LAWN CARE

Water-Saving Strategies for Home Lawns

By Sam Bauer, Extension Turfgrass Educator

Water use in the home landscape is a hot topic- even in Minnesota. In the Twin Cities, on average three times more water is used during the summer than in the winter and much of this water is used outdoors. As urbanization increases and we continue to experience more extreme heat and drought, greater pressure is placed on our water resources. If you own an irrigation system or water your lawn with portable sprinklers, reduce your overall water use by implementing the following water-saving tips.

IMPROPERLY ADJUSTED SPRINKLER

WATER-SAVING TIPS

1. **Pay attention to the weather:** During a Minnesota summer, we may see heavy periods of rainfall followed by extended drought. Homeowners with lawns should adjust irrigation practices accordingly. This means no longer relying on the "set it and forget it" irrigation schedule that is often programmed into automatic systems. Operating irrigation controllers in manual mode is one way to solve this issue: turn the controller on only when your lawn shows signs of drought.
2. **Select lawn grasses that use less water and can tolerate drought:** Whether you are establishing a new lawn or renovating an existing lawn, choice of grass species will impact irrigation requirements. Traditional grass species for Minnesota include Kentucky bluegrass, perennial ryegrass, fine fescue, and tall fescue. Fescue species offer the best drought tolerance. Fine fescues simply use less water, and tall fescue has a deep root system able to access more moisture.
3. **Adjust irrigation programs to conserve water:** To encourage rooting and drought tolerance, lawns should be irrigated

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infrequently (one time or less per week) with a sufficient volume of water to wet soils to a depth of six inches, assuming no rainfall has occurred. Depending on your soil type, your lawn may only need as little as a half-inch of water. Set irrigation programs to water during the morning hours. Watering during the heat of the day reduces the amount of water absorbed by the soil and made available to plants.

IRRIGATION SYSTEM AUDITING

4. **Audit your irrigation system:** Auditing your irrigation system is a good step toward water conservation. Irrigation contractors will perform this service for you if you contract with them. There are three basic steps: 1) check system components including sprinklers, valves and controllers; 2) conduct a performance test, and 3) program the controller. For more information on conducing an irrigation audit, see "Conducting and Irrigation Audit" at the end of this article.
5. **Implement water saving technologies:** Rain sensors connected to irrigation controllers are common water-saving devices. Over the past decade, "smart" irrigation controllers, soil moisture sensors and more efficient sprinklers have also been developed. Smart irrigation controllers save water by automatically adjusting irrigation programs based on water use estimates or stored historical data. Additionally, inexpensive ($150 or less) soil moisture sensors can be purchased and embedded in the lawn. These sensors will not allow an irrigation system to run if soil moisture levels are adequate. Many municipalities offer rebates (as much as $250) for installing these smart irrigation devices on your home irrigation system.
6. **Improve soils and lawn quality through good maintenance:** Lawn care practices have a direct impact on irrigation requirements. High mowing heights (3 inches or greater) and proper fertilizer use will improve lawn quality and reduce irrigation requirements. Aeration of a lawn followed by top-dressing with quality compost can lessen compaction and add organic matter to soil. This will improve water infiltration in heavy soils as well as increase moisture-holding capacity of sandy soils that drain rapidly.

PROPER INSTALLATION OF A RAIN SENSOR

7. **Recycle water when possible:** Recycling water for irrigation requires proper design of water storage and separate to supply the water to irrigation sprinklers. Professional contractors who have expertise in this area have designed these systems for large commercial

buildings and sports complexes. For homeowners, rain barrels can be purchased from local municipalities and companies for the purpose of reusing rain water to irrigate landscape plants.

8. **Change expectations:** Consider changing your lawn expectations to allow for temporary discoloration during drought periods. It is very rare to have extended droughts that completely compromise the integrity of a lawn.
9. **Design landscapes for water conservation:** Choose plants that are well-suited to your site including drought-tolerant plants for dry areas. Mulch garden beds to retain soil moisture and reduce weeds. Retain water on-site using rain barrels, raingardens, and planted slopes.

For more information:

U of M Extension Lawn Care: www.extension.umn.edu/turfgrass

U of M Turfgrass Science Blog: www.turf.umn.edu

Metropolitan Council:

https://metrocouncil.org/Wastewater-Water/Planning/Water-Supply-Planning.aspx

Conducting an Irrigation Audit: www.irrigation.org/Resources/Audit_Guidelines.aspx

The University of Minnesota Extension Turfgrass Science Program is proud to partner with the Metropolitan Council in providing this information on water conservation to homeowners.

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