



HOW EXTENSIVE IS RESISTANCE TO GROUP 15 HERBICIDES IN ILLINOIS WATERHEMP POPULATIONS?

INFORMATIONAL SHEET

Published September 2024
Project Status: Year 2

DOCUMENTING THE EXTENT OF RESISTANCE TO GROUP 15 HERBICIDES IN IL WATERHEMP POPULATIONS

Dr. Aaron Hager
Professor & Extension Weed Science Specialist,
University of Illinois Urbana-Champaign

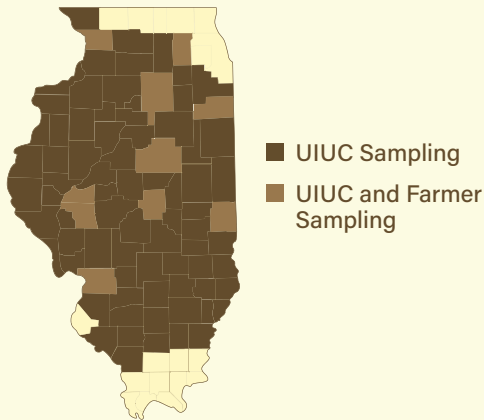
217-333-9646

hager@illinois.edu

PROJECT SUMMARY

Waterhemp populations from soybean fields across Illinois are being collected and screened to better understand the level of resistance to Group 15 herbicides. Results will be used to provide farmers with recommendations on how best to incorporate these herbicides into integrated weed management programs. Resistant populations will be used in subsequent research to identify the gene(s) conferring the metabolism-based resistance.

TRIAL LOCATIONS



WHY THIS RESEARCH IS IMPORTANT

- ! Waterhemp populations in Illinois have evolved resistance to herbicides from more site-of-action-groups than any other weed species.
- ! Noticing potential resistance to this group of chemistry is more difficult because they are residual herbicides, and resistance results in shorter length of control rather than lack of control common with other classes of chemistry.
- ! In addition, fields can contain waterhemp populations resistant to herbicides from multiple herbicide groups, with individual plants carrying genes for resistance to multiple herbicides.

HOW THIS RESEARCH BENEFITS THE FARMER

- 🎯 Understanding the frequency of Group 15-resistant waterhemp will give farmers, their advisors and Illinois Extension the ability to refine integrated weed management recommendations to help slow resistance development in more waterhemp populations.
- 🎯 Researchers also intend to conduct a genome-wide association study to identify the gene(s) responsible for Group 15 resistance. This data could lead to rapid molecular testing tools for future resistance diagnosis.



CHECK OUT FIELD ADVISOR!

See updates and learn more about this project, the research team and other projects at FieldAdvisor.org.

Contact the ISA agronomy team: agronomy-team@ilsoy.org.

