

BASIC WATER NEEDS OF TURFGRASS

Historic recommendations in Nebraska have been to provide turfgrass with 1 to 1½ inches of water per week from rainfall and/or irrigation. However, different types of turfgrass have different requirements and respond differently to dry periods. Homeowners also have different preferences for their lawns appearance. Following one rule for all turfgrass types leads to water waste, as does the “set it and forget it” strategy often used with automatic irrigation. For turfgrass, staying on the dry side is healthier than overwatering.



TURFGRASS RECOMMENDED FOR NEBRASKA



Common grasses grown in Nebraska are Kentucky bluegrass, tall fescue and buffalograss. Kentucky bluegrass and tall fescue green up early in spring and go dormant in late fall; grow best during cooler spring and fall weather; summer irrigation is often needed to maintain green color; and are not as drought/heat tolerant as buffalograss, Buffalograss greens up later in spring; goes dormant earlier in fall with active growth occurring during summer; in most years, irrigation is not required.

TURFGRASS RESPONSE TO DRY PERIODS/DROUGHT



Kentucky bluegrass will discolor and slow growth if water is limited. During dry conditions it has the physiological ability to go dormant (turn off-color but still be alive) to escape drought. If a homeowner is not tolerant of a dormant summer turf, Kentucky bluegrass will need the most frequent irrigation because it has a shallow root system compared to tall fescue and buffalograss. If Kentucky bluegrass is allowed to go dormant, and conditions remain dry and hot (above 80°F.), apply $\frac{1}{4}$ to $\frac{1}{2}$ inch of water every 2-3 weeks to hydrate crowns while not greening up dormant turf. Kentucky bluegrass can remain dormant for 4-5 weeks. Cooler fall temperatures and fall rain will bring it out of dormancy. If not, irrigation should resume.



Tall fescue tolerates dry periods better than Kentucky bluegrass due to a deeper root system that can use moisture deeper in the soil profile. Discoloration during normal dry periods is unusual for tall fescue. However, it does not have the physiological ability to go dormant and avoid drought. If tall fescue begins to turn off-color from lack of water during summer, it will require irrigation. While it uses more soil moisture due to deeper roots, it is considered a turfgrass to plant to conserve water because it requires less frequent irrigation in central and eastern Nebraska.

Buffalograss tolerates drought due to a deeper root system and better heat tolerance and has the ability to go summer dormant during drought periods. Once established buffalograss rarely requires irrigation in most of Nebraska.

WHEN DOES TURFGRASS NEED WATER

Kentucky bluegrass and tall fescue need irrigation when it begins to show signs of water stress. Symptoms include developing an off bluish color; footprints or wheel tracks remaining in the turf after it is walked on or mowed; and rolled or folded grass blades. Irrigate when turfgrass shows signs of needing water rather than using the “set it and forget it” strategy. The best setting for automatic irrigation systems is manual, allowing the homeowner the flexibility to choose when to irrigate.

