Warm Season Turfgrasses for North Texas

Texas A&M AgriLife Research | Extension

Water University

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You may think that all grass in North Texas neighborhoods is just that—grass. It's green, you mow it, you water it. It's generic. But you might be shocked to find that there are actually many different types of turfgrass, each possessing its own advantages and disadvantages for thriving in North Texas. Your personal preferences, the characteristics of your property and the way you plan to use your lawn all hold bearing on which grass is right for you. The amount and quality of sunlight your landscape receives, your city's water guidelines and your personal management preferences also play an important role in what turfgrass best suits your needs. Turfgrass types vary in color vibrancy, blade texture and growth rate. Bermuda, Buffalo, St. Augustine and Zoysia grasses are Texas A&M AgriLife – Water University's favorite warm-season varieties because they are best adapted to the climate and available natural resources of North Texas. Here we will discuss the types of turfgrasses best suited to the region and the best practices for making them thrive.

Understanding Light Conditions

Turfgrass works best in areas that receive full sun, part sun and, in some cases, part shade conditions. Although turfgrass may have once grown well in a certain area, light quantity and quality can change over time, especially in landscapes with maturing trees, shrubs, new buildings or even new fences.

Established turfgrass might grow successfully in these areas for a while but can begin to decline, becoming thinner and less dense as shade encroaches.

Attempting to establish turf in low-light areas is also problematic. Over-watering and/or over-fertilizing are common responses in lower light situations but are typically unsuccessful in regaining turf quality. They can also be detrimental to landscapes and the environment in the long-run. Consider planting alternatives to turfgrass in full shade and dense shade conditions. Refer to Water University's "Shade Gardening for North Texas" publication for more information.

Light Conditions Defined

Sun	Direct sunlight on plant all day (Buffalograss, Bermuda)
Part Sun	Filtered Light, 2-3hrs without direct sun. (Bermuda, St. Augustine, Zoysias)
Part Shade	Dappled Light, 4-5hrs without direct sun. (St. Augustine, Zoysias)

Consider alternatives to turf under the following conditions

Full Shade	No Direct sunlight on plant all day but may be bright due to reflective light.
Dense Shade	Deep shade, No direct sunlight all day and may appear dark with minimal to no reflective light.

soiltesting.tamu.edu

Soil tests are easy and inexpensive. North Texas soils may already have enough phosphorous and potassium so a fertilizer that provides only nitrogen might be the best choice. Soil testing forms and instructions are available through your county Extension office or on the Texas A&M Soil Testing Laboratory's Web site above.

Turf Types Across North Texas

	Bermudagrass	Buffalograss	St. Augustinegrass	Zoysiagrass
				
*Minimum Light Requirement	6-8 Hours	7-8 Hours	5-6 Hours	5-8 Hours
*Shade Tolerance	Low to Very Low	Very Low	High	High to Moderate
Water Requirement	Moderate to Low	Very Low	Moderate	Moderate
Wearability (foot traffic, pets etc.)	High	Low	Low	High to Moderate
Disease Potential	Moderate to Low	Low	High (in shade)	Moderate to Low
Mowing Frequency	3-7 Days	Infrequent	5-7 Days	5-10 Days
Mowing Height	1-2.5 Inches	3-8 Inches	2.5-3.5 Inches	1-3 Inches

*See Understanding Light Conditions on Page 1

Turf Varieties

Each of the four turf species we recommend for North Texas carries several varieties. In this section we will review turf variety characteristics, care needs and resilience to a range of conditions.

Bermudagrass

is one of the most commonly planted warm season turfgrasses in North Texas landscapes. It is a very durable, medium to fine-textured grass with extreme drought tolerance. Bermuda is typically quick to establish spreading by both horizontal above ground shoots called stolons as well as underground rhizomes. It requires full sunlight and generally handles high foot traffic when healthy. There are many varieties available in sod, plugs or seed. The named varieties tend to have a finer leaf blade and form a more dense turf than common bermudagrass types.

Fertilization Up to 2 to 4 lbs. Nitrogen per 1,000 ft^2/ year
Strengths High or excellent drought tolerance, High or excellent heat tolerance, Deep rooting potential, High tolerance to foot traffic, Easy to establish in North Texas, Low disease potential
Weaknesses Low shade tolerance, Frequent mowing requirements, Possible moderate to high fertilizer requirements

Bermudagrass varieties

Common
Variation in color and texture, More seed heads than improved varieties, Economical for lower maintenance areas. Many varieties are available in both seed and sod

For seeded varieties, try Riviera, Yukon or Princess 77

Tifway 419
Deep green, Medium fine-texture, High traffic tolerance, Resilient in cooler weather

Texturf 10
Dark green color, Medium-texture, More wear resistant than common Bermuda, Drought and heat tolerant

Celebration
Dark blue-green, Fine-texture, Drought and heat tolerant, Can tolerate part-sun conditions, Excellent wear resistance and recovery

Discovery
Dark blue-green, Medium-texture, Excellent drought and heat tolerance, Reduced mowing requirements

Tifway II
Dark green, Medium fine-texture, Drought and heat tolerant, Nematode resistant, Resilient in cooler weather, Higher maintenance, Best mowed with reel mower

Tifsport
Dark green, Fine-texture, Very tolerant to foot traffic, Excellent injury recovery, Higher fertilizer requirements, Higher maintenance, Best mowed with reel mower

Buffalograss

is a native warm season turfgrass adaptable for North Texas landscapes. It is a fine-texture, curly-leafed grass with extremely deep-rooting potential and the ability to spread readily by runners. It is recommended only for low maintenance, low use (traffic) areas and not only requires, but prefers minimum maintenance practices. Excessive watering, fertilization or use of herbicides can be detrimental. Buffalograss is not adapted to areas receiving heavy traffic or to shady areas. It is available in sod, plugs or seed and is sometimes included in native turf seed mixes with curly mesquite and blue grama.

