

Selecting turfgrass for Wyoming

no easy walk in the park

Homeowners wanting new lawns have a choice between sodding and seeding, and if seeding, have several options that fit Wyoming's varied climate and soils.

Most turfgrass lawns in Wyoming are cool-season grasses. Warm-season grasses such as Bermudagrass, Saint Augustine grass, and Zoysiagrass are not cold-tolerant and not well-suited for Wyoming.

Traditional cool-season grasses suitable for Wyoming lawns include Kentucky bluegrass (*Poa pratensis*),

turf-type tall fescue (*Festuca arundinacea*), rhizomatous tall fescue (a morphotype of *Festuca arundinacea*), perennial ryegrass (*Lolium perenne*) mixed with Kentucky bluegrass, and fine fescues (*Festuca rubra*, *Festuca longifolia*, *Festuca rubra* var. *commutata*, *Festuca ovina*, *Festuca rubra* 'Dawson').

Buffalograss, a native species, is a warm-season grass with cold-tolerance. Sports turf areas may include bentgrass species, particularly on golf courses, but bentgrass is not a

good choice for home lawns due to its need to be mowed very short.

Getting started

Evaluate the area in which the turf species will be planted. Consider sun vs. shade, wear and tear by foot traffic from people and pets, and moisture requirements. Also consider your expectations for the lawn's appearance. Ask yourself, what do I want my lawn to look like? People typically like traditional lawn species (Kentucky bluegrass, tall fescue, fine



fescue) that produce dark green, dense, uniform lawns with few or no weeds. Those interested in native grasses and drought tolerant lawns appreciate low water and fertility requirements but also need to understand the lawn may look less manicured with more of a natural look. Homeowners with native grass lawns may have to accept an increased number of broadleaf plants mixed in their lawns.

Alternative options to grass lawns include less traditional mixes with grasses and/or broadleaf plants including yarrow, clover, and micro-clover that can provide a green groundcover, handle foot traffic, and require little water, fertilizer, and mowing.

Seed vs. sod

Planting a new lawn from seed can be more challenging than establishing a new lawn from sod. Planting seed does have some advantages, though. Seed is less expensive than sod, and not all grasses can be planted from sod. More options are available with grass seed.

Lawns planted from seed often struggle or fail due to lack of water between planting and establishment. Here are some tips for success when planting grass from seed. Plant grass

seed when nighttime low temperatures are consistently above 40 degrees F and daytime high temperatures are consistently below 85 degrees F. Create a seedbed prior to planting and eliminate weeds and other vegetation. First, till, rake smooth, and lightly pack and firm up the soil with a roller. Next, apply 4–8 pounds of seed per 1,000 square feet for traditional lawn species or 2–4 pounds of native grass seed per 1,000 square feet. Lightly rake seed into the top ½ inch of soil to get good seed to soil contact. A ½ inch layer of straw or compost applied over the planted area is not required but is a good insurance policy that speeds germination. Lastly, watering lightly and frequently is the most important step. Irrigate enough to wet the soil 1–2 inches deep and irrigate frequently enough the soil surface does not dry out between watering. A standard recipe for success is to let sprinklers run for 10 minutes three times per day: 6 a.m., noon, and 6 p.m.. Water more frequently, up to four to five times per day on hot days, to prevent the site from drying out between watering. Do this every day until the grass is 6 inches tall and then mow for the first time.

Sod is a more expensive option but can have a higher success rate than



Grasses suitable for Wyoming lawns

- Kentucky bluegrass (*Poa pratensis*)
- Turf-type tall fescue (*Festuca arundinacea*)
- Rhizomatous tall fescue (a morphotype of *Festuca arundinacea*)
- Perennial ryegrass (*Lolium perenne*) mixed with Kentucky bluegrass
- Fine fescues (*Festuca rubra*, *Festuca longifolia*, *Festuca rubra* var. *commutata*, *Festuca ovina*, *Festuca rubra* 'Dawson')
- Buffalograss

seed. The biggest drawback to sod is its limited options: Kentucky bluegrass and rhizomatous tall fescue are the only options. If you want something else, you will have to plant seed or buffalograss plugs. Sod can be applied just about any time when the ground is not frozen. Like with seed, clear the ground of weeds and other vegetation, till, rake smooth, and lightly firm up the soil with a roller before planting. Fit sod pieces tight together with no gaps between pieces. Water twice a day (more in hot weather) and apply enough water to wet the sod completely and wet the soil surface beneath the sod. Let the grass grow to 6 inches tall before mowing for the first time.

Kentucky bluegrass

Kentucky bluegrass is the most common turfgrass species in Wyoming. It does best in full sun and has little shade tolerance. It tolerates foot traffic from people and pets making it is a good option for a backyard. It is also suitable for sports fields, school yards, and city parks. Kentucky bluegrass has a creeping and spreading root system with underground stems called rhizomes. This growth function helps repair injuries, maintain a dense groundcover, and helps reduce weeds through plant competition. Because of its spreading growth habit, Kentucky bluegrass can become weedy by spreading into landscape beds, mulched areas, and garden areas adjacent to lawns.

Kentucky bluegrass has moderately high water and fertility needs. Most Kentucky bluegrass lawns require 1–2.5 inches of water (including rainfall) per week through the growing season. One inch is adequate in spring and fall, but more water is required to maintain a green lawn as temperatures rise. Kentucky bluegrass has fairly good heat tolerance as long as it's getting enough water. When temperatures reach 90–100+ degrees F, increase irrigation up to 2.5 inches per week. Kentucky bluegrass lawns will go into summer dormancy due to a combination of heat and drought stress.

