

Maine Tree Species Fact Sheet

Common Name: Red Oak (Northern Red Oak)

Botanical Name: *Quercus rubra*

Tree Type: Deciduous

Physical Description:

Growth Habit: The red oak is a fast growing and large tree and shows adaptability to a wide variety of soil conditions. It occurs statewide and is the most common species of oak in Maine. The bark on young trees is smooth and gray-green in color. On older trees, the bark is dark gray or nearly black, and divided into rounded ridges. The inner bark is red in color. The twigs are stout or slender, reddish to greenish brown and have a star-shaped pith. The leaves are alternate and simple, from 5-9 inches long and 4-6 inches wide, with 7-9 bristled-tipped lobes. They are dull dark green above and yellow-green below. The acorns are contained in cups up to one-third their length.

Height: The red oak grows to a height of 70-150 feet with a trunk diameter of 2-3 feet.

Shape: The crown of the red oak is wide and round. The branches are stout, horizontal or upright.

Fruit/Seed Description/Dispersal Methods

The flowers appear in May, when the leaves are only partly grown. Acorns are large, approximately $\frac{3}{4}$ inch long, one fifth enclosed in a wide, shallow cup. Acorns develop singly or in clusters and mature 18 months later, or at the end of the second growing season after fertilization. Acorns ripen and drop from the tree from August to October depending on latitude and weather. The inside lining of the acorn is densely hairy. Its tannic acid content makes them bitter. Very few acorns survive to become trees. Insects and other wildlife prey upon acorns. Dispersal of acorns is by squirrel caching and by gravity, and dispersal distances are short.

Range within Maine:

Red oak can be found throughout the state, however, they are mostly found in the southern part of the state. Best growth is attained on rich upland soils. This species is hardy to Zone 3.



Distinguishing Features:

Reddish inner bark, large fat acorn with flat cup, leathery green leaves with pointed lobes. In thick woods, lower branches usually are self-pruned to more than half the height of the tree. Both the foliage and acorns are very red and colorful in the fall.

Interesting Facts:

An important timber tree. It produces high quality, attractive wood used in furniture, flooring, shipbuilding and lobster traps. Native Americans used acorns as a source of protein, fat and starch. Red oak acorns can be stored for the winter, due to high tannin content. Oak galls, the product of an interaction between insects (mainly wasps) and oaks, were a major source of ink.

Relationship to Wildlife:

Acorns are eaten by insects and squirrels while still on the tree, and by insects, squirrels, rodents, deer, turkey and other organisms after they have fallen. Deer browsing has a major effect on seedlings. It's large branches and leaves provide shelter for birds and other small animals.

Landscape Use:

Valuable fast-growing oak for lawns, golf courses, commercial areas, parks and urban streets.

Common Problems or Pests of the Tree in Maine:

Basically free of problems, although some of the diseases and insects affecting the white oak are limitedly applicable to this species. Red oaks do not grow well in high alkaline soil.

References:

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