

PROJECT REPORT, 2007

ALABAMA SOYBEAN PRODUCERS

TITLE: Monitoring and Determination of Herbicide Resistant Weeds in Alabama Soybeans.

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OBJECTIVES:

1. Investigate reports of potential herbicide resistance on Alabama farms and take steps to determine if weed resistance to a specific herbicide is the cause of non-performance.
2. Determine alternative herbicide treatments for control of weeds with proven resistance.

RESULTS TO DATE:

Regional and County Agents, row crop specialists with the Alabama Cooperative Extension System, and farmers and agricultural chemical company representatives monitored fields for signs of weeds that were not controlled by herbicide applications during the year. Extremely dry conditions over much of the state resulted in reduced weed germination in many fields. Abnormally weather conditions resulted in winds and rains coming from the east in many cases. Normally wind and rains proceed from west to east across the state. Pollen from glyphosate resistant pigweed discovered in south Georgia in 2005 may have blown into Alabama during the year.

A soybean field outside Dothan was noted to have uncontrolled pigweed by the farmer in mid summer. The Monsanto field representative for this area sprayed emerged pigweed with a three percent solution of Roundup Weathermax without success. Pigweed seed from these plants were harvested in October. Glyphosate was applied to pigweed (Palmer and hybrid) growing in a cotton field on the Corcoran farm in Barber/Russell counties in June. Pigweed varied in height from 4 to 18 inches. Roundup Weathermax at 44 (2X) and 88 (4X) fluid ounces per acre was applied over-the-top of this pigweed on June 12. Little to no control was observed two weeks after application. Several pigweed plants were transplanted to flower pots and grown to seed production. Pigweed seed from both locations were provided to Dr. Andrew Price, USDA-ARS, Auburn, AL for determination of potential glyphosate resistance. Dr. Price has assigned this project to a Masters student and results should be available by summer.