# U of I Offers Free Testing For Glyphosate Resistance In Waterhemp

**URBANA, ILL.**

Waterhemp populations resistant to glyphosate are becoming increasingly common across Illinois, said University of Illinois Extension weed specialist Aaron Hager.

"We suspect that resistant biotypes can be found in many areas across Illinois, but would like to improve our understanding of just how widespread these biotypes are right now," Hager said. "Post-emergence applications of glyphosate to soybean fields are occurring at a rapid pace, given the recent spell of good weather."

Hager expects that glyphosate-resistant waterhemp plants will become noticeable approximately 7 to 10 days after these applications.

Illinois producers with waterhemp populations that may be resistant to glyphosate are invited to send waterhemp samples to the U of I for free herbicide-resistance testing. Samples will be tested for resistance not only to glyphosate, but also to the PPO and ALS inhibitors.

The details for sampling are as follows:

1) Select five waterhemp survivors in the field.

2) Remove the top inch or two (containing young, newly emerged, healthy leaves) from each plant and seal inside a sandwich-sized Ziploc bag. Use a separate bag for each plant.

3) Place the bags in an envelope and send by overnight delivery to Chance Riggins, 320 ERML, 1201 W. Gregory Dr., Urbana, IL 61801. Ideally, samples should be sent the same day they are collected. If necessary, however, they can be stored for a day or two in a refrigerator (but do not freeze) until shipped.

4) Include your contact information, details about the herbicide history of the field, and location of the field (GPS coordinates if possible; at a minimum indicate in which county the field is located) with the sample.

Hager said there are a few reasons why growers may suspect a glyphosate-resistant waterhemp population in addition to a field having a history of glyphosate use.

"You may be experiencing glyphosate resistance if the appropriate rate of glyphosate (plus proper adjuvants) was applied at the appropriate weed growth stage, if environmental conditions during and after application were conducive for good glyphosate activity, and if plants that survived following the glyphosate application were found next to plants that were controlled," he said.

Hager said they can't promise a specific turnaround time because testing is a free service. In addition, due to the way in which the resistance tests are conducted, a test result of "sensitive" does not rule out the possibility that the plant actually is resistant, only that it's resistant by a mechanism different than what they are testing. Δ