

Still Another Flood Problem To Worry About: Herbicide-Resistant Weeds

MONTICELLO, ARK.

When the flooding along rivers in eastern Arkansas subsides, row crop farmers will likely have something else to worry about in addition to lost planting time and debris cleanup: new weeds, especially herbicide resistant ones.

“When the water goes down, farmers are going to have some unpleasant visitors in their fields – the kind of visitors that don’t go home and cost farmers money,” said Dr. Ken Smith, extension weed scientist with the University of Arkansas Division of Agriculture.

“We’re moving mixed populations of weed seeds around in flood water, including seeds from weeds resistant to glyphosate herbicide, and farmers downstream along rivers such as the White River are going to end up with someone else’s weed problem,” he said.

“Several counties along the White River in northeast Arkansas have high levels of resistance,” he said.

Farmers have a lot of worries – the high price of fuel and fertilizer – and weed problems won’t immediately be high on their list of concerns. Farmers have lost winter wheat and valuable planting time for other crops. They’ve booked wheat and other unplanted crops to take advantage of high futures prices, and they’ll have to scramble to make good on their contracts, Smith said.

“But at some point, the weed issue will become a problem that farmers will be forced to address,” he said.

Smith said many seeds readily float, including grass seed and resistant pigweed seed, and flood waters will spread resistant species to areas that don’t currently have a problem. Farmers may find weed species they’ve never had a problem with before.

“I’m afraid that once the water is off, farmers will plant Roundup Ready soybeans, spray them and forget about it,” he said. “Don’t be caught by surprise. Monitor your fields. If your field is under water, scout it closely.”

The good thing about pigweed seed, Smith said, is that it doesn’t persist long in soil. If farmers do a good job controlling weeds this year, they’ll probably have few problems next year. If farmers miss the opportunity to control it this year, their fields will become infested for the long term.

For resistant pigweed, there’s no over-the-top herbicide control in cotton and few in soybeans, Smith noted. If farmers in flooded areas aren’t expecting resistance, by the time they realize they have a problem, it’s too late.

“Flowing water is capable of moving almost anything, including seed,” Smith said. “But many seeds are specially adapted for movement in water. Some have a waxy coating, others may have air bladders or corky structures that help them float.”

Various studies have shown that as many as 200 million seeds per acre could be deposited by water. Some studies have found that as many as 77 different weed species moving in river water.

“It’s interesting to note that the most common seed found in many of the studies conducted were barnyardgrass and pigweed,” Smith said.

“Farmers have known for years that land that is prone to flooding is likely to have the worst weed infestation,” he said. “Herbicide resistant biotypes make this a more severe threat.”

He said the Division of Agriculture offers two publications with the best available resistant management techniques for different crops. The publications are: Prevention and Control of Glyphosate Resistant Pigweed in Roundup Ready Soybeans and Cotton (Fact Sheet FSA2152) and Herbicide Resistance A Growing Issue in Arkansas. FSA2152 is available online by going to www.uaex.edu and selecting Publications, then Cooperative Extension Service and UACES Searchable Database.

Herbicide Resistance A Growing Issue in Arkansas is available at www.aragriculture.org/weeds/herbicide_resistance.pdf. Δ