



Your Sprinkler System

This handout contains useful terms and definitions relating to your sprinkler system. Please use it for your reference. The information and resources provided are to help you better understand your system and maintain a healthy, attractive landscape while using water efficiently.

Root Depth

For a healthy lawn, roots should be 6 to 12 inches deep. This is accomplished by deep infrequent watering. Deep roots greatly enhance your lawn's ability to withstand extreme temperatures and increased intervals between watering.

Technology

A weather-based controller, rain or soil moisture sensor can help you conserve water when using your sprinkler system. Check out Fort Collins Utilities' sprinkler equipment rebates.

Water Pressure

Most sprinkler heads apply water more efficiently at a water pressure between 30 (spray heads) and 50 (rotor heads) pounds per square inch (psi). Sprinklers can't cover the desired area if the pressure is too low. If your pressure is low, try watering when less people are watering, modify your system so there are fewer sprinkler heads on each zone or consider multi-jet rotary nozzles. High pressure causes misting and wears out your sprinklers faster. If your pressure is high, pressure regulating heads or a pressure regulator can be installed to lower pressure.

Precipitation Rate

Precipitation Rate (PR) is a measure of how many inches of water per hour your sprinkler system is applying. Different head types have different precipitation rates. The precipitation rate determines how long you need to run your sprinklers.

Distribution Uniformity

Distribution Uniformity (DU) is a measurement of a sprinkler system's ability to apply water uniformly over the surface of a landscape. The amount of water put out by a sprinkler system is not completely uniform; therefore some parts of the landscape receive more water than others. Minor system adjustments may improve Distribution Uniformity and green up the dry spots.

Evapotranspiration Rate

The lawn's need for water is affected by the amount of sunlight, temperature, humidity and wind it's exposed to. That's why shady areas protected from the sun and wind require less water. The evapotranspiration (ET) rate is the amount of water, in inches, a typical lawn uses through soil evaporation and plant transpiration. When watering, the goal is to replenish just the amount of water that has been lost through ET. The ET rate determines how much water the lawn needs.

Watering Schedule

Many times sprinkler systems apply water faster than the soil can absorb it. The audit report has a recommended schedule based upon the average precipitation rate for each type of head and the pressure it is operating. It is meant to serve only as a guide, so keep an eye on your lawn and make adjustments as needed.

Watering with shorter cycles is important in clay soils, slopes or when sprinklers have a high precipitation rate. Run through all zones at one-half the total time needed, and then rerun the zones again by adding additional start times. This will help prevent puddling and runoff.

System Maintenance

You can tune up your system by fixing the maintenance problems identified in the visual inspection and noted on audit report. Then turn the system on at least once a month and watch it run to make sure everything is working properly. Check for broken, tilted or clogged heads and make any needed repairs. Take the time to adjust sprinklers that are not covering the desired area. Remember to adjust the number of days per week you water according to the weather, and turn off the system when it rains.

Looking for a Contractor?

Statewide training or certification requirements for irrigation contractor do not exist in Colorado. However, there are several organizations that provide optional certifications, including the Irrigation Association (www.irrigation.org), Water Sense (www.epa.gov/watersense) and Associated Landscape Contractors of Colorado (www.alcc.com). To find out what qualifications to look for when hiring a contractor, visit the Irrigation Association website, navigate to the 'Search' tab and select 'Consumer Info.'

Water-Wise Ideas

- Avoid watering when it's windy or raining.
- Hand water dry spots rather than overwater the entire lawn.
- Replace some bluegrass with planting beds or low water-using turf, control weeds.
- Use fertilizer sparingly since it encourages grass to grow, and to need more water and mowing. Lightly fertilize bluegrass in the spring and fall.
- Aerate the grass once a year--either early spring or late fall.
- Mulch planting beds and around trees and shrubs to reduce evaporation.

Mowing Tips

- Mow Early - mowing when its cool reduces the stress on a lawn.
- Mow Sharp - dull mower blades tear grass, making unnecessary stress on the lawn.
- Mow High - mow bluegrass 2½-3" tall to promote deeper rooting and shade the plant's root zone, so grass needs less water. Never cut off more than 1/3 of the leaf blade. Leave clippings where they fall as they add nutrients to the soil. Use a mulching mower to chop grass into small pieces.

Resources

Fort Collins Utilities: fcgov.com/conserve

Local weather station data: ncwcd.org

CSU Extension fact sheets: ext.colostate.edu

Daily Lawn Watering Guide: fcgov.com/lawnguide or *Coloradoan* weather page.

Xeriscape Demonstration Garden: 300 Laporte Ave., in front of City Hall. Self-guided tours.

Colorado State University Turfgrass Program: <http://csuturf.colostate.edu>

Gardening Advice

For help with gardening questions, call the CSU Extension Master Gardeners at (970) 498-6000.

Audit Questions

For more information, call Fort Collins Utilities at (970) 221-6700.