

GLYPHOSATE-RESISTANT WEED CONTROL IN COTTON**J.R. Meier****K.L. Smith****R.C. Doherty****J.A. Bullington****University of Arkansas Division of Agriculture
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Glyphosate has been a popular option for weed control in cotton for many years, but the emergence of glyphosate-resistant horseweed and glyphosate-resistant Palmer amaranth has led researchers and producers to develop and adopt production systems and herbicide programs that do not depend solely on glyphosate. Research conducted showed that control of glyphosate-resistant horseweed 43 DAA with glufosinate at rates up to 0.73 lb ai/a or glyphosate at 0.77 lb ae/a alone was less than 40%. The addition of dicamba at 0.25 lb ai/a to glufosinate at 0.58 lb ai/a or glyphosate at 0.77 lb ae/a increased control of glyphosate-resistant horseweed to 100% and 96%, respectively. Control of glyphosate-resistant Palmer amaranth in Liberty Link[®] cotton with fluometuron at 1 lb ai/a, fomesafen at 0.187 lb ai/a, or diuron at 1 lb ai/a applied preemergence followed by two sequential applications of glufosinate at 0.51 lb ai/a alone provided greater control than three sequential applications of glufosinate at 0.51 lb ai/a. Similarly, control of glyphosate-resistant Palmer amaranth in Roundup Ready[®] cotton with fluometuron at 0.75 lb ai/a or fomesafen at 0.25 lb ai/a applied preemergence followed by two sequential applications of glyphosate at 0.77 lb ae/a alone provided greater control than three sequential applications of glyphosate at 0.77 lb ae/a alone.