

# Northern California

See Page 39

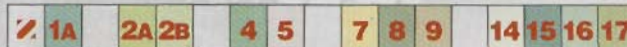


**Dry Foothills of Zone 7**  
Tens of thousands of foothill gardeners find themselves in Zone 7, which tends to be warm and dry in summer. If you're one of these people, you probably have fast-draining mineral soil. That's great for plants that thrive on minimal water, including many California natives such as flannel bush, oaks, and most manzanitas.

See Page 34

See San Francisco Bay Area and Inland Map, Pages 46 & 47

## Climate Zones



## ZONE 7 California's Gray Pine Belt and Oregon's Rogue River Valley



Gray pines (far left), also called foothill or digger pines, mark much of Zone 7. Often you'll find them mixed with oaks, ponderosa pines, and even knobcone pines. Valley oaks (left) dot grassy, rolling foothills in many parts of Zone 7.

Zone 7 encompasses several thousand square miles in the regions west of the Sierra Nevada and Cascade ranges. Because of the influence of latitude, this climate is found at low elevations in a valley in Oregon (the Rogue Valley) but at middle elevations in California (the low mountains, most of which can be identified by native gray pines).

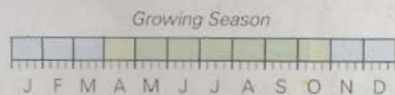
Hot summers and mild but pronounced winters give Zone 7 sharply defined seasons without severe winter cold or enervating

humidity. The climate pleases plants that require a marked seasonal pattern to do well—peony, iris, lilac, and flowering cherry, for example. Deciduous fruit trees that benefit from chilly winters and warm summers do well also; the region is noted for its pears, apples, peaches, and cherries.

Gardeners in a few spots around the San Francisco Bay will be surprised to find their gardens mapped in Zone 7, even though there isn't a gray pine to be seen. These are hilltop and ridge-top areas that are too high

(and hence too cold in winter) to be included in milder Zones 15 and 16.

For such a large area, it is impossible to state exact low temperatures, but at weather-recording stations in Zone 7, the typical winter lows range from 23 to 9°F (−5 to −13°C), and the record lows vary from 15 to −1°F (−9 to −18°C).

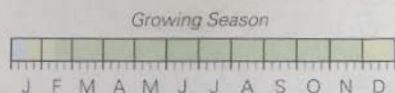


## ZONE 8 Cold-Air Basins of California's Central Valley

Only a shade of difference exists between Zone 8 and Zone 9, but it's an important difference—crucial in some cases. Zone 9 is a thermal belt, meaning that cold air can flow from it to lower ground—and that lower ground is found here in Zone 8. Citrus furnish the most meaningful illustration. Lemons, oranges, and grapefruit, which flourish in Zone 9, cannot be grown commercially in Zone 8 because the winter nights are frequently cold enough to injure the fruit or the trees; the trees would need regular heating to deliver decent crops. The same winter cold can damage many garden plants.

Zone 8 differs from Zone 14, which it joins near the latitudes of north Sacramento and Modesto, in that Zone 14 occasionally gets some marine influence. Low

temperatures in Zone 8 over a 20-year period ranged from 29 to 13°F (−2 to −11°C). Certain features that Zones 8 and 9 share are described under Zone 9.



On winter nights, cold air rolls off Zone 9 hillsides and pools in Zone 8's colder flatlands (right). Fruit trees that need chill, like these apple trees near Winters, grow best in the valleys of Zone 8.



## ZONE 9 Thermal Belts of California's Central Valley

For Zones 10 to 13, an area that includes the Southwest deserts, turn to pages 58–61.



As cited in the description of Zone 8, the biggest readily apparent difference between Zones 8 and 9 is that Zone 9, a thermal belt, is a safer climate for citrus than Zone 8, which contains cold-air basins. The same distinction, thermal belt versus cold-air basin, determines which species and varieties — hibiscus, melaleuca, pittosporum, and other plants — are recommended for Zone 9 but not for Zone 8.

Zones 8 and 9 have the following features in common: summer daytime temperatures are high, sunshine is almost constant during the growing season, and growing seasons are long. Deciduous fruits and vegetables of nearly every kind thrive in these

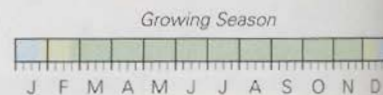
long, hot summers; winter cold is just adequate to satisfy the dormancy requirements of the fruit trees. Fiercely cold, piercing north winds blow for several days at a time in winter, but they are more distressing to gardeners than to garden plants. You can minimize them with windbreaks.

Tule fogs (dense fogs that rise from the ground on cold, clear nights) appear and stay for hours or days during winter. The fogs usually hug the ground at night and rise to 800 to 1,000 feet by afternoon.

Heat-loving plants such as oleander and crape myrtle perform at their peak in Zones 8 and 9 (and 14). Plants that like summer coolness and humidity demand

Zone 9 hills rise into the clear air above the fog-shrouded flatlands of Zone 8. In winter, dense tule fogs can blanket Zone 8 and rise into Zone 9 by afternoon, closing roads throughout the Central Valley. The picture above was taken near Bakersfield.

some fussing; careful gardeners accommodate them by providing filtered shade from tall trees and plenty of moisture. In Zone 9, winter lows over a 20-year period ranged from 28 to 18°F (–2 to –8°C).



