

# Waterhemp Resistance Headlines MU Pest Management Field Day

COLUMBIA, MO.

Some might consider it a milestone in a losing battle against weed resistance. News that Missouri's herbicide dealers recently sold out of Cobra, one of the most popular chemicals used to control resistant waterhemp, shows the dependence and desperation some farmers face.

"I always kind of worry that I'm exaggerating

herbicide option. MU has spent more than 10 years evaluating pyroxasulfone, a long-chain fatty acid inhibitor that is a soil residual herbicide that controls weeds like waterhemp as they germinate.

That lasting effect will allow the chemical to control weeds for up to three weeks after spraying.

"Cotton growers have overlapped their spec-



Kevin Bradley explains some results of weed research to a group touring plots at the annual University of Missouri Pest Management Field Day.

Credit: Roger Meissen/MU Cooperative Media Group

the resistance problem around Missouri, but we're using Cobra so much as a tank mix partner to kill resistant waterhemp that we've sold out across the state," said Kevin Bradley, a University of Missouri Extension weed scientist.

Cobra, a post-emergent herbicide, is one of several options farmers currently use in tandem with glyphosate and other herbicides to beat back waterhemp and other weeds that just won't die. More and more farmers use these tank mixes to combat glyphosate-resistant weeds in soybeans.

Wagonloads of people listened as Bradley detailed the problem and ways to responsibly manage resistance for the future at the annual Pest Management Field Day. The event was held July 7 at MU's Bradford Research and Extension Center.

Bradley's message pounded home the idea of stopping weed problems before they start.

"We have to be moving toward a different concept of weed control in Missouri," he said. "Because of resistance we have to think about never, ever treating an emerged resistant waterhemp plant."

With resistant waterhemp found across the state that idea means farmers can't miss their treatment window before their soybeans and corn emerge.

One of the new chemicals coming out next year will give them another pre-emergence her-

trum of residual control for a long period of time, and now with our resistant-weed problem we may have to consider this kind of use pattern in soybeans as well," Bradley said. "While I encourage the use of a pre-emergence, residual herbicide first and foremost, in some fields with resistant waterhemp it may be a good idea to put on a residual herbicide without our post-emergence herbicide application as well. This approach should be used on small V3 and V4 soybeans where you will get that added residual control for flushes of waterhemp later in the season."

Pyroxasulfone will be available from several different companies, such as BASF's Zidua, Valent's Fierce and Fierce XLT and FMC's Anthem.

Pyroxasulfone works well to control grasses and small-seeded broadleaf weeds, but isn't the cure-all for everything. Bradley emphasized that this is a product that needs to be applied before farmers ever see a hint of waterhemp in fields.

Farmers will hear more about pyroxasulfone this winter as herbicide companies start promoting next year's products.

For more information on the results of pyroxasulfone trials at MU go to [www.weed-science.missouri.edu/weedtrials](http://www.weed-science.missouri.edu/weedtrials). Δ