

Effect of Fall Preparation and Spring Transition Method on Overseeded Zoysiagrass Vigor and Quality. (6323)

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Abstract:

Efforts to overseed zoysiagrass (ZG) with perennial ryegrass (PR) have met with limited success in the past. The ZG canopy must be disrupted to allow for establishment of PR. Turf managers have reported decline of ZG following successful establishment of PR or other grasses in an overseeding situation. Reasons for ZG decline could include damage sustained by ZG during fall seeding preparation, allelopathic effects of PR on ZG, or competition by PR for light and nutrients during ZG postdormancy green up. Two studies were conducted in Blacksburg, VA to evaluate the effects of fall preparation methods and timing of PR control on turfgrass aesthetics and ZG (Meyer and Korean Common) quality at two PR seeding rates. Initial establishment of PR was improved by increasing seeding rate from 672 kg/ha to 1080 kg/ha only in plots that did not receive any fall preparation. Vertical mowing and core aeration in fall improved initial PR cover better than increased PR seeding rate. ZG was severely injured by fall vertical mowing and core aeration as evidenced by decreased green cover, color, and quality in spring. Foramsulfuron controlled PR but did not injure ZG. Initial results indicate that both fall preparation and PR competition injure ZG. However, some level of fall preparation is necessary to insure establishment of PR.

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