

## WATERING

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Water is essential for the health, vigor, and appearance of all plants.



During the spring we generally receive a sufficient amount of moisture. Mid-summer is probably the most critical transitional period because moisture levels can drop quickly and soil moisture availability becomes hard for roots to find. Moisture levels will drop quicker when conditions are hot and windy.

When plants start to show signs of stress by **wilting**, permanent damage may have already begun. Prevention is the key; therefore we have prepared the following guidelines on the basics of proper watering techniques.

### WILT

Drooping of leaves and stems from lack of water (inadequate water supply); vascular disease that interrupts normal water uptake



The guidelines below are a way to introduce you to basic practices; however if you have any problems or concerns regarding your landscape's specific needs, always contact your TruNorth representative.

### Time of Day to Water

The BEST time to water is approximately 3 a.m. to 10 a.m. At this time the temperature is cool and very little evaporation loss occurs. After the sun rises and the temperatures warm, the liquid quickly evaporates from the leaves. The cool, wet conditions in the evening can cause fungal infections; watering in the heat of day is also not ideal because the water evaporates before being absorbed into the plant.

Poor watering practices can accelerate the buildup of soluble minerals in the soil that over a long time can be ruin the health of the soil.



## Accurate Measuring

When you water, allow the water to soak into the ground. You should provide one inch of water with every soaking no more than once per week.

Remember to take rainfall into consideration when deciding how much to water. Use a rain gauge to monitor the amount of water your landscape receives. Also, keep in mind any water your plants might be receiving from an irrigation system.



## Be careful... you can over water your plants

Roots need both water and oxygen to thrive. Over watering can drown the roots, killing the plant. Inspect the area before watering. If the soil is dry on top, it might still be moist underground and not need water.

## Newly Seeded Turf

Seeds just planted should be CONSISTENTLY moist until growth begins. This means a daily light watering for 15 to 30 minutes. Do not overwater and do not use a strong spray. You do not want to drown or wash away the seeds.

Once seedlings have reasonable growth ( $\frac{1}{2}$ " to  $\frac{3}{4}$ ") reduce watering to twice weekly and apply  $\frac{1}{4}$ " to  $\frac{1}{2}$ " per watering. Once mowed, water 1" to 1 $\frac{1}{2}$ " once per week. Again, be certain to take rainfall and irrigation into consideration.

**Seeds will not germinate without the execution of these watering guidelines.**

## New Sod

Sod should be watered daily. Sod requires 2" to 4" of water per week for the first couple of weeks. After the first week, start stretching out the time between watering so that the roots will grow downward toward the soil moisture.

Keep up the frequent watering until about 20 to 30 days after planting. Once firmly rooted you may reduce watering to once per week, applying 1" to 1 $\frac{1}{2}$ " per application.

**Sod will die without the execution of these watering guidelines.**



## Established Turf

Established turf grass requires infrequent but heavy watering. Generally, established turf grass requires 1-1½" inches of water per week. Watering twice a week may be required during extreme conditions, such as temperatures of 90 degrees or higher or extremely windy days. Separate the watering to the early part of the week and the later part of the week watering a minimum of 1 inch per watering.



## Newly Planted Trees

When watering newly planted trees, remove the nozzle from your hose, wrap the hose in an old bath towel (so it will disperse the spray) and set the hose at the base of the tree. Water the area at a low pressure every other day (45 to 60 minutes) for 3 to 4 weeks, based on your soil conditions. Make certain to change the position of the hose to water evenly.

## Newly Planted Shrubs

Shrubs can be watered similarly to trees except the time frame drops to 10 to 15 minutes each. Avoid watering foliage, as water on the leaves of most plants can cause fungal problems.

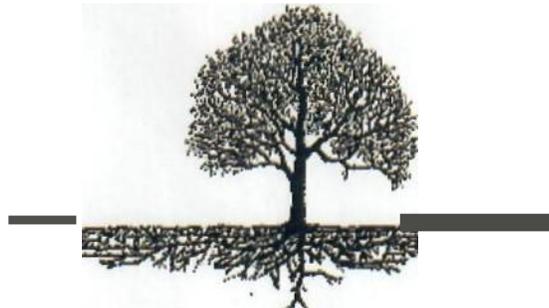


## **Established Trees and Shrubs**

Established trees and shrubs require water, but overwatering can cause serious damage. Over watering is one of the primary causes of failure in recently transplanted trees and shrubs. Over watering forces oxygen out of the soil and results in death of roots. The yellowing of foliage is the first sign of overwatering in trees and shrubs.

Avoid frequent light watering. This promotes the development of shallow root systems that are susceptible to winter injury and summer heat stress. Water infrequently but deeply (at least 6 to 8 inches) and allow the soil to dry out between applications. Most tree roots are not very deep (within the upper 6 to 12 inches of soil), and deep roots will receive water if enough is applied to the soil surface. Again, be careful not to over water established trees and avoid applying water directly to the trunk.

Water with an open-end hose at a rate low enough to keep the water from running off. A quick rule of thumb for watering trees is to water one hour per inch diameter of the tree. Remember, tree roots extend away from the tree at least as far as the tree is tall, and in most cases much farther. Place the hose at or beyond the drip line for the most effective watering.



## **Drought Effects on Newly Established Trees and Shrubs**

Prolonged drought causes damage to the root systems of trees. The majority of the absorbing roots are in the top 12" of soil. These roots are very sensitive to drying out, and are the first part of the root system to be affected. When the absorbing roots die, the leaves cannot get enough water to function. In addition to the direct root damage, water stress affects the bud set for next season.



Symptoms of water stress will not generally show up until the damage has been done. Some damage may not show up until one or two years later.

### Symptoms Include:

- Wilting
- Yellowing of leaves
- Leaf scorch-brown and dry areas
- Premature leaf drop
- Cracking of the bark on young trees
- Twig and branch dieback in more severe cases
- Needles or, evergreen trees will brown from the tip inward. They will also shed more needles in fall than in years with sufficient moisture.
- Under prolonged drought conditions, trees will show a general thinning of the canopy, and twig and branch dieback. Called defensive dieback, it is the effort of the tree to compensate for root loss.

Should your established plants show signs of drought stress, consult with your TruNorth Landscape professional immediately for assistance.

## Perennials

To encourage deep rooting of perennials, water thoroughly the first few weeks of planting. After a few weeks of regular watering, perennials should be well established and only require watering during periods of dry weather.



Perennials can be hand watered with a soaker wand, giving each plant 30 to 60 seconds of water. As a general rule, it is best to apply one inch of water each time you water.



## **Groundcovers**

Ground covers are easy to maintain; once they are established they will practically take care of themselves. Ground covers may be watered similarly to turf. They require 1-1½" of water per week.

## **Annual Flowers**

Annual flowers should be watered daily for optimum growth, health and appearance. A good rule of thumb is to water until the water starts to puddle.

## **Annuals in Containers**

In an exposed location, container plants loose moisture quickly. Some plants will need to be watered daily, especially during hot dry weather.

**Roses** (see Roses: Care and Maintenance)

