

California Black Oak (*Quercus kelloggii*)



Summary:

As a part of the Oak family, the California Black Oak is a broadleaf, hardwood tree with a rounded canopy that can grow up to 80 feet in height. It is the largest mountain oak in the West and surpasses all other California oaks in volume, distribution and altitudinal range. The California Black Oak can be most commonly found in California and Oregon, and is found in various mountain ranges, including: the San Bernardino, San Jacinto, Agua Tibia Mountains, the Tehachapi Mountains in southern California, the Santa Cruz and Santa Lucia Mountains in central California, the Sierra Nevada, the Klamath, Cascade Mountains of northern California and southern Oregon. This species can be located in: northern oak woodlands, mixed conifer forests and mixed evergreen forests, and can span an elevation of 200 to 2400 meters.

This species flowers in spring—from mid-March to mid-May—depending on the environment. This deciduous tree starts the spring with a distinctive, rosy-pink new growth, of which leaves soon and matures to shiny, dark green leaves that are deeply lobed with pointed tips. Gold-green catkins dangle from the branch tips in the spring, leading to plump acorns. By autumn, the leathery leaves take on golden hues before they fall. California Black Oak is often found on shallow, rocky soils—although its growth and form are poor. It seldom grows on clay soils, particularly clay topsoils and it does not tolerate poor drainage or flooding. California Black Oak is adapted to a climate characterized by hot, dry summers and cool, moist winters. California Black Oak grows best in a zone where 10 to 50 percent of the precipitation occurs as snow; mean daily temperatures in this climate range from a minimum of 31 to 46 °F in January to a maximum of 66 to 82 °F in July.

These trees are the ultimate habitat plant, offering food and cover for a wide range of species, including invertebrates, mammals and birds; bears, ground squirrels, band-tailed pigeons, acorn woodpeckers, pocket gophers, deer mice and black-tailed deer rely on the



California Black Oak's acorns as a food source. Additionally, the California Black Oak held incredible significance to Native American tribes of California and Oregon as it provided an abundance of resources, including: food, medicine, dyes, utensils, games, toys, and construction materials. Acorns were also eaten and relied on as a staple food throughout much of California—often eaten in the form of soup, mush, bread or patties. Today, it is most commonly utilized for high-grade lumber, sawdust for mulching and fuel wood. Its hardness makes it ideal for industrial flooring and its grain characteristics make it preferable for paneling and furniture.

Fire Effects:

When established, the California Black Oak is extremely fire tolerant. Hardwoods resprouting after wildfire or cutting develop as multi stemmed clumps that gradually self-thin over time. There is increasing interest in thinning of sprouting species to accelerate the formation of tree characteristics important to indigenous cultural practices and wildlife such as large-diameter stems, large branches, broad crowns, and acorn production. Many tribes in California would set frequent light surface fires in areas of California Black Oak to:

- 1) facilitate acorn collection;
- 2) increase the quality and quantity of acorn production through decreasing diseases and decreasing acorn pests;
- 3) stimulate the production of straight shoots (epicormic);
- 4) decrease the likelihood of major wildfires that would completely destroy the oaks;
- 5) burning for mushrooms in the oak/ponderosa pine forests;
- 6) increase edible grasses and other seed bearing herbaceous plants.

References:

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