



# TURFAX™

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## A System for Winter Overseeding Warm-Season Turfs

James B Beard

The following is a summary of findings generated from an 8-year turfgrass research program at Texas A&M University. Primary emphasis was on winter overseeding cool-season turfgrasses onto bermudagrass (*Cynodon* spp.) under putting green conditions. Twenty-eight distinct field experiments have been conducted, mostly in College Station, Texas at the TAMU Turfgrass Field Research Laboratory, with some studies located in Corpus Christi, Dallas, Denton, Houston, and San Antonio.

**Late Summer-Early Autumn Preparation.** The cultural system should involve a season-long vertical cutting program as needed to control thatch and turf cultivation to correct soil compaction. Late-season coring and fertilization should be completed at least 30 days prior to the overseeding date. Thus, the actual overseeding and top-dressing can be done on a relatively undisturbed turf sur-

face. Play may be withheld from the turf for only 1 to 2 days during the actual overseeding, although a longer period is beneficial for full establishment.

**Annual Bluegrass Control.** Fenarimal (Rubigan®) has been identified as the first herbicide that will provide selective, preemergence control of annual bluegrass (*Poa annua*) in winter overseeded perennial ryegrass and rough bluegrass (*Poa trivialis*) turfs. The applications should be completed at least 4 weeks prior to the winter overseeding date.

**Seeding Date Prediction.** A biological indicator of the optimum winter overseeding dates has been established via our detailed research. It is the period when the soil temperature at a 4-inch (100-mm) depth, is between 72° and 78°F (22–26°C). This approach is far superior to using a historical calendar date.

**Species/Cultivar Selection.** The preferred turfgrass community for winter overseeding involves either a blend of 3 to 4 perennial ryegrass (*Lolium perenne*) cultivars, or a mixture involving 80% by weight of 2 to 3 perennial ryegrass cultivars and 20% by weight of a rough bluegrass (*Poa trivialis*) cultivar. In the case of certain newer very-high density hybrid bermudagrass (*Cynodon dactylon* x *C. transvaalensis*) cultivars that tolerate cutting heights of 1/8 to 1/10 inch (3.2 to 2.5 mm), the suggested winter overseeding mixture consists of 80% rough bluegrass and 20% creeping bentgrass (*Agrostis stolonifera*) by weight, with 20% of the rough bluegrass applied 4 weeks after the initial winter overseeding. The seed may be treated to protect against seedling disease problems, especially on wet sites.

**Seeding Rates.** The preferred seeding rate for greens has been established in the range of 30 to 35 lb/1,000 ft<sup>2</sup> (15.0–17.5 kg•100 m<sup>-2</sup>) for perennial ryegrass blends; whereas for sports fields, fairways, and race tracks, where rapid cover and initial wear tolerance are desired, a minimum seeding rate of 20 lb/1,000 ft<sup>2</sup> (10 kg•100 m<sup>-2</sup>) is suggested for perennial ryegrass blends. For certain very-high density hybrid bermudagrass cultivars a rate of 10 lb/1,000 ft<sup>2</sup> (5 kg•100 m<sup>-2</sup>) of rough bluegrass plus 2 lb/1,000 ft<sup>2</sup> (1 kg•100 m<sup>-2</sup>) of creeping bentgrass is suggested.

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