



Water Needs of Plants

Plants have widely differing water needs depending on origin, type, size, and location in the landscape, among other things. Understanding plant water needs makes it easier to water your landscape efficiently, which in turn leads to lower water bills and reduced maintenance needs.

Plants from arid areas of the world require much less landscape water than plants from areas that receive more rainfall. Generally, plants adapted to arid environments can survive with little water and low relative humidity once they've been established. They have extensive root systems and/or leaves that retain water.

The following are rules of thumb on the watering needs of desert adapted plants. However, ultimately, the health and vigor of your plants is your best guide.

1. Plants that “need no supplemental irrigation once established” usually don’t need to be irrigated by the second or third summer after planting, and can usually survive strictly on seasonal rainfall.
2. “Drought-tolerant” plants can survive with three to six deep soakings during a dry summer.
3. “Regular irrigation” usually means weekly or bi-weekly for established plants during very hot weather; however, newly planted plants will need more frequent watering.
4. An 800-square-foot overseeded lawn, which is the average homeowner's size, uses 28,000 gallons of water per year depending on the turf grass type and climate.
5. Water young plants more often, as they have small root systems and tend to dry out quickly. Older plants have established root systems with plenty of root hairs (the structures that collect the most water for the plant), so they do not need to be watered as frequently as younger plants.
6. When it's hot, dry, and windy, plants use water rapidly. Young or shallow-rooted plants cannot absorb water fast enough to keep foliage from wilting.
7. Container-grown plants dry out more quickly than those in the ground. The soil volume in the pot is limited and it cannot store as much water. Some solutions are to transplant the plant into the ground or transplant it to a larger pot.
8. Try to locate water-loving plants near the house where there may be more shade, while those needing less water should be planted progressively further away.

Whether a plant is a tree, shrub, perennial, or succulent also affects its water needs. This has mainly to do with the differences in their root systems. Trees have much deeper roots (approximately down to three feet) and need infrequent but deep watering, whereas perennials have relatively shallow roots (approximately down to one foot) and need water more often and not as deeply. Shrubs and succulents are somewhere in between.

To help you determine how much water to apply refer to page 9 of [Landscape Watering by the Numbers](#). A table with plant size and corresponding water needs will guide you to the amount. Use the chart on the inside back cover for watering frequencies which varies depending on the season.

Hint: Plants listed in [Landscape Plants for the Arizona Desert](#) are considered low water use.

Be sure to visit the City of Chandler Water Conservation web pages for free landscape workshops, landscaping tips, rebates, frequently asked questions and more.
www.chandleraz.gov/water

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