

Announcing The Benchmark Study

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Weed scientists from six universities have joined forces to examine grower weed management practices and develop programs to evaluate and improve the sustainability of weed control in Roundup Ready® cropping systems. Called the Benchmark Study, this multi-state research project is now in its fourth year. Funding for the study has been provided by the Monsanto Company.

University weed scientists have been concerned that frequently employed herbicide programs could affect the sustainability and effectiveness of weed control in Roundup Ready cropping systems. They reasoned that weed populations may shift to species that are more tolerant to glyphosate. Also, without proper management, the potential to select for weeds resistant to glyphosate could adversely impact the utility and life cycle of the weed management system on the farm.

The Benchmark Study began in the winter of 2005-2006 with a telephone survey of @1200 growers from six states. Growers planting Roundup Ready corn, soybean or cotton for a minimum of three years were included in the survey. This team of university weed scientists developed a survey that evaluated tillage practices, herbicide use patterns, grower perceptions of weed pressure, and their problematic weeds before and after adopting Roundup Ready cropping systems. Growers were questioned about their awareness of and actions taken regarding weed resistance to glyphosate. The results of this survey were recently published in the journal *Weed Technology* in a series of peer reviewed scientific papers. The University collaborators and Monsanto are releasing Summary Reports that highlight valuable information from each of the Benchmark Study scientific papers.

The Benchmark Study is more than a survey and currently is in year four of a field study that began in 2006. Approximately 150 growers in six states were randomly selected from among the survey respondents to participate in on-farm trials. In each of these on-farm trials, the growers' current herbicide program is compared to a herbicide program recommended by university weed scientists. The researchers expect the herbicide program recommended by the university to reduce the potential risk of selecting for glyphosate resistance. They have been monitoring weed populations, weed species diversity, weed seedbank, crop yields, and economic returns from both herbicide programs throughout each growing season. This information is currently being reviewed and evaluated, with targets for publications of the first two years of the field study in late 2009. The results of the Benchmark Study may provide valuable data comparing the sustainability of growers' current weed management programs compared to more diversified weed management programs, while reducing the risk of selecting for weed resistance to glyphosate.

Know how. Know now.



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