Dollar Spot Resistant Interspecific Hybrids Between Creeping Bentgrass and Colonial Bentgrass. (C05belanger134712-Oral)

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Abstract:

Interspecific hybridization has not yet been utilized in creeping bentgrass breeding. We found that interspecific hybridization between creeping bentgrass and related species can occur at low frequencies and the hybrids can be fertile. Creeping bentgrass is susceptible to the fungal disease dollar spot whereas colonial bentgrass has good resistance. In 2001 we conducted a field test of hybrids between creeping bentgrass and colonial bentgrass. In the field test there were 6 replicates of each of 35 colonial x creeping hybrids. The controls consisted of 6 replicates of the transgenic creeping bentgrass parents, 50 nontransgenic individuals of the creeping bentgrass cultivar Cobra, and 50 individuals of the colonial bentgrass cultivar SR7100. The field was inoculated with the dollar spot fungus and rated for disease. The creeping bentgrass controls showed the expected high level of dollar spot susceptibility. The colonial bentgrass controls showed the expected high level of dollar spot resistance. Four colonial x creeping hybrids exhibited excellent dollar spot resistance. Such dollar spot resistant hybrids may offer opportunities for cultivar improvement through gene introgression.

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