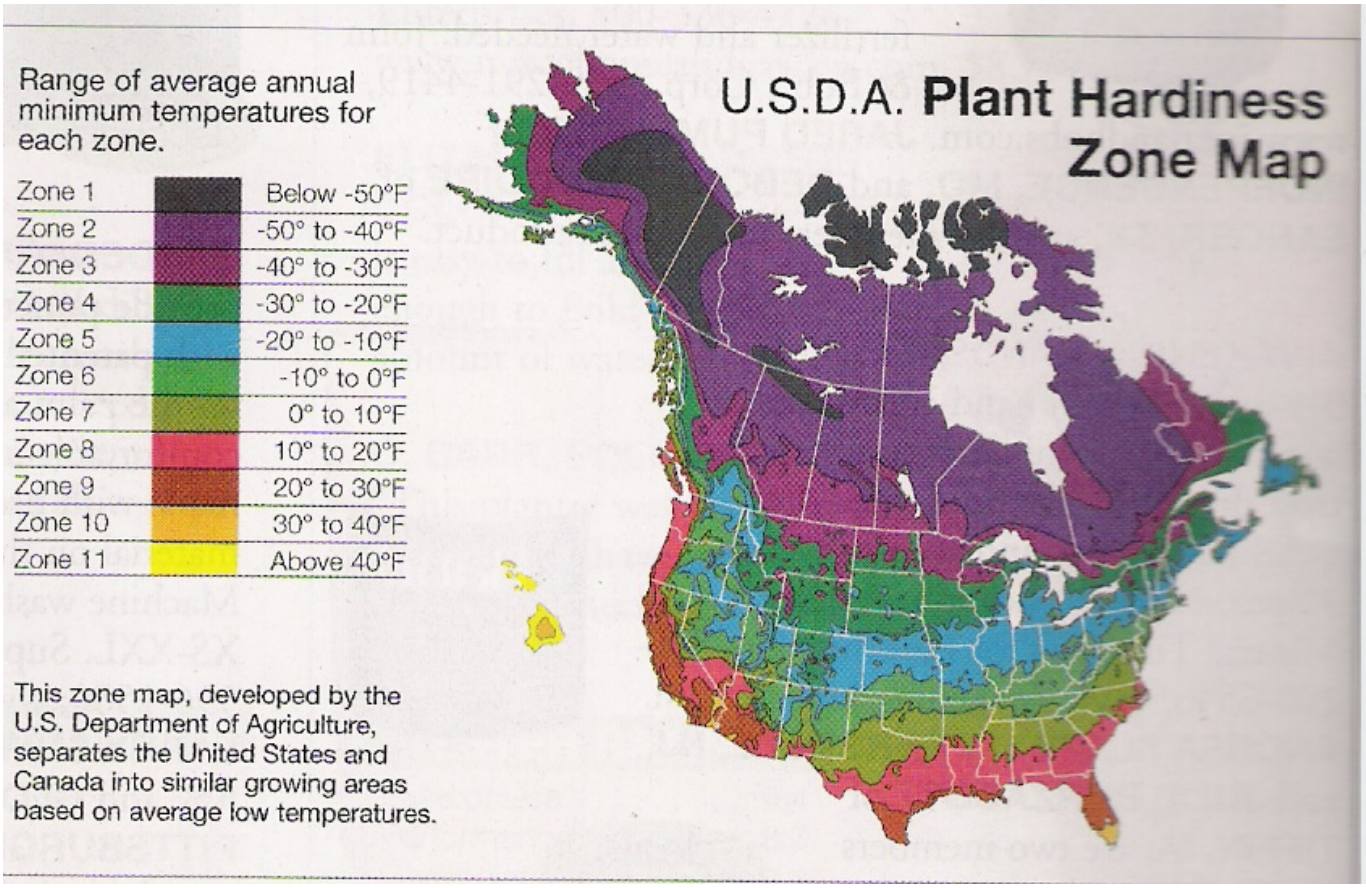
KINGMAN IS GROWING! Column

Identifying Your Climate Zones

By **Linda Reddick,** Kingman Area Master Gardener

Are you like most people confused about what climate zone you are in? I receive six or seven seed catalogs each year and only two of them agree on the same climate zone.

The U.S. Department of Agriculture (USDA) has five climate zones shown for Mohave County. These zones are based on average annual mimium temperatures. Our five climate zones are: 8a, 10 - 15F degrees, 8b, 15 - 20F degrees, 9a, 20 - 25F degrees, 9b, 25 - 30F degrees, and 10a, 30 - 35F degrees. Note the word average. Temperatures can be below or above, but the average will be between degrees stated.



