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Have You Zoned Out on Plant Zones?

by Marcia Goldstein, UC Master Gardener

There is nothing more annoying than paying good money for a plant that can't survive in your garden. Did it fail in the first frost? Did it sizzle in the summer sun? Did it plop into a puddle or dry up in the drought?

Look closely at labels when buying plants. Check plant catalogues, gardening magazines or reference books like the *Sunset Western Garden Book.* They will designate climate needs for plants. There are three reliable Zone Maps, each of which tell you something different about the plant's likely success where you garden.

Figure 1. USDA Plant Hardiness Zone 9B

United States Department of Agriculture (USDA) Cold Hardiness Zones – These zones, established in 1960, were updated in 2012. They are calculated by the USDA based on the average annual minimum winter temperature during a 30-year period. They reveal a plant's ability to withstand frost and low temperatures. Because of this narrow focus, areas like parts of the dry Sonoran Desert, maritime Kodiak Alaska, and the Olympic rainforest may all appear in the same zone. Nevertheless, the USDA zones are one of the most helpful clues for gardeners. Most of the Central Valley is in **USDA Zone 9b** (25-30 degrees F). The USDA website has an interactive map that you might want to visit, at: www.planthardiness.ars.usda.gov.

American Horticultural Society (AHS) Plant Heat Zone Map – The twelve zones designated by the AHS were calculated based on a twelve-year average of the annual number of days that will have temperatures of over 86 degrees F, the point at which plants begin suffering physiological damage from heat. It is assumed that adequate watering occurs. This map reveals the need for a plant's ability to withstand high temperatures. The AHS map was created in 1997 and about 15,000 plants have been listed so far. The Central Valley is in **AHS Zone 9.** Heat factors have become more important as a result of Global Warming, and local growers such as Monrovia Nursery are planning on adding this information to their labels in the near future. In the meantime, check: www.ahs.org/gardening-resources/gardening/maps .

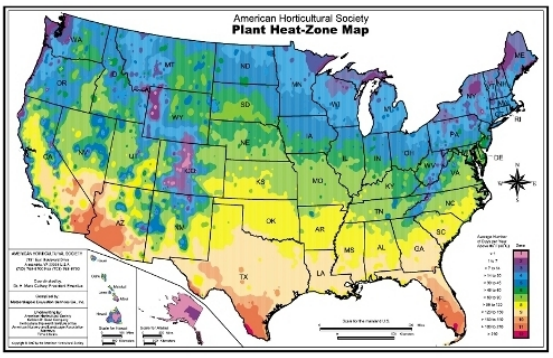

Figure 2. AHS Map

Sunset Zones – We who live in the West are fortunate enough to have the *Sunset* system of zones. It is based on a wide variety of factors such as cold, heat, humidity, rainfall, wind, proximity to the ocean, snow cover and length of growing season. It is easy to look up the zones and plant descriptions in the *Sunset Western Garden*

Book. Go online at: www.plantfinder.sunset.com/plant-home.jsp , or use the mobile app for your smart phone. Because of its widespread popularity and usefulness, most nurseries have the Sunset book at their checkout counter for easy reference. Much of the Central Valley floor is in **Sunset Zone 8**. The area near the foothills, Three Rivers and Springville for example, are in **Zone 9**. Additionally, I have found that slightly higher elevations in the foothills, like my garden at 2000 feet, are in **Zone 7**.

How to Use All Three – You can also try visiting the website: www.learn2grow.com. Select "plant search' and then you can check all three types of zones for a plant you might be considering. I searched for Manzanita "Howard McMinn" (*Arctostaphylos densiflora)* and found it suited my garden perfectly.

Figure 3. Sunset Zones

Reading the Plant Label – Labels usually list sun/shade and watering requirements as well as zone information. Remember that plants are sold over wide geographic areas so those recommendations may not exactly fit the Central Valley. I know that in my garden I usually need to place a plant marked "full sun" in partial afternoon shade.

Let's Have Some Fun - Are you willing to experiment? If there is a plant you really want to grow that doesn't fall in the right zones for your property, look around for niches or microclimates within your garden where it might thrive. Does it need a warmer area? Perhaps you have a stone wall that captures and reflects the winter sun. Maybe you've noticed a place where cold air seems to linger in the lower part of your yard or on a north-facing slope. Place a plant that can tolerate more cold there. Once you know the rules, it is fun to push the limits a little. But if you want to play it safe, your best chance for success is using the zone maps and other information readily available.

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