



Turfgrass

Selection

Warm-season Grasses

- * Bermudagrass
- * Buffalograss
- * Zoysiagrass
- Native grasses
 - Bluestem
 - Grama
 - Indiangrass
 - Lovegrass
 - Switchgrass

Cool-season Grasses

- Bentgrass
- Fine fescues
 - Chewings fescue
 - Hard fescue
 - Sheep fescue
 - Red fescue
- * Kentucky bluegrass
- * Perennial ryegrass
- * Tall fescue

- * Most commonly used turfgrasses

Kansas is a unique state when it comes to growing turfgrass. The state has hot summers and cold winters, along with a variety of soils and rainfall averages. Kansas is centrally located on the transition zone of North America where both warm- and cool-season grasses grow. Warm-season grass grows best during the summer, while cool-season grass grows best during the spring and fall. For these reasons, Kansas turfgrass professionals have a complicated job fitting the right turf to an area.

Turfgrass is often selected for its color, leaf texture, and density. However, turfgrass selection involves more than a decision based on visual qualities. Other factors to be considered before choosing a grass include: intended use, maintenance level, pest problems, local climate, soil conditions, shade, and water availability.

Turfgrasses are used for a range of purposes, including residential lawns, general grounds, sports fields, golf courses, and native areas. Each purpose has different requirements of turfgrass. Golf courses require grasses that can be mowed short. Athletic fields need to withstand wear and tear. Low maintenance areas require minimal mowing, watering, and fertilizing. Natural grasses persist with no care at all. There isn't one best grass for all purposes, and there isn't a perfect grass for any one purpose. Turfgrass selection is a matter of choosing a grass that best fits the requirements for each situation. The tables in this section serve as a guide in going through the selection process.

Turfgrass Use

	Residential Lawns	General Grounds	Sports Fields	Golf Courses			Native Areas
				Putting Greens	Tees	Fairways	
Bermudagrass	▲	▲	▲		▲	▲	
Buffalograss	▲	▲	▲			▲	▲
Zoysiagrass	▲	▲			▲	▲	
Creeping bentgrass				▲		▲	
Kentucky bluegrass	▲	▲	▲		▲	▲	
Perennial ryegrass			▲		▲	▲	
Blue/rye mix			▲		▲	▲	
Tall fescue	▲	▲	▲				
Native grasses							▲

T u r f g r a s s S e l e c t i o n

Growth Characteristics

	Growth Season	Growth Habit	Leaf Texture	Natural Color
Bermudagrass	WS	spreading	medium	medium green
Buffalograss	WS	spreading	medium	gray green
Zoysiagrass	WS	spreading	medium	light green
Creeping bentgrass	CS	spreading	fine	medium green
Kentucky bluegrass	CS	spreading	medium	dark green
Perennial ryegrass	CS	bunch	medium	dark green
Tall fescue	CS	bunch	coarse	medium green

CS=Cool-season WS=Warm-season

Warm-season turfgrasses

Optimum temp.: 85–90°F

Planting: May, June

Mowing: May–Sept.

Watering: Summer

Fertilizing: May–Aug.

Environmental Adaptation

	Tolerances				
	Shade	Drought	Heat	Cold	Wear
Bermudagrass	poor	excellent	excellent	poor	excellent
Buffalograss	poor	excellent	excellent	v. good	fair
Zoysiagrass	fair	good	excellent	good	excellent
Creeping bentgrass	poor	poor	fair	excellent	fair
Kentucky bluegrass	fair	good	fair	excellent	good
Perennial ryegrass	fair	poor	poor	good	good
Tall fescue	v. good	v. good	v. good	v. good	good
Fine fescue	excellent	good	poor	excellent	poor

v.=very

Cool-season turfgrasses

Optimum temp.: 60–75°F

Planting: September

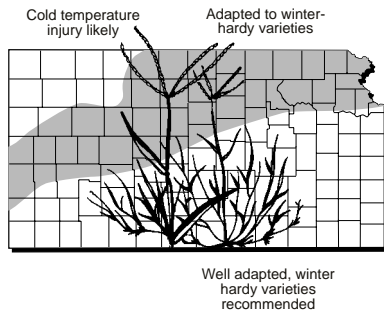
Mowing: April–November

Watering: Spring–Fall

Fertilizing: May, Sept., Nov.

