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Turfgrass Selection for Texas

Ecological Turf Tips

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Selecting turfgrass involves choosing both an adapted grass species (e.g., bermudagrass, St. Augustinegrass, zoysiagrass, etc.) and a variety of that species. It is important to select a species that is adapted to the climate of your area and to the conditions of the site where it will be planted. Site conditions include

- shade or sun
- soil depth and quality
- intended use (lawn, golf course, athletic field)
- amount of traffic
- amount of rainfall or irrigation
- level of maintenance

The next steps are to prepare the soil properly for planting and establish a good maintenance program (mowing, fertilizing, irrigating, etc.) for long-term success.

The following descriptions are of the grass species most common to Texas. Maps indicate the areas to which the species are adapted:

- **Green** = The species is most adapted in this area.
- **Orange** = The species may need extra irrigation and maintenance (mowing, fertilization) in this area.
- **White** = The species is not adapted for this area, though it may be grown with extra irrigation and expert maintenance; other grass species are recommended.

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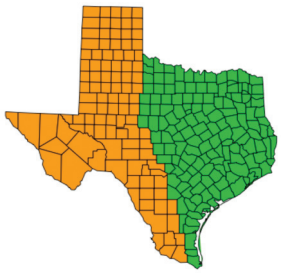
Turfgrass Varieties

Not all turfgrass varieties mentioned with each grass type (species) may be available in Texas. Seed stores and garden centers typically carry only a few varieties of each species from a single supplier. It is impractical for Texas sod producers to produce a great number of varieties of a single grass species, so they try to provide good quality varieties of the most improved grasses.

Texas Warm-Season Grasses

Warm-season grasses turn straw-colored at the first frost and may go dormant during the winter in Texas.

Bermudagrass



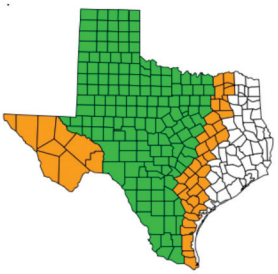
Bermudagrass is grown throughout Texas. It is very tolerant of drought and traffic and requires full sunlight. Varieties are available for lawns, golf courses and athletic fields. Seed is available for many varieties. Other varieties do not produce viable seed and can be established only from sod, sprigs or plugs.

There are many "named" seeded varieties of bermudagrass. These varieties tend to have a finer texture and create a denser turf than common-type bermudagrasses. Garden centers

and turf suppliers typically carry only a few varieties. Seeded varieties include Arizona Common, Blackjack, Blue-muda, Contessa, Jackpot, LaPaloma, Majestic, Mohawk, NuMex Sahara, Panama, Princess 77, Pyramid, Riviera, Savannah, Shanghai, Shangri-la, Southern Star, SR 9554, Sunbird, Sundevil II, Sunstar, Sydney, Transcontinental, Veracruz and Yukon.

The hybrid or vegetative bermudagrasses are usually denser, darker green, have a finer texture and are more aggressive than the common-type bermudagrass varieties. Many also require more maintenance (more frequent mowing, more nitrogen fertilizer). The hybrid bermudagrasses are better adapted for use on golf course fairways and sports fields than for home lawns. Examples of vegetative bermudagrass are Baby, Celebration, CT-2, Common, GN-1, Grimes EXP, Quickstand, Tifgreen, Tifway, TifSport and Tifton 10.

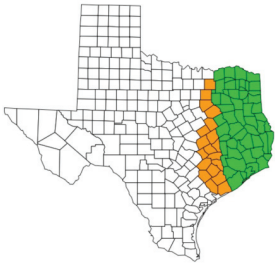
Buffalograss



Buffalograss is best adapted for areas with annual rainfall of 25 inches or less. When planted in the high-rainfall areas of East Texas, or when watered excessively, buffalograss is easily invaded by weeds and other grasses. It does best in full sun and has little tolerance of shade. Buffalograss does well as a low-maintenance lawn grass from Central to West Texas.

The more popular varieties (which are established from sod) include Density, Prairie, Prestige and 609. "Tech Turf" is a variety that appears to be available only as sod plugs. Seeded buffalograss varieties include Common, Texoka, Commanche, Plains and Topgun.

