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Conservation Systems Research

Weed Management with Envoke, Staple, and Cotoran in Strip-Till Cotton

RESEARCH PROJECT DESCRIPTION NO. 41

Researchers

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The Challenge

Many growers utilize glyphosate-tolerant cotton varieties. Studies are ongoing to evaluate weed control provided by multiple postemergence-directed glyphosate applications versus systems that include preemergence and postemergence compounds that provide residual control. Staple® a recently registered preemergence / postemergence herbicide and Envoke®, a new postemergence herbicide that will be registered in transgenic and non-transgenic cotton, will offer growers new tools for weed management. Both herbicides provide contact and residual control. The challenge is to develop a systems approach using Staple preemergence and postemergence and Envoke postemergence in strip-till cotton.

The Experiment

Glyphosate-tolerant cotton was established at the Alabama Agricultural Experiment Station's E.V. Smith Research Center, near Milstead, the Wiregrass Research and Extension Center, in Headland, and multiple locations in North Carolina in a strip-till cotton system to evaluate cotton and weed response to a Staple- and Envoke-based system. A system that included either Cotoran, Prowl, or cotoran plus Prowl combined with a split application of Staple preemergence and early postemergence plus Envoke early postemergence was compared to a system that did not contain the residual herbicides Staple and Envoke.