

Northern Red Oak

Quercus rubra

Common name:

Red Oak, Gray Oak, Champion Oak

Pronunciation:

KWER-kus RU-bra

Family:

Fagaceae

Genus:

Quercus

"Lumbermen used to recognize only two sorts of Oaks -- White and Red -- from the color of their respective woods.... Not until White Oak was growing hard to come by was the Red Oak heavily cut, since the wood is much lighter, even harder to season, and so porous that some claim smoke can be blown lengthwise through a piece 3 feet long! But when treated with preservatives it was early a favorite for crossties; nowadays it goes into rough lumber, clapboards, and slack cooperage. Fortunately the tree grows so rapidly that dimension timbers can be cut from the growth made during a man's lifetime -- something that can be said of few Oaks of any value."

(excerpt from Donald Culross Peattie, A Natural History of Trees of Eastern and Central North America)

Quick ID Tips

- Bristle-tipped, large, glossy, dark green leaves with 7-11 lobes and often on red leaf stalks
- Bark has long, vertical, relatively unbroken smooth ridges that resemble ski runs down a mountain
- Acorns are long with a shallow, saucer-like cup

Details

- This broadleaf deciduous tree grows to 60-75 ft. or more, often to 90 ft., and usually with massive branches. It is one of the most prevalent trees in our area.
- Leaves are 4-8" long and are alternate, simple, base wedge shaped or sometimes rounded, and 7-11 bristle-tipped lobes. Among the 4 main

species in the red oak group, the Red Oak has the broadest leaf surface extending laterally from the midrib to the sinus indentations; sometimes this is referred to as shallow lobes. The lower surface of the dark green leaves is paler with tufts of hairs in the vein axils. New leaves are reddish in the spring and fall color ranges from yellow-brown (often) to russet-red and bright red (rare).

- Bark on mature trees is dark brown or dark gray-black and has flat-topped, smooth vertical ridges that are broken only occasionally. The effect is to give the bark a "ski run" look all the way down the trunk. On young trees, the bark is smooth and light gray.
- Male (pollen) flowers are in catkins that develop from leaf axils of the previous year and appear in the spring with or before the leaves. Female (seed) flowers develop in spikes in the axils of the current year's leaves.
- The long acorns are 3/4-1" long and are enclosed at the base in a flat, thick, scaly, saucer-like cup. Unlike the white oak acorns, red oak acorns remain dormant over the first winter and will not germinate unless they are exposed to at least 3 months of 40°F temperatures.
- Prefers full sun and grows best in sandy loam soils which are well drained and on the acid side. Popular tree in urban forests as it can withstand polluted air.
- Hardy in USDA Zones 3b-7. Native range extends from Nova Scotia to Pennsylvania, west to Minnesota and Iowa. As the climate warms, the Red Oak will be one of the major trees to supplant Sugar Maples in our area.



in habitat, summer



fall color



leaves



leaf tips with bristles



Emerging leaves and catkins in spring

Leaves and catkins



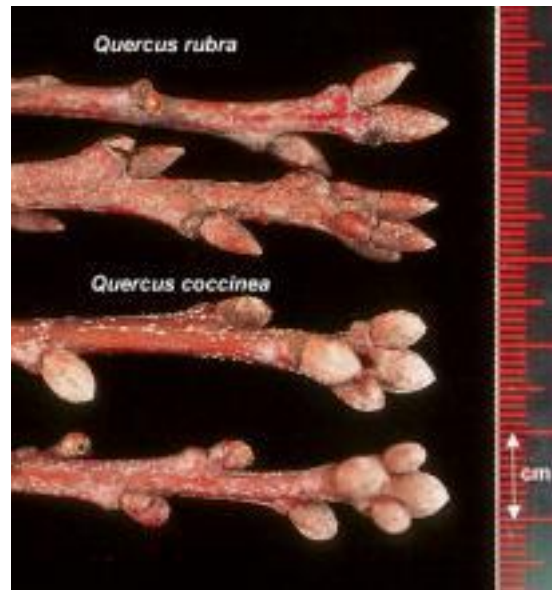
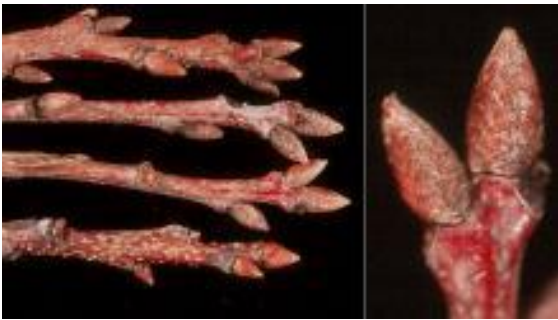
fruit (acorn) development



acorns



trunk, bark



winter twigs and buds

red vs. scarlet oak buds

Sources:

- Oregon State University Landscape Plants, <https://landscapeplants.oregonstate.edu/plants/quercus-rubra>
- David Sibley, *The Sibley Guide to Trees* (Knopf 2009)