



Conserving Water

Solutions for Your Landscape

UF UNIVERSITY of
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IFAS Extension

<http://gardeningsolutions.ifas.ufl.edu/water>

A Better Lawn on Less Water

An irrigation system is often the key to a healthy, attractive lawn. However, the improper operation of automatic irrigation systems can waste water and fertilizer and cause disease. Your automatic system, typically composed of a controller and an irrigation shut-off device (a rain sensor or a soil-moisture sensor), should not be operated on a fixed schedule. You should turn the irrigation controller to the “off” setting and water only as needed.

Watering as needed means waiting to water until 30 to 50 percent of your lawn shows at least one of the three wilt signs. These are folding leaf blades, blue-gray color, and footprints remaining visible in grass.

The key to watering as needed is your irrigation controller. Your controller is the “brain” of your irrigation system, but it only does what you tell it. Rather than running your system on a set schedule, regardless of rainfall, take control of your system and irrigate only as needed to conserve water and keep your lawn healthy.

How Your Controller Works

Your controller—the “brain” of your irrigation system—hangs on the garage or utility room wall and tells your system when to come on and how long to run. Newer controllers are usually easy to set. They typically come with simple instructions on an attached label. Look for details on your model and read all the instructions carefully.

After setting the current day and time, there are really only three things the controller needs to be told:

- What day(s) to water
- What time to begin
- How long each irrigation zone should be watered

What is an Irrigation Zone?

An automatic, underground irrigation system typically waters the lawn in small, separate areas called “zones.” Usually there are four or more zones per lawn.

The water to each irrigation zone goes through its own electrically operated valve. A buried signal wire runs from the irrigation controller to each valve.



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What Day(s) to Water

Your water management district (WMD) and local ordinances can regulate which day(s) of the week you are allowed to water. Usually the schedule is determined by your street address. Water restriction information may be found in your local newspaper, or you can contact your WMD or local water utility department for specifics.

Remember, you don't have to water every day you are allowed to. There are months when your lawn will need much less water than you're allowed. Watering as needed is the key to a healthy lawn. Let your lawn tell you when to water by watching for the three wilt signs (folding leaf blades, blue-gray color, and footprints remaining visible in the lawn). When 30 to 50 percent of your lawn shows at least one of the wilt signs, it's time to turn on your sprinkler system.

For optimum water use efficiency, set the irrigation controller to "off." Set it only for "automatic" when you have determined, by looking at your lawn, that irrigation is needed and no rain is expected. You can also set the controller on "automatic" when you'll be away from home.

The setting for what days to water should correspond with your allowed watering days. This way, when you do switch the controller to "automatic," your irrigation will occur on an allowed day.

What Time to Begin

The best time to irrigate is in the early morning hours, from 4 a.m. until 8 a.m. Sunlight and wind evaporate less water during these hours, so you increase the efficiency of your watering. If you are unable to irrigate during these times, try to irrigate during the night.

Designated times for watering may vary slightly within WMDs, so check in the paper or with your WMD for advice on what times of day are allowed or recommended.

How Long Each Zone Should Run

Each irrigation zone's "run time" should be determined individually. You want the controller to run the system long enough to put 1/2-3/4 inches of water in each zone. Typically this is twenty minutes for shrub sprays and forty minutes for rotars. For sandier soils, the 3/4-inch rate may be required. For heavier clay soils, as in North Florida and the panhandle, you may only need to use the 1/2 inch rate.

Controller settings are in minutes, not inches of water. So

how do you figure out how long to run the system to get each zone the appropriate amount of water? The answer is to calibrate your irrigation system, zone by zone.

For specific details on irrigation system calibration, see "Saving Water With Your Irrigation System."

Irrigation Shut-off Devices

Irrigation shut-off devices (either rain sensors or soil-moisture sensors) have been required by Florida law on all irrigation systems installed since 1991. Some counties require them on all automatic irrigation systems, regardless of when they were installed. They are inexpensive and can save a lot of water. Be sure you purchase one and install it as part of your irrigation system if it's not already included. Usually it is sold separately from the controller.

If you are using a rain sensor, which are more common than soil-moisture sensors for home-lawn irrigation systems, it should be positioned on the roof or rain gutter with open sky above it. It is wired into the controller and will interrupt scheduled irrigation if sufficient rain falls. It will also keep the system turned off for a preset "dry down" time in which no irrigation is applied.

Adjust and Maintain Your Rain Sensor

Set the sensor to stop operation after 1/2-3/4 inches of rain has fallen. Fully open the "dry down" vent to prevent the system coming on again quickly. The "dry down" time is how long the system stays off once the rain sensor has interrupted irrigation. Your sensor's instruction sheet will give details on how to make these settings.

Make sure your sensor is operating properly by checking it every month during the rainy summer season and quarterly the rest of the year. A simple method for checking is to pour or spray a small amount of water over the rain sensor while the irrigation system is operating. Irrigation in all zones should stop soon thereafter and remain off for at least a couple of days.

The controller panel may appear to still be on and operating, in spite of the overriding action of the rain sensor switch. Some controllers have a corresponding "on-off" rain switch control on the panel. On these models, the control should be set to activate the rain sensor. For more information, see "Residential Irrigation System Rainfall Shutoff Devices."