

Glyphosate Stewardship



Fix it before it BREAKS

Glyphosate-resistant weeds have likely arrived in Iowa. It was inevitable — certain members of any weed population have the genetics to fight whatever strategy is used against them.

Fortunately, Iowa farmers realized the problem early. And by acting now, we can create management plans that help keep glyphosate-resistant weeds from advancing.

“Isolated fields are there, but we can still get ahead of the resistant weeds,” says Mike Owen, professor of agronomy and Extension weed science at Iowa State University.

“We need to think like this: It’s not broken, and we need to fix it so it stays that way.”

A well-designed management plan can help you keep glyphosate-resistant weeds out of your fields.

Turn the page to find out how you can keep yields up...and resistant weeds out.

Weed Populations are Changing



Lambsquarters

In Iowa, glyphosate resistant soybeans are planted on nearly 100 percent of soybean acreage. Soybean growers appreciate how glyphosate-based crop systems give consistent weed control, and little soybean injury.

Fields may receive two glyphosate applications during the growing season. That means weeds get a lot of exposure to glyphosate.

Common lambsquarters, common waterhemp and giant ragweed are most frequently identified as problems. Owen documented glyphosate resistant waterhemp in Iowa in 1999. He believes others are out there but a comprehensive survey is

needed to be sure. But globally, 14 weed species — grasses and broad-leaf weeds — have evolved resistance to glyphosate. And it looks like this trend is increasing.

A high percentage of Iowa soybean producers and ag chemical dealers believe these weeds are becoming more difficult to control with glyphosate. And, ag chemical dealers believe that it now takes higher rates of glyphosate to control them. This suggests that other resistant weed populations may be on the way.



Marestail

How to spot glyphosate resistant weeds in your fields

Ask yourself:

- *Do patterns of weed escapes exist in my fields?*
- *Is only one weed species escaping glyphosate?*
- *Near the escaped weeds, have others of the same species been controlled?*

If the answer to one or more of these questions is yes, you may have a resistant weed population.

But by the time you identify a resistant weed population, you may already have a problem. Resistant

weeds can be in a field for up to two years before they are discovered.

Meanwhile, they're spreading seed and establishing themselves more and more. They'll remain a problem for an extremely long time, owing to high seed production and seed dormancy in the soil.

That's why, as Mike Owen says, you have to fix the problem before you realize you have it. Prevent weeds from moving in...because once you have a problem, it can be managed, but never totally fixed.

“You have the problem realize you have weeds from moving because once you have a problem, it can be managed but never totally fixed.”

— Mike Owen



Waterhemp