



# Conserving Water

## Solutions for Your Landscape

**UF** UNIVERSITY of  
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IFAS Extension

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

## Improving Your Lawn's Drought Tolerance

Drought tolerance is a measure of how well your grass will survive dry spells and water shortages. Still, there are some simple management practices that can help improve the drought tolerance of whatever turfgrass species you have on your home lawn.

### Why Improve Drought Tolerance?

The primary objective of improving drought tolerance is to grow a good-quality lawn that will survive drought with little or no supplemental irrigation (watering by hose or sprinkler system). A lawn properly prepared to survive a drought will have a deep and extensive root system. These management practices will help train your grass's roots to grow deep.

### Irrigation

Less frequent, longer irrigations will help establish a deeper root system. Many homeowners rely on automatic sprinkler systems to apply small amounts of water several times weekly, regardless of rainfall. This is actually detrimental, because such a lawn's roots will stay only in the top few inches of soil so they're not able to get down to find water deeper in the soil during dry spells.



To develop a deep root system, water your lawn only when 30 to 50 percent of it shows at least one of the three wilt signs. The three signs of wilt, or lawn thirst, are folding leaf blades, blue-gray color, and footprints remaining in grass.

When you do water, apply 1/2 to 3/4 inches. For sandier soils, which do not hold water well, the 3/4-inch rate may be necessary. For heavier clay soils in North Florida and the panhandle, the 1/2 inch rate may be sufficient. The idea is to get water to your grass's roots without drowning your grass or creating run-off (excess water that your grass cannot absorb).

Once you have watered your lawn, hold off watering again until a portion of it shows one or more of the wilt signs. Do not irrigate to the point of run-off, where the soil is no longer able to absorb water and it flows on top of the ground or pavement. This only wastes water and does nothing for your landscape.

### Mowing

Always mow at the highest recommended height for your turf species. This increases leaf area, allowing for more photosynthesis, the process by which plants make carbohydrates that they store to help them survive stresses like drought. The higher the mowing height, the deeper and more extensive the root system will be.

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Never cut more than a third of the leaf blade at any one time. You may be able to reduce your mowing frequency since the grass will grow more slowly during drought.

Be sure to keep your mower blades sharp. A sharp blade makes a cleaner cut that heals faster and stresses the grass less than one made with a dull blade.

### **Fertilization**

Fertilization during drought should be reduced or postponed. Nitrogen fertilization encourages grass to put its energy into growing shoots rather than roots. This both prevents the grass from developing the deep root system it needs to survive and creates new grass blades that will suffer the effects of drought. If you choose to fertilize, look for a fertilizer with a primarily slow-release nitrogen and phosphorus source that will not promote rapid growth. Look for a fertilizer with a high potassium level (the third number on the bag) as this can help to enhance drought tolerance. Be sure to irrigate your fertilizer in after application to avoid burn and get the product to the roots, where it will be taken up by the plant. You want to apply just a small amount of water (1/4 inch) to do this, which would typically mean running an irrigation system for about fifteen minutes.

Supplemental iron applications can also help keep turf green during drought without promoting new shoot growth. Iron can be safely applied during drought times.

Soil testing is helpful in monitoring nutrient levels and soil pH, and not just during drought. Knowing your lawn's nutrient requirements can help you choose the right fertility products and design the best possible fertilization regime. Contact your county Extension office for information on how to submit soil samples.

### **Pest Control**

A healthy, vigorously growing turfgrass is the best defense against weeds and pests, so try to keep your lawn healthy by following homeowner best management practices. Pesticides application should always follow the label in order to avoid harming the plants, animals, or the environment. Especially in times of drought, it is best to spot-treat only those small areas that might be affected by a pest. The irrigation, mowing, and fertilization practices outlined above will reduce the need for pest control measures.

If a pest problem is diagnosed, it should be promptly treated by following recommendations from your county Extension office. Spot treating (treating individual areas by hand) is usually effective and is safer for drought-stressed grass than blanket treatment, or treating the entire lawn.

### **Alternatives to Turfgrass**

Sometimes turf is planted where it cannot survive long term. Alternatives to turf should be considered in such cases. Mulched beds or groundcovers, such as trailing evergreen plants like Asiatic jasmine or ivy, may be more suitable. In any case, choose plants that are hardy and do not require supplemental irrigation. Consult your county Extension office for suggestions on groundcovers that grow best in your area.