

# Proper Watering Procedures



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

It is important that you read and understand this entire set of instructions. Do not hesitate to ask your salesperson or call our office if you have any questions.

## Main Objective

Roots need water to survive and to supply needed moisture above ground for the process of photosynthesis that results in 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*, *etc.*

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

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

## How to Water

It is most important to *water thoroughly* when you water.

- This is best accomplished by setting your garden hose (nozzle removed) at the base of the plant, letting it slowly trickle to completely saturate the soil. Root masses may be 12" to 24" deep or deeper; that is how deep your water must penetrate.

- You may need to allow the first soaking to penetrate and repeat if runoff is a problem.
- An alternative method for large bedded areas is a sprinkler using a rain gauge or 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.

**This is only a guide. Please read below for weather and other factors that may alter requirements.**

## Weather and Other Factors

When you water, you are replacing 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 and 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 reducing the amount needed .

**Type of soil** is critical in determining how water is retained in the soil and how the plant roots are able to take it up. An understanding of soil types helps in guiding 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 saturate the soil, greatly limiting oxygen; this will suffocate and kill the roots and eventually the entire plant.

**Site exposure** is another factor which 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** can't 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** can't tolerate wet soil. Although these plants can usually withstand long periods of drought, they grow better when watered periodically. Water these plants as soon as the **soil in the root zone feels completely dry**. 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** feels cool and wets your finger but does not muddy it. When squeezed, water will not run out.
- **Moist soil** feels cool and moist but does not dampen your finger. The soil is crumbly but it is not dry and dusty.
- **Completely dry soil** is 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.

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