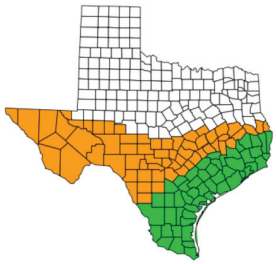
Centipedegrass



Centipedegrass is best suited as a low-maintenance lawn grass and is best adapted in East Texas. It is slow-growing and coarse-leafed. It grows well in full sun to light shade and does not tolerate traffic or prolonged drought. It requires little fertilizer and infrequent mowing. It is best established with sod, as seed establishment is much slower than with other grasses.

There are very few centipedegrass varieties in the marketplace. Common centipedegrass is available as seed and sod. TifBlair, a relatively new variety, is also available as seed and sod.

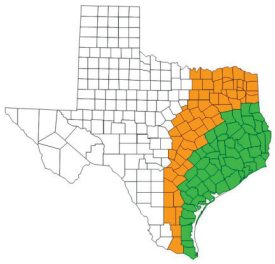
Seashore Paspalum



Because seashore paspalum does not tolerate prolonged low temperatures, it is best adapted to the southern one-third of Texas. It is tolerant of salinity in both soil and irrigation water and needs less nitrogen fertilizer than the improved bermudagrass varieties. The best mowing height is 1 inch or less. It is most suited to sports turf, golf course fairways and high-maintenance lawns where the salinity of irrigation water is a concern.

Vegetative varieties include Adalayd/Excalibre, Aloha, Salam, SeaDwarf, Sea Isle I and Sea Isle 2000. Sea Spray is a seeded variety. Neither seed nor sod is as readily available at this time as for the other grasses.

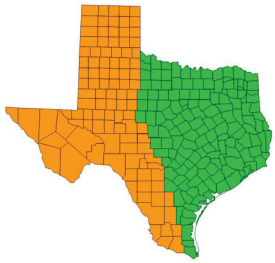
St. Augustinegrass



St. Augustinegrass has a coarse texture and is used mainly as a lawn grass. It is the most shade-tolerant of the warm-season turfgrasses. It can be grown in most of Texas, although it may be killed by severe winters in the northern one-third of the state. St. Augustinegrass is less drought tolerant than bermudagrass or zoysiagrass. It can be grown in Central and West Texas with more supplemental irrigation. It is best adapted in Southeast Texas. St. Augustinegrass does not tolerate high traffic. It is established from sod.

St. Augustinegrass varieties include Amerishade, Delmar, Floratam, Palmetto, Raleigh, Sapphire and Seville. Compared to the other varieties, Floratam has wider leaf blades, poorer shade tolerance, the best drought tolerance, and the poorest cold tolerance, which makes it best adapted in southern Texas and along the Gulf Coast.

Zoysiagrass



The area in which zoysiagrass is adapted is similar to that of bermudagrass. Improved varieties usually require less nitrogen fertilizer than bermudagrass. Zoysiagrasses are drought-tolerant, but tend to turn brown sooner than bermudagrass during an extended drought. Zoysiagrass has light to moderate shade tolerance, depending on the variety, but is not as shade-tolerant as St. Augustinegrass. Zoysia-

grass does well on lawns and in recreational areas with only moderate traffic. It is best established from sod. Seed, sprigs and plugs generally take longer than bermudagrass to completely cover an area. Zoysiagrass varieties have improved in recent years and there are two types being produced in Texas. *Zoysia japonica* types are medium-textured and do well with normal lawn maintenance practices. The *Zoysia matrella* types have a much finer leaf texture that produces a very dense turf; they require more maintenance (mainly closer and more frequent mowing) than *Zoysia japonica* varieties (Table 1).

Table 1. Comparing *Z. japonica* and *Z. matrella* zoysiagrass varieties.

Traits	*Z. japonica*	*Z. matrella*
Blade width	medium	fine
Green color	medium	dark
Shade tolerance	moderate	good
Mowing heights	1 to 2 inches	1 inch or less
Cold tolerance	very good	good

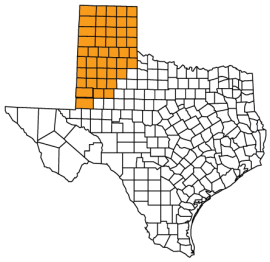
Zoysia japonica varieties include Carrizo, Crowne, El Toro, Empire, GN-Z, Jamur, Meyer and Palisades. The *Zoysia matrella* varieties include Cavalier, Diamond, Royal, Y-2, Zeon and Zorro. Emerald is an older variety that is similar to *Z. matrella* types in appearance and growth.

Only two seeded varieties of zoysiagrass are available—Zenith and Compadre. They require warm, well-prepared soils to germinate and are much slower to establish than seeded bermudagrass.

