

**PERFORMANCE OF GLYTOL™ + LIBERTYLINK® COTTON TECHNOLOGIES WITH HIGH
RATES OF GLYPHOSATE AND GLUFOSINATE AMMONIUM**

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Abstract

Bayer CropScience has developed in-house glyphosate tolerant, GlyTol™ cotton (event GHB614), expressing the *2mepsps* gene and stacks of GlyTol with LibertyLink® cotton (event LL25). GlyTol + LibertyLink cotton is planned for commercial release in 2010, pending regulatory approval, 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 (glufosinate ammonium) at levels producers are accustomed to in current commercial LibertyLink varieties.

Field testing of GlyTol + LibertyLink cotton was conducted in 2008 and 2009 to evaluate possible effects of using above labelled rates of glyphosate or glufosinate ammonium. Glyphosate and glufosinate ammonium were applied at full labelled rates and higher rates either alone, sequentially or as a tankmix at four application timings during the growing season. Agronomic characteristics along with yