Small test reveals sprinkler's output

By Keith Mickler*
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Can you tell me how much water your irrigation system puts out in a given time? If not, you're not alone. It's important to determine how much water your sprinkler system applies in a given amount of time in order to know how long the irrigation system should run.

Here's how to calibrate an in-ground or hose-end sprinkler:

- Get five to 10 empty coffee, tuna or other straight-sided cans. Those 3 to 6 inches in diameter work best. For an in-ground irrigation system, randomly place the containers within the irrigated area to catch the water when the system is on. If it has more than one zone, calibrate each zone separately. For a hose-end sprinkler, evenly space the cans in a straight row so the first can is close to the sprinkler and the last can is just at the ending edge of the watering pattern.

- Turn the water on for 15 minutes. Measure the water in all the cans. Determine the average depth of water collected. Multiply that by four to determine the application rate in inches per hour.

Now that you know the sprinkler system irrigation rate, you can apply water more efficiently. For example, if the sprinkler system applies water at the rate of ¼ inch per hour and you wish to apply ½ inch, then run the sprinklers for two hours.

It's best to do this calibration exercise the same time of day the system is normally run so the water pressures are similar.

Most people irrigate for a given number of minutes without knowing how much is needed. This can lead to two problems.

If you apply too little water, your grass will develop a shallow, weak root system. If you apply too much, it will run down sidewalks and streets, or through the root zone and deep into the ground where grass roots can't reach it.

Watering a lawn on an as-needed basis is the best way to water correctly and develop a deep-rooted lawn.

One-half to ¾ an inch of water is all it should take to wet the soil to a depth of 8 to 12 inches, where most grass roots are located. It's best to irrigate during early morning hours to prevent lawn diseases and to minimize water loss caused by wind and evaporation.

When a lawn needs water, it exhibits a bluish-gray cast or shows signs of wilting, such as rolling or folding.

When 30 to 40 percent of the lawn shows these signs, turn on the irrigation system. Don't water again until these signs reappear.

The best time to observe these signs of water need is during the evening when the grass is not in full sun. Remember that the lawn is a great indicator for when other plants in a landscape need water.

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