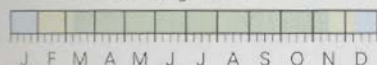
## 14 Northern California's Inland Areas with Some Ocean Influence

Marine air moderates parts of Zone 14 that otherwise would be colder in winter and hotter in summer. The opening in Northern California's Coast Ranges created by San Francisco and San Pablo bays allows marine air to spill much farther inland. The same thing happens, but the penetration is not as deep, in the Salinas Valley. Zone 14 includes the cold-winter valley floors, canyons, and land troughs in the Coast Ranges from Santa Barbara County to Humboldt County.

The milder-winter, marine-influenced areas in Zone 14 and the cold-winter inland valleys within Zone 14 differ in humidity. For example, lowland parts of Contra Costa County are more humid than Sacramento.

Fruits that need winter chill do well here, as do shrubs needing summer heat (oleander, gardenia). Over a 20-year period, this area had lows ranging from 26 to 16°F (-3 to -9°C). Weather records show all-time lows from 20 down to 11°F (-7 to -12°C).

Growing Season



Vineyards blanket much of the land in Napa and Sonoma counties, producing hefty crops for wineries. The valley floors here are designated Zone 14, while surrounding hills are in Zones 15 and 16.

## ZONE 15 Chilly Winters Along the Coast Range

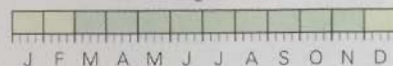
Zones 15 and 16 are areas of Central and Northern California that are influenced by marine air approximately 85 percent of the time and by inland air 15 percent of the time. Also worthy of note is that although Zone 16 is within the Northern California coastal climate area, its winters are milder because the areas in this zone are in thermal belts (explained on page 28). The cold-winter areas that make up Zone 15 lie in cold-air basins, on hilltops above the thermal belts, or far enough north that plant performance dictates a Zone 15 designation.

Many plants that are recommended for Zone 15 are not suggested for Zone 14 mainly because they must have a moister atmosphere, cooler summers, milder winters, or all three conditions present at the same time. On the other hand, Zone 15 still receives enough winter chilling to favor some of the cold-winter specialties, such as herbaceous peonies, which are not recommended for Zones 16 and 17.



Most of this zone gets a nagging afternoon wind in summer. Trees and dense shrubs planted on the windward side of a garden can disperse it, and a neighborhood full of trees can successfully keep it above the rooftops. Lows over a 20-year period ranged from 28 to 21°F (-2 to -6°C), and record lows from 26 to 16°F (-3 to -9°C).

Growing Season



Zone 15 is moist enough for coast redwoods (above left) to thrive, yet it's warm and dry enough to grow agave and cacti (left). Both plantings were photographed at Sunset's Menlo Park headquarters; the redwoods, now towering more than 80 feet tall, were planted in 1952 from 7-gallon cans.

## ZONE 16 Central and Northern California Coast Thermal Belts

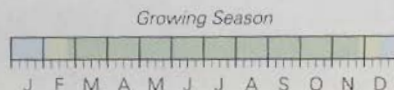


Parts of Zone 16, such as the Oakland-Berkeley hills (right), practically never see a white frost. This zone gets more heat in summer than Zone 17 and has warmer winters than Zone 15—great for subtropicals like ginger lily (above).

This benign climate exists in patches and strips along the Coast Ranges from western Santa Barbara County north to northern Marin County. It's one of Northern California's finest horticultural climates. It consists of thermal belts (slopes from which cold air drains) in the coastal climate area, which is dominated by ocean weather about 85 percent of the time and by inland weather about 15 percent.

Typical lows in Zone 16 over a 20-year period ranged from 32 to 19°F (0 to -7°C). The lowest recorded temperatures range from 25 to 18°F (-4 to -8°C). This zone gets more heat in summer than Zone 17, which is dominated by maritime air, and has warmer winters than Zone 15. That's a happy combination for gardening.

