

Introduction

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The following research report is the 25th yearly publication of the results of turfgrass research projects performed at Iowa State University. This is the seventh year that the entire report is available on the Internet. This report and the previous years' reports can be accessed at:

<http://turfgrass.hort.iastate.edu/>

In 2003-2004, a new Roundup Ready® ETQ (Enhanced Turf Quality) Kentucky bluegrass study was initiated. The trials on fairway and green conversion with Roundup Ready® creeping bentgrass are in their second year. Morphological and genetic characterization of a number of alternative turfgrass species, including *Poa trivialis*, colonial and velvet bentgrass is in progress. The field study of winter hardiness of perennial ryegrass is in its second year. An important gene potentially responsible for freezing tolerance has been isolated from perennial ryegrass and further studies on its function are underway.

New fairway height creeping bentgrass, green height creeping bentgrass, and fine fescue studies were established in the fall of 2003. These plots will be on the field day program on July 22, 2004. New display areas for the Iowa Golf Course Superintendents Association, the Iowa Sports Turf Managers Association, and the Iowa Professional Lawn Care Association were also completed for use at this field day this year.

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