PERFORMANCE OF GLYTOL™ AND GLYTOL™ + LIBERTYLINK® COTTON TECHNOLOGIES IN TEXAS

G. Henniger
T. Baughman
P. Baumann
R. Boman
P. Dotray
W. Keeling
R. Lemon
D. Palrang
L. Trolinder
J. Holloway
Bayer CropScience
Lubbock Texas

Abstract

Bayer CropScience has developed in-house GlyTol™ glyphosate tolerant technology for cotton, expressing the 2*mepsps* gene and stacks of GlyTol™ with LibertyLink® cotton. Contingent upon regulatory approvals, GlyTol cotton is planned for commercial release in 2009 and will provide US cotton growers with new cotton varieties with season-long tolerance to a number of commercial formulations of glyphosate herbicide. Contingent upon regulatory approvals, GlyTol + LibertyLink cotton is planned for commercial release in 2010 and will provide US cotton growers with new cotton varieties with season-long tolerance to a number of commercial glyphosate herbicide formulations as well as tolerance to Ignite® herbicide at levels producers are accustomed to in current commercial LibertyLink varieties.

Extensive field testing of GlyTol cotton in Texas was conducted by Bayer CropScience and third parties from 2006 to 2008 and with GlyTol + LibertyLink in 2007 and 2008. These trials have recorded no adverse effects on GlyTol or GlyTol + LibertyLink cotton plant establishment, plant height, maturity, vigor, yield or fiber quality following multiple applications at full rates of a number of commercial formulations of glyphosate. The GlyTol + LibertyLink cotton was also tested with multiple applications of glufosinate ammonium and glyphosate at full rates alone, sequentially, or in combination with each other with no adverse agronomic effects.

Once approved and available in elite germplasm, GlyTol technology will provide Texas cotton growers with the ability of over the top applications of more than one formulation of glyphosate herbicide. Once approved and available in elite germplasm, GlyTol + LibertyLink technology will provide Texas cotton growers with the option of over the top applications from more than one herbicide mode of action.