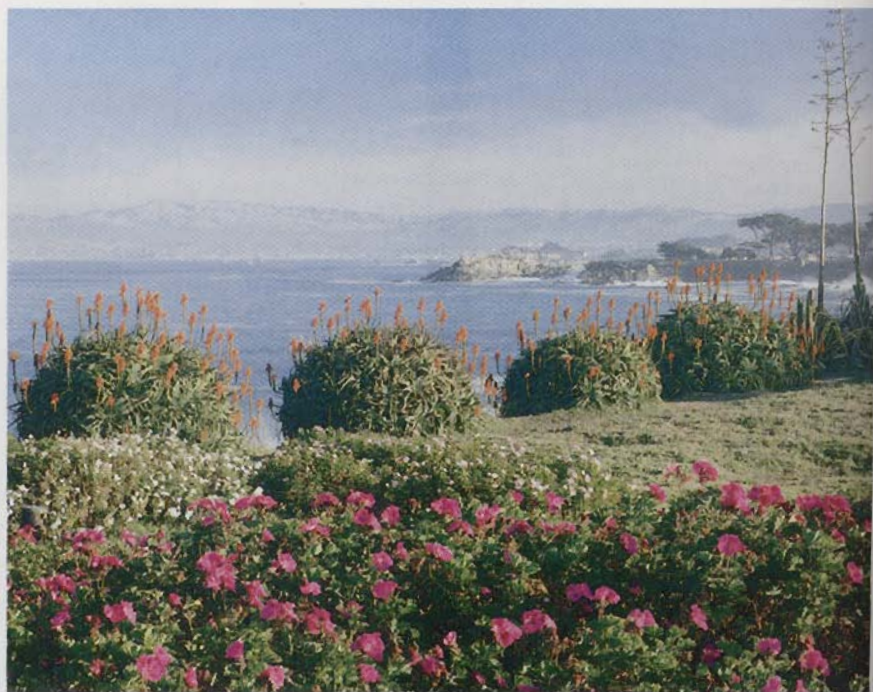
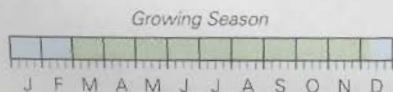
A summer afternoon wind is an integral part of this climate. Plant trees and shrubs on the windward side of your garden to help disperse it.



## ZONE 17 Marine Effects in Southern Oregon, Northern and Central California

The climate in this zone features mild, wet, almost frostless winters and cool summers with frequent fog or wind. On most days and in most places, the fog tends to come in high and fast, creating a cooling and humidifying blanket between the sun and the earth, reducing the intensity of the light and sunshine. Some heat-loving plants (citrus, hibiscus, gardenia) don't get enough heat to fruit or flower reliably.

In a 20-year period, the lowest winter temperatures in Zone 17 ranged from 36 to 23°F (2 to -5°C). The lowest temperatures on record range from 30 to 20°F (-1 to -7°C). Of further interest in this heat-starved climate are the highs of summer, normally in the 60 to 75°F (16 to 24°C) range. The average highest temperature in Zone 17 is only 97°F (36°C). In all the other adjacent climate zones, average highest temperatures are in the 104 to 116°F (40 to 47°C) range.



Zone 17's climate is dominated by the ocean about 98 percent of the time. You can see salt water from most areas in this zone, such as Pacific Grove (above), where mounding aloes and agaves with tall flower spikes bloom at the water's edge. This climate also favors fuchsias and commercially grown artichokes, Brussels sprouts, and Easter lilies.

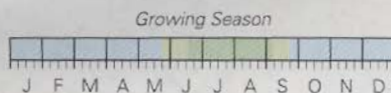
## ZONE 1A Coldest Mountain and Intermountain Areas of the Contiguous States and Southwestern British Columbia

Marked by a short growing season and relatively mild summer temperatures, Zone 1a includes the coldest regions west of the Rockies, excluding Alaska, and a few patches of cold country east of the Great Divide. The mild days and chilly nights during the growing season extend the bloom of summer perennials like columbines and Shasta daisies. If your garden gets reliable snow cover (which insulates plants), you'll be able to grow perennials listed for some of the milder zones. In years when snow comes late or leaves early, protect plants with a 5- or 6-inch layer of organic mulch. Along with hardy evergreen conifers, tough deciduous trees and shrubs form the garden's backbone. Gardeners can plant warm-season vegetables as long as they are short-season varieties.

Winter lows average in the 0 to 11°F (−18 to −12°C) range; extremes range from −25 to −40°F (−32 to −40°C). The growing season is 50 to 100 days.



Aspen trees (*Populus tremuloides*) with their silvery trunks cluster behind Rocky Mountain maples (*Acer glabrum*) in eastern Idaho. In autumn, the colored foliage of these trees glitters against the dark green. Rocky Mountain junipers (*Juniperus scopulorum*).



## ZONE 1B Coldest Eastern Rockies and Plains Climate of Wyoming, Montana, and Southwestern Alberta



Wyoming's open plains provide plenty of good grazing for cattle, but their persistent winds and sub-zero winters test garden plants to the limit. The mountains to the west block most of the ocean influence that would otherwise temper continental weather, keeping winters cold and summers long and warm.

Centered over the plains of Wyoming and Montana, this zone sees January temperatures from 0 to 12°F (−18 to −11°C), with extremes between −30 and −50°F (−34 to −46°C). Zone 1b lies east of the Great Divide, where the continental climate reigns supreme. Arctic cold fronts sweep through 6 to 12 times a year, sometimes dropping temperatures by 30 or 40°F in 24 hours. The summer growing season tends to be warm and generous at 110 to 140 days long; but constant winds—12 miles per hour average, year-round in many places—call for windbreaks and shade trees, like hackberries and cottonwoods, whose leaves are animated by the wind. Few shrubs are better loved here than lilacs or better adapted than smoke tree. With protection, annual vegetables and flowers thrive, as do wind-tolerant perennials such as buckwheats, grasses, and penstemons. Where hail is a problem, gardeners favor small-leaved plants; where winters are dry and snow cover light, they compensate with mulch and extra water.

