

RAPID ESTABLISHMENT OF CREEPING BENTGRASS INTO AN ANNUAL BLUEGRASS TURF

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Annual bluegrass continues to be a serious weed problem on golf course fairways, greens and tees. One of the major obstacles to its eradication is its ability to continually reseed itself. Thus, one can attempt to reseed into a killed fairway only to find a significant portion of the germinating seedlings to be annual bluegrass. The purpose of this study is to examine several factors and their interactions on the successful establishment of a creeping bentgrass fairway from a fairway consisting primarily of annual bluegrass.

Specifically, a new herbicide called Prograss seems to be fairly selective in terms of removing annual bluegrass from other turf species. The idea behind this study is to use Embark, a plant growth regulator, to reduce the competitive ability of the annual bluegrass during the bentgrass germination period and then use the Prograss herbicide to further reduce the competitive ability of the annual bluegrass while permitting the creeping bentgrass to establish. The treatments in the study consisted of cultivation type, seeding rate, and PGR plus Prograss treatments. The cultivation treatments were core cultivation one pass, vertical mowing, and no cultivation. The seeding rates were 1, 2, and 4 lbs/M using 'Pennncross' creeping bentgrass. The PGR plus Prograss treatments were $\frac{1}{4}$ lb/A of Embark followed four weeks later by 0.75 lbs/A of Prograss or 1.5 lbs/A of Prograss, 1 lb/A of Roundup followed four weeks later by 0.75 lbs/A of Prograss or 1.5 lbs/A of Prograss, and a control plot where no PGR or herbicide was applied. The treatments were applied in the following manner. The Embark or Roundup applications were applied on August 4. The cultivation and seeding operations took place on August 13 and 14. The Prograss applications will begin on September 15.

Initial observations show that vertical mowing does a better job of preparing a seedbed than does core cultivation.