Culture

	Mowing Require.	Irrigation Require.	Nitrogen Require.	Thatch
Bermudagrass	medium	low	medium	moderate
Buffalograss	low	low	low	light
Zoysiagrass	low	low	low	heavy
Creeping bentgrass	high	high	high	heavy
Kentucky bluegrass	medium	high	medium	moderate
Perennial ryegrass	medium	high	medium	light
Tall fescue	high	medium	medium	light



Bermudagrass

Bermudagrass

Bermudagrass has many outstanding features of a desirable turfgrass, but it also has some undesirable features. It is the top choice for summer sports use. Bermudagrass has no equal for its ability to recover from heavy use during hot weather.

Bermudagrass is an attractive, medium-textured, dense turf that can be mowed short. It is equal to buffalograss in heat- and drought-resistance and low water requirement.

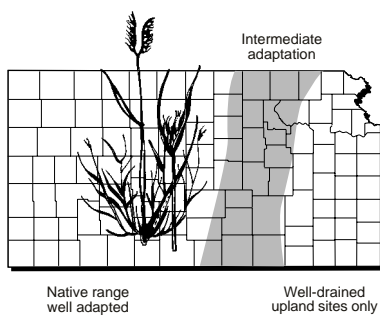
Bermudagrass has both rhizomes and stolons, which make it a good choice for erosion control and stabilizing slopes.

Kansas is at the northern edge of the zone where bermudagrass is adapted, so it is important to select cold-tolerant varieties. Midfield, Midlawn, and Midiron are the most cold-tolerant varieties available to date. They must be planted by vegetative means. Seeded varieties are not as winter hardy.

The negative side of bermudagrass is late spring greenup and early fall dormancy. The invasive growth by rhizomes and stolons is a problem next to ornamentals and gardens but can be controlled with chemicals. Bermudagrass has poor shade tolerance.

Bermudagrass varieties

Guymon (seeded) Midlawn (sod/vegetative) Midfield (sod/vegetative)



Buffalograss

Buffalograss

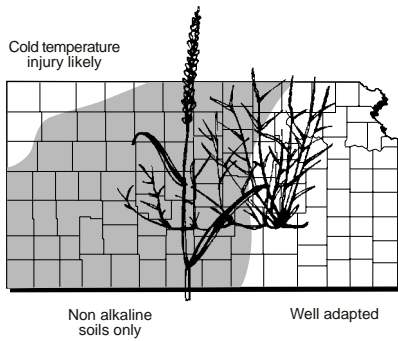
Buffalograss is the only native grass commonly used for turfgrass in Kansas. Buffalograss grows best in the western half of the state where rainfall averages less than 26 inches. For the rest of the state, well-drained upland sites must be selected.

Buffalograss has gained popularity because of its low water requirement, but it has its disadvantages. Weeds are the biggest problem for those growing buffalograss. This problem is caused by improper management and timing. Remember, buffalograss has grown on the prairies since the Ice Age with no care from humans.

Buffalograss should be grown in full sun with as little watering and fertilizing as possible. Manage buffalograss for its natural gray-green prairie grass appearance. Do not attempt to make it look like bluegrass. The natural color of buffalograss is appropriate for many settings.

Buffalograss varieties

Seeded	Vegetative
Bison	Prairie
Sharps Improved	315
Top Gun	378
Texoka	609



Zoysiagrass

Zoysiagrass

Zoysiagrass is used mainly for golf courses and home lawns. In appearance, zoysiagrass is similar to bermudagrass. Established zoysiagrass is wear-resistant, forming a dense, stiff turf. It can be managed much like buffalograss for a low-maintenance turf.