With this information we can generalize the climate zone areas in relationship to elevation. Obviously the Haulapai Mountains will fall into zone 8a, and Lake Havasu will fall into zone 10a. So the majority of Mohave County will be in zones 8b, 9a, 9b depending on the elevation. The elevation, according to the sign on Beale Street, Kingman's elevation is 3320', at the Gambi Disposal site on Hwy 93 the elevation is 3600'. In a short distance of 15 miles we climb almost 300' in elevation. With-in the same 15 mile radius, going from the Gambi Disposal site to the lowest part of Golden Valley you drop approximately 1200'. These are simple examples of how rapidly a climate zone can change in relationship to elevation.

To make your zone identification task a little more complicated there are many microclimates in our area. The definition of a microclimate is: the climate of a small area or locality (such as a back yard, or even just a portion of it) as opposed to that of a larger region. The following factors; hills, hollows, the location of the house and other structures, block walls, concrete, stone, glass, wind, shade trees, the receiving of morning or

afternoon sun, all can be factors in creating a microclimate. Then there is elevation; it will definitely be an influencing factor to a microclimate.

An observation of your location can determine if you are in a microclimate. Things to look for and why;

Walls, concrete, stone, glass

If you have block walls, concrete, stone and glass around you're planting area they all emit heat, or conducts cold which raises or lowers the air temperature. Most perennials, annuals and vegetables do not do well next to these elements.

Wind

Fast moving air, can have a negative effect on all plants causing them to rapidly dehydrate. Wind also depletes the moisture from the soil.

Trees & Large Shrubs

Shade trees can eliminate the necessity of sunlight a plant needs to survive, but on the other hand trees can have a positive effect on protecting plants from the hot afternoon sun. With our intense sun, most plants would prefer to have morning sun, and few plants require all day sun even though many of them can endure it. Also, remember trees and large shrubs will rob fertility and water from other plants.

Elevation

As for elevation, all of us know that the higher the elevation, the cooler the temperature is, both summer and winter. Parts of Golden Valley are approximately 500 to 800 feet lower in elevation than Kingman. This can translate to a possible temperature difference of two degrees to eight degrees. A higher temperature of as little as five degrees can determine whether or not your vegetables will set fruit (pollinate). For example tomatoes do not set fruit over 100F degrees, and corn will not pollinate ears over 95F degrees.

The USDA information is based on minimum temperatures, but what about maximum temperatures. The effects of heat damage are subtler than those of extreme cold. Heat damage can appear in many different parts of the plant. Flower buds may wither, leaves may droop or become more attractive to insects, chlorophyll may disappear so that leaves appear white or brown, or roots may cease to grow. The plants death from heat is slow and lingering. Knowing what plants will thrive in the heat is just as important as knowing which ones will handle the cold. The American Horticultural Society (AHS) has developed a heat zone map. Interestingly enough the AHS is identifying your heat zone by zip code. The AHS's heat zones are established by the average number of days per year above 86F degrees. Note the word average. It is assumed plants are provided with adequate water.

Zone 8 90 to 120 days above 86F degrees
Zone 9 120 to 150 days
Zone 10 150 to 180 days
Zone 11 180 to 210 days

If your zip code is 86401, your heat zone is listed as 8,9,10,11. The variation is probably due to the microclimates I mentioned earlier.
For zip code 86404 zone 10, 86411 zone 10, 86413 zone 10. Since zip code 86409 has recently been established it was not listed separately.
Identifying your climate zone or microclimate will assist you in purchasing plants, or selecting the proper variety of vegetables and trees you want to grow.

It is possible for you to cultivate plants that are adapted to other zones by creating your own microclimate. To divert the wind plant a row of shrubs or pomegranates. For summer, to decrease the chances of heat damage select a location for your plants where they receive partial shade from the hot afternoon sun with the help of buildings, lattice, or shade screen. For winter, choose a location that receives full sun. Lattice and shade screen will help protect plants from the cold as well as the heat. Deciduous trees are now loosing their leaves, so plants can be placed closer. Summer or winter an ample layer of mulch will

retain moisture and keep the roots warmer or cooler. A heavy layer of mulch will definitely help perennials winter over.

In most cases, the older the plant gets the more resilient it becomes to heat and cold. Seedlings and young trees need constant attention and an ample supply of water. Established plants need less attention and for trees less water. Plants are somewhat like children. The younger they are the more attention they need.

Fruits and vegetables do grow in Mohave County, for proof visit the Farmers Market every Sunday morning, from 8–11 a.m., at the Mohave Agricultural Center, 101 E. Beale St. or Come to the Mohave County Fair, September 13-16, Mohave County Fairgrounds, Kingman.

For more information contact The University of Arizona Mohave County Cooperative Extension at 101 E. Beale Street, Suite A, Kingman or telephone 928-753-3788

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