

## Efficient Lawn Irrigation

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Despite recent rainfall some automatic lawn irrigation systems have continued to run. Not only is this a waste of water, it is not healthy for turfgrass, soil, or trees growing in the lawn.

A continuously wet soil may not have enough oxygen needed for root growth and function. Wet soils are also prone to compaction which harms soil structure and plant growth.

The recommendation for lawn watering is to keep automatic irrigation systems turned off unless needed. Determine this by watching for signs of mild water stress. These include grass developing an off bluish-gray color, footprints or wheel tracks remaining in the turf after it is walked on or mowed, and rolled or folded grass blades.

Another way to determine the need for irrigation is inserting a screwdriver into the soil. If it pushes in easily to about six inches and feels cool to the touch when removed, watering is not needed. If it is difficult to push in and feels warm to the touch, irrigation is needed.

When needed, water long enough to moisten soil about six inches deep without water running off. Once moistened deep enough, turn the system off until watering is needed again. If water runs off instead of soaking in, this could be a sign of soil compaction and core aeration may be needed.

If the soil is clay, an irrigation system may apply water faster than it can infiltrate soil. Core aeration may help. Or the system may need to be run two days in a row to water slowly and deeply enough. On clay soils, the frequency of irrigation will be less as it will take soil longer to dry out if moistened deeply.

A common question asked is how often lawns should be watered. The answer varies for each location due to soil differences, slopes, and amount of shade. Using one of the two methods described above is the best way to determine how often to water. Knowing how much water your irrigation system applies during each run time is also helpful.

As a rule, lawns need about one inch of water per week. During the hottest part of summer, they may need one and a half to two inches. Do you know how much water your irrigation system applies? Too little or too shallow and turfgrass is stressed. Too much and turfgrass is stressed along with water wasted.

Uniform watering is most efficient. It helps avoid one area being underwatered while another is overwatered. Systems are often turned on for underwatered areas where the irrigation system misses or does not apply as much water and the rest of the lawn ends up overwatered. Do you know if your system applies water uniformly?

Have you recently observed your system running to look for inefficiencies or broken heads? Maybe a plant has grown large enough to interfere with a nozzle or some heads are hitting pavement more than the turf.

A fairly simple way to answer these questions is to conduct an irrigation audit. To do this, a grid system of containers is set out in each zone and the system turned on for about 15 minutes to be able to see how much water is applied in each container.

To conduct an irrigation audit, I have kits available at the Extension office to check out. They contain everything needed for the audit and a fact sheet on how to set up and run the audit. If interested in using one of these kits, give me a call at 402-563-4901 or email me at [kfeehan2@unl.edu](mailto:kfeehan2@unl.edu).

For information on turf irrigation efficiency, see our water wise fact sheets and other resources at: <https://go.unl.edu/turfwaterdogs>.