



DROUGHT-TOLERANT LAWN SPECIES HELP REDUCE WATER USE, STILL LOOK GREAT

By Chris Hilgert

Household water use can more than double during summer largely due to watering lawns, gardens, and landscapes.

This can lead to higher water bills in towns or energy bills from running water pumps on wells. High water use also affects lakes, streams, reservoirs, and ground water supplies.

For many rural properties, limited water supplies from wells create the need for even more water conservation. Lawns in Wyoming's dry climate need water to reach their full potential, but we understand water is a limited natural resource. Conserving water is especially important in dry years when snowfall and water levels are below normal.

Regardless of the turf type, watering properly will make a lawn more drought tolerant, allowing the lawn to stay green longer between waterings.

Water Deeply, Infrequently

The general rule of thumb is to give lawns an inch of water per week through the growing season. During the heat of summer, a lawn may need

an inch and a half per week. You may have heard the recommendation to water deeply and infrequently. But what does that mean? Giving a lawn a half inch of water twice a week rather than a quarter inch of water four times a week will wet the soil deeper and allow grass roots to grow deeper into the soil profile.

As the soil surface begins to dry out, those deep roots can still access water deeper in the soil. Remember, shallow watering encourages shallow grass roots. Since the soil surface dries quickest, a lawn will be drought stressed sooner than grass with deeper roots.

Watering early in the morning is best. Mornings are the coolest part of the day with the lightest wind. Water is lost to evaporation when watering in the heat of the day, and winds can blow off or evaporate water before it reaches the ground. Watering late in the evening leaves the grass wet all night, creating conditions that favor fungal grass diseases. When watering, make the most efficient use of that water.

Drought-tolerant Lawn Species

There are lawn species that tolerate dry conditions for longer periods of time while staying green between waterings. Some grass species are more drought tolerant than others, and choosing a drought-tolerant species can help save water. Some of the most drought-tolerant species include fine fescues, turf type tall fescue, buffalograss, blue grama, and new varieties of Kentucky bluegrass bred for drought tolerance.

Creeping red fescue, Chewings fescue, sheep's fescue, Dawson's slender red fescue, and hard fescue are some of the commercially available fine fescue varieties that will save water.

All of these fine fescues have a very narrow leaf blade that can mix well with other grasses like Kentucky bluegrass. Fine fescues can grow in sun or shade and have few pest problems making them ideal for use in home lawns. Of these, creeping red fescue is the only spreading type. The others are clump-forming grasses. Fine fescues are naturally drought

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tolerant. Their narrow leaf blades have less surface area to lose water. They also have deep roots, giving the plants a large pool of resources to draw upon for water and nutrients.

Turf type tall fescue has a wide leaf blade, giving it a coarse texture. This characteristic makes it undesirable to blend with other grass species. Tall fescue is best planted alone. It has good heat and drought tolerance, and has few pest problems. A clump-type grass does not repair damage from wear and tear very quickly like Kentucky bluegrass. Tall fescue will develop a deep root system if watered deeply.

Kentucky Bluegrass Cultivars

Traditional Kentucky bluegrass varieties have excellent heat and drought tolerance. They work well in home lawns and in sports fields because of their creeping growth habits that repair damage quickly. Kentucky bluegrass is adaptable to growing across much of the United States and has been one of the best options for areas with cold winters and hot, dry summers.

If Kentucky bluegrass has a downfall, it is that it has relatively high fertility and water requirements to maintain appearance. Recent breeding efforts have improved the drought tolerance of Kentucky bluegrass cultivars.

Other research efforts have crossed the desirable aesthetic value of Kentucky bluegrass with the drought tolerance of Texas bluegrass to create hybrids that look great even during hot, dry conditions. Some

of these new Kentucky bluegrass cultivars include America, Apollo, Baroness, Brilliant, Impact, Mallard, Midnight, Midnight II, Moonlight, Rugby II, Showcase, Total Eclipse, and Unique.

Bluegrass cultivars differ little in actual water use rates. Improved drought resistance comes from the ability to grow deeper roots. Commercially available Texas bluegrass x Kentucky bluegrass hybrids, Reveille, Longhorn, Thermal Blue, Solar Green, Dura Blue, and Bandera, have even better drought resistance and heat tolerance.

Other Options

Buffalograss is native to the United States and is known to be a food source for grazing buffalo, hence the name. It is considered a warm-season grass but has more cold tolerance than other warm-season grasses. Still, growing buffalograss at high elevations may be difficult. Sites with lower elevations in Wyoming are the best locations to try buffalograss lawns. It is one of the most heat- and drought-tolerant turf species.

Buffalograss seed is difficult to harvest, resulting in higher seed costs. Seed establishment can be difficult. You can also purchase plugs to plant. Buffalograss has spreading stolons that will fill in the gaps between the plugs as it establishes.

Blue grama is another grass native to the North American prairie. It prefers sandy soil, whereas buffalograss dominates on heavier clay soils. Blue grama is sold for use in seeding

rangelands, but it has also been used as a low-maintenance turf grass. Blue grama is a warm-season grass and, like buffalograss, will perform better at lower elevations. However, it can be found at higher elevations, too. It is drought and heat tolerant but can be difficult to establish and will produce a lawn with moderate aesthetic qualities. As a clump-forming grass, it will not recover from wear and tear like creeping grasses.

Whether creating a lawn from scratch or renovating an existing lawn, choosing a drought-tolerant grass type will improve the lawn's performance through the summer. Give the lawn deep, infrequent waterings to maintain the lawn's appearance, make the most efficient use of water, and increase its drought tolerance.

*Drought-tolerant lawns are only one horticultural specialty area for **Chris Hilgert**, the University of Wyoming Extension Master Gardener coordinator. He can be reached at (307) 766-6870 or at chilgert@uwyo.edu.*

