



Garden Center and Nursery

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Watering Basics

Water is essential, but when it comes to gardening and plants, the subject of water generates a lot of questions. How much is too much? When is it not enough? More plants are killed by water problems than by insects, diseases or any other isolated problem.

There is no magic answer that can help everyone. How much water a plant needs varies greatly based on the type of plant, whether or not it is established, the time of year, weather conditions, soil type - and the list goes on and on. The clearest answer is to not follow a rule, but follow the plant's condition.

How plants use water

Plants are about 65 percent water and they are constantly taking up and giving off water. Most of the water is absorbed through fine feeder roots and carried throughout the plant. Then most of the water the plant absorbed is given back to the environment through its leaves. The Department of Forestry states that a large shade tree that grows 100 feet and lives 60 years will take at least 600,000 gallons of water out of the soil over its lifetime, but will absorb about 350 gallons. The process of losing moisture is called transpiration.

Too much or too little

Wilting and yellowing leaves can mean that a plant is either over or under-watered. By the time a plant wilts, some damage may already have occurred. Plants stop growing when they don't have enough water. Foliage that has just barely wilted will usually make a full recovery once it gets enough water. Foliage that has severely wilted will cause the plant a lot of stress and may not recover. The outward signs of too much water are wilting and yellowing leaves, especially leaves in the inner areas of the plant. The symptoms you may not notice are that the plant stops growing and stops absorbing nutrients. If a plant gets too much water for very long, roots will rot and begin to die. When there is a question about whether a plant is wilting because it needs water or because it has too much water, feel the soil and don't be deceived if the surface is dry. On a hot, windy day the surface will dry out even if the ground is saturated. Poke into the soil several inches and if the soil feels damp, don't water.

Judging a plant's water needs

The best way to judge the water needs of a plant is to first learn about the type of plant you are growing. Some are very drought-tolerant, others require consistently moist soil. Next, judge the situation where it will be growing. What is the soil type? Sandy soils have very little water-holding capacity. Soils with a lot of organic matter have good moisture retention. Clay soils are heavy and water does not drain well. (Colorado has primarily clay soil.) Is the ground sloped where the plant will be growing? Sloped soil drains more quickly. Judge the general condition of the plant. A healthy plant with an established root system will be much less demanding than one that is newly planted.

How to water

You can't rely on nature alone to provide enough moisture. There are a lot of methods - watering cans, hoses, nozzles, irrigation systems, each with its own strengths and weaknesses. Pick out a system that works for you. Plants need water applied slowly. **For almost all plants, a deep, thorough soaking followed by enough time for the soil to dry out slightly is ideal.** This allows plants to push roots deeper in search of water, making them more tolerant of drought-stress in the long run. Frequent, light watering is not good for plants. It encourages shallow root growth. Irrigation systems designed for lawns are seldom adequate for landscape plants.

Whenever possible, plants should be watered early in the day for several reasons. Plants use the most water during the warmest part of the day. When you water early in the day, you avoid losing water to evaporation. Watering early in the day allows foliage time to dry out before evening, minimizing fungal diseases.