Zoysiagrass is slow to establish, often taking two years for uniform coverage. Although wear-resistant, it is also slow to recover from injury. Zoysiagrass produces thatch especially when watered and fertilized excessively. It is more shade-tolerant than bermudagrass or buffalograss, but the turf becomes thinner as the shade increases. Zoysiagrass develops iron chlorosis on high pH soils.

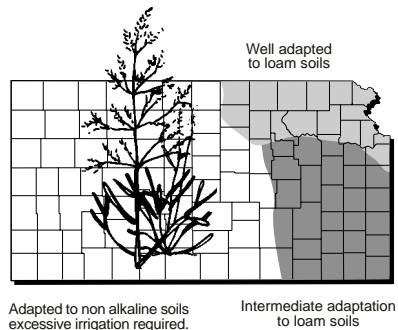
Zoysiagrass varieties

Meyer

Kentucky bluegrass

Kentucky bluegrass forms a high-quality turf because of its fine, soft, glossy green leaves that cut cleanly when mowed. Bluegrass develops a dense, true sod from rhizomes but doesn't spread aggressively into unwanted areas. It is best adapted to northeast Kansas, but will grow statewide in well-drained loam soils. It is not well adapted to shallow, clay, compacted, or extremely acid or alkaline soils.

Bluegrass is susceptible to a number of diseases and has a tendency to form thatch. As long as the area has good soil, bluegrass works well.



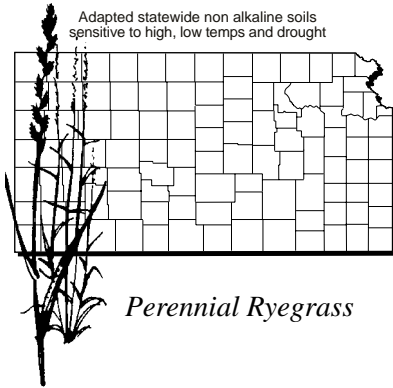
Kentucky Bluegrass

Kentucky bluegrass varieties

Arcadia	Classic	Eclipse	Platini II
America	Chateau	Explorer	Rugby
Apollo	Coventry	Jefferson	Serene
Baronie	Challenger	Jewel	SR 2109
Bariris	Champagne	Livingston	Showcase
Blacksburg	Chicago	Midnight	Unique
Brilliant		Odyssey	Wildwood

Common bluegrass varieties (for low-maintenance, non-irrigated areas)

Baron	Cobalt	Midnight	North Star
Caliber	Freedom	Monopoly	Unique



Perennial Ryegrass

Perennial ryegrass

Ryegrass is similar to bluegrass in appearance, but it is a bunchgrass whereas bluegrass spreads by rhizomes. The two can be mixed in a turf to gain the advantages of both. The main use of ryegrass is for sports fields and golf courses.

Ryegrass establishes quickly from seed and forms a usable turf faster than other grasses. It is used to over-seed warm-season grasses to extend the season of use and color. The disadvantages of ryegrass are less heat, drought and cold tolerance, and more disease problems than other major Kansas turfgrasses. A large number of varieties are available.

Perennial ryegrass varieties

Advent	Fiesta II	Pennant	Seville
Charger	Manhattan II	Prelude	Sherwood
Envy	Palmer	Repell	Yorktown III
Equal	Pinnacle	Saturn	

Tall fescue

Tall fescue is the most commonly used and widely adapted turfgrass in Kansas. But it is not the perfect turfgrass or the best choice for every situation. Tall fescue starts quickly from seed and forms a turf in a short period of time. It grows in a variety of soils and is the most heat- and drought-resistant of the cool-season grasses.

