

Saving Water

Did you know?

- ◆ Outdoor water use can account for up to 50% of total water use for a home during the summer months.
- ◆ Homes with automated irrigation systems are more likely to overuse outdoor water (e.g. wasted water running down the sidewalk, or watering the sidewalk and streets).
- ◆ Over-irrigation can damage plants and make them unhealthy.
- ◆ Over-watered plants are more susceptible to disease and pest infestation.

What you can do:

- ◆ Mulch. Mulch holds moisture in the soil and prevents evaporation from soil surface. Fine-textured mulches (pine straw, mini nuggets, and shredded hardwood) are more effective in conserving moisture than coarse-textured mulch. Apply mulch to as large an area under the plant as possible.
- ◆ Deep watering. Shallow, frequent watering encourages a weak root system and reduces plant tolerance of drought. Deep watering is done for a longer period of time per zone, but not as frequently.
- ◆ Water roots, not leaves. Wetting the foliage encourages diseases and results in water loss through evaporation.
- ◆ Hand-water newly planted trees, shrubs, and thirstier plants. Again, deep watering is the best way to encourage a strong root system and drought tolerance.
- ◆ Use drip, trickle or soaker hose. Drip irrigation uses 50% less water than conventional sprinkler irrigation and applies water slowly and directly to the root system.
- ◆ Use the timer and install a rain sensor on the irrigation system. Rain sensors are inexpensive extras that usually pay for themselves (in water savings) within 2 years.
- ◆ Adjust irrigation controller according to the change in seasons and rainfall.
- ◆ Depend on rainfall as main outdoor water source when possible.

Rain Sensors

A rain sensor is a device actuated by rainfall. It is a water conservation device connected to an automatic irrigation system that causes the system to shut down in the event of rainfall.

Rain sensors for irrigation systems are available in both wireless and hard-wired versions. Most employ hygroscopic disks (which is just a big word for what is basically a cork) that swell in the presence of rain and shrinks back down again as they dry out. An electrical switch is then depressed, or released, by the disk stack. Both the wireless and wired versions use similar mechanisms to temporarily suspend watering by the irrigation controller or clock. Specifically they are connected to the irrigation controller's sensor terminals or are installed in a series with solenoid valve common circuits. This prevents the opening of any valves when rain has been sensed.

Soil Moisture Sensors

Soil moisture sensors measure the water content in soil. A soil moisture probe is made of multiple soil moisture sensors. The newer ones are made from very durable materials with the sensors encapsulated in the material (much like the defrosters in the rear window of your vehicle). Measuring soil moisture is important as it helps manage irrigation systems more efficiently.

In urban areas landscapes and residential lawns are using soil sensors to interface with an irrigation controller. Connecting a soil moisture sensor to a simple irrigation clock will convert it into a "smart" irrigation controller that will prevent an irrigation cycle when the soil is wet.

Using a soil moisture sensor in conjunction with a rain sensor is the most efficient, effective means of delivering the appropriate amount of irrigation to your landscape. By employing these two inexpensive means of delivering the right amount of water to the area, you will be able to save money by reducing the exposure of your landscaping to pests and disease, and will maximize fertilization by not flushing it through the soil so quickly through overwatering.

Whether you use city water (a huge cost); reclaimed water (a lesser cost, but still expensive) or well water (the electric costs to run the pump), you will save money. The smart "controller" will reduce the need for maintenance to constantly monitor the rain amount, as well as the need for turning your system on and off.

Moisture and rain sensor usage in urban landscape irrigation will only increase over the next decade. Cities and states have already begun rebate programs for the installation of these devices on new properties as well as retrofitting existing sprinkler and irrigation systems. Additionally, cities and counties are introducing local legislation that requires the installation of these devices.

No matter where you live there are experts in your local area who can provide you the best information and products. Technology has improved upon these products tremendously and their cost can generally be recouped in a very short time.

Water is a precious and costly commodity. We need to use it wisely, effectively and efficiently.

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