

## ILLINOIS CONFIRMS GLUFOSINATE-RESISTANT WATERHEMP

Research conducted by the University of Illinois and Southern Illinois University has confirmed the presence of glufosinate-resistant waterhemp in multiple Illinois populations. With this confirmation, waterhemp has evolved resistance to all formerly effective postemergence herbicide modes of action currently available in Illinois corn and soybean production systems. Researchers emphasize there is no evidence these confirmed populations are the only ones of concern. Given the widespread reliance on glufosinate, it is likely additional resistant populations will continue to emerge.

Now more than ever, a weed-management foundation built on overlapping residual herbicides is essential to stay ahead of waterhemp pressure. Regardless of the POST program selected, choosing the most effective and longest-lasting residual herbicides is critical to truly start clean and stay clean throughout the growing season.

The FMC herbicide portfolio offers the most effective Group 14 and 15 herbicide active ingredients available on the market: sulfentrazone and pyroxasulfone. These two actives paired with other effective herbicides can create a highly successful overlapping residual herbicide strategy.

### Inside this Issue

- ✓ Selecting strong active ingredients
- ✓ Looking at the data
- ✓ Overlapping residual herbicide programs for soybeans

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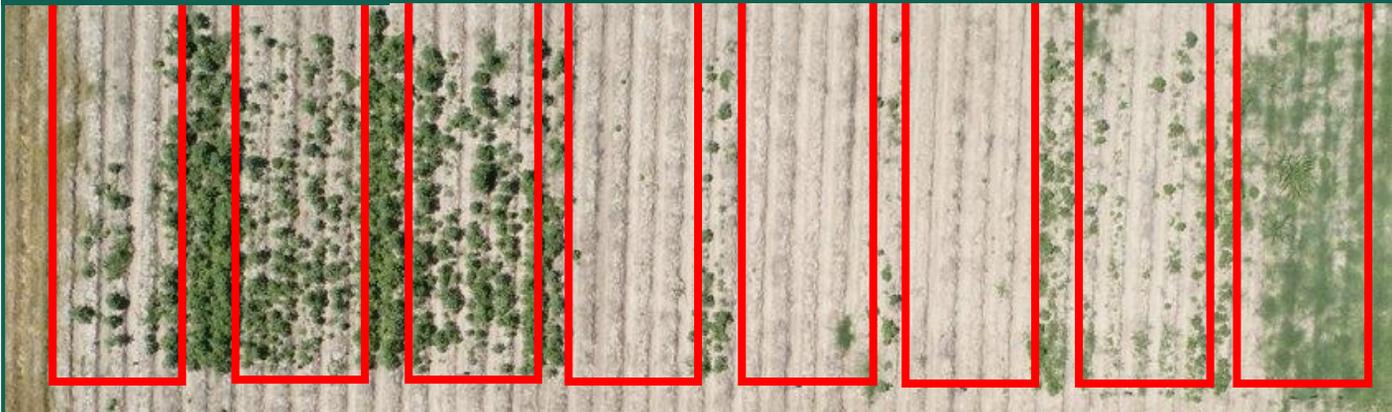
## AUTHORITY® EDGE & AUTHORITY® SUPREME HERBICIDES

Authority® Edge & Authority® Supreme herbicides contain a Group 14 herbicide & Group 15 herbicide, sulfentrazone and pyroxasulfone.

- Use 15 GPA when treating fields with heavy crop residue or emerged weed populations.
- If emerged weeds are present, include a spray adjuvant. Tank mix with other registered burndown herbicides for improved burndown.

## FMC SHOWCASE SITE IN CRAWFORDSVILLE, AR 2024

Dual MAGNUM® herbicide 1.33 pt./A	Outlook® herbicide 16 fl. oz./A	Warrant® herbicide 64 fl. oz./A	Anthem® MAXX herbicide 4 fl. oz./A	Authority Supreme herbicide 8 fl. oz./A	Spartan® herbicide 4.16 fl. oz./A	Valor® herbicide 2 fl. oz./A	Flexstar® herbicide 32 fl. oz./A
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## HALF LIVES OF COMMON GROUP 14 & GROUP 15 HERBICIDES