Texas Cool-Season Grasses

Cool-season grasses grow best in spring and fall and are primarily adapted in North Texas. They do not tolerate the summer heat and high humidity of most areas of the state.

Kentucky Bluegrass



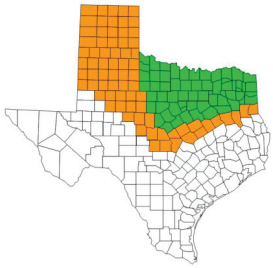
Kentucky bluegrass is a fine-leaved turfgrass widely used for lawns in the northern states. It is adapted in the Panhandle region of Texas, but requires irrigation. In the more humid areas of Texas, bluegrass is prone to diseases and heat stress and is not recommended as a general lawn grass.

Many improved Kentucky bluegrass varieties are available as seed. There are no growers of Kentucky bluegrass sod in Texas. For best results, a blend of three or four different Kentucky bluegrass varieties is recommended.

Ryegrass

Perennial, intermediate and annual ryegrasses are suitable for temporary use in lawns throughout Texas. They can be overseeded into bermudagrass in late September and October to provide winter color, or planted on bare ground to prevent erosion until a permanent lawn is established. In the High Plains, perennial ryegrass may be used as a permanent turfgrass if it is watered.

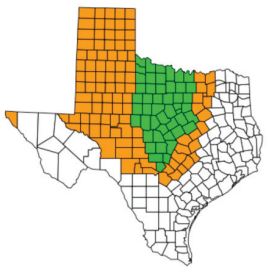
Tall Fescue



Improved varieties are commonly referred to as "turf-type" tall fescues. Tall fescue sod is moderately tolerant of drought and shade and its use is limited to North Texas. It is adapted to a wide range of soil conditions and management programs. However, tall fescue lawns will require more summer irrigation than either warm-season turfgrasses or Texas bluegrass. It is not well suited to heavily trafficked areas.

The standard tall fescue variety K-31, which originated as a forage grass, is still available. However, there are many new turf-type varieties (more than 70) that perform better and have finer leaf texture. These new varieties are also more tolerant of heat and shade.

Texas Bluegrass



Texas bluegrass is the result of crossing Kentucky bluegrass with native Texas bluegrass. Its appearance is much like Kentucky bluegrass but it is tolerant of Texas heat and sun and can stay green throughout the year. It needs less irrigation than tall fescue and performs best in lawns with little traffic. It is adapted from Central Texas to Southern Oklahoma and is an alternative to tall fescue in North Texas. Reveille and Tejas are Texas bluegrass varieties developed by Texas A&M University. However, neither seed nor sod is readily available yet.

For further information:

http://soilcrop.tamu.edu
http://aggieturf.tamu.edu
http://agrilifebookstore.org/ (browse "Lawns" under "Lawn & Garden")

Table 2. Relative traits of warm-season turfgrass species when grown in their regions of adaptation with good maintenance programs and adequate rainfall or irrigation. (A range indicates varietal differences).

Trait	Bermudagrass	Buffalograss	Centipede	Seashore Paspalum	St. Augustine	Zoysiagrass
Shade Tolerance	Very Low to Low	Low	Moderate	Low	High	Moderate to High
Water Requirement	Moderate to Low	Very Low	Moderate	Moderate	Moderate	Moderate
Drought Tolerance	Very Good to Excellent	Excellent	Moderate	Good	Good	Very Good
Traffic Tolerance	High	Low	Low	Moderate to High	Low	Moderate to High
Cold Tolerance	Moderate	High	Low	Low	Low	Moderate to High
Salinity Tolerance	Moderate to High	Low	Low to Moderate	Moderate to Very High	Good	Moderate to High
Disease Potential	Low to Moderate	Low	Low to Moderate	Low to Moderate	High	Low to Moderate
Mowing Frequency (Days)	3 to 7 days	7 to 14 days if mowed	7 to 10 days	3 to 7 days	5 to 7 Days	5 to 10 days
Mowing Height (Inches)	1.0 to 2.0	2.5 to 3	1.5 to 2.0	0.5 to 1.0	2.5 to 3	0.5 to 2.0
Leaf Texture	Fine	Fine	Coarse	Fine	Coarse	Medium to Fine
Stolons (S) and/or Rhizomes (R)*	S & R	S	S	S & R	S	S & R

*Grasses with stolons (above-ground stems) are able to grow laterally. Grasses with rhizomes (underground stems) also can grow laterally.

GO TEXAN.

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