

CALIFORNIA OATGRASS *Danthonia californica*

Market: Facultative upland that grows on both dry and moist sites with good to poorly drained soils. Recommended for upland/riparian revegetation, erosion control, wildlife cover/herbage, and restoration of oak savannas, open meadows, upper margins and transitional zones associated with prairie wetlands. California oatgrass tolerates heavy grazing, exhibits drought tolerance, is excellent candidate for groundcover in vineyards and orchards where slow, dense and perennial vegetative growth is desired. Buyers include USFS, BLM, USFWS, public and private agencies.

Characteristics: California oatgrass is a short prostrate, slow growing, long lived, perennial bunchgrass found on both sides of the Cascades, from the Pacific coast to ponderosa pine forest of the eastern slopes of Northern California, Oregon, Washington and British Columbia. It has approximately 90,000-165,000 seeds per pound, with and without hulls respectively. It grows where annual rainfall range between 10-48 inches. California oatgrass is short with foliage primarily basal about 30 cm tall with long spider like stems from 60-80 cm long. It is phenotypically variable, but a highly self-pollinating species. Phenotypes have range of pubescence, leafiness, fertile tillering and other traits. Leaf and stem color can range from light green to strong red due to anthocyanine pigmentation. During flowering spikes have 3-7 spikelets and 3-10 florets per spikelet. Post anthesis the stem, spike and spikelets resemble spider legs touching the soil surface. This encourages seed shatter and may be an important seed dispersal mechanism. Characteristics important to botanist are ability to reseed readily, stay green characteristic for firebreak, traffic tolerance for ground cover, durable perennial growth and short compact plant growth. California oatgrass should be used in mixes containing tufted hairgrass in prairie wetlands and Roemer's fescue on upland sites. It provides excellent wildlife habitat and highly digestible forage for big game mammals such as elk and deer.

Comments: California oatgrass is very unique in that it produces seed in two distinct regions of the stem. Exposed florets produce a boat shaped seed with fully developed lemma, palea and pubescent awn. Hidden seed is also produced near the base of the lower sheaths. This seed is distinctly narrow (like a round stem) with under developed lemma, palea, awn but fully viable embryo and endosperm. Naked caryopsis or seed groats (endosperm and embryo) readily separate from seed coat during late seed maturation and prior to seed harvest.

Seeding rate: Seed @ 8-10 lbs. per acre. Embryo and seed hull/seed coat dormancy do exist. For seed to germinate it must go thru cold, moist stratification. Fall planting in September will not emerge until March or April of following year (6 months). Spring planting in April will not emerge until following March (10 months) due to lack of proper stratification to promote germination.

Availability: Commercial supplies of California oatgrass are very limited. The first commercial source in the Pacific Northwest was sourced from **Eugene BLM-West Eugene Wetlands-Amazon Creek**. New in 2003 will be the **Basket Slough population USDA-NRCS, PMC Corvallis** and **Tehama Ranch population Canada de la Segunda** collected on the Monterey Peninsula near Carmel, California.

