

# Good Management Can Control Herbicide-Resistant Weeds

**ALEXANDRIA, LA.**

Louisiana grain farmers appear to be holding off the invasion of herbicide-resistant weeds, with only pockets of resistance in the state, according to Daniel Stephenson, LSU AgCenter weed scientist at the Dean Lee Research Station.

“Overall, from a weed management standpoint, it has been real quiet this year,” Stephenson said. “I’ve been well pleased with the efforts of the growers in this state.”

He said farmers are doing a good job of using pre-emerge herbicides to stop the problem weeds before they get a foothold.

Glyphosate-resistant Palmer amaranth, first confirmed in Louisiana in 2009, has spread south in Louisiana with confirmation this year in soybean fields in Avoyelles and Catahoula parishes, Stephenson said. “It is continuing to spread and can be found in numerous parishes in the state.”

Stephenson said he is concerned about herbicide-resistant weeds spreading rapidly in fields that are farmed inside the levees of the Mississippi River and the Atchafalaya Basin because the seeds are buoyant and can be carried by water.

Corn fields may be harboring Palmer plants that will only be found by harvesters, making it essential that farmers thoroughly clean their equipment, he said.

If farmers encounter heavy infestations of Palmer amaranth or johnsongrass, they would be well advised to drive their harvesters around the affected area of a field. “To lose a 50-foot-by-50-foot area of soybeans is a lot better than having to fight this monster next year because the harvester will just spread the problem,” he said.

Killing frosts will take care of weeds in the fall and early winter in central and north Louisiana, but south Louisiana will remain vulnerable, Stephenson said. It’s possible that a weed could go through two life cycles and generate twice as many seeds. Even with a killing frost expected, growers should still maintain their fields weed-

free until the first frost occurs.

Farmers should take precautions to make sure their fields are clean before planting next year, Stephenson said. And they should consider using a residual herbicide at planting, followed by an early post-emergence herbicide such as Dual Magnum or Zidua. Either can be mixed with glyphosate.

Data have shown that yields will be maximized by keeping soybean fields weed-free for the first five weeks after emergence, he said.

Herbicide-resistant johnsongrass has been confirmed in Rapides, Avoyelles and Pointe Coupee parishes, according to Stephenson.

Liberty herbicide is effective on glyphosate-resistant johnsongrass, although farmers have not widely adopted Liberty Link soybeans.

Graminicide chemistry in products such as Select Max, Fusilade and Assure II offer alternatives to glyphosate for fighting johnsongrass in both Roundup Ready and Liberty Link soybean, Stephenson said. However, using only a graminicide to control johnsongrass could lead to failures because of resistance development.

Soybean fields where glyphosate-resistant johnsongrass is suspected should be planted in corn the following year because there are good options for control, he said. Liberty Link soybeans are another option the next year, although two to three applications of Liberty will be needed.

Suspected glyphosate-resistant Italian ryegrass is a problem for Louisiana corn farmers, he said, and yields can be reduced by as much as 70 percent. Residual herbicides, such as Dual Magnum applied in the fall followed by paraquat in the spring, is an effective program for controlling ryegrass, but growers should contact LSU AgCenter weed scientists for more specifics.

Stephenson said he urges consultants and farmers to let LSU AgCenter weed scientists know about problem weeds involving suspected resistance. “We won’t publicly name the farmers, but we need to let their neighbors know.” Δ