

Purple Needlegrass (*Stipa pulchra*). Purple needlegrass is a deep green, long-lived bunchgrass. It thrives on the sunny south facing slopes and plains of the foothill grassland. It is also tolerant of serpentine soils. Purple needlegrass grows from 18 to 24 inches in height and forms a deep root system 3 to 4 feet deep. It stays green into the early summer and gradually becomes dormant in mid to late summer. Cut or grazed plants are the first to put on fresh green growth in the fall whether it rains or not, tapping the moisture deep in the soil. Unlike oniongrass or pine bluegrass, purple needlegrass will stay green or regrow with extra summer irrigation. Purple needlegrass has good seedling vigor and can be seeded or planted by plugs. For a single species meadow, sow at 10 ounces per 1,000 square feet.

Idaho fescue (*Festuca idahoensis*). The coastal and valley form of Idaho fescue in California was formerly identified as a separate subspecies (subsp. *Roemeri*). Although it is now not officially recognized as subspecies, it is geographically distinct from the Idaho fescue of the Great Basin and prairies of eastern Oregon and eastern Washington State. Idaho fescue is a dense, fine-leaved bunchgrass with blue and green forms. It normally grows from 18 to 24 inches in height. Idaho fescue thrives on serpentine soils and grows on loamy clay soils along the coast in San Mateo, Alameda, Marin, and Sonoma Counties. Extra moisture will keep it fresh, but eventually Idaho fescue needs a rest in the late summer and fall. Idaho fescue is found usually in pure stands on north or east facing slopes associated with *Agrostis pallens*, junegrass and a rich assortment of native perennial wildflowers. Idaho fescue has good seedling vigor and can be established by either seed or plugs. For seeding a single species meadow, sow at 2 ounces per 1,000 square feet.

Founded in 1991, the California Native Grasslands Association (CNGA) develops comprehensive and innovative education, training, and field experience programs for its members and the general public.

Find out more at cnga.org.

Junegrass (*Koeleria macrantha*). Junegrass is a long-lived, perennial bunch-like grass that spreads with short underground rhizomes and has an erect ornamental flowering panicle. Junegrass is associated with woodland glades, grasslands, prairies, and rocky outcrops from sea level to the highest mountains. Junegrass grows from 10 to 16 inches in height. It responds favorably to irrigation but eventually needs a late summer, early fall rest. Junegrass has tiny seeds and establishes slowly from seed. For a garden meadow, Junegrass is most practically established by plugs. For seeding a single species meadow, sow at 0.5 ounce per 1,000 square feet.

Pacific Dune Sedge (*Carex pansa*). The common name of this sedge aptly describes its habitat but not its unmatched meadow-forming characteristics. Pacific dune sedge is found in scattered locations in mesic back dunes of central California. It is a strong creeping sedge and forms a dense leafy cover 8 to 10 inches in height with no mowing. Dune sedge is well adapted to the garden setting. With adequate moisture it grows well in all kinds of soils, stays green year-long, thrives in sunny sites, and is heat tolerant. It germinates very slowly from seed but spreads quickly when planted as plugs 6 to 8 inches apart.

Foothill Sedge (*C. tumulicola*). Foothill sedge, also known as Berkeley sedge, is a large deep-green bunch sedge that grows to 20 inches in height and sprawls wider. If kept small with periodic mowing at a 4- to 6- inch height, it responds by putting out fresh new growth from the base and gradually spreads forming a durable carpet depending on how often and closely it is mowed. Like the Pacific dune sedge, its seed is slow to germinate but a stand is easily and efficiently established by plugs 8 to 12 inches apart.

Slender Sedge (*C. praegracilis*). Slender sedge is very likely a taller, closely-related cousin to Pacific dune sedge. It inhabits mesic inland valley settings and grows up to 16 inches in height spreading at a slightly slower pace. Like the Pacific dune sedge, slender sedge is best established by plugs 6 to 8 inches apart.



Native California Meadow Grasses By David Amme



Molate fescue (*Festuca rubra*)

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Native Meadow Grasses

To establish and manage a meadow, it is important to understand the nature and requirements of the primary native meadow grasses and sedges. The native perennial meadow grasses are competitive, long-lived plants and respond positively to supplemental irrigation and periodic cutting or mowing.

