

Plant Data Sheet

California black oak, *Quercus kelloggii*



Range

California black oak grows in Oregon and California in the coastal ranges and the Sierra Nevada range. (1)

Climate, Elevation

California black oak grows in the area with hot dry summers and cool moist winters. (2) Elevation ranges from 450-3000m. (1)

Local occurrence (where, how common)

California black oak is a component of six forest cover types. It is the prime constituent of California Black Oak (Society of American Foresters Type and a major component in two others: Douglas-Fir-Tanoak-Pacific Madrone and Pacific Ponderosa Pine-Douglas-Fir. (2)

Habitat preferences

It prefer well-drained, deep, sandy, and gravelly soils. (1)

Plant strategy type/successional stage (stress-tolerator, competitor, weedy/colonizer, seral, late successional)

Short epicormic branches. The tolerance of black oak to shade varies with age. (2)

Associated species

Douglas-fir, Tanoak-pacific madrone, and Pacific ponderosa Pine. (2)

May be collected as: (seed, layered, divisions, etc.)

Seed. (1)

Collection restrictions or guidelines

Acorns mature in two years; collect from late September to early November (Niemiec et al. 1995) by shaking them onto canvas sheets or picking them promptly after they fall to prevent mold from destroying the cotyledon.(1)

Seed germination (needs dormancy breaking?)

Stratification is required for 30-45 days at 1-5°C in moist sand and peat for spring sowing. (1)

Seed life (can be stored, short shelf-life, long shelf-life)

Short. Should be planted immediately or place under cool, moist storage conditions of 15-16°C until the planting following spring. (1)

Recommended seed storage conditions

Plant acorns immediately or place under cool, moist storage conditions of 15-16°C until planting the following spring. (1)

Propagation recommendations (plant seeds, vegetative parts, cuttings, etc.)

Collect acorns, plant acorns. (1)

Soil or medium requirements (inoculum necessary?)

Mulch fall beds with leaves or straw. (1)

Installation form (form, potential for successful outcomes, cost)

Seed or container-plants grown from seeds. (1)

Recommended planting density

110-325 seeds per kilogram.(1)

Care requirements after installed (water weekly, water once, never water, etc.)

Cut roots frequently to promote the fibrous root system necessary for successful transplanting. (1)

Normal rate of growth or spread; lifespan

Age-heights are 20 years, 8 m (26 ft); 40 years, 13 m (43 ft); 60 years, 17 m (56 ft); 100 years, 22 m (72 ft); and 140 years, 25 m (82 ft) (2). Lifespan may up to 500 years. (2)

Sources cited

(1) Rose, R., C. Chachulski and D. Haase. 1996. Propagation of Pacific Northwest Native Plants: A Manual, Volume Two, First Edition. Nursery Technology Cooperative, Oregon State University, Corvallis, Oregon, 73 p.

(2) Burns, R. and B. Honkala 1990. Silvics of North America, Volume 2, Hardwoods. Agricultural Handbook 654. U.S. Department of Agriculture, Forest Service, Washington, D. C. 877 p.

Data compiled by: Yongjiang Zhang, May 12th 2003