Response of Glyphosate Resistant and Susceptible Bentgrass (Agrostis spp.) to Postemergence Herbicides (C05-hart123640-Oral)

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Abstract:

Studies were conducted in New Jersey and Oregon to evaluate the response of glyphosate resistant creeping bentgrass hybrid 'RR 368', susceptible hybrid 'RS 368', colonial bentgrass 'SR 7100', redtop bentgrass 'Streaker' and dryland bentgrass 'Trust'. Glyphosate at 1.6 kg ae/ha, glufosinate at 1.6 kg ai/ha, fluazifop at 0.3 and 0.4 kg ai/ha, clethodim at 0.3 kg ai/ha, sethoxydim at 0.5 kg ai/ha, and a combination of fluazifop and glyphosate were applied 6 weeks after planting. Plots were visually evaluated at 2, 4, and 8 weeks after treatment (WAT) and plant diameters were taken prior to herbicide application and at 8 WAT. Glyphosate provided almost complete control of all susceptible bentgrass lines by 4 WAT and this level of control was maintained at 8 WAT. Glufosinate provided >95% control of all bentgrass lines at 2 WAT. However, at 8 WAT regrowth was evident in OR. Fluazifop, clethodim, and sethoxydim provided slower control of bentgrass lines with control ranging from 50 to 90% at 4 WAT depending on species, herbicide, and location. Fluazifop at 0.4 kg/ha applied alone or in combination with

glyphosate showed the highest levels of control (>90%) across all lines.

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