



THE UNIVERSITY OF ARIZONA

Cooperative Extension

Yavapai County

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Yavapai County Hardiness, Heat, and Climate Zones

Nowhere is home gardening more challenging nor potentially more rewarding than the Southwest. Many climatic factors play a role in determining the kinds of plants that will grow in a given location. Minimum winter temperature and frost occurrence, maximum summer temperatures, rainfall amount and distribution, humidity, day length and light intensity are all important. One of the most important considerations in determining which plants will grow in your garden is whether or not they will survive the temperature extremes in your area.



Three different zone indicators are commonly used in the Southwest to help determine whether or not a specific plant will adapt to your home garden.

- Cold Hardiness Zones, developed by the U.S. Department of Agriculture
- Heat Zones, developed by the American Horticulture Society
- Climate Zones, developed by *Sunset Magazine* and documented in the *Sunset Western Garden Book*

Climates of adjoining zones grade into one another near their boundaries. This sometimes makes it possible to grow plants that are too cold tender for a given zone, or it may exclude certain plants at the coldest extremes of that zone.

Plants that perform well in one plant zone are often adapted to the next warmest zone. However, this is not always the case. The milder winters of a warmer zone are usually accompanied by higher summer temperatures which are tolerated by some plants but not by others. In a milder zone erratic occurrence of frosts and warm spells during the late winter and spring may affect plant performance, especially plants that bloom at this time of year. Drier air, strong seasonal winds and alkaline and/or salty soil may also create a hostile environment for plants that are quite cold hard in a given zone.

Microclimates also play a part in determining the kinds of plants that will grow in your landscape. A microclimate is

simply the local climate on a small scale. Microclimates are formed by hills and valleys, structures, paved areas, hedges, etc. These features may change airflow patterns, alter day length or light intensities, trap heat during the day and slowly release it during the night, or in other ways modify local climate. Several different microclimates can and often do exist on any given property.

The Cold Hardiness, Heat, and Sunset Climate zones are based on averages for a given area, and may be found on different websites based on zip code. Because of the difference in climate and microclimates within a given zip code or town, the zones should be treated as a starting point when selecting plants for your garden. In addition to checking the plant label, look around your town, talk to your neighbors and local nursery professionals to see what plants will do well in the particular microclimate where you intend to plant. Also beware that some of the plants sold by your local nursery may be labeled perennials, but may act as annuals due to the cold and heat extremes.

Most plant information tags at nurseries reference the USDA Hardiness Zones (cold). Some tags are now showing both the USDA Hardiness Zone and the Heat Zone, e.g. 3-8, 8-1. The first set of numbers, in this example 3-8, is the cold hardiness zone range and the second set, 8-1 in this example, is the heat zone range. Some nurseries show the *Sunset Western Garden Zones* on their display signs. The *Sunset* climate zones factor-in winter minimum temperatures, summer highs, elevation, proximity to coast or mountains, rainfall, humidity and aridity, and growing season.

Use the above mentioned zones as guidelines. Keep in mind that the zones are based on averages from several years, and if temperatures are warmer or colder than the long term averages, plants that generally do well in your zone may struggle in the extreme temperature years. Nothing substitutes for experience and actual plant performance.

Yavapai County Point-of-Reference Towns and Their Zones

Town	USDA Hardiness Zone (Cold)	AHS Heat Zone	Sunset Climate Zone
Bagdad	8B	8	10
Black Canyon City	9A	8	12
Camp Verde	8B	8	10
Chino Valley	8A	8 - 7	10
Clarkdale	8B	8 - 7	10
Congress	9A	8	12
Cornville	9A	8	10
Cottonwood	8B	8 - 7	10
Dewey	8A	8 - 7	10
Jerome	8B	7	10
Mayer	8B	8 - 7	10
Prescott	7B	8 - 7	3A
Prescott Valley	7B	7	3A, 10
Sedona	6B -& 8B	8 - 6	2B, 10

The following three charts contain the criteria used by the USDA, AHS, and Sunset for the zones in Yavapai County.

USDA Climate Zones	
Based on average lowest temperatures from 1976 to 2005 (Published 2012) http://planthardiness.ars.usda.gov - click on Interactive Map.	
Zone	Average Low Temperature
6A	-10° to -5°
6B	-5° to 0°
7A	0° to 5°
7B	5° to 10°
8A	10° to 15°
8B	15° to 20°
9A	20° to 25°
9B	25° to 30°



American Horticulture Society Heat Zones	
Zones are based on average number of days every year a given region experiences "heat days" (temperatures above 86°). It assumes there is adequate water. Based on 1974 to 1995 data, published in 1997.	
Zone	Average # of days over 86°
6	45 to 60
7	60 to 90
8	90 to 120
9	120 to 150
10	150 to 180



Sunset Western Garden Book Climate Zones Found in Yavapai County
(taken from The New Sunset Western Garden Book 2012)

These zones factor-in winter minimum temperatures, summer highs, elevation, proximity to coast or mountains, rainfall, humidity and aridity, and growing season.

Zone 2B

Warmer-Summer Intermountain Climate

Fruit growers love this zone's perfect balance of long, warm summers and snowy winters. Annual precipitation averages 16 inches, but it is much higher in the west and north ends of the zone. Winter minimums are 22°F to 12°F, with extremes from -10 to -20°F. The growing season runs from 115 days in higher elevations and northerly areas to more than 160 days in southeastern Colorado.

Zone 3A

Mild Mountain and Intermountain Climates

A long growing season and summer days around 90°F give this zone some of the best melons, gourds, and corn in the West, plus excellent deciduous fruits and vigorous ornamentals. Just keep everything watered, since precipitation here averages only 14 inches per year. This is a lower-elevation zone in northern states, but it moves higher farther south. Winter minimum temperature averages 25°F to 15°F, with extremes down to -18°F.

Zone 10

Arizona-New Mexico High Desert

Lies mostly in the 3,000 to 5,000-ft. elevations of the SW, and mostly in the Chihuahuan Desert. It is distinctly cooler in the northern half of AZ. Summer highs throughout the zone are around 95°F, and average winter minimums range from 33°F to 22°F, with drops to around 0°F every few years. More rain falls in summer than in winter.

Zone 12

Arizona's Intermediate Desert

Harder frosts spread over a longer season than Zone 13, with average minimums around freezing and extreme lows of 17°F to 10°F. That's enough to take out tropical plants, but not enough chill for some deciduous fruits. Cool season planting starts in early fall, and warm-season crops go in during late winter. Protect them against winds, which blow briskly from March to May.

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<http://extension.arizona.edu/yavapai>

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