Red Fescue (*Festuca rubra*). Red fescue is a creeping fine-leaf grass common in the turf trade. In the landscape trade red fescue is now becoming a staple grass of the occasionally mowed naturalistic meadows used around golf courses, home developments, and maintained freeway interchanges. The native coastal red fescue is different from the turf varieties. It is the most winter-active grower of all the world's red fescue ecotypes and thrives in full sun. There are many compact bluish ecotypes from the north coastal terraces of Sonoma and Mendocino Counties available in nurseries from divisions (Patrick's Point, Jana's Choice, Jughandle, etc.). An ecotype from Point Molate near Point Richmond is the best known seed-grown native variety available and has a well-earned reputation as a hearty and adaptable meadow grass. A mature Molate stand can reach heights of 12 to 14 inches. Molate fescue is extremely variable with many diverse forms, a virtual gold mine for the grass breeder or discerning gardener. There are green and blue ecotypes and both fast creeping forms and erect bunchy forms that spread sparingly from the base. It is surprisingly drought tolerant and develops a waxy coat on its leaves giving it a distinctive blue-gray color in the late spring as the stand begins to dry out. Best of all, the seed is plentiful and easy to establish. For seeding a single species meadow, sow at 1.5 ounce per 1,000 square feet.

The mission of the California Native Grasslands Association is to promote, preserve, and restore the diversity of California's native grasses and grassland ecosystems through education, advocacy, research, and stewardship.

California Oatgrass (*Danthonia californica*).

California oatgrass was once the premier prairie bunchgrass of the central and north coastal prairie, home to herds of elk chased by grizzly bears and humans. It has largely succumbed to overgrazing by sheep, grazing exclusion, and exotic annual and perennial grass competition. The best stands thrive with moderate cattle grazing or periodic mowing. Oatgrass is the most common grass along treaded paths on the coastal terraces, which otherwise are smothered by exotic grasses, such as bentgrasses (*Agrostis* sp.), velvetgrass (*Holcus lanatus*), sweet vernal grass (*Anthoxanthum odoratum*), and annual grasses and weeds. Oatgrass is one of the only perennial bunchgrasses with long-lived seed, and a stand can be rapidly revived from a latent seed bank with mowing, weeding, and clearing. An oatgrass meadow works best as a pure stand but will readily fill in along paths and in compacted areas with other meadow grasses. Unmowed, oatgrass is a sprawling dense bunchgrass 10 to 12 inches in height and 14 to 16 inches across. Mowed or grazed plants can form tight turf-like stands no more than a few inches high. Establishing an oat-grass meadow requires patience. Seed over a year old germinates faster than fresh seed. *Danthonia* establishes very slowly but is a persistent grower. Its roots can eventually reach down to 3 or 4 feet. Because of its deep roots, oatgrass does not require frequent irrigation. It thrives in rich, loamy, and clay soils and is well adapted to the home garden setting, and stays green year-long if it is cut back and receives extra moisture. A good oatgrass "turf" can be established by planting plugs 8 to 10 inches apart. For seeding a single species meadow, sow at 1.5 ounce per 1,000 square feet.



California oatgrass, tufted hairgrass

—Artwork, Kristin Jakobs

Dune Bent Grass, Thingrass, San Diego Bent Grass (*Agrostis pallens*). Dune Bent Grass is a native creeping bentgrass that spreads from underground rhizomes. A valued coastal ecotype known as 'thingrass' (formerly *A. diegoensis*; awned lemma, creeping rhizomes) is found in California's coastal grasslands from southern California to Sonoma County, primarily on east and north facing slopes and in woodland meadows and shady glades. Plants normally grow to 10 to 12 inches in height. *A. pallens* is an excellent component of the native meadow landscape and is closely associated with red fescue and junegrass. As a single species, it forms a lush natural meadow in the sun or filtered shade. A vigorous creeping variety from the Berkeley Hills is sold on the market as 'thingrass' or 'San Diego bent grass.' *A. pallens* seed has moderate seedling vigor and a good stand can be established without the use of plugs. For seeding a single species meadow, sow at 0.5 ounce per 1,000 square feet.

Tufted Hairgrass (*Deschampsia cespitosa*).

The California coastal form of tufted hairgrass is primarily associated with wet meadows and/or the rich prairie soils of the immediate coastal terraces from northern San Luis Obispo County to Mendocino County. It is a coarse, strict bunchgrass and grows primarily in pure stands. There are two or three varieties along the coast ranging from large erect forms, 18 to 20 inches in height, to sprawling decumbent forms, 8 to 12 inches high. The latter form has wider veined leaves and grows on the windswept first terrace of Jughandle State Reserve south of Fort Bragg. Because of its size and requirements, tufted hairgrass forms a cohesive "tufted hairgrass" meadow feature that tends to dominate other native perennial grasses and wildflowers. For this reason it is best planted as plugs between 8 to 16 inches apart. The farther apart they are planted the larger they get. For seeding a single-species meadow, sow at 0.5 ounce per 1,000 square feet.