

Nonseeded grasses

The term 'nonseeded grasses', refers to the type of grass plants which are propagated vegetatively. Most grasses in this category are warm-season grasses which grow in the warm temperate to tropical climates.

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Nonseeded grasses can be established by sodding, plugging or sprigging. Sodding is the most common for establishing an 'instant' new lawn. Plugging is less expensive than sodding, and some homeowners prefer this method of establishing entire lawns or renovating certain sections of the lawn. However, with plugging, weed control is needed until the lawn becomes

established. Sprigging is often used to establish a large area, like an athletic field, using Bermudagrass.

Watering is critical during the early

stages of establishment to prevent desiccation of the sprigs (portions of plant stems, stolons). Again, weed invasion is possible with sprigging until the grass establishes a thick, dense surface.

Five of the most common non-seeded grasses are: St. Augustinegrass, bahiagrass, Bermudagrass, zoysiagrass and centipedegrass. The following is a brief description of their culture, use, pests and cultivars.

Watering is critical during the early stages of establishment to prevent desiccation of the sprigs

Hybrid bermudagrass, shown, and common types have a wide variety of uses: lawns, cemeteries, parks, institutional grounds, airfields, athletic fields, fairways, greens, tees, roughs and rights-of way.

ST. AUGUSTINEGRASS

(*Stenotaphrum secundatum*) is native to the West Indies, but has been widely distributed to Mexico, Africa, Australia and the southern and southeastern US. It is an aggressive, stoloniferous, coarse-textured grass. It grows in a variety of soil types; however, it performs best in sandy loam, well-drained, fertile soils with pH 6.5. St. Augustinegrass has good salt tolerance, fair shade tolerance and poor traffic tolerance.

Culture: Mowing height should be between 3 and 4 inches. Mowing at shorter heights stresses the turf and predisposes it to drought and insect problems. Annual fertilization should be 3-6 lb N/1,000 sq ft/yr. In alkaline soils, St. Augustinegrass may suffer from iron deficiency. The yellowing can be corrected with foliar application of chelated iron. Water during dry-spells is important to prevent stand dieback. Apply between .75 to 1 inch of water per week. Thatch can be a problem in St. Augustinegrass lawns. Verticutting (dethatching) will be required if thatch exceeds a depth of 1-inch in order to maintain the health of the turf. Propagation is through vegetative parts such as sprigs, plugs or sod.

Use: this grass is the major type of lawn turf in areas of the

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southeast, especially Florida. Other uses include commercial and industrial parks and street medians. Due to its poor wear tolerance, St. Augustinegrass is not used in play or park grounds. **Pests:** The most destructive insects are the chinch bugs, especially in Florida. Other insect pests include white grubs and sod webworms. St. Augustinegrass is susceptible to such diseases as brown patch, gray leaf spot and rust.

Cultivars: Common, Floratam, Bitter Blue, Seville (dwarf), FX-10 and Palmetto

BAHIAGRASS

(*Paspalum notatum*) is native to subtropical, eastern South America. It is a coarse-textured grass with tufted appearance due to its short and stout rhizomes and stolons. Bahiagrass is grown in Florida for low maintenance purposes. It can

maintain a low level of cultural intensity. Mowing height should be between 1.5 to 2.5 inches. Mowing should be conducted regularly in the growing season to eliminate the long, profuse seed heads. Sharp mower blades must be used to provide a smooth cut of the tough, fibrous leaf blades. Annual fertilization may be as low as 1-4 lb N/1,000 sq ft/yr. Watering is not necessary as Bahiagrass has excellent drought tolerance. Thatching is seldom a problem. Propagation is primarily by sod. Bahiagrass seed is available and germination will be enhanced through scarification.

Use: Bahiagrass can be found in home lawns lacking irrigation systems. Its greatest use, however, is in roadside rights-of-way, airports and other low maintenance sites.

Pests: The major insect problem is caused by mole crickets. Diseases are not frequently en-

BERMUDAGRASS

(*Cynodon dactylon*) is native to east Africa, but has been widely distributed throughout the subtropical and tropical regions of the world. It is an aggressive, medium- to fine-textured grass with a creeping growth habit from both rhizomes and stolons. Bermudagrass can grow in a wide variety of soil types and a wide range of pH conditions (5.5 to 7.5). It has good salt tolerance, poor shade tolerance and excellent traffic tolerance.

Culture:

Bermudagrass requires a medium to high level of cultural intensity. Mowing should be

conducted with a reel mower, and the recommended cutting height is .5 to 1 inch. Mowing at higher levels results in upright growth, with a tendency for increased thatch accumulation and scalping. The fertilization requirements can be as high as 0.8 to 1.8 lb N/1,000 sq ft/growing month. Bermudagrass has good drought as well as submersion tolerance. If grown under high maintenance conditions, verticutting (dethatching) will be necessary to remove thatch and improve air, water and nutrient penetration to the roots. With the exception of the common variety, which can be propagated from seed, all other improved hybrids are propagated vegetatively by sprigs, plugs or sod.

