NEW PRODUCTS, TECHNOLOGIES, AND CONCERNS IN WEED CONTROL

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Abstract

Producers will continue to face problems similar to 2011 in the 2012 cotton growing season. Unfortunately, there will not be new herbicides available for use to control weeds, whether they are resistant to herbicides or not. To combat herbicide-resistant, specifically glyphosate-resistance, cotton producers will need to utilize herbicides that have been registered for many years, yet familiarity with these herbicides may be lacking. Research indicates that herbicides such as Treflan, Prowl, Cotoron, Direx, Staple, Envoke, MSMA, Valor, Reflex, and many others can provide acceptable control of many herbicide-resistant weeds, specifically glyphosate-resistant Palmer amaranth.

In 2012, Bayer CropScience will release GlyTol/Liberty Link cotton. This technology allows for the postemergence applications of glyphosate and Ignite without the fear of injury to the cotton plant. Research has shown GlyTol/Liberty Link cotton to be another tool for herbicide-resistant weed management, but a weed management program in GlyTol/Liberty Link cotton will still require residual herbicide applications.

Later this decade, Monsanto and BASF will release dicamba/glufosinate-tolerant cotton. In addition to tolerance to dicamba and glufosinate, glyphosate can also be applied postemergence and it will contain Bollgard II technology. Research is underway to develop dicamba formulations with reduced volatility. University research indicates utility of this program for management of herbicide-resistant weeds.

Also later this decade, Dow AgroSciences will release the Enlist™ Weed Control System, which will provide cotton varieties that are resistant to 2,4-D and glyphosate and contain WideStrike technology. Dow AgroSciences has developed a new formulation of 2,4-D (Colex-D™ Technology), which is a choline salt. This new formulation has been shown to have lower volatility. Dow AgroSciences has also developed a premix if glyphosate and the 2,4-D choline salt called Enlist Duo™ herbicide. University research indicates utility of this program for management of herbicide-resistant weeds.

Whether currently registered herbicides or new technology are employed for weed management, producers will continue to face numerous issues such as proper application timing, activation of residual herbicides, and control of resistant weeds in non-cropped areas among many others. Unfortunately, there are no ‘silver bullet’ herbicides or technologies coming in future. Cotton producers should be diligent in their investigation of research data from their respective university and design a weed management plan to control existing herbicide-resistance weeds and for avoidance of possible resistant weed infestations.