



How Long Should I Run the Lawn Sprinklers?

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Spring is the best time to prepare the lawn for summer heat because mild temperatures favor root growth and roots supply water to leaf blades. Watering thoroughly and infrequently allows roots to develop deeper than six inches in the soil profile. **Deep roots help lawns stay vigorous in hot weather.**

Short, frequent irrigations stop root development because there is no moisture at deeper depths. Roots are then concentrated in the top few inches of soil. On the other extreme constantly soggy soils also stop deep roots from growing because there is no oxygen at deeper depths (and roots need air to respire and grow).

Shallow rooted lawns look terrible during summer heat spells because roots can't suck up enough water to keep pace with the heat demands of summer afternoons and hot nights. Water stress leads to dry spots followed by insect and disease attacks and weed invasion. Even when abundant amounts of water are added, the lawn never looks as good as it could.

Deep rooted lawns draw water from deeper depths and use it to stay hydrated and cool during summer heat spells. Several days can pass between irrigations and as a result they are stronger and less susceptible to root rotting fungi and weeds that thrive when lawns are irrigated daily.

Lawn Watering Guide. The following steps will help you determine how long to run the sprinklers. The simple procedure involves identifying the type of lawn and the output of the sprinkler system. A table provides a general guideline for scheduling lawn irrigation based on average weather data.

Step 1. Determine the type of lawn: COOL vs WARM Season Grasses - The majority of home lawns are tall fescue or bermudagrass. Tall fescue is a cool season grass that performs exceptionally well in our region in the fall and spring, but almost stops growing in the hot summer heat. Other cool season grasses are Kentucky bluegrass, ryegrass, and bentgrass. Warm season grasses such as common and hybrid bermuda, St. Augustine, buffalograss, and zoysiagrass thrive in summer, but go dormant and almost stop growing during winter.

Both grass types need summer water. Cool season lawns require about 20% more water than warm season grass lawns.

Step 2. Determine the output of sprinklers by conducting "can tests". Set straight-sided, equal-sized containers such as tuna or cat food cans on top of the lawn between sprinkler heads operated by the same valve. Run the system for 20 minutes and then use a ruler to measure (in

inches) the depth of water in each can. Now determine the average depth in all of the cans. Multiply by 3 to determine how many inches of water the sprinkler system applies per hour.

A can test is also useful to determine how evenly irrigation water is distributed over the area. If the sprinkler system does not have “head to head” coverage or if wind is a constant factor, then distribution uniformity is likely to be very uneven and the range of numbers in the cans might be wide. Irrigating to the average of the cans means that some spots get extra water and others don’t get enough. Try to adjust the sprinkler system to deliver a more uniform amount of water over the area.



No lawn is too big or too small for a can test!

Step 3. Determine how many minutes you need to water your lawn each week. Scientific research has accumulated data on how to water cool and warm season grasses in California. The amount varies based on climate. Table 1 is specific to the San Joaquin Valley and includes foothill areas. Identify your grass type and the current season on the table, and match that to your average sprinkler output. The value is the total number of minutes to run the sprinklers per week to provide enough water for the lawn during the season. Change your controller every season: Spring (March, April, May, Summer (June, July, August), Fall (September, October, November). Turn off the controller December through January and only water if needed.

Step 4. Determine irrigation frequency. In late winter or early spring start by watering once a week. As the weather heats up it may become necessary to water twice and then three times a week so divide the weekly value by two or three. Sloped areas usually need several shorter watering times to avoid runoff. If soils take up water so slowly that runoff occurs before 10 minutes, water cycling is necessary. To cycle: irrigate until runoff just begins, turn the system off, and repeat the process in 30 minutes before the soil surface dries out. Several cycles per day may be necessary to apply the desired amount of water.

Step 5. Fine tune the guidelines. These values need to be corrected to meet any special conditions of your property, such as excessive wind, reflective heat or shade. Never allow water to run off of your property into the street as water is a precious resource.

Table 1: San Joaquin Valley & Foothills – Minutes to Water per Week								
Warm-season turfgrasses					Cool-season turfgrasses			
<i>Minutes per week to irrigate if your hourly sprinkler output is:</i>					<i>Minutes per week to irrigate if your hourly sprinkler output is:</i>			
0.5 inch	1.0 inch	1.5 inch	2.0 inch		0.5 inch	1.0 inch	1.5 inch	2.0 inch
100	50	34	25	SPRING	134	67	45	34
160	80	53	40	SUMMER	213	106	71	53
71	36	24	18	FALL	95	48	32	24
Turn off controller and water in spring				WINTER	Turn off controller and water only on occasion			