What You Need to Know About Proper Watering Practices

Another Report on Effective Turf Maintenance from the Lawn Institute

Lawn grasses and other plants in your landscape need water for growth and development. There is neither sufficient rainfall, nor is it adequately spaced throughout the year in much of North America, to sustain your landscape without supplemental water supplied by irrigation.

Proper watering practices improve the quality of your lawn, provide important environmental benefits, and save you money. It may be hard to believe, but most homeowners tend to over-water their lawns and actually waste water by not following a few relatively simple irrigation practices. This brochure outlines proper watering practices that will help ensure a healthier lawn.

Lawn Watering Basics

1. The healthiest lawns are produced when they are watered heavily at infrequent intervals. On an average, the lawn needs about one inch of water per week, either by rainfall or in combination with irrigation. This l-inch rule will normally soak the soil to a depth of 4 to 6 inches, allowing the water to reach deep into the root system.

2. The best times to water your lawn are early morning or early evening, when there is generally less wind and heat. Watering then allows for less evaporation into the air, greater penetration into the soil, and less run-off.

3. Let the lawn completely dry out between watering intervals. Most lawn grasses can tolerate dryer conditions over a reasonable period of time. Water only when a probe or screwdriver is difficult to push into the ground or shows that the soil is dry 4 to 6 inches down.

4. Interrupt watering when puddles or run-off occur. Allow water to penetrate into the soil before resuming watering. Soil types vary in the speed at which water will soak into them. Generally speaking, most watering systems apply water faster than it can be absorbed by the soil. Sloping areas are particularly prone to run-off.

5. Keep a newly seeded or sprigged lawn moist, but not soaked, during the germination process. Too much water can cause poor germination and seedling disease. A light mulch over the seed or sprigs will help keep the soil moist. As a new lawn begins to grow, lower the frequency of watering and increase the amount of water. After 4 to 6 weeks, treat the new lawn as an established lawn.

6. If you have a newly sodded lawn, soak it completely after placement, for a period of about 2 weeks. This allows the root system to become firmly established in the soil. Soaking may require watering every day or two. After a couple of weeks, water the sod as an established lawn.

Soil Types Do Make a Difference

Water soaks in at different speeds, depending on the composition of your soil type. If you know your basic soil type, use the following table as a general guide to watering. (Soil test kits and instructions are usually available at lawn and garden centers, and at better hardware stores. Soil test services and information are often available through your local County Extension office).

Soil Type	Infiltration Inch Per Hour	Time For 1 Inch To Soak In
Sand	2.0 inches	0.5 hours
Sandy Loam	1.0 inches	1.0 hours
Loam	0.5 inches	2.0 hours
Silt Loam	0.4 inches	2.25 hours
Clay Loam	0.3 inches	3.3 hours
Clay	0.2 inches	5.0 hours

There are two techniques that will help water absorb into the clay soils more effectively. The first is through the use of a core aerifier. The aerifier is rolled over a lawn, where it inserts metal tines into the soil and removes small cores of grass and soil. The small holes left behind make it easy for water to move down into the soil. They also give grass roots room to grow. An aerifier can be rented for a nominal fee at most equipment rental outlets.

The second technique is to use a chemical called a surfactant, or wetting agent, which reduces the tension surface of the water. This "wetter" water will run more freely into the soil. Apply the surfactant at the manufacturer's recommended rate. Both of these techniques can be used at the same time. They can be very effective on sloping terrain where run-off is a problem.

How to Check Your Watering Rate

No matter what kind of irrigation system or method you use, check and adjust it to the soil's absorption rate. A good rule of thumb is to apply water at a rate equal to or slightly

less than the soil ability to absorb it. Most irrigation systems apply water faster than necessary, which wastes water through run-off. Also, don't forget to check if the system is applying water uniformly!

The best way to check both of these functions is to set out a series of straight-side, flat-bottom cans for an in-ground system or a few cans for a movable sprinkler system. Run the watering system for 30 minutes and measure the amount of water collected. You can determine the length of time needed to apply one inch of water with a little simple math. If you know the soil type, check the chart above to figure how long the system needs to run in order to soak the lawn to a desired depth of 4 to 6 inches. Remember to stop the watering for an interval if you see run-off occurring.

Hilly or sloping areas may require a soaker hose to reduce run-off and allow better penetration into the soil. Soakers apply water slowly over a small area.

Water is a valuable resource and should be used as efficiently as possible, both in your home and on your landscape. Remember that "plants don't waste water, people do!"

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Back to Main Brochure Page