KINGMAN IS GROWING! Column

Water vs. Landscape
Linda Reddick, Kingman Area Master Gardener

Water is one of our most valuable resources that everyone uses daily. Landscape is beautification, something we enjoy working with or relaxing in or around. Mohave County’s climate is very low in humidity, dry, arid, with a minimal rainfall each year. There are ways to overcome our climate, use water efficiently, and enjoy a beautiful landscape.

Choice of plants
Whether you are just starting your landscape or replacing a single item in the landscape, choose a tree, shrub, ground cover, or ornamental plant that only requires low water. There are several shade trees, luscious green flowering shrubs, and array of ground cover, as well as a variety of accent plants that only require minimal water. The University of Arizona Mohave County Cooperative Extension has publications available which identify low water use plants. Most, not all, plants with small or narrow leaves are low water users. This applies to, deciduous and perennial plants, trees and shrubs. Most succulents and cactus are low water user, but there are species that require shade and ample water.

Watering Techniques
For arid climates a drip system is ideal. A drip system is comprised of small tubing running to the base of several plants with one or more emitters at the end of the tubing. (depending on the size of the plant) Of course a full size tree is going to require more water than an accent plant, so it is necessary for you to know the water requirements of each plant. Group plants with like water needs together. Doing so will simplify irrigation while giving each plant the correct amount of moisture. If you already have established plants with opposing water
needs, add another drip line. Drip lines can be connected to a timer, the most efficient method, or turned on manually. They do not necessarily need to be buried. To hide them simply cover the line with small decorative rock or mulch.

If drip line application is not feasible for you, or playing with the water hose is something you enjoy, be selective when using a sprinkler. Avoid using overhead, fan or rotating sprinklers. Choose sprinklers that emit water close to the surface. With our dry air, water is lost to evaporation, and with the persistent wind here much of your water will be blown somewhere other than where you intended it to be. I have never understood the need to water sidewalks, curbs and driveways. Do you?

Flooding or soaking is an effective way to supply sufficient water to deep, extensive root systems of large shrubs and trees. Form two concentric rings of soil, and completely fill the outer ring with water. This achieves flooding. For newly planted trees and shrubs, make the outer ring just outside the outer edge of the rootball. Move the concentric ring farther out as the plant grows, as this will encourage the plant to establish a more stable root base.

**Hose Water Volume**
Here is a simple test to determine the volume of water application from a garden hose. Take your garden hose, and a five-gallon bucket. Turn the faucet on fully, and time how long it takes to fill the bucket. Divide the time it takes to fill the bucket by five, this gives you the amount of time required to emit one gallon of water. Now that you know the amount of time it takes to emit one gallon, and you want to emit 10 gallons, multiply by 10, or to emit 20 gallons, multiply by 20. The length and size of the hose will vary the time it takes to fill the bucket. Therefore, repeat this test if you change hose size or the length of the hose.

**Eliminate Runoff**
Sloping land and heavy clay soils invite runoff. To avoid runoff in such sites, adjust the rate at which the water is applied. If you are using sprinklers, you can improve penetration by watering in successive short intervals, giving the water time to soak in between each spell of watering. Soaker hoses are also effective, working well
on both slopes and clay soils. They supply the water directly to the soil slowly. Always water your plants at the base, near or close to the root zone. Water trees at their drip line, that is at the edge of the foliage. Trees are not like elephants; they do not drink with their trunk. Much of our water is alkaline and contains calcium. Persistent watering of the leaves will cause white splotches, which prevents the plant from breathing, potentially causing leaf loss. Newly planted plants, whether they are trees, shrubs, or accent plants require more water until they become established. It takes at least two or three years for a tree to become established but only a month or two for accent plants. The larger the size of the mature plant dictates the amount of time it takes to become fully established. Plants can become water junkies if they are over watered once fully established. Actually it is more detrimental to over water than underwater established plants.

**Mulch**

One of the most important things you can do is to mulch. Mulch is like a sunscreen for the soil. Spreading several inches of thick mulch over planting beds acts as an insulation blanket, slowing evaporation from the soil allowing the soil to retain moisture, thus keeping it cooler than it would be unprotected. Organic mulch, straw, wood chips, rocks, or gravel all do the job. Mulching also prevents most weeds from becoming established (and makes it easier to remove any that do grow); keeps mud from splashing up on the foliage of flowers, fruits, vegetables and surfaces like house walls. In addition, mulch helps prevent erosion, and makes your garden beds look tidy.

**Water application**

One inch of water (from sprinkling or rain fall) moistens about 12 inches of sandy soil, 7 inches of loam, and 4 to 5 inches in clay. Sandy soil dries out quickly, requiring more frequent water application. Clay soil dries out the slowest, but the penetration depth is also lower. Adjust your watering to the type of soil you have, as well as the size and type of plants. Always water down to the root zone of your plants. The potential root zone of small plants and turf is usually six to 12 inches, for shrubs, 12 to 15 inches and for trees 18 to 24 inches. These depths may vary according the type of plant and can be influenced by the type of soil. To check the depths of moisture simply push a four-foot piece of smooth rebar into the ground several places around the plant. When the rebar
can no longer be inserted into the soil you have reached the end of the moisture level. Deep watering translates
to healthy, attractive plants, and wise use of water. So remember to water effectively, but wisely.

From one hand full of dirt to another!

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