Lawn Care Water Wise

Water-Saving Irrigation Techniques. Educating yourself about water efficient technologies and strategies in regard to your own lawn or landscape will help conserve our natural resource and save you money. If you have an irrigation system, having a Certified Landscape Irrigation Auditor inspect your lawn will ensure maximum efficiency. For your reference, more information can be found on the Irrigation Association website at <u>www.irrigation.org</u>. Being knowledgeable about the different environmental and plant zones in your landscape will help to provide proper water/usage requirements. Following the guidelines from the Right Plant/Right Place section will help you to choose and establish plants that are adapted to your region and to your yard. Adapted plants will survive in your landscape with minimal inputs and supplemental irrigation and may exist solely on rainfall.

Water deeply and infrequently. The key idea for irrigating all plants is "deeply and infrequently." This concept means water with enough water today to replenish the moisture in the soil and wait as many days as possible before you irrigate again. The depth and frequency will depend upon your soil type, slope, and environmental conditions. Nice black, loose and loamy soils can take more water and do not need to be irrigated as often as sandy or clay soils.

The frequency will change as the weather changes. The time between irrigation events will be longer in the spring and fall and more frequent in the summer. Letting it dry out between rain and irrigation events will cause the roots to grow deeper, and the plant will have a better chance of survival. If you water too often the roots will remain short and in the top few inches of soil, therefore, they will become easily stressed when the temperatures become hot and the rain frequency decreases.

Soak and Cycle. With heavy clay soils it can be difficult to apply the needed amount of water all at one time. For example, the area may need the sprinkler system to run for 45 minutes to achieve the desired amount of water, but the water begins to puddle and run off into the street after 15 minutes. In this case one should utilize the soak-and-cycle approach. Using the soak-cycle approach with the example above, one would irrigate for 15 minutes and then allow the water to soak into the soil by waiting for 30-90 minutes, then irrigate for another 15 minutes, wait another 30-90 minutes and then apply the final 15 minutes. <u>Try not to water daily.</u> Plant roots need air to breath and if the area is being irrigated too frequently the soil will be saturated and the plant roots will essentially suffocate. Moreover, watering too frequently keeps the soil surface and plant foliage wet and increases the problems with diseases, insects, and weeds.

Irrigate Early in the Morning. The best time of the day to irrigate is early in the morning, right before dawn. Irrigating early in the morning will help maintain your plant health while maximizing the efficiency of your irrigation event. If you irrigate in the afternoon or evening, the foliage of your plants have a greater probability of staying moist all night long until mid-morning the next day. Most fungal organisms need moisture to thrive and damage our plants. By applying water only in the early morning, the foliage is wet for only a few hours. Irrigating early in the morning maximizes your irrigation efficiency by making sure that most of the water is reaching the intended plants and not being wasted. The wind is usually the calmest right before dawn. The temperatures are usually the coolest near dawn. Irrigating during windy times or when the temperatures are higher, causes more water to be blown offsite and/or evaporated before it reaches the plant. Furthermore, city water pressures are usually at their greatest in the early morning hours before the rest of the neighborhood wakes up. Irrigating at this time will ensure your system is operating at peak performance.

Monitor the Weather. Using a rain gauge to adjust your irrigation so you know when to water and how much to water your lawn and garden is essential. As a starting point, most lawns and gardens need on average 1 inch of water each week.

If you have an in-ground irrigation system, or you plan on installing one soon, consider installing a "Smart" irrigation controller. Smart controllers collect environmental data from your yard to determine when and how much some of the following: soil moisture, sunlight, rainfall, evapotranspiration, and wind speed. Installing and using Smart irrigation controllers will ensure a healthy landscape, while reducing water usage from 20-40% a year.

If you have an in-ground-<u>automatic</u> irrigation system, install a rain-shut-off sensor. This is a simple and inexpensive device that will turn off your irrigation system while it is raining. While mother nature is supplying the moisture, save your water and temporarily turn off the irrigation system. Installing a rain-shut-off sensor will save you money on your water bill and save water.

Hose-Bib Automatic Timers. If you use a hose to irrigate your yard or gardens, purchase and install hose-bib automatic timers. These are mechanical or battery-operated devices that can be screwed onto the spigot on the side of your house to automatically control when and how long the water runs. These devices can be simple ones like an 'egg-timer' dial where you turn on the water and turn the dial to desire length of time and walk away. The water will shut off at the set time. More sophisticated battery-operated timers can be used to automatically turn on and off the water at specified times of day.

Proper Design and Maintenance. When designing and installing your irrigation system locate sprinklers so that you are not watering the sidewalks, streets, buildings, and patios. After installation and periodically afterwards, check to make sure your irrigation heads are working properly and applying the right amount of water to the right location. Or to ensure maximum efficiency, have your system audited by a Certified Irrigation Auditor. You can use rain gauges and/or a series of empty cans or cups to measure the water application uniformity rate.

Drip Irrigation and Backflow Preventer. Drip irrigation is 20-40% more water efficient than sprinklers. Drip irrigation usually consists of water flowing through small tubes with tiny holes (or emitters) positioned along the tube. The tube is usually placed in landscape and vegetable gardens on top of the soil and under the mulch. Drip irrigation helps to eliminate evaporation and runoff since the water is applied directly to the roots where it is needed instead of spraying over the entire area.

Design and install your irrigation system so that lawn and garden areas are set with different zones and different sprinklers. The water requirements are different between plant types. Set up your irrigation system so you can apply the right amount of water to each area, without overwatering the other. Landscape and vegetable garden beds should utilize drip irrigation and turf areas should use sprinkler heads.

Use a back-flow preventer valve that prevents the accidental backflow of water causing it to flow into the drinking water line. Many city and locals require back-flow preventers. Check your local laws. Even if you are using a hose to irrigate, you can buy affordable back-flow preventers that screw into your hose. If using well or lake water for irrigation a filter should be installed and maintained to keep the valves and sprinkler heads from getting clogged.

Dormancy. When the temperatures become unfavorable for growth and/or the soil moisture becomes too low, turf grass can survive by entering dormancy. Dormancy is when the plant enters a resting phase where it stops growing, turns brown and avoids the harsh environmental conditions. The grass plant will usually green back up and resume normal growth once the temperatures cool and moisture returns.

Cool season grasses like Kentucky bluegrass, tall fescue and perennial ryegrass will turn brown during the summer without rainfall. Theses grasses can be kept green all summer long with supplemental irrigation, but by allowing the turf to go dormant, one can save water. Typically, the cool season grasses can survive in dormancy for 5-8 weeks without rainfall, depending upon grass and soil type, and the environmental conditions.



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