

**PERFORMANCE OF GLYTOL™ + LIBERTYLINK® COTTON TECHNOLOGIES – A US COTTON  
BELT PERSPECTIVE**

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**Abstract**

Bayer CropScience has developed in-house glyphosate tolerant, GlyTol™ cotton, expressing the *2mepsps* gene and stacks of GlyTol with LibertyLink® cotton. 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 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 was conducted internally and with private researchers and University scientists in 2006-2008 and with GlyTol + LibertyLink in 2008 and 2009 across the US cotton belt. These trials have recorded no adverse effects on GlyTol or GlyTol + LibertyLink cotton plant establishment, plant height, maturity, vigor, yield or 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. A summary of these results are presented here.

Once commercially available in elite germplasm, GlyTol + LibertyLink technology will provide US cotton growers with the option of over the top applications from more than one non-selective herbicide mode of action, which can be an important tool in managing weed resistance.