Fertilization Up to 0 to 2lbs Nitrogen per 1,000 ft^2/ year
Strengths High or excellent drought tolerance (ability to go dormant in drought conditions) High or excellent heat tolerance, Deep rooting potential, Low disease potential, Low mowing requirement, Easy to establish in North Texas, Lower fertilizer requirements
Weaknesses Low or poor shade tolerance, Susceptible to weed pressure, Low or poor traffic tolerance, Other turfgrass species can and may encroach

Buffalograss varieties

609
Dark blue-green color, Fine-texture, Very dense growth habit with slower vertical growth rate, Drought and heat tolerant, Reaches a mature height of 4”-6”

Density
Blue-green color, Fine-texture, Very dense growth habit, Drought and heat tolerant, Resistant to humid conditions, Reaches a mature height of 3”-5”

Prairie
Lighter green, Fine-texture, Slow vertical growth rate but spreads and forms thick uniform turf, Drought and heat tolerant, Reaches a mature height of 4”-6”

Prestige
Bright green color, Soft fine-texture, Tolerates humid climates, Drought and heat tolerant, Mature height of 4”-6”, Resistant to weed encroachment

St. Augustinegrass

is the most commonly planted warm season turfgrass in North Texas landscapes. It is a coarse-texture grass with deep-rooting potential and spreads readily by stolons. It tends to be the most shade tolerant of the warm season turfgrasses adaptable to North Texas, however like the other warm season grasses, it does not thrive in dense shade. Although it is less drought tolerant than some of the other warm season grasses on this list, with proper management, it can be grown in North Texas with minimal supplemental irrigation. A number of varieties are adapted to North Texas and are most often sold as sod.

Fertilization Guidelines: Up to 2 to 4 lbs Nitrogen per 1,000 ft^2/ year

Strengths Good drought tolerance (with proper irrigation management) Good shade tolerance (down to 5 hours), Deep rooting potential, Relatively easy to establish in North Texas

Weaknesses Increased disease potential (under wet conditions), Moderate traffic tolerance, Potential for chinch bug pests

St. Augustinegrass varieties

Raleigh
Medium green color, Shade tolerance, Moderately susceptible to chinch bugs and gray leafspot

Palmetto
Dark green color, Fine-texture, Very good shade tolerance, Susceptible to chinch bugs and gray leaf spot

Common
Green with medium-texture, Moderate shade tolerance, Moderate disease resistance

Delmar
Dark green color, Medium-texture, Very good shade tolerance, Resistant to St. Augustine decline

Amerishade
Dark green color with medium-texture, Excellent shade tolerance, reduced mowing frequency

TamStar
Medium green color, Coarse-texture, Excellent heat and drought tolerance, good shade tolerance, Low susceptibility to chinch bug and gray leaf spot.

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Visit Texas A&M AgriLife Water University online for useful information on how you can build a beautiful, water-efficient landscape at your home or business.

Zoysiagrass

is one of the most versatile warm season turfgrasses in North Texas landscapes with both coarse and fine textures varieties available. The coarse-texture varieties tend to perform better at higher mowing heights and require less maintenance, while the finer-bladed varieties can be mowed at a lower setting, but require more upkeep. Crosses between the two varieties are also available, varying in appearance and management practices. Improved varieties are available in sod and plugs, but are best established from sod.

Fertilization Up to 1 to 3lbs Nitrogen per 1,000 ft^2/ year

Strengths Good shade tolerance, High or excellent drought tolerance, High or excellent heat tolerance, Deep rooting potential, Foot traffic tolerance, Easy to establish in North Texas, Lower fertilizer requirements

Weaknesses Slower recovery and shallower root systems in finer-textured varieties, Mower blades require more frequent sharpening for optimum performance

Zoysiagrass varieties

Coarse-Texture

Crowne
Dark green, Coarse-texture, Excellent drought tolerance, Excellent shade tolerance

El Toro
Dark-green color, Medium-texture, Excellent shade and drought tolerance, susceptible to large patch.

Empire
Dark green color, Coarse-texture, Moderate to good shade tolerance, Good drought tolerance

Palisades
Dark green color, Medium-coarse-texture, Excellent drought and heat tolerance, Excellent shade tolerance

Fine-Texture
sport turf typically requires more maintenance

Cavalier
Dark green color, Fine-texture, Excellent shade tolerance, Moderate to low water use, Best if mowed with a reel mower

Diamond
Dark emerald green color, Fine-texture, Excellent shade tolerance, Best if mowed with a reel mower

Emerald
Dark green color, Very fine-texture, Good shade tolerance, Best if mowed with a reel mower

Geo
Dark green color, Fine-texture, Good to excellent shade tolerance, Drought and heat tolerant, Best if mowed with a reel mower

Royal
Dark green color, Fine-texture, Moderate to low water requirements, Moderate drought tolerance, Best if mowed with a reel mower

Zeon
Deep green color, Fine-texture, Medium shade tolerance, Disease and pest resistance, Best if mowed with a reel mower

Zorro
Fine-texture, Drought tolerant, Shade tolerance, Rapid recovery, Disease and pest resistant, Best if mowed with a reel mower

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