# WEED RESISTANCE TO HERBICIDES IN COTTON PRODUCTION: SUMMARY RESULTS FROM A FARMER SURVEY

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## Abstract

Weed resistance to herbicides has become a serious problem. A mail survey was administered in 2012 to assess weed resistance problems in cotton. The survey was mailed to 2,448 randomly selected farmers in 13 states. Farmers were randomly selected based on cotton acres, number of producers in a county, and distance from counties first reporting resistant horseweed and pigweed in 2000-2005. The survey response rate was 12.5% with 309 usable surveys returned by farmers. Over two-thirds of farmers reported problems with weed resistance to herbicides with pigweed and horseweed being the primary problems. Results indicated that newly observed infestations of resistant pigweed and horseweed peaked in 2008-2009 and have declined subsequently. Farmers relied on crop consultants and fertilizer/chemical dealers most often to identify weed resistance. By comparison, farmers depended on fertilizer/chemical dealers and Extension most often to develop plans to manage resistance. Results also indicated that farmers relied heavily on labor-intensive practices to control weeds resistant to herbicides in cotton. Farmers reduced their reliance on Roundup Ready/Roundup Ready Flex cotton. About 63% of farmers who reported weed resistance indicated that they thought their efforts to manage weed resistance to herbicides were effective or very effective. The percentage of farmers in the sample who reported total weed control costs of $50 or more per acre doubled with the onset of weed resistance to herbicides.