



THE MASTER GARDENER VOLUNTEER PROGRAM IS GROWING WITH THE MINNESOTA LANDSCAPE ARBORETUM

# WATER WISELY

## HEALTHY PLANTS, HEALTHY PEOPLE, HEALTHY PLANET

Knowing how soil texture affects water movement, and knowing the what, when, where and how of watering are key to growing healthy plants and to conserve our precious water supply. You can help by following these tips!

### TIPS FOR IMPROVING YOUR SOIL

- Have your soil tested to determine texture and percentage of organic matter.
- Add organic matter to sandy soils to increase the water-holding capacity of the soil.
- Add organic matter to clay soils to increase air space and to lessen compaction.
- With clay soils, water less frequently and at lower rates due to lower infiltration rate.
- With sandy soils, water more frequently and at higher rates due to higher infiltration rate.

### TIPS FOR MAINTAINING HEALTHY GARDENS

- What to water:
  - Choose plants that will thrive in your existing soil type, Hardiness Zone, light, space.
  - Know which plants require consistently moist soil and which prefer drier conditions.
  - Note microclimates - dry shade, windy areas, poor drainage.
- When to water:
  - Early morning to minimize water loss to evaporation, to avoid wind drift.
  - Feel the top 6"-9" of soil. Dry? Time to water.
- How and where to water:
  - Apply water at the base of plants to avoid wet leaves and reduce foliar diseases.
  - Lay out soaker hoses or drip irrigation in early spring as plants emerge.
  - Water deeply and less often to promote deeper, healthy roots.
- Conserve water:
  - Collect and use rainwater.
  - Choose drought-tolerant plants that require less water.
  - Add 2"-3" of organic mulch to conserve moisture in soil and protect roots.
  - Amend sandy soil with compost to increase soil's water-holding capacity.

## TIPS FOR MAINTAINING HEALTHY TREES AND SHRUBS

- Newly planted specimens:
  - Water directly over the root ball keeping backfill soil in hole moist. Create circular mound 3"-4" high around edge of root ball to serve as reservoir.
    - Week 1 & 2: daily
    - Weeks 3-12: every 2-3 days
    - Until established: weekly (1-2 years for shrubs; it depends on tree size)
  - Apply 1/4 - 1/3 of volume of original container for shrubs; apply 1-1.5 gallons per inch of stem caliper for trees.
- Established specimens:
  - Water early in the morning to reduce water loss due to evaporation and wind drift.
  - Feel top 6"-9" of soil...if dry, then water. Most water-absorbing roots are in top 12"-18" of soil, and root spread area is 1.5-3.5 times wider than canopy....use overhead sprinklers to cover this large area.

## TIPS FOR MAINTAINING A HEALTHY LAWN

- Choose drought resistant grasses such as fescues.
- Set your mower at 2.5" or higher to promote deeper roots.
- Water between 4-8 a.m. to reduce water loss due to evaporation and wind drift.
- The goal is to wet soil to depth of 6" with each irrigation so water deeply and keeping the intervals between watering as long as possible.
- If you have an irrigation system, be thorough with auditing. Install a rain sensor, a soil moisture sensor, or a smart irrigation controller as part of your automated sprinkling system to reduce over-watering.

## ADDITIONAL RESOURCES

Ask a Master Gardener Volunteer - <http://www.extension.umn.edu/garden/ask/>

Yard and Garden Information - <http://www.extension.umn.edu/garden/yard-garden/index.html>

What's Wrong with My Plant? - <http://www.extension.umn.edu/garden/diagnose/plant/>

*Plant Elements of Design* plant selection program - <http://landscapeplants.extension.umn.edu/>

Water Wisely (U of M) - <http://z.umn.edu/waterwise>