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## GLYPHOSATE RESISTANT JOHNSONGRASS CONFIRMED IN TWO LOCATIONS

### University of Arkansas Partners With Monsanto In Crittenden, AR Case Company Leads Investigation in Mississippi Delta

Memphis, TN (March 12, 2008) – The University of Arkansas and Monsanto have confirmed glyphosate resistant johnsongrass in a field in southeast Arkansas. In a separate case, Monsanto and specialists at Mississippi State University confirm a case of johnsongrass resistance to glyphosate near Clarksdale, Mississippi.

The two cases were investigated over the past several months. In initial greenhouse trials conducted by the University of Arkansas and Monsanto, johnsongrass was not controlled with labeled rates of glyphosate. Additional trials will be conducted in the field this season.

“We’re looking at johnsongrass populations in a field where there has been a history of control issues,” says Dr. Bob Scott, University of Arkansas Extension Weed Scientist. The field in question is owned by a grower near Crittenden County, Arkansas, and has been in continuous Roundup Ready soybeans.

“Our greenhouse trials show differing levels of response including some plants that survive following application above labeled rates of glyphosate. Additional populations suspected to be resistant, were also tested but shown susceptible to Roundup in testing,” says Scott. “The resistant populations are being controlled well with selective chemistry. We will continue working with the grower on control methods and recommendations.”

Monsanto’s technology development team has been working with a farmer and his dealer outside of Clarksdale, Mississippi on a field with johnsongrass control issues as well. Dr. Trey Koger and Dr. Dan Poston of MSU’s Delta Research & Extension Center are working with the company on recommendations.

“The farm where glyphosate resistant johnsongrass was found in the Delta has responded well to applications of graminicides,” Koger explains. “We are working with the grower to get control of this population before it spreads by combining various methods including chemistry and equipment inspection.”

Like Scott, Koger says other populations have been screened as well. “We have screened several populations of johnsongrass in the mid-Delta for potential resistance to glyphosate. They all turned out to be susceptible to glyphosate in greenhouse trials. We determined low control levels in the field were attributed to extremely dry conditions at time of glyphosate application.”

Dr. Jennifer Ralston, US Chemistry Technical Lead for Monsanto agrees a program approach is best. “We are working with these university experts to provide growers with the best management practices. To maintain the efficacy of the herbicide and value of the technology,

we recommend growers scout fields and utilize additional modes of action that complement the Roundup Ready system to control problem weeds while reducing the likelihood of developing performance issues.”

The company and academics recommend growers adopt best management practices to help growers minimize the risk of developing resistant weeds practices including:

- Start with a clean field by either utilizing a burndown herbicide or tillage to control weeds early.
- Use Roundup Ready technology as the foundation of a total weed management program.
- Add other herbicides or cultural practices where appropriate as part of the Roundup Ready cropping system.
- Use the right herbicide rate at the right time.
- Control weeds throughout the season and reduce the weed seed bank.

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