

Zoysiagrass

Zoysiagrasses (*Zoysia* species) grow best during the warm (80 to 95 °F) months of spring, summer and early fall. They grow vigorously during this time and become brown and dormant in winter. They are adapted to the entire state and are some of the most cold-tolerant of the warm-season grasses.

These grasses form an excellent turf when properly established and managed. For the best appearance, zoysias require cutting with a reel mower, although a rotary mower with sharp blades is satisfactory. They also require occasional watering and periodic thinning or dethatching. Once this grass is established, thatch can build up, especially when heavily fertilized. Remove thatch every two to three years.

The zoysias form a dense, attractive turf in full sun and partial shade, but often thin out in dense shade. Most zoysias grow very slowly compared to other grasses and usually are established by sprigging or plugging, although there are seeded types. Sprigs or plugs, 2 inches in diameter planted on 6-inch centers, will cover completely in two growing seasons if watered and fertilized properly. However, it may require several years to cover if not properly maintained. As it is a slow grower, it requires less frequent mowing than some other grasses. It will, however, recover slowly from damage due to its slow growth habit.

Zoysia japonica is sometimes called Japanese or Korean lawngrass or common zoysia. It has coarse leaf texture, excellent cold tolerance, and it can be seeded.

Meyer zoysia, also called "Z-52," is an improved selection of *Z. japonica*. It has medium leaf texture, good cold tolerance and spreads more rapidly than most other zoysias. This is the zoysia often

advertised as the "super" grass in newspapers and magazines.

Belaire is also an improved *Z. japonica* variety noted for its excellent cold tolerance and medium green color. It has a coarser leaf texture and faster rate of establishment than Meyer. It is susceptible to brown patch disease.

Emerald zoysia is a fine-textured hybrid that is possibly the most attractive zoysia. It is well-suited for top-quality lawns where a good maintenance program is provided. Emerald zoysia has less winter hardiness but more shade tolerance than Meyer. It has a dark green color, a very fine leaf texture, good shade tolerance, high shoot density and a low growth habit. Emerald will develop excess thatch rather quickly if overfertilized and is prone to winter injury northward from the Columbia area.

El Toro is a relatively new zoysia that was developed in California and looks like Meyer zoysia. It is the fastest growing zoysia, tolerates mowing with a rotary mower and produces less thatch than Meyer. The winter hardiness of this grass is not well-established although it can be found growing in the Columbia area.

Zenith is a hybrid zoysia that is available as seed. It has a medium dark green color, a medium density, and will tolerate light shade. It is planted in late spring to early summer with a seeding rate of 1 to 2 pounds of seed per 1000 square feet. The seed should be very lightly covered with soil by raking. Cover the seeded area with straw to retain soil moisture during the germination period. Water the newly seeded lawn very lightly three or four times per day to keep the seed moist for best germination.

The seed will germinate in ten or more days. Gradually reduce watering frequency, but give the lawn longer soakings to establish the new grass root system.

In general, the zoysias are slow to cover completely (thus more costly to establish), less drought-tolerant than bermudagrass, and recommended for lawn use only when the homeowner is willing to provide the required maintenance.

Adaptations & Characteristics of Warm-Season Turfgrasses

	Bermudagrass (common) ¹	Bermudagrass (hybrid) ¹	Centipedegrass ¹	St. Augustinegrass	Zoysiagrass ¹
Area Best Adapted					
	Statewide	Statewide, excluding mountains	Statewide	Coastal Plain	Statewide
Adaptation:					
Heat Hardiness	VG	VG	G	E	E
Cold Hardiness	P	F	F	P	VG
Drought Resistance	E	E	G	G	G
Sun Tolerance	VG	VG	G	G	G
Shade Tolerance ²	VP	VP	G	E	G
Salt Tolerance	G	G	P	E	G
Wear Tolerance	E	E	P	F	F
Establishment Rate ³	Fast	Medium	Slow	Medium	Very Slow

Key: E=Excellent; VG=Very Good; G=Good; F=Fair; P=Poor; VP=Very Poor

¹ Can be seeded.

² Turfgrasses need at least 4 hours of direct sunlight per day.

³ Establishment rate is dictated by planting dates, seeding and planting rate, intensity of culture, and environment.

Note: Some improved cultivars are better adapted and more pleasing in appearance than the comparison rating provided for a given lawn grass.

Excerpted from the South Carolina Master Gardener Training Manual, EC 678.

Prepared by Bob Polomski, Extension Consumer Horticulturist, and Debbie Shaughnessy, HGIC Information Specialist, Clemson University. Revised by Joey Williamson, Horticulture Information Specialist, Clemson University. (New 03/99. Revised 12/06.)

This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. All recommendations are for South Carolina conditions and may not apply to other areas. Use pesticides only according to the directions on the label. All recommendations for pesticide use are for South Carolina only and were legal at the time of publication, but the status of registration and use patterns are subject to change by action of state and federal regulatory agencies. Follow all directions, precautions and restrictions that are listed.