



QUICK GUIDE

Proper Lawn Watering Practices

While water is essential for all plant growth, it is not always uniformly available or distributed when and where the plant needs it. Therefore, supplemental water is often needed to sustain and support healthy plant growth whether it's vegetable plants, annual flowers, trees and shrubs or lawn grasses. For most of us, that means getting out sprinklers and hoses and doing some watering. While that can also be the case for lawns, there are also automated systems available to aid in the distribution and convenience of supplying supplemental water to lawns. Following are some lawn watering practices beneficial to the grass plant and that can help minimize unintended, negative environmental impacts.

WATER FRIENDLY LAWN CARE PRACTICES FOR THE HOMEOWNER:

- During the warm to hot and often drier conditions of the summer months, lawns will need about an inch of water per week, which includes rainfall, to remain green and growing. This same amount of water may be sufficient for two weeks or longer during the cooler periods of spring and fall. Always remember to factor in the amount of water received via rainfall so as not to be applying more water than the plant needs or can use.
- Likewise, adjusting watering practices seasonally will also be necessary. In the spring and fall when root growth is active and generally extends deeper into the soil, larger amounts of water can be applied per application but with longer periods of time between watering. In summer, smaller amounts applied more frequently will be more efficient due to the shallower rooting depth of lawn grasses during that time of year. However, shallower but more frequent application of water *DOES NOT MEAN* that the soils should remain saturated with water. Some soil drying between watering is beneficial for the plant. **Slight moisture stress experienced by the plant will actually encourage additional roots to be initiated in an effort to meet the increased moisture needs of the plant.**
- When applying supplemental water, avoid the formation of water puddles on the surface of heavier clay soils or applying excessive amounts of water on sandy soils. In the latter case, excess water can be lost by moving past the plant's root system before being taken up and used by the plant. This can also increase the likelihood of any nitrogen being carried with the water to reach groundwater resources.
- Water early in the day when temperatures are cooler and winds are usually less. This puts more of the water into the lawn for grass plant use and less lost to evaporation.

- Mow grass plants higher (3.0 to 3.5 inches) especially during the summer to encourage as deep and robust of root system as possible. This will allow greater access to soil nutrient and water supplies thereby reducing the need for additional water or fertilizer applications.
- Core aerify compacted soils to improve water infiltration, reduce runoff and improve grass plant rooting that, in turn, will improve access to soil nutrient and water reserves.
- Take advantage of irrigation system rain sensors and/or soil moisture sensors. These will prevent automatic systems from turning on during periods of rain or when there is already enough moisture in the soil.

BE CAREFUL NOT TO KEEP YOUR SOIL TOO WET:

Never allow the surface soil to remain water saturated (i.e., waterlogged), even for short periods of time. Healthy grass root systems need soils with pore spaces (i.e., those spaces between the actual soil particles) that are filled with about equal parts water and air. Air in the soil pore space is required for both nutrient and water uptake. Too much water forces air out of the pore spaces creating a waterlogged condition. This causes root dieback and creates significantly shallower root systems that potentially increase plant stress and make the plants more vulnerable to a number of serious plant diseases particularly those affecting the root system.

Other issues and problems associated with overly wet soils.

- Excessively wet soils can contribute to undesirable development of thatch levels of $\frac{3}{4}$ inch or more.
- Soils that remain too wet are often invaded by several grassy weeds that are very difficult to control once established in a home lawn.
- Research studies have shown that when additional water is applied or falls on already waterlogged soils, there will be an increase in the amount of runoff volume and potential nutrient loss under those conditions.
- During warm summer conditions, waterlogged soils can significantly increase the loss of fertilizer nitrogen back to the atmosphere in the form of nitrogen gas. Likewise nitrogen carried in water moving down through the soil past the plant's root system can also be accelerated.

ADDITIONAL RESOURCES

For more information regarding proper lawn watering practices, check out the Lawn Watering section of the University of Minnesota Extension's Garden Page:

<http://www1.extension.umn.edu/garden/yard-garden/lawns/#watering>

QUESTIONS OR COMMENTS?

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