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Conservation Systems Research

Evaluation of Total Postemergence Weed Management in a Roundup Ready Strip-Tillage Cotton System

RESEARCH PROJECT DESCRIPTION NO. 39

Researchers

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The Challenge

Many growers utilize glyphosate-tolerant cotton varieties. Currently, information is lacking concerning total postemergence weed control provided by multiple postemergence and postemergence-directed glyphosate applications versus systems that include herbicides that provide residual control. Envoke™, a new herbicide that will be registered in transgenic and non-transgenic cotton and which provides residual control, will offer growers a new tool for weed management. Research needs to be conducted to evaluate a total postemergence system approach using Envoke in no-till cotton. The challenge is to develop a herbicide system that reduces herbicide costs and provides adequate weed control.

The Experiment

At the Alabama Agricultural Experiment Station's E.V. Smith Research Center and the Wiregrass Research and Extension Center in Headland, and at multiple locations in North Carolina, glyphosate-tolerant cotton was established in a strip-till system to evaluate cotton and weed response to a glyphosate-Dual Magnum™-Envoke-based system. Glyphosate combined with Dual Magnum early-postemergence, followed by a single or split application of Envoke postemergence and/or postemergence-directed, will be compared to systems that don't include the residual herbicides Dual Magnum or Envoke.