Use: Both common and hybrid types have a wide variety of uses including lawns, cemeteries, parks, institutional grounds, airfields, athletic fields, fairways, greens, tees, roughs and roadside rights-of-way.

Pests: This grass can be damaged by a variety of insect pests including mole crickets, sod webworms, grubs, armyworms, fruit flies, Rhodes-

Watering is critical in the early stages of establishment to prevent desiccation of the sprigs, which are portions of plant stems.



Bahiagrass can grow in a wide variety of soil types, but does best in droughty, coarse-textured, infertile soils with a pH of 6.5-7.5.

grow in a wide variety of soil types, but performs best in droughty, coarse-textured, infertile soils with pH 6.5-7.5. Bahiagrass has good to fair salt tolerance, good to fair shade tolerance and superior traffic tolerance.

Culture: Bahiagrass can survive with a mini-

countered in Bahiagrass due to the absence of irrigation.

Cultivars: Argentine for home lawns and Pensacola for rights-of-way.

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grass scale and Bermudagrass scale. Bermudagrass mites can be a problem on common Bermudagrass. Several diseases infect Bermudagrass including brown patch, dollar spot, Pythium sp., Fusarium patch, Helminthosporium spp., rust and take-all patch. Nematodes also can be damaging to the roots in sandy soils.

Cultivars: Common, and several hybrids including Tiflawn, Tifdwarf and Tifway among others.

ZOYSIAGRASS

(*Zoysia* spp.) is native to tropical eastern Asia, but has been introduced to the warm, humid and transitional climates of the world. It is a medium-to fine-textured grass with a creeping growth habit from both rhizomes and stolons forming a thick dense cover. Zoysiagrass can grow in a wide variety of soil types, but is intolerant of poorly drained soils. It performs best in well-drained, relatively fine-textured, fertile soils with a pH of 6 to 7. It has good salt, shade and traffic tolerance in the growing season.

Culture: Zoysiagrass requires a medium level of cultural intensity. Mowing should be conducted with a reel mower, and the recommended cutting height is .5 to 1 inch. The fertilization requirements can be as high as 3 to 6 lb N/1,000 sq ft/yr. Zoysiagrass needs irrigation during periods of drought. If grown under high maintenance conditions, verticutting (dethatching) will be necessary to remove thatch and improve air, water and nutrient penetration to the roots. All improved hybrids are propagated vegetatively by sprigs, plugs or sod. Seeds may be available for one species, *Z. japonica*, however, they must be hulled in order to improve the extremely poor germination.

Use: The most common use is for lawns. If the slow growth rate can be tolerated, then other uses may include parks, airfields, athletic fields, fairways, tees and playgrounds.

Pests: This grass is less susceptible to insects and disease than other warm season grasses. However, it can be damaged by a variety of insect pests including the hunting billbug, mole crickets, sod webworms and armyworms. Diseases which can be encountered in Zoysiagrass include brown



St. Augustinegrass thrives best in sandy loam, well-drained, fertile soils with a pH of 6.5

patch, dollar spot, *Helminthosporium* spp. and rust. Nematodes can be quite damaging to the roots of Zoysiagrass.

Cultivars: The 3 commonly used species include the Japanese or Korean Lawngress, *Z. japonica*; Manilagrass, *Z. matrella*; and Mascarenegrass or Korean Velvetgrass, *Z. tenuifolia*. Some improved hybrids have been developed such as Meyer, Emerald and El Toro, among others.

CENTIPEDEGRASS

(*Eremochloa ophiuroides*) is native to southern China, hence the name Chinese Lawngress. It is grown in limited areas in the southern US. Centipede grass has a medium texture and spreads by short, thick, leafy stolons which have short internodes. It likes acidic soils with pH 4.5-5.5. Centipede grass has poor salt tolerance; good shade tolerance; fair to poor traffic tolerance.

Culture: Centipede grass can survive with a low to medium level of cultural intensity. Mowing height is between 1 and 2 inches; although not as frequently required as with other warm season grasses. Annual fertilization may be as low as 1-2 lb N/1,000 sq ft/yr. Iron chlorosis is frequently a problem, especially after a nitrogen application. A

foliar application of chelated iron will be needed to maintain good color. Watering will be needed during periods of drought, as this grass does not tolerate drought stress. If maintained at a high level of cultural intensity, Centipede grass thatches excessively. Propagation is by sprigs, plugs or sod. Seeding is possible, however, the establishment rate is slow.

Use: Centipede grass may be used in home lawns with minimal traffic and low maintenance conditions. It is not used in athletic fields or playgrounds due to its poor wear tolerance and slow establishment.

Pests: Centipede grass is relatively pest free. Occasional problems with spittlebugs or ground pearls can be encountered. Diseases (brown patch and dollar spot) can cause serious damage, as well as root feeding activity by nematodes.

Cultivars: Common and Oaklawn. **LM**

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