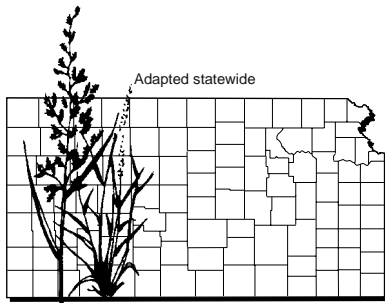
Brown patch is the only major disease problem of tall fescue. Another objection for some people, is the coarse, stiff foliage with rough edges. This is a bunchgrass, therefore maintaining the proper density is important, or it becomes thin and clumpy.

Tall fescue can be placed in three categories: pasture types, turf types (non-dwarf), and slower growing turf types (commonly called dwarf). Pasture types include K-31, Alta, and Fawn varieties developed for rapid foliage growth. They have broad, upright, fast-growing leaves with a high crown. They are still used for large, low-maintenance areas because of low seed price and ability to grow with little or no irrigation.

Turf-type tall fescues are darker green, finer textured, have a less upright leaf growth, and a flatter crown. Turf-type tall fescue may be mistakenly referred to as fine fescue.

There are more than 100 turf-type varieties, and tall fescue is the most commonly used grass for quality turfgrass in Kansas. Recommended varieties are selected for adaptation to Kansas, visual quality, and resistance to brown patch.

The main advantage of slower growing "dwarf" tall fescue is less mowing although the texture is close to bluegrass for some varieties. They are more susceptible to disease and are less drought-tolerant than turf-type tall fescues.



Tall fescue

Blends—Blends may be purchased pre-mixed under brand names, or several varieties can be purchased separately and mixed together. Blends offer more genetic diversity and can be an advantage if all varieties are good performers. If there is one weak variety, the advantage of blending may be debated.

Example:

50% ‘Rebel II’ tall fescue
50% ‘Shenandoah’ tall fescue

Mix— A combination of two or more grass species.

Examples:

80% Kentucky bluegrass
20% Perennial ryegrass

90% Tall fescue
10% Kentucky bluegrass

Note— Variety section for various grasses is only a partial listing of the many improved varieties available.

Turf-type tall fescue varieties

Apache II	Coyote	Olympic Gold	Scorpio
Anthem II	Crossfire II	Pick	Shenandoah I
Arid 3	Duster	Plantation	Tarheel
Bandana	Falcon II	Rebel 2000I	Watchdog
Barlexas	Jaguar III	Rembrandt	Wolfpack
Bonsai 2000	Masterpiece	Safari	
Bravo	Millennium		

Slower growing turf-type tall fescue “dwarf” varieties

Bonsai	Mini-Mustang	Rebel Jr.	Silverado
Crossfire	Pixie	Shortstop	Trailblazer

Fine fescue varieties

Creeping red	Chewings	Sheep	Hard
Cindy	Jamestown	Bighorn	Aurora
Flyer	Longfellow	MX 86	Biljart
Jasper	Shadow		Reliant
Shademaster	Waldorf		Silvana

Creeping bentgrass varieties

Cato	L-93	Penneagle	Providence
Cobra	Penn-A4	Pennlinks	Putter
Crenshaw	Penn-G6	Penncross	Viper
18th green			

T u r f g r a s s S e l e c t i o n

Soil pH is a direct measure of soluble acids. It controls the nutrient intake of the plant.

Soil pH

	Tolerance Range	Preferred
Bermudagrass	5.5–7.5	6.0–7.0
Buffalograss	6.0–8.0	6.0–7.0
Zoysiagrass	5.0–7.8	6.0–6.5
Annual ryegrass	6.0–7.5	6.0–7.0
Creeping bentgrass	5.5–7.2	5.5–6.5
Kentucky bluegrass	6.0–7.2	6.0–7.0
Perennial ryegrass	6.0–7.5	6.0–7.0
Tall fescue	4.7–8.5	5.5–6.5
Fine fescue	5.5–7.0	5.5–6.5

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