UNIVERSITY OF MISSOURI Extension

Home Lawn Watering Guide

Reviewed by Brad S. Fresenburg Division of Plant Sciences Abridged by Soil Service Garden Center

Quick facts on lawn watering

- Lawns in Missouri may require as much as 1 to 1-1/2 inches of water per week from irrigation or rainfall during summer to remain green and actively growing.
- When managed properly, tall fescue requires 25 percent less water and zoysiagrass requires 50 percent less water than Kentucky bluegrass to maintain a green, actively growing lawn in Missouri.
- Turfgrasses in Missouri rank as follows in resistance to leaf wilting and browning during summer dry periods — Bermuda, zoysia, tall fescue, Kentucky bluegrass, perennial ryegrass.
- During extended periods of summer drought, dormant lawns (browned-out leaves) containing Kentucky bluegrass, tall fescue or perennial ryegrass should receive 1-1/2 inches of irrigation every two weeks to maintain hydrated grass crowns and allow for full lawn recovery when more favorable moisture and temperature return in the fall.
- Deeper roots draw moisture from a larger volume of soil and thus require less supplemental irrigation.

How much water to apply?

Lawn type	Green Turf[1]	Dormant Turf[2]
Perennial ryegrass	1.5 inches of water per week	1.0 inches of water per week
Kentucky bluegrass	1.2 inches of water per week	0.7 inches of water per week
Tall fescue	0.8 inches of water per week	0.5 inches of water per week
Zoysia or bermuda	0.5 inches of water per week	0.2 inches of water per week
Buffalograss	0.3 inches of water per week	0.2 inches of water per week

[1]Lawn remains green and growing
[2]Lawn may turn brown, but will not die

Once you have decided to irrigate, use Table 1 to determine the appropriate amount of irrigation for your lawn and develop an irrigation schedule. Should puddles or runoff occur before the total amount of water is applied, stop irrigating and resume only after the ground has absorbed the free moisture. Lawn areas that are moist, firm and have no visible water are ready for a repeat irrigation cycle. Areas that are soft and produce squashy footprints when walked on are not ready to receive additional irrigation.

One day after watering, check a few different locations in the yard to determine how well your irrigation program is distributing water in the root zone. With a shovel, cut a slender 2-inch wedge 6 to 8 inches deep. This wedge of soil, roots and turfgrass can be replaced easily without damage to the lawn after inspection.

Estimate the moisture content at different depths in the soil profile by pressing together a golf ball–sized amount of soil. If drops of water can be squeezed from the soil ball, you may be irrigating too much or too often. Soils that hold together without crumbling and appear moist have been irrigated properly. Soils that appear dry and dusty and do not form a ball when squeezed have not received enough irrigation or the water is running off the surface of the lawn and not into the root zone.

Adequate soil moisture 6 to 8 inches deep is sufficient to maintain grasses during the summer. A foot-long slender screwdriver pushed into the ground in several locations can also give a quick assessment of the moisture condition of the soil. The screwdriver will easily penetrate to the soil depth that has received sufficient water. The screwdriver test can also be used to help determine where and when irrigation is needed.

Conserve water by knowing when to water

The best time to water a lawn is from 6 to 8 a.m. During this time, the water pressure is highest, disruption of the water pattern from wind is low, and water lost to the atmosphere by evaporation is negligible. Watering early in the morning also has the advantage of reducing the chance of turfgrass diseases that require extended periods of leaf moisture. Avoid irrigation during midday and windy conditions.

Move sprinklers frequently enough to avoid puddles and runoff. Difficult-to-wet areas such as slopes, thatched turfgrass and hard soils may benefit from application of a wetting agent to improve surface penetration of water.

Water only when the plant tells you to. Become familiar with areas of the lawn that wilt first — bluish-purple leaves, rolled leaves, foot printing. Water within a day of observing these symptoms.

Water problem areas by hand to postpone the need for irrigation of the entire lawn. Some areas of a lawn usually wilt before others. These areas, called “hot spots,” may be caused by hard soils that take up water slowly, slopes, southern exposures and warmer areas next to drives and walks. Lawns that have unusual shapes also may require some hand-watering to avoid unnecessary watering of paved surfaces, mulched beds and buildings. Soaker hoses that have a narrow pattern and supply water at a slow rate may be useful in these areas.

Watering new lawns

Newly seeded or sodded lawns require special irrigation. A newly seeded lawn should be watered daily and may need as many as four light waterings in a single day. Keep the seedbed moist, but not saturated, to a depth of 1 to 2 inches until germination occurs (green cast to lawn and seedlings are 1/4 to 1/2 inch tall).

Seedlings of a new lawn must not be stressed to the point of wilt. Continue with light applications of water — 1/8 to ¼ inch — one to four times a day.

Watering with a light mist is best for establishing new lawns. As seedlings reach 2 inches in height, gradually reduce the frequency of watering and water more deeply. After the new lawn has been mowed two or three times, deep, infrequent waterings are the best.

Newly sodded lawns require watering one or two times a day. Begin irrigation immediately after laying sod. Plan your sodding operation so that a section of laid sod can be watered immediately while other areas are being sodded.

Sod should be watered so that both the sod strip and the top inch of soil below the sod are wet. The first irrigation will take about an inch of water to completely wet the sod. After watering, lift up pieces of sod at several locations to determine if it has been adequately irrigated. Continue watering one to two times a day with light irrigations to prevent wilting and to ensure moist soil just below the sod layer.

As sod becomes established and roots penetrate and grow in the soil, gradually reduce the frequency of watering. After sod has been mowed two or three times, irrigate deeply and infrequently. During hot, windy conditions, establishing sod may require several light mistings per day to prevent wilt and potentially lethally high temperatures. In this case, light misting, just to wet the leaf surface and not to supply water to the soil, cools the grass plant as water is evaporated from the leaves.

Do not overwater, or saturate, the soil because that will inhibit sod roots from growing into the soil. If the sod cannot be watered on a daily basis, thoroughly water the sod and soil to a depth of 6 inches. Although this will delay the rooting time of sod, it will also reduce the chance of rapid drying and severe loss of grass.

Summary

Good lawn care practices save water and harden turfgrass in preparation for dry periods or local lawn-watering restrictions. Taller mowing and fall nitrogen fertilization fertilization of cool-season grasses develop a hardy and efficient root system that reduces the need for supplemental irrigation.

Irrigation schedules should be kept flexible and associated with identification of lawn wilting. Choose a sprinkler that best fits the size and shape of your lawn. Determine the amount of water the sprinkler applies to accurately water your lawn. During establishment of newly seeded or sodded lawns, water daily. After a new lawn has been mowed a few times, water deeply and infrequently.