Manicured Kentucky bluegrass lawns require one–two fertilizer applications per year. Acceptable appearance may be achieved by fertilizing the lawn once every one–two years. Kentucky bluegrass lawns not receiving fertilizer applications lose vigor, density, and color changes from dark green to dull yellow-green. Nitrogen provides the greening effect to the lawn. Apply no more than 1 pound of nitrogen per 1,000 square feet per application. If the lawn looks yellowish and slow to green up in spring, apply a quick release (water soluble) nitrogen fertilizer early to invigorate growth and increase the lawn's density. Slow release fertilizers can be used in late spring or early summer to provide a long-lasting (10–12 week) fertilizer effect.

One of the maintenance issues to consider with Kentucky bluegrass is the buildup of a thatch layer over time.

Thatch makes water infiltration into the soil difficult, resulting in drought stress. Aerating or dethatching the lawn every one to two years helps prevent thatch from building up. Aerating is not required for other cool season grasses.

Kentucky bluegrass is planted as seed or sod. Purchased Kentucky bluegrass seed is often mixed with perennial ryegrass. Perennial ryegrass is included in seed mixes because it germinates quickly. This helps the new stand of grass establish sooner, which helps suppress weed populations in the new lawn. Over time, Kentucky bluegrass will outcompete perennial ryegrass resulting in a mostly bluegrass lawn.

Turf-type tall fescue

Turf-type tall fescue is a deep-rooted bunchgrass that grows best in full sun but can handle partial shade. Water requirements for tall fescue range from 0.75 inches to 3 inches per week depending on temperatures and soil depth. Some research indicates that in deep soils, tall fescue roots can find water deeper in the soil profile than Kentucky bluegrass, increasing its ability to stay green longer between waterings. Research also suggests tall fescue requires the same amount of water, or even more water, as Kentucky bluegrass in shallow soils. Traditionally, it has been recommended to plant 100 percent tall fescue seed and not to mix tall fescue with other lawn grasses. Older varieties have wide leaf blades and appear as weedy clumps when

found mixed in Kentucky bluegrass lawns. Some newer varieties may have a more aesthetically pleasing appearance in both color and texture. It is also important to differentiate between turf-type tall fescue and tall fescues found in rangeland or pasture seed mixes. Only turf-type tall fescue varieties are appropriate for home lawns.

Rhizomatous tall fescue

Rhizomatous tall fescue has excellent tolerance for heat, drought, shade, and foot traffic. It grows and spreads similar to Kentucky bluegrass and can be planted from seed or sod. Some research indicates maintaining an appearance similar to Kentucky bluegrass may be accomplished with up to 30 percent less water. Sod producers indicate that rhizomatous tall fescue grows well throughout turf-type tall fescue growing regions, but it is not as common and has not been tested extensively in all areas of Wyoming.

Fine fescues

Fine fescues are among the most shade and drought tolerant turfgrass species, even though fine fescues can grow in full sun. Fine fescues have low tolerance for heavy foot traffic and are not good choices for areas with children or dogs. Several species are considered fine fescues because of their narrow, or fine textured, leaf blades. Shade tolerant seed mixes often contain some or all of the following: creeping red

fescue, Dawson's slender red fescue, hard fescue, Chewing's fescue, and sheep's fescue. Creeping red fescue has a spreading growth habit while the others are clump forming grasses. Seed mixes lacking creeping red fescue tend to form clumpy lawns with bare spots between grass clumps. Including creeping red fescue in the mix is desirable and will help create a uniform, dense groundcover. Fine fescues can look like a manicured lawn or more of a natural area depending on maintenance practices. A well-maintained fine fescue lawn will need 0.5–1 inch of water per week and a fertilizer application of 1 pound of nitrogen per 1,000 square feet every two to three years. Fine fescues are also used in low maintenance lawns that receive as little as 1 inch of water per month and are not mowed, or are mowed once or twice a year, to clean it up. Unmowed fine fescues may grow 8–10 inches tall. Fine fescue lawns receiving regular irrigation will grow faster, and mowing every week or two will provide an appearance of a traditional lawn.

Buffalograss

Buffalograss is a native warm season grass with cold tolerance. It can be planted from seed or plugs. Plugs are small buffalograss plants with roots that are sold in small cylindrical containers. It does best in full sun and once established can survive on the precipitation provided by Mother Nature. Lower elevations (<4500 ft) of Wyoming that experience

hot summer temperatures are best for buffalograss. It has a spreading growth habit, but often does not grow as densely as Kentucky bluegrass or rhizomatous tall fescue. Weeds can become more of a problem because it develops a less dense stand. Irrigation can increase vigor and density. Because it is a warm season grass, some broadleaf weed killers used in cool season lawns cannot be used without injuring or killing the buffalograss. Buffalograss thrives in heat. It is the last turfgrass to green up in spring and the first to go dormant in fall. The result is a lawn that is only green during the warmest month or two of the year. Another drawback of buffalograss is its limited availability and higher cost. Online retailers may be the only option to find buffalograss. It is not common to find buffalograss plugs or seed at local retailers. For those looking for a native, low maintenance grass, buffalograss is attractive because you may only need to mow two to three times per year, and it may never need fertilizer.

.....
Chris Hilgert is a horticulture specialist with the University of Wyoming Extension and the state Master Gardener coordinator. He can be reached at (307) 766-6870 or at chilgert@uwyo.edu.