

Watering Trees



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MG13 'Watering Trees' by Patrick Weicherding, PhD
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Trees constantly lose water to the atmosphere. **Water is the single most limiting essential resource for tree survival and growth. Drought conditions can lead to tree decline, pest problems, and permanent damage.** Supplemental watering can greatly assist in maintaining tree health during drought – both during the growing season and during the dormant season.

How should I water?

The most satisfactory means of distributing an adequate amount of water to a tree is with a garden hose – open-ended for newly planted trees and soaker hoses or “drip” watering tapes for established trees. These methods of watering are more efficient than a sprinkler and reduce the amount of water lost to evaporation. **When you think you are finished watering, put a hand trowel in the soil, move it back and forth, and feel the soil. Is it moist 6-8” deep? If not, you need to continue to water—remember, less frequent deep watering is best for trees.**

Where should I water?

- Apply water directly over where the roots are in the soil.
- For new trees, concentrate water over the root ball.
- Large established trees can be watered by wetting the soil under the canopy. Most roots of trees spread 1½ to 3 times as wide as the tree’s canopy but not very deep – usually in the upper 6 to 12 inches of soil. Water the complete root zone each time you irrigate. Mature trees need watering during drought conditions.

How much should I water?

- Water infrequently but deeply (6-8” deep), allow the soil to dry out between applications.
- Frequent light watering promotes the development of shallow root systems that are susceptible to summer heat stress and winter injury.
- Be careful not to overwater, it results in oxygen starvation of roots. This causes root death and leads to the decline of the tree.
- For newly planted trees, supply 1 to 2 gallons per-stem-inch per watering.

How often should I water?

- Newly planted trees will benefit from watering twice weekly (when it doesn’t rain) for the first 2 years during the growing season. The frequency depends on the type of soil you have.
- Once you begin watering you should continue on a regular basis until rain comes. Plants use 3-5 times as much water during the hot, dry summer as they do during the dormant season.
- Adjust your watering schedule with the season and when there are significant changes in the weather.
- If your soil is sandy, you will have to water more frequently.

What time of day should I water?

- The best time to water is from 10 pm to 8 am.
- The next best time to water is late afternoon/early evening. Be sure to allow any water to dry-off of foliage surfaces before the evening dew appears. This dry gap between watering and atmospheric condensation helps minimize pests, which require longer wetting periods. This is especially critical where turf surrounds a tree.
- Be sure to follow the City of Minnetonka’s Watering Ordinance: Even-numbered addresses can water on even-numbered calendar days, and odd-numbered addresses can water on odd-numbered calendar day before 11 a.m. and after 5 p.m. Watering by handheld hose can be done at any time.

Other considerations?

- Remove or smother grass from around any tree to decrease water stress.
- Use mulch to conserve water and prevent grass and weed competition. Wood chips, shredded bark, grass clippings or pine needles all can be used for mulch.
- Cover the area with mulch about 3 to 4 inches deep.
- DO NOT mound mulch next to the tree’s trunk.