



Watering for Self-Sufficiency

The question we are most frequently asked when a customer purchases a new plant is “How often should I water it?” The question seems simple enough, but the answer is not a straightforward one. Many things affect how often a plant needs water, including soil type, sun exposure, weather, and the type of plant in question. The simple answer is, you should water your plant when it needs it! The goal with any planting should be to plant in such a way that it needs water as seldom as possible, making your plant more self-sufficient.

How can you encourage your plants to be self-sufficient?

- ◆ -Amend your soil at planting time with a product like GreenAll Soil Booster.
- ◆ -Mulch around your plant with bark to hold in moisture.
- ◆ -Build basins around new plantings to keep water from running off.
- ◆ -Deep water— you want to water the whole root ball, not just the top layer of soil.
- ◆ -Water new plantings by hand for the first week or two.
- ◆ -Allow as much time as possible between waterings.
- ◆ -Monitor your plants and adjust your watering based on your plant’s needs, keeping in mind the plant’s stage of growth, the weather, changing seasons, and other variables.
- ◆ -Adjust your watering as conditions change and plants mature.

Getting Plants Established

Water deeply but infrequently to encourage deep root growth. Frequent shallow watering means a shallow root system. Roots that stay near the surface are more subject to the elements and will dry out quicker. By giving your plants a good thorough watering, you train the roots to grow deep into the soil where they are protected and have access to soil moisture. This is especially important for large trees, where shallow surface roots can mean damage to sidewalks and a less stable tree overall. As plants get established, they will need water less frequently— a tree that is well established with deep weekly waterings can be weaned back to monthly waterings and eventually will only need water during extreme conditions. The same concept applies to smaller plants even though they have a smaller root system. An established shrub may be able to go a month without water, a perennial may be able to get by with water once weekly, and smaller annuals may need water every other day. Potted plants and container gardens are the exception. Because there is no ground moisture for them to access and because the pot keeps the roots more exposed to the elements, they cannot become truly established. These plants will need to be checked often and watered as needed. Another important concept to keep in mind is that *drought tolerant plants are not drought tolerant until they’ve been established*. They will still need initial deep waterings and will need to be monitored for the first few weeks.

Watering an Existing Garden

If you already have a garden that is used to frequent watering, you can still train it to use less water. Although the shallow surface roots will remain, new deep roots will still grow. Do this by doubling the amount of water you give each plant, but wait twice as long between waterings. Each month you can extend the length of time you go between watering.

How to Deep Water

How you water is just as important as *how much* you water! Most soils cannot absorb large volumes of water all at once. How, then, do you deep water?

-By hand: Build a basin around the plant to prevent water runoff. Fill the basin and allow the water to soak in, then repeat 2 or 3 more times. If you’re dealing with a large plant, leave a hose running on low for about 1/2 an hour.

-On a sprinkler system: Run your sprinklers until you start seeing water runoff. Shut the system off until the water has had a chance to absorb, then repeat 2 or 3 more times. If your sprinkler can be programmed to cycle through stations, use this feature! This allows one area to absorb water while the next one is being watered. To determine your sprinkler output, use the “can test.” Put a few shallow cans in a straight line out from your sprinkler, run the sprinkler for 1/2 hour, and then measure the water in the cans to assess your sprinkler’s output and efficiency.

-On a drip system: How long you’ll need to water with a drip system will be dependent on the type of emitters you have. Most emitters deliver 1 or 2 gallons per hour, which means usually they’ll have to be run for 1-2 hours to provide adequate water. Be aware of your emitter’s output and keep in mind that you’ll need to supply enough water to soak down past the plant’s roots. Make sure emitters are placed directly above the root ball. For larger or established plants, add multiple emitters so the entirety of the roots is watered and not just one half of the plant. Make sure to check emitters frequently to make sure they do not get clogged.

Determining Watering Frequency

To determine how often to water, use the “time to wilt” test. Thoroughly water the plant and then see how long it can go before it begins to wilt— this will tell you the maximum amount of time you should let your plant go between waterings (under those weather conditions.)

Other Variables

Even keeping the above in mind, there are still other factors that figure in when determining how often and how much to water:

-Plant type: Plants that have small, needle-shaped, or gray leaves have adapted to require less water. Native plants may never need supplemental water after they’ve been given a month or two to get established.

-Soil type: Clay soil absorbs water more slowly, but it holds onto moisture and is slower to dry out. Sandy soil drains quickly. Slopes allow quick runoff no matter the soil type, so care needs to be taken to slow the water flow so it can penetrate— either by building basins, using drip emitters, or mulching.

-How established the plant is: The longer a plant is in the ground, the better established it becomes and the less frequently it will require water. New plantings will need to be closely monitored— sometimes watering more than once a day is necessary.

-Weather and Exposure: Sun, wind, and reflected heat from buildings or sidewalks will all make plants dry out more quickly. Naturally, plants will require more water during the hot and windy conditions of spring and summer. Spring and summer are also the growing seasons, so plants will use more water as they put on new growth. During the cooler weather of the fall and winter, plants will require much less water.

Common Problems

-Failing to amend soil: Soil that isn’t amended, or is amended poorly, is less able to efficiently absorb and hold moisture.

-Planting too deep: Planting too deep allows water to collect around the crown of the plant, which can cause issues with rot, disease, pests, and ultimately kill the plant. When in doubt, and especially when dealing with heavy clay soils, it’s always better to plant an inch or two higher than the surrounding soil to ensure good drainage around the crown of the plant.

-Shallow watering: This leads to a shallow root system and plants that need frequent watering!

-Frequent watering: There is such a thing as too much water! *Plants that are suffering from overwatering show many of the same signs as plants that are being underwatered!* Drooping and yellowing leaves can be a sign of overwatering. Keep in mind that an overwatered plant is less likely to recover than one that has been underwatered.

-Failing to check irrigation systems: Although easy to take a “set it and forget it” approach, irrigation systems need to be checked/maintained periodically. Look for broken lines and emitters that have pulled out or become clogged. Don’t forget to adjust your irrigation system to account for the weather.