Magnoliaceae*)

Liriodendron tulipifera is a flowering shade tree commonly found in the open forests and fields of the Eastern U.S. Tuliptree is characterized by its tall, pyramidal, straight, symmetrical, and fast-growing growth habit, and by its showy, tulip-like flowers on mature trees. It is also an important timber tree for the veneer and paper pulp industries.

FEATURES

Form



- large shade tree
- maturing at up to 80' tall x 40' wide under urban conditions, but well over 100' tall in the wild
- upright pyramidal growth habit with a strong central leader in youth and mid-age
- becoming columnar then irregular, spreading, or open with old age, from the eventual loss of its central leader and upper branches due to storm damage

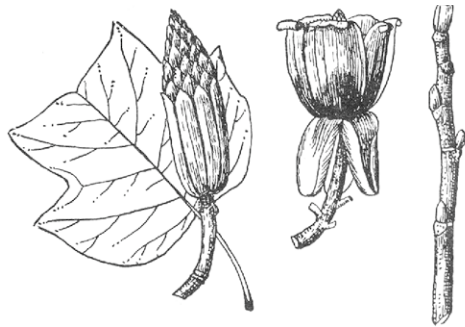
-rapid growth rate

Culture

- full sun to partial sun
- prefers a deep, rich, moist soil that at times can be wet
- several relatively minor disease and insect problems, but aphids and their honeydew secretion may cause unsightly sooty mold buildup on the leaves
- moderately available primarily in B&B form
- young trees that have been root-pruned (i.e., transplanted in a B&B state) should be regularly watered for at least 3 yrs. following transplanting

Foliage

- medium green, alternate, and broadly ovate, overall with a square shape, with both a truncate base and a truncate, shallowly wedge-shaped apex, having several shallow lateral lobes and a long petiole
- distinctive rounded stipules occur at the base of each petiole on the young leaves, abscising during the summer
- often has limited defoliation of yellowing leaves in the interior of the tree by late July to early Aug. as a response to summer drought (and is therefore an indicator plant for drought conditions)
- one of the best trees for yellow to golden-yellow autumn color



Flowers

- large, solitary, showy flowers have 6 yellow-green petals surrounded by 3 green sepals and resemble a huge tulip (hence the common name)
- interior of the flower contains a bright orange and yellow corolla, surrounding the central spire of immature aggregate fruits
- flowering in late May and throughout June
- often the tree does not flower until it reaches at least 15 yrs. of age, and even then only sparsely in the uppermost reaches of the tree, making the upright-held flowers more difficult to notice and appreciate

Fruits

-each fruit is a green to yellowish green aggregate of samaras in the shape of an upright cone, turning light brown in the winter and sometimes persisting into the following growing season

-upon abscission from the aggregate fruits, the winged samaras twirl downward in a spiraling fashion to the ground

Twigs

green to red-brown, depending upon season, and noticeably lenticeled

each terminal bud is valvate (duck-billed), with the lateral buds being much smaller

leaf scars and the circling stipule scars are prominent on the first- and second-year stems

Trunk

-often the tallest and straightest tree in the open field or forest, ascending to great heights before finally losing its central leader and upper branches due to storms that twist the lightweight wood

-bark is light gray and smooth when young developing deep furrows with age

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Function

-shade, specimen, ornamental, or focal point tree

Texture

-bold texture in foliage and medium texture when bare

-thick density in foliage but average density when bare

Assets

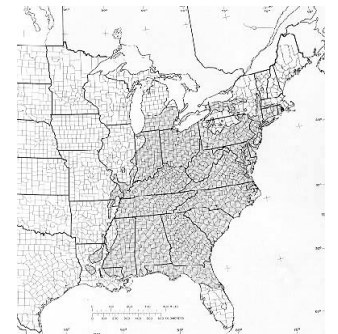
- very quick establishment and growth, especially in areas with moist, deep soils
- symmetrical and pyramidal growth habit from youth through mid-age, for a stately appearance
- abundant and showy late spring tulip-like flowers on mature trees
- tolerant of constantly moist to occasionally wet sites

Liabilities

- central leader and upper branches become somewhat storm-prone (wind, lightning, or ice) in later years as the tree ascends to great heights and is subject to the destructive physical forces of nature
- some interior leaf abscission almost always occurs in mid- to late summer as a response to drought, long before normal autumn leaf drop
- gets far too tall and large for restricted urban areas

Habitat

- Zones 4 to 9
- Native to the Eastern U.S.



SELECTIONS

Alternates

-shade trees with rapid establishment (*Alnus glutinosa*, *Fraxinus pennsylvanica*, *Gleditsia triacanthos*, *Liquidambar styraciflua*, *Styphnolobium japonicum*, *Zelkova serrata*, etc.)

-shade trees with excellent autumn color (*Acer rubrum*, *Acer saccharum*, *Fraxinus americana*, *Quercus rubra*, *Ulmus parvifolia*, *Zelkova serrata*, etc.)

-very tall, pyramidal, or symmetrically branched trees (*Abies concolor*, *Alnus glutinosa*, *Liquidambar styraciflua*, *Picea abies*, *Picea pungens*, *Quercus palustris*, *Taxodium distichum*, *Tilia cordata*, etc.)

Cultivars - Variants - Related species

-the species form is the primary form available, but several cultivars are rarely available that differ in either growth habit or foliage variegation