Each year following the first fall rains, our valley and foothill regions develop a dense carpet of green grasses, signaling that the long dry months are over and the cool season has begun. While pretty and a welcome sight after months of dry brown vegetation, most of this green carpet comes from non-native and invasive annual species. Dominating the grasslands we see today, these annuals completed their life cycle earlier in the year and sowed seeds that have been waiting for moisture and cooler weather to grow. Their growth strategy is simple: grow fast before the weather turns dry, produce a bazillion seeds for the next generation, and die.

Contrary to the grasslands we have today, California’s native grass landscapes were once dominated by perennial bunchgrasses—grasses that grow year-round and in a bunch, rather than as a single stem. The conversion from mainly perennial bunchgrasses to non-native, invasive annuals has dramatically changed California’s grasslands. For a little proof we can all relate to, the next time you are spending what seems like hours after a hike picking those pesky “stickers” from your shoes and socks, you can likely thank a handful of the local non-native annuals.

Today approximately 40 percent of California’s grasses originated from Europe, Asia, Central and South America, Africa, Australia, and other parts of North America. The non-native grass invasion dates back to the early Spanish soldiers and missionaries of the 17th century, when non-native grasses arrived in hay, mattress fillers, clothing, animals, and in the ballast of sailing ships. Over time, intentional introductions of other non-native grasses for use as
agricultural crops, landscaping, and erosion control also occurred.

Approximately 80 percent of California’s native grasses are perennial species, and the remaining are annual species. Native grasses believed to characterize our historic valley and foothill grasslands include onion grass, bluegrass, and probably our best-known group of native grasses—the needle grasses.

California’s needle grasses reinforce the basic principles of our mediterranean climate—rest during the warm dry summer and grow during the cool, moist winter. These bunchgrasses are called cool-season grasses because most of their growth occurs during winter and spring. Other native grasses are warm-season grasses, meaning most growth and flowering occurs in the summer and fall. Both grass types work well for landscaping and make great additions to our gardens. Two well-known species for garden use include purple needle grass and deergrass.

Purple needle grass, known as *Nassella pulchra*, is a perennial bunchgrass that forms dense clumps of graceful leaves up to 1 foot tall and wide. Designated as the official state grass in 2004, purple needle grass has beautiful airy flowers and seed heads that reach up to 3 feet tall. It blooms in spring and each seed has a long, thread-like awn attached, so the seed resembles a needle and thread. Purple needle grass is believed to have been one of the dominant plants in the historic Central Valley grasslands and occurs throughout the Coast Ranges, Central Valley, the Sierra Nevada foothills, and south to Baja California. These plants are long lived and can have extensive root systems.

Purple needle grass grows well in dry, clay or sandy soils in open to partially shaded locations, and requires no water once established. Besides ornamental uses, this grass is well suited for restoration purposes on bare, open areas, as it tolerates disturbed and poor soils and its deep roots help
prevent erosion. Purple needle grass works well as a specimen plant, but for maximum beauty, plant several clumps in a mosaic and create a miniature grassland. This and other native bunchgrasses can also compliment trees and shrubs and will grow under oaks.

Probably one of California’s best known native grasses because of its regular use in landscaping is deergrass, known as *Muhlenbergia rigens*. Also known as California muhly, deergrass is a native perennial bunchgrass named for its ability to provide cover for deer during the fawning period. Unlike the needle grasses, deergrass is a warm-season grass. This is a large and robust bunchgrass that can grow to 3 feet wide and tall. Deergrass has narrow light green blades and tall, stiff flowering stalks, which are called culms, that are 2- to 3-feet in length.

Deergrass is very attractive and looks like a small pampas grass, but unlike this non-native species, deergrass comes without the sharp leaves and aggressive seeding. Deergrass grows from northern California to the southwestern United States on stream banks, seasonal gullies, and meadow edges. These plants are fast growing and long lived. They grow well in open sun to partial shade and do require at least some seasonal water. Try planting some on a border adjacent to a lawn or other location where the plants receive a little overspray. Deergrass makes a great specimen plant, but is most striking when planted in small patches.

Purple needle grass, deergrass, and other native grasses can serve as unique and beautiful additions to your garden. Most species require no supplemental water. They thrive in those difficult open, hot areas, and also complement other shrub and tree plantings. Give some native grass species a try; the more of these we can return to our landscapes and match the non-native grasses, the closer we can come to perhaps someday spending less time picking stickers from our socks.