

# TREES OF MERIT

## Coast Live Oak – *Quercus agrifolia*



The Latin name *Quercus* meaning “oak” was thought to be derived from two Celtic words: *quer*, meaning fine and *cuez*, meaning tree. A “fine tree” hardly describes such a noble and picturesque tree as the Coast Live Oak, *Quercus agrifolia*. While traveling through plains, foothills, valleys and woodlands, all natural territories of the Coast Live Oak, I am transported to early California – a land of beauty where this tree was a prominent feature in the landscape.

This species is an evergreen native to California. Its region is west of the Sierra Nevada, from Mendocino County, California south to northern Baja California in Mexico. You can also find it growing on the rugged slopes of Santa Cruz and Santa Rosa Islands. Its ability to thrive along the coast makes this tree a unique species.

Mature trees may have a single or multi-branched trunk, often massive with sprawling limbs that arch gracefully towards the ground. The bark of young trees has a smooth texture and with age develops shallow fissures in its grayish colored surface. The crown is dense and broadly rounded, reaching a height of 75 feet with the crown spread exceeding the height. The upper leaf surface is deep green and quite glossy with a cupped oval shape, 1 to 3 inches long. They have toothed margins and feel leathery to the touch. The lower surface is paler, with hairy-tufted vein axils. In spring the fresh growth is flushed with a rosy hue. The short chartreuse catkins flowers add a graceful contrast to the dark green leaves while the female flowers are inconspicuous. Flowering takes place from February to April. The Coast Live Oak is monoecious and wind-pollinated. Its reddish brown acorn is narrow with a gray brown cap that covers  $\frac{1}{4}$  to  $\frac{1}{3}$  of its length. They are 1 to 1  $\frac{1}{2}$  inches long, pointed ends and mature in one year in early fall.

The Coast Live Oak is known to grow in Sunset Zones 5, 7 – 10, 12 and 14 – 24 and in USDA Hardiness Zones 9 – 10. This species is adapted to relatively warm, wet winters and dry summers moderated by fog and cool temperatures; however, it can not survive where the ground freezes. Exposures may range from full sun to partial shade. Soil type can range from clay, loam or sand with a pH range from 5.5 to 7.5. When looking for drought tolerant, as well as deer tolerant trees consider the Coast Live Oak. It is particularly adapted to fire. Under

extreme drought this oak may go deciduous. The Coast Live Oak is a versatile landscape tree with low maintenance. It can be used as a shade or street tree (if given ample space), park and specimen tree. When placed correctly this oak adds strength and interest to the surrounding landscape. It can also be planted in groves or with other California natives or drought tolerant trees similar in cultural requirements. Other companion plants such *Rhus interifolia*, *Salvia mellifera*, *Trichostema lanatum* and *Keckiella cordifolia* are good choices.

Gardening beneath the canopy of a mature tree may be challenging because of its aggressive root system and heavy leaf drop. The mulch that builds up under the tree's canopy is beneficial in many ways. One of which is the layers of mulch that keep a high number of roots in the upper portion of soil to assist with the survival of fungi that form ectomycorrhizal associations with oak roots that ultimately aid in water and nutrient uptake. *Quercus agrifolia* is sensitive to changes in grading and drainage; in particular, avoid adding soil near the trunk when construction or landscape occurs. Be particularly careful when watering with artificial irrigation not to over water and allow wet soil in summer where soil-borne *Phytophthora* diseases or *Armillaria* might be present. Mature trees are susceptible to oak crown and root rot fungi (e.g., *Inonotus*, *Ganoderma*, and *Laetiporus*) which decay wood in trunks and roots. Never plant an oak where another oak died from disease. Watch for Aphids, Beetle Borers, Caterpillars, Coddling Moths, Insect Galls, Scales and White Fly as well as Powdery Mildew and Sooty Mold.

Under ideal conditions the Coast Live Oak can live up to 250 years. Within its majestic branches these oaks will supply food, shade, shelter and protection for multiple generations of wildlife, including many birds, butterflies and various other animals. In addition, *Quercus agrifolia* plays a critical role to healthy ecosystems by developing soil profiles, erosion control, nutrient cycling, and sustaining air and water quality.

I hope you will enjoy the aesthetic value that this oak will bring throughout a life time.

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