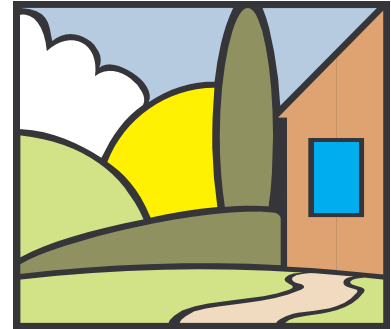


# Water Conservation

## Home Lawns



Water is the single most important component in the growth and survival of turf. It can become expensive if it's not managed correctly when used on a home lawn. Many homeowners don't realize they pay twice for a gallon of water used to irrigate their lawn. If they do not have a sprinkler account, they are assessed a sewer charge in addition to the charge from their water company, regardless of how they use the water.

During the summer months (May, June, July and August), as much as 70 to 80 percent of the water used by an average home is for outdoor use. Homeowners watering their lawns and landscapes are the main source of this outdoor use. There are lawn care practices that, if followed, can reduce the need for irrigation, which will save the homeowner money and still allow your home lawn to be healthy and green.

### The Best Time to Irrigate Your Lawn

Lawns should be irrigated only during the coolest part of the day when the wind is not blowing. The early morning hours are the best time to irrigate your lawn to keep it healthy and to conserve water by reducing evaporation. Avoid

mid-day watering when the sun is the hottest and the wind is blowing. This will minimize the loss of water due to evaporation. Nighttime irrigation should be avoided because it can encourage diseases, especially when nighttime temperatures are below 70°C.

### How Much Water to Apply

In Arkansas, warm-season grasses make up the majority of home lawns. The most common types of warm-season turf used in Central Arkansas are Bermuda-grass, zoysia, St. Augustine and centipede. These grasses only require about 1 to 1¼ inches of water a week during the summer months. Cool-season grasses like tall fescue should only be planted in shady areas. These types of grasses will need more water applied during the summer months. By reducing the number of days lawns are watered, a homeowner can conserve water and maintain a healthy lawn.

When irrigation sprinkler systems are used, it is important to not overwater. When it is determined that water is needed, it is better to water deeply and infrequently. Applying ¾ to 1 inch of water per week to the soil will moisten the soil to the depths of the

roots. Deep watering encourages the roots of the turf to grow deeper. If applying water to a slope, break water run times into two or three segments to avoid runoff. Allow periods of time for water to infiltrate the soil. This will eliminate runoff and ultimately conserve water for the homeowner.

### Let Your Grass Tell You When to Water

The best time to water your lawn is when it begins to show symptoms of wilt. There are two symptoms that turf shows as it begins to wilt. The first is a blue-gray leaf color. The other is if the turf starts to footprint after you walk across it and the leaf blade stays depressed, showing your footprint. Apply water when turf shows either of these signs. The proper irrigation at this time will replenish the water level in the soil and avoid permanent damage to the turf. Homeowners can test their soil moisture by simply putting a screwdriver in the ground 4 to 6 inches to see how moist the ground is.

Do not overwater your turf. Applying too much water and saturating the soil can cause damage to the turf just as not applying enough water.

## Maintain Good Cultural Practices

Using good cultural practices is a big factor in water conservation during the summer months. Increasing mowing heights during the summer will help the turf to stay shaded, thus lessening the evaporation of water when it is applied. Apply no more than 2 pounds of nitrogen fertilizer



during the combined summer months. Excessive amounts of fertilizer during summer months increases water usage and costs. Increase fertilization in the spring and fall months when temperatures are lower. Keep lawns aerated during spring, summer and fall months to promote water infiltration and air movement into the soil and to help improve soil

structure. Perform a soil test every 3 to 5 years to ensure amounts of phosphorus and potassium are at the correct levels for the type of turf. For more information on fertilization, see FSA2114, *Fertilizing Your Lawn*.

## Irrigation Systems

Irrigation systems should be designed to ensure adequate water distribution patterns. Poor sprinkler patterns result in parts of a lawn receiving more water than needed and leaving other parts without enough water. Irrigation systems can be tested by placing 10 to 20 straight-sided containers of the same size around the entire lawn, running the system for a set amount of time and measuring the amount of water collected in each container. This indicates the uniformity of the system. It only takes  $\frac{3}{4}$  inch of water to replenish the root zone of warm-season grasses.

Rain gauges should always be used to determine how much rainfall has accumulated, and that

will determine the need for watering. Install a rain shutoff device on your irrigation systems. These devices are inexpensive and easy to install; they can detect rainfall and automatically shut off sprinkler systems when it rains.

## Planning for the Future

Water conservation starts with proper selection of species and cultivars when planning for new lawns and renovation of existing lawns. Be aware of what types of turf grow best in Central Arkansas. Turf areas have the highest amount of outdoor water use; in the planning stage, only use turf in areas where it will be useful. If areas are not suitable for turf, consider ornamental plantings or other types of landscaping. Help educate friends and neighbors on water conservation. Apply all recommendations and observe restrictions passed on from local water municipalities to outdoor water usage. For help selecting the best turf for your lawn see FSA2112, *Choosing a Grass for Arkansas Lawns*.

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