

Smart watering can protect your plants—and your drinking water

On hot summer days, it's common to see sprinklers spraying graceful arcs of water on local lawns and gardens. As the droplets sail through the air, some are evaporated by the summer sun. When they hit the ground, their fate depends on how much is applied. Water is important to nourish garden plants. But too much water can harm the health of your plants, your drinking water and local streams.

Overwatering can kill your plants. Overwatering clogs soil pores, which prevents necessary oxygen from reaching plant roots, thus suffocating the roots. This stress makes plants more susceptible to diseases and insects. Wilting, yellowing and leaf drop are all signs of overwatering. Let your plants dry out between waterings to let their roots breathe.

Overwatering can pollute your drinking water. About 70 percent of the drinking water in the Redmond-Bear Creek Valley comes from groundwater. Excess irrigation can leach fertilizers and pesticides deep into the soil away from plant roots, where they can end up polluting groundwater. King County tested 68 local wells and found minimal contamination by fertilizers and pesticides. Ken Johnson, King County Groundwater Science lead, says, "Most groundwater in the Redmond-Bear Creek Valley is still clean and healthy for people and fish, and we need to keep it that way."

Overwatering can pollute or deplete streams. As with groundwater, excess irrigation can carry fertilizers and pesticides into storm drains, streams and lakes. The amount of groundwater used also affects how much water is available in surface water. About 40 percent of the flow in rivers and streams comes from groundwater. By using (or withdrawing) more groundwater, we can limit how much groundwater makes its way to our streams. The water you use on your landscape affects how much water is left for salmon, frogs, birds and other wildlife.

So what's a gardener to do? Here are some tips.

Tips for Smart Watering

Water your lawn deeply and not too often. Many lawns receive twice as much water as they need for a healthy appearance. Your lawn only needs one inch of water a week to stay green. The key is to water infrequently yet thoroughly. This creates a deep, well-rooted lawn that can withstand drought. Shallow, frequent watering encourages shallow roots that are prone to drought stress.

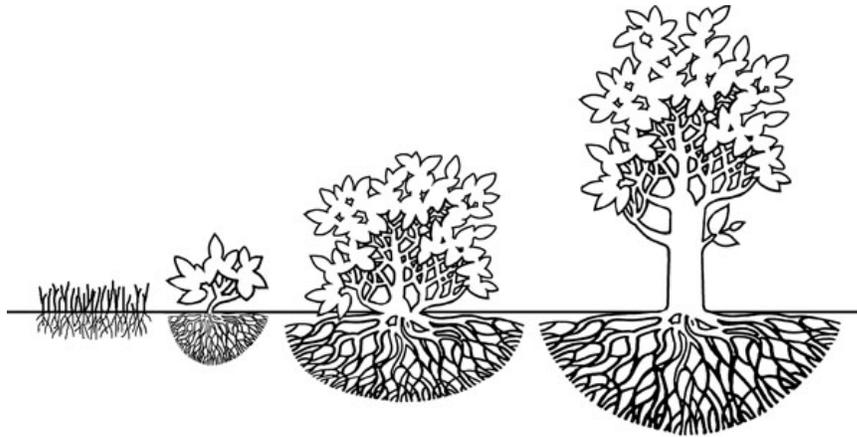
Mulch mow to help your lawn stay green. Grass is mostly water. Leave the clippings on the lawn instead of taking that water away. And mow higher (2 to 2-1/2 inches) to shade the soil surface.

Water your trees and shrubs slowly and deeply. Deep watering helps your plants grow deep, healthy roots. All new plantings, even drought-tolerant plants, need regular water

until roots are established, usually at least two growing seasons. Once established, you can reduce the watering frequency.

Moisten the entire root zone, then let the soil dry out before you water again. The root zone for trees, shrubs and perennials extends as wide as the plant or beyond. Water below the outer branches of the plant, not at the trunk.

[could use this illustration and table if appropriate; need to overlay soil depths chart]



Plant Type	Depth and Spread of Root Zone – Water as deep and wide as the roots!
Lawns	Roots are 4 to 6” deep and don’t spread beyond lawn
Annuals	Most roots are in top 12” of soil, spreading just a short distance
Perennials, small shrubs	Roots are 12 to 18” deep, spreading at least as wide as plant
Trees, large shrubs	Most roots are within 2 feet of surface, spreading beyond branches. Established trees and shrubs may need little water.

Check your watering. How do you know if you’ve watered deeply enough? Several hours after watering, push a long screwdriver or metal rod into the ground. It will pass easily through moist soil and stop or slow down when it reaches dry soil.

Mulch to conserve moisture. Use a few inches of compost, wood chips, grass clippings or other organic materials in landscape beds. Studies have shown that a one-inch layer of organic mulch can reduce soil surface temperatures by as much as 15 degrees on a 90-degree day. Mulch reduces evaporation, reduces weeds and feeds your plants. It’s best to apply mulch when the soil is damp to help retain moisture.

Group plants with the same water needs together. This avoids giving some plants too much and others not enough in the same landscape area.

Use a timer. A simple kitchen timer will suffice. When you turn on the water, set the timer so you remember to turn it off. You'll save money and won't overwater your plants.

Water when it's cool. Watering in the middle of the day, especially when it's sunny, will lose half the water to evaporation. Water plants in the morning or early evening. Watering late in the evening leaves foliage wet longer, which helps diseases develop. Watering during the day and wetting the foliage can also cause leaf burn.

Check your irrigation system. Many people with irrigation systems actually use *more* water because they set them once and forget them. If possible, use a timer as part of your irrigation system. Work with a landscape professional to check, repair and update your system to make it more efficient.

For more watering tips, visit www.savingwater.org/. For more information, visit your local water utility website or contact the Natural Lawn & Garden Hotline at 206-633-0224 or info@lawnandgardenhotline.org.

This article has been furnished by the Redmond-Bear Creek Groundwater Protection Committee.