

**INFLUENCE OF HERBICIDE PROGRAMS, WEED HEIGHT, AND GLUFOSINATE  
AND 2,4-D COMBINATIONS ON WEED MANAGEMENT IN SOYBEAN RESISTANT  
TO 2,4-D**

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**ABSTRACT**

The introduction of transgenic crops with resistance to 2,4-D will provide growers with new weed management options in soybean. To better understand the utility of this technology in soybean production systems, field and greenhouse experiments were conducted in 2010 and 2011 to investigate the effects of herbicide programs, weed height, and compatibility of glufosinate and 2,4-D combinations on weed control in soybeans with resistance to 2,4-D and glufosinate. Overall, results from these experiments indicate that glufosinate plus 2,4-D combinations utilized in pre-emergence (PRE) followed by post-emergence (POST) or sequential POST programs can provide increased control of problematic weeds like Asiatic dayflower and common waterhemp, while providing similar grass control as herbicide programs that contain glufosinate alone. Reductions in weed control were observed in response to increased weed heights, along with single POST applications of either glufosinate or 2,4-D alone. Soybean yields were also reduced by approximately 3% in response to POST applications made to 30- to 35-cm compared to 10- to 15-cm weeds.