

Bayer and USDA collaborate to promote on-the-farm Integrated Weed Management

Weeds are a major threat in agricultural production. Growers have multiple weed management options available to them, consisting of chemical and non-chemical tools. Reliance on any single method of weed control will not provide adequate long-term weed management; such an approach often results in the development of weed resistance. Weeds are the cause of significant crop yield loss, even after the application of *a particular* control method. According to a national research assessment, without effective weed control, yield reduction can be ~50% in corn and soybean. Thus, there is a need to demonstrate ways that encourage use of a *variety* of available tools and *integrates* them effectively at the farm level. This approach is known as ‘integrated weed management’ or, IWM.

Bayer CropScience and the USDA’s Agricultural Research Service have entered into a 5-year research collaboration (2021-26) supporting USDA’s GROW (Getting Rid Of Weeds) program (www.growiwm.org). GROW is a publicly led network, founded in 2014, that is involved in developing IWM solutions that are practical and adoptable, provides science-based information and decision support tools to make agriculture more sustainable and precise. USDA’s GROW effort is co-founded and co-lead by ARS research ecologist Dr. Steven Mirsky.

The goal of this Bayer-USDA research collaboration is to evaluate and demonstrate on-the-farm economic value of integrating non-chemical weed management practices, specifically cover crops (cultural) and harvest weed seed control (mechanical) with herbicides (chemical) to manage herbicide-resistant weeds in corn, soybean, and cotton production regions across the US. The collaboration leverages and promotes Bayer’s partnership with an extensive network of several university weed scientists, agricultural economists, and growers across the US who are part of the USDA’s GROW program.

According to Dr. Chandra Aradhya, Head of Herbicide Resistance Management at Bayer, “farmers need a range of effective and sustainable tools to do their jobs and helping farmers do their jobs well is in everyone’s best interest. We at Bayer have a key role to play in stewarding the use of these IWM tools around the world. Bayer’s collaboration with USDA is part of that commitment to IWM”.

“GROW has been focused on delivering IWM solutions to growers to address the herbicide-resistant weed epidemic,” said Dr. Steven Mirsky. “Building strong public/private partnerships is critical to increasing adoption of IWM strategies and ensuring long-term crop protection and food security.”