

# Proper Watering

## *Procedures and Guidelines*

Proper watering of a newly installed plant is critical to its successful establishment and future growth. Though watering may seem like a simple task, proper watering is not. It is a complex subject that does not easily offer a one-size-fits-all guideline for the quantity and frequency of watering.

### Main Objective

Roots need water to survive and to supply needed moisture back above ground for the process of photosynthesis for the purpose of the plant's survival and growth. However, it is critical to understand that roots also need oxygen in order to survive and function. **The main objective is to never allow the soil around the roots of new plantings to be too dry and likewise never too wet.**

While it is easy to understand why plants suffer when they are too dry, it must be understood that plants will suffer and perhaps die if they are too wet for a long period of time. Oxygen is not available in waterlogged soil as it occupies the same pore space as water.

### How Often to Water

Plant material must be watered thoroughly at planting time. Subsequent watering will depend upon whether the plant was balled & burlapped or containerized, weather conditions, soil type, and other factors.

**Irrigation systems do not** provide appropriate amounts of water at the required times for newly installed plants.

### We Plan-You Plant (DIY)

*Offering the expertise of our Horticulturists, this custom design service is provided at no cost to you.*

This is the best do-it-yourself program if you're a homeowner looking to design and plant your own project. Perhaps you want to add curb appeal to the front foundation? How about a beautiful mixed perennial bed in the empty corner of your yard? This program is designed for people who enjoy do-it-yourself projects and can also be tailored to your capabilities.



*Rain gauges are relatively inexpensive and can also be artistic.*

A rain gauge is a wise investment if you do not have one. 1" of rain (water) per week is recommended for established plants.

### How to Water

It is most important to water thoroughly after planting. This is best accomplished by setting your garden hose (nozzle removed) at the base of the plant and letting it slowly trickle to completely saturate the soil. Root masses may be 12" to 24" deep or deeper; this is how deep your water must penetrate. If runoff is a problem, you may need to allow the first soaking to penetrate, then return at a later time. An alternative method for large bedded areas is to use a sprinkler—with a rain gauge or watering can—to measure the amount at 1" to 2" of water.

**Here is a guide to follow during the first growing season:**

#### Balled and Burlapped Plants

1. Water thoroughly at time of planting.
2. Water every 5 days for the first month.
3. From then on water once every week.

#### Containerized Plants

1. Water thoroughly at time of planting.
2. During the first week check the plant daily for indications of needing water.
3. After the first week, water twice a week for three weeks.
4. From then on water once every week.



## Weather and Other Factors

Watering replaces the water that has **evaporated** from the soil surface and the water that the plant has **transpired** (water extracted from the soil moves up the plant and is lost as vapor from the leaves). These two processes combined are called **evapotranspiration** and the rate at which it takes place is influenced dramatically by such factors as temperature, humidity, wind, light, day length and whether or not the soil is mulched. The faster the rate of water loss, the sooner the plants will need to be watered.

**During hot, dry, or windy weather**, plants transpire at a faster rate. More water evaporates from the soil surface than during cool or humid weather. Plants in full sun transpire more rapidly than plants in shady locations. In addition, more water evaporates from soil in a sunny site than in a shady one.

**Day length** is an important factor because plants transpire only during daylight. June is usually the month with the greatest water demand because it has the longest days, even though it may not be the hottest month of the summer.

**Mulching** also affects the transpiration rate. A thick layer of mulch keeps the soil cool and reduces the amount of water that evaporates from the surface. Watch the videos on our website for more information about mulch.

**Soil type** is critical in determining how water is retained and transpires. Understanding soil types will help guide you in proper watering frequency. Essentially, sandy, well-drained soils demand a more frequent watering schedule. Plants in heavy clay soils, the most common in our area, have to be watered less frequently or you will over saturate the soil, greatly limiting oxygen; this will suffocate and kill the roots and eventually the entire plant.

**Site exposure** is another factor that needs to be taken into consideration. Shade vs. sun; north exposure vs. south exposure; high ground vs. low; flat vs. sloped; all can impact how the water is or isn't retained.

## Plant Requirements

Plants can be divided into three broad groups based on moisture requirements:

- **Moisture loving plants** cannot tolerate drought. They thrive in soil that is moist but not wet. Water these plants when the soil is damp.
- **Typical plants** are those that require an average amount of water. Water these plants when the soil is just barely moist.

- **Drought tolerant** plants cannot tolerate wet soil. Although these plants can usually withstand long periods of drought, they grow best when watered periodically.

## Watering drought tolerant plants

Check to see if the root zone is completely dry. To do this, stick two fingers several inches deep into the soil, about 6" from the base of the plant, and use the tips of your fingers to gauge moisture level.

These plants are drought tolerant only after they are well rooted. When planted, drought tolerant plants should be treated as needing average water until established (usually takes one to two full seasons).

## Checking Soil Moisture

### Damp soil

- Cool and wet your finger but is not muddy. When squeezed, water will not run out.

### Moist soil

- Cool and moist but does not dampen your finger. The soil is crumbly but dry and dusty.

### Completely dry soil

- Dry and no longer cool to the touch.

## Watch Your Plants

It is always a good idea to observe plants for signs of water need.

- Curling leaves are usually the first indication of stress. The surface area of the plant is being reduced to cut down on transpiration (loss of water from the leaves).
- Normally shiny leaves grow dull. Bright green leaves take on a blue or gray-green appearance.
- New growth wilts or droops and older leaves turn brown, dry up and fall off.
- Flowers fade quickly and drop prematurely.

In most cases, these symptoms signal a lack of water, and the plant will recover if watered soon enough.

We hope this information proves helpful to you. As always, if you have any questions during the planting process, please call us immediately.