# Challenges of Central Valley Gardening: Creating an All-Star Garden

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Winter's low temperatures in California's Great Central Valley rarely fall below Great Central Valley rarely fall below freezing, and, when they do, it is only for brief periods. (The prolonged freeze of winter 2007 was, we hope, an aberration.) We are fortunate that we can use our gardens, patios, and decks year-round. Many gardeners create elaborate outdoor rooms where they socialize, cook, and pass much of their leisure time. The ability to spend so much time outside motivates gardeners to find tough, adaptable plants that have interest in all the seasons. The horticulture staff at the UC Davis Arboretum has selected fifty Arboretum All-Star plants that are reliable, easy to grow, and will broaden the seasons of color, fragrance, and beauty in Central Valley gardens. (See Arboretum All-Stars: Great Plants for Central Valley Gardens, Pacific Horticulture, April 2007).

Even without freezing cold, gardeners living in the Central Valley must deal with some challenging conditions. Summer temperatures can soar to over 100° F, often stressing young transplants. Intense, hot, north winds in summer desiccate the soil, roots, and young leaves, and occasionally cause burn on mature trees as well. Some areas have heavy clay soils that must be carefully managed, and, as in the rest of the arid West, the quantity and quality of irrigation water are significant issues. The thoughtful selection of plants that tolerate these extremes is the keystone of a beautiful Central Valley garden. Successfully growing the broadest spectrum of plants is dependent mainly on four conditions: water quality, soil texture and drainage, intelligent use of shade, and consistent use of thick mulches.

Water quality can vary greatly in different areas of the Valley depending on the source. Some municipalities use water from rivers that carry nearly pure mountain runoff; others pump from underground aquifers. The quality of aquifer water varies by location, according to the depth from which it is extracted, and the substrate within which it is found. For example, people in Sacramento can grow azaleas and dogwoods well because their water comes from rivers fed by melting snow and rain.\_Communities only ten miles to the west, like Davis and Woodland, have little success with such plants due to minerals in the underground aquifer, probably emanating from volcanic springs in the Vaca Mountains farther west; the presence of boron, which is toxic to



Coral yucca (Hesperaloe parviflora). Photographs by Ellen Zagory, except as noted

many kinds of plants, is a particular problem. Other areas such as Fresno, while on aquifer water, have fewer problems since they are closer to the Sierra, and their water supply arises from more granitic soils. Valley gardeners need to learn about their irrigation water and select their garden plants accordingly.

Soils in Valley communities also vary from easily gardened fine loams to more challenging heavy clays that require careful grading and the addition of gypsum to improve their structure. An unseen and often unrecognized problem, especially for people with new homes and landscapes, is the presence of an agricultural or construction-caused hardpan a few feet below the soil surface. Contractors often operate heavy machinery when soils are moist, compacting them and causing the formation of an impenetrable hardpan layer. If the hardpan is not eliminated by "ripping" (deep plowing), it can plague the gardener for years to come.

Another secret to success for Valley gardeners is a landscape design that provides afternoon shade in summer. Placing one or two large, deciduous shade trees on the west side of your property will greatly expand the plant palette that you can grow while enhancing your own comfort on summer afternoons. Plants that like full sun on the coast often benefit from shade in Valley gardens; they will look better and experience less stress if sheltered from the blazing summer heat. In the foothills, gardeners can also take advantage of east- and northeast-facing slopes for afternoon shade. Careful placement of plants along fences and under shrubs permits an expanded plant palette. You may be able to take advantage of the "borrowed" landscape on the other side of the fence if your neighbor's tree extends its shade in your direction.



Wayne Roderick's seaside daisy (*Erigeron glaucus 'Wayne* Roderick'). Photograph by Saxon Holt



Butterfly rose (Rosa chinensis 'Mutabilis')



Cenizo (Leucophyllum frutescens)

High light levels due to cloudless summer skies combine with high air temperatures to heat bare soils, stressing plants and "cooking" the roots near the surface. Intense hot sun can cause foliar sunburn, especially in low-water plantings. Using a thick layer of mulch to cover the soil keeps the root zone shaded and cooler, in addition to preventing weed germination and moderating the loss of soil moisture through evaporation. Wood chips are heavy enough to stay put in high winds but coarse enough to allow irrigation water to penetrate freely, and they break down slowly when accidentally mixed with the soil below. A four-inch layer of mulch, renewed annually, will moderate much of the effect of Central Valley heat and reduce the time spent weeding and watering.

Attention to these four areas—water quality, soil texture, shade, and mulch—will go a long way toward meeting the challenges of gardening in the Central Valley, and will allow Valley gardeners to select from a larger plant palette. Following are a few of our favorite plants for summer color in a hot Central Valley garden.

#### Arboretum All-Stars for Summer Bloom in the Central Valley

Butterfly rose (*Rosa chinensis* 'Mutabilis') is a big shrub with large, multi-colored, singlepetaled flowers nearly year-round, complemented by burgundy-colored new stems. With weekly or bi-weekly irrigation, it rewards us with a March to October flowering season. Grow this deciduous shrub in full sun. Remove old stems to the ground in winter to keep it compact; it can be kept at four to five feet tall with annual pruning.

Cenizo (Leucophyllum frutescens), also known

as Texas ranger, is a reliable heat- and droughttolerant evergreen shrub to six or seven feet tall. It requires little pruning but can be hedged and shaped if desired. The striking silvery foliage provides a marvelous backdrop in the heat of summer, when the plants are covered with lavender pink flowers. Cenizo glories in the heat and is excellent for low-water landscapes.

Coral yucca (*Hesperaloe parviflora*) is a spiky accent plant, two to three feet tall and three to four feet wide, that adds a strong architectural note to any garden. It thrives in full sun and is dependably drought tolerant—perfect for water-conserving landscapes with minimum maintenance. In summer, it produces long spikes of waxy, coral pink flowers. The flowers are long lasting in floral arrangements and highly attractive to hummingbirds, which add their own sparkle when they visit the garden.

Wayne Roderick's seaside daisy (Erigeron glaucus 'Wayne Roderick') grows in sun or partial shade with deep watering only every two weeks. A California native perennial that prefers afternoon shade in the Central Valley, it blooms from March to October with attractive lavender daisy flowers. It also attracts beneficial insects like syrphid flies that help control aphids (see *Pacific Horticulture*, April '07, pp 14-15).

### If You Should Like to Visit...

The UC Davis Arboretum is located on the Davis campus, stretching two miles along the banks of the old north fork of Putah Creek, with headquarters on LaRue Road. The annual fall plant sale will be on Saturday, October 6 at the Arboretum Nursery at Orchard Park. For more information about the UC Davis Arboretum, the Arboretum All-Stars program, membership in the Associates, volunteer opportunities, or directions and a map, please call 530/752-4880 or visit *arboretum.ucdavis.edu*.



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