Influence of selected plant growth regulators on herbicide efficacy for bermudagrass suppression in creeping bentgrass. (C05-ervin151237-Oral)

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Abstract:

In the U.S. transition zone and south, bermudagrass encroachment into cool-season turf areas is a perennial weed problem. Our objective was to investigate the safe and effective suppression of bermudagrass encroachment into creeping bentgrass by the possible enhancement of selective herbicides with various natural and synthetic plant growth regulators (PGRs). Season-long applications of ethofumesate + flurprimidol, siduron, and fenoxaprop were tested alone or in combination with the following PGRs--propiconazole, salicylic acid, and seaweed extract + humic acid--for field efficacy and safety. The treatment combinations were tested on 'Midiron' and 'Tifway' bermudagrass. A 30 cm-wide strip of 'Penncross' creeping bentgrass transected each plot. Several treatments provided significant bermudagrass suppression without unacceptable bentgrass phytotoxicity. Many treatments changed the competitive balance such that bentgrass spread into the bermuda.

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