Situation, Distribution and Impacts of Palmer in AR

Managing Glyphosate Resistant Palmer Amaranth

Ken Smith
Dec 13-14, 2007
Horses

To

Rags

Will The Pigs be Next?
Greenhouse Program
Spring of 2006
6 DAT, 22 oz WM

Suspect Biotype

Known Susceptible Biotype
Greenhouse Program
Spring of 2006
6 DAT, 22 oz WM

Suspect Biotype

Known Susceptible Biotype
Typical Pigweed Population
General Resistance Brochure Covering All Crops

Herbicide Resistance A Growing Issue in Arkansas
Arkansas Herbicide Resistance Committee

Ken Smith
Extension Weed Scientist
UACES
Committee Chair

David Black
Research & Dev, Scientist
Syngenta Crop Protection

Don Plunkett
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George Hackman
Technical Field Representative
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Keith Vodrazka
Sr, Technical Service Representative
Bayer CropScience
Prevention and Control of Glyphosate-Resistant Pigweed in Roundup Ready™ Soybean and Cotton

Robert C. Scott
Extension Weed Scientist

Pigweed is considered the most troublesome weed in Arkansas crop production. The rapid growth, aggressive competition, extremely prolific seed production and germination throughout the season make pigweed a multimillion dollar pest each year in our state.

Palmer amaranth (also referred to as Palmer pigweed) was discovered in Mississippi County, Arkansas, that has proven more tolerant to glyphosate than other biotypes and is suspected to be resistant to the herbicide. If confirmed, this will be the third population of this resistant weed biotype discovered in the last two years.

Glyphosate is currently the only effective means of controlling pigweed in cotton and the most effective means of control in soybeans. For this reason, there is great concern over the development of glyphosate-resistant pigweeds. Pigweeds that cannot be controlled with glyphosate will add tremendous cost and cause major shifts in our agricultural community. This threat has resulted in an intense interest in developing plans for the prevention and management of pigweed in soybeans and cotton.

Heavy Selection Pressure in Soybean Production Today

Currently, there are over 3 million acres of soybeans in Arkansas. Of these, over 95 percent are Roundup Ready™ and receive an average 1.75 applications of in-crop glyphosate per year. In addition, the number of different herbicides used in soybeans has been in decline since 1999. Couple this with a risk of glyphosate resistance in soybean, the potential for a fitness surge of glyphosate-resistant pigweed populations is quite real.
Failure To Communicate Is Only Unproductive Noise

"Yes! That was very loud Mr. Trainer, but I said I wanted to hear your HEART!"
Thanks!

The UofA Weed Crew