

GROWER AWARENESS OF GLYPHOSATE-RESISTANT WEEDS AND RESISTANCE MANAGEMENT STRATEGIES. William G. Johnson, Greg Kruger, Stephen Weller, Robert G. Wilson, Micheal D. K. Owen, David R. Shaw, John Wilcut, David Jordan and Bryan G. Young, Associate Professor, Graduate Research Assistant and Professor, Purdue University, West Lafayette, IN 47907, Professor, University of Nebraska, Scottsbluff, NE 69361, Professor, Agronomy Department, Iowa State University, Ames, IA 50011-1011, Professor, Mississippi State University, Mississippi State, MS 39762-9555, Professor and Professor, North Carolina State University, Raleigh, NC 27695-7620, Professor, Southern Illinois University, Carbondale, IL 62901.

Corn, soybean, and cotton farmers from four Midwestern states (IN, IL, IA, NE) and two southern states (NC, MS) were surveyed to assess their perceptions and awareness of weeds resistant to glyphosate and what management tactics they use to prevent or manage glyphosate-resistant weed populations. This survey was the baseline analysis prelude to a six-state, four-year study of weed management tactics in agronomic systems using glyphosate-resistant crops. The survey indicated that farmers with large farms were more concerned about glyphosate resistance and its prevention than those with smaller farms. However, only 30% thought the ability of weeds to evolve glyphosate resistance was a serious issue. A majority of farmers thought following recommendations on the glyphosate product label was the most effective strategy to reduce or prevent glyphosate resistance in weeds. Few thought field tillage and/or using a non-glyphosate resistant crop in rotation with glyphosate resistant crops would be an effective strategy to manage glyphosate resistant weeds. The majority of farmers felt that printed farm publications were the most important source of information about glyphosate resistance in weeds and their management. Agriculture chemical dealers/retailers and Universities/Cooperative Extension Service were viewed as less important sources of information. A majority of farmers do not recognize the role that the recurrent use of an herbicide plays in development of herbicide resistance. Furthermore, a substantial percentage of farmers underestimated the potential for glyphosate resistant weed populations to develop in an agroecosystem dominated by glyphosate as the weed control tactic. Survey results suggest that the long-term sustainability of glyphosate resistant based cropping systems must include effective weed management programs that integrate scientific knowledge and multiple tactics to avoid the wide-spread development of glyphosate resistance and loss of this important weed control tool.