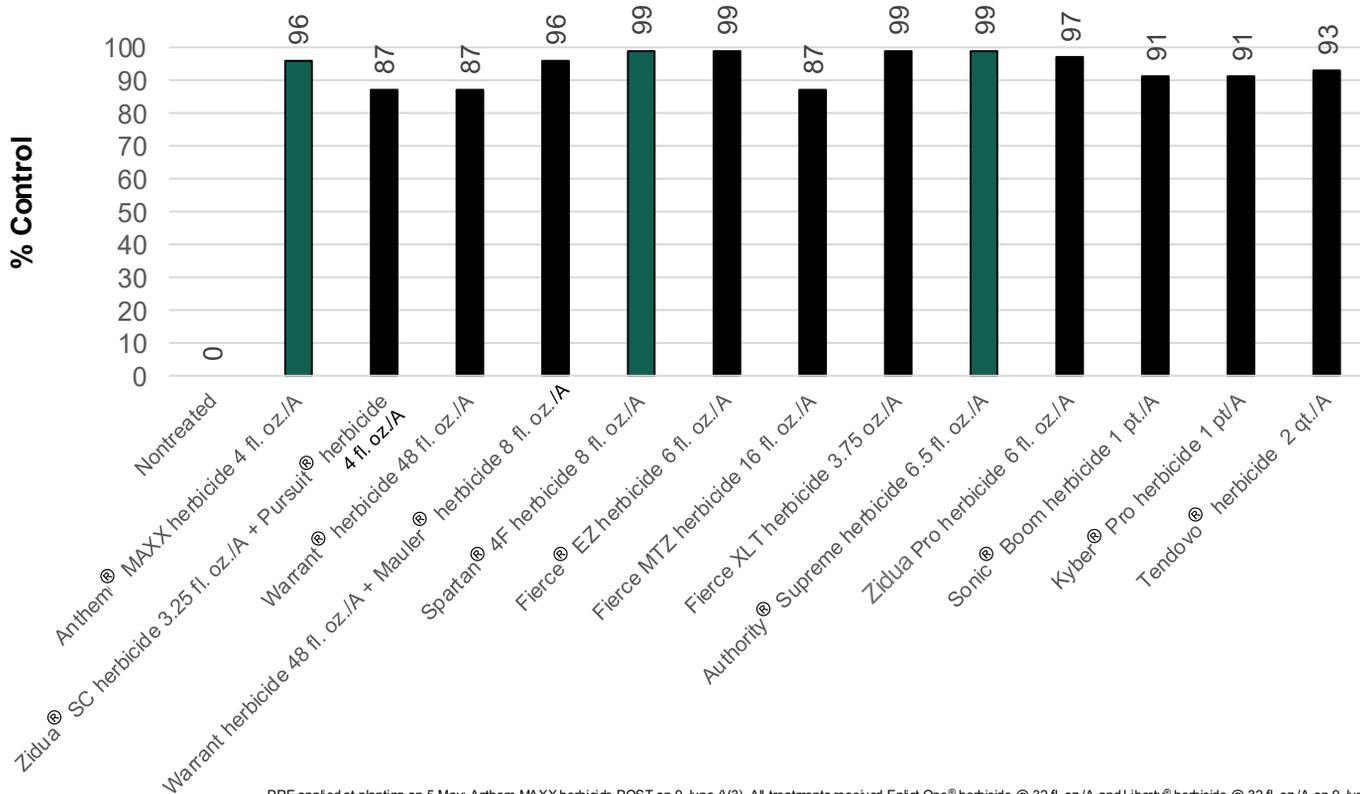
Herbicide	Soil Half-Life
<b>Sulfentrazone</b>	<b>70.8 Days</b>
Fomesafen	45.6 Days
Saflufenacil	21.4 Days
Flumioxazin	21.2 Days

Herbicide	Soil Half-Life
<b>Pyroxasulfone</b>	<b>34 Days</b>
Dimethenamid-P	20 Days
S-metolachlor	22 Days
Acetochlor	13 Days

*\*Weed Science 62, October-December 2014 "Dissipation of Fomesafen, Saflufenacil, Sulfentrazone, and Flumioxazin from a Tennessee Soil under Field Conditions"*

## SOUTHERN ILLINOIS UNIVERSITY – BELLEVILLE, IL 2025

### Waterhemp Control (%) - 22 Days After PRE



PRE applied at planting on 5 May; Anthem MAXX herbicide POST on 9 June (V3). All treatments received Enlist One® herbicide @ 32 fl. oz./A and Liberty® herbicide @ 32 fl. oz./A on 9 June.

### Soybean Program

### Products & Rates

Pre-emergence residual application followed by post-emergence overlapping residual

Authority Edge herbicide @ 7 fl. oz./A PRE fb Anthem MAXX herbicide @ 3 fl. oz./A POST  
 Authority Supreme herbicide @ 6.5 fl. oz./A PRE fb Anthem MAXX herbicide @ 2.5 fl. oz./A POST  
 Do not apply more than 0.375 lb./A of sulfentrazone per year.  
 Do not apply more than 0.266 lb./A of pyroxasulfone per year.