



Pin oak - *Quercus palustris*

Description: Pin oak (*Quercus palustris*), also called swamp oak, water oak, and swamp Spanish oak, is a fast-growing, moderately large tree found on bottomlands or moist uplands, often on poorly drained clay soils. The wood is hard and heavy and is used in general construction and for firewood. Pin oak transplants well and is tolerant of the many stresses of the urban environment, so has become a favored tree for streets and landscapes.



Leaf: Alternate, simple, 3 to 6 inches long, oval in outline with 5 to 9 bristle-tipped lobes and irregularly deep sinuses that extend nearly to the midrib. Major lobes form a U-shape. Bright green above and pale below with axillary tufts.

Flower: Monoecious; male flowers borne on slender, drooping yellow-green catkins; females reddish green borne on short spikes in new leaf axils, appearing in the spring with the leaves.

Fruit: Acorns are 1/2 inch long, striated, round (but flattened at the cap); thin and saucer-like cap, covered with red-brown appressed scales; matures after 2 years, dispersed fall to early winter.

Twig: Slender, red-brown in color and quite lustrous with multiple terminal buds that are small, pointed, and chestnut brown.

Bark: Gray-brown and very tight and thin; remains smooth for many years, eventually develops thin ridges and furrows.

Form: A medium sized tree that is very pyramidal; lower branches are pendulous and middle branches grow at right angles; branches are studded with numerous branchlets that do not prune readily, resulting in a spiny appearance.

Site requirements:

This tree grows under a wide range of site conditions, but is a true bottomland tree. Pin oak grows primarily on level or nearly level, poorly drained alluvial floodplain and river bottom soils with high clay content. Pin oak is usually found on sites that flood intermittently during the dormant season but do not ordinarily flood during the growing season. It exhibits yellowing on high pH and limestone soils because of iron-deficiency and so is not highly recommended for these sites.

Native Range: Zone 4-8

AR, CT, DC, DE, GA, IA, IL, IN, KS, KY, MA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, RI, TN, VA, WI, WV