

# Dealing with Drought and Water Restrictions in Your Landscape

Extension Solutions for Homes and Gardens by Paul J. Pugliese

Ironically, the number one problem associated with lawns, gardens, and landscapes during a drought is too much water. Liberal watering habits are more likely to kill plants than drought stress. How can this be possible? Daily, our office receives many lawn and landscape samples with plant disease problems, many which thrive only under high moisture conditions. Interestingly, many root rots and plant diseases cause symptoms of wilting because they literally cut off the flow of water inside the plant, despite receiving enough water. As a result, many people tend to water disease-wilted plants more often, which results in further stress and spread of disease problems. From what I learned in Plant Pathology 101, the presence of many diseases in the landscape should generally decline in the middle of a summer drought. However, when water restrictions are in place, most people go to the *extreme* and water plants and lawns every other day — following the restrictions, but breaking the rules of Plant Pathology.

Do plants really need water every other day? Logic tells us that plants have survived millions of years without the aid of man's watering schedules. Current research suggests that many of our native plants are actually adapted to survive long periods, often weeks, without any rain. Trees, shrubs, lawns, and even houseplants often have fewer disease and root rot problems if they are allowed to get a good deep soaking of water and then allowed to thoroughly dry before receiving more water.

During extended periods of dry weather and drought, the addition of irrigation water to home gardens and lawns is a must for plant growth. Adequate and consistent soil moisture is more critical for plants as they begin to flower and produce fruits or vegetables. However, most vegetable gardens and lawns need only one inch of rain or irrigation water per week for steady, normal growth. If you're curious how much an inch of water is — it's about 60 gallons for each 100 square feet of garden space — be sure to use a rain gauge! Well established lawns can actually survive without rain longer than a week, if you don't enjoy mowing often.

If possible, apply irrigation in a manner to keep plant leaves dry. Drip irrigation or soaker hoses are ideal for this in vegetable gardens and landscape beds. If overhead water applications are made, apply early in the morning to allow plant leaves (and lawns) to dry completely during the day. Leaves that stay wet through the night tend to have more disease problems.

Don't stand in the garden and spray the plants lightly every day — this is the worst possible way to water. Water deeply and thoroughly to encourage roots to seek water and nutrients deep

in the soil. With a deep, extensive root system, plants are better able to withstand dry periods. Frequent, light irrigation encourages shallow rooting. As a result, roots dry out more quickly, and the plant's continued demand for water increases. A single application of one inch of water or rain is enough to soak the soil to a depth of at least six to ten inches. A single, thorough soaking every seven to ten days on heavy clay soils is a good general guide for irrigating vegetable gardens, lawns, and most small shrubs in the absence of rainfall. Shallow rooted plants, such as green beans and annual flowers, may need watering more frequently with lighter applications than deep-rooted crops like sweet corn and tomatoes. Larger trees and shrubs need to be soaked two to three feet deep and can go longer without rain. Remember to change irrigation frequency and amount according to weekly rainfall patterns. Automatic systems should have a rain sensor installed that prevents them from operating during rain.

It's normal for plants to look wilted on a hot summer afternoon — I, too, feel a little wilted after working in the yard on a hot afternoon. However, they will usually perk up overnight. Watch for early morning drought stress symptoms before deciding when to irrigate. Your best guide in determining when to water is the plant itself. An abnormal grayish-green color or obvious wilting and leaf curling are good indicators that a plant needs water. Most healthy, established woody trees and shrubs in the landscape can survive weeks without supplemental irrigation. Some plants such as annuals and perennials may need water more often than woody trees and shrubs because of their limited root systems. By targeting irrigation to only those plants in the landscape that need water, you save water, time, and money; and you also avoid potential disease or insect related problems from too much water.

For more information and tips to help plants minimize drought stress, please view our free online publication "Best Management Practices (BMP) in the Landscape" and other related publications at [www.caes.uga.edu/publications](http://www.caes.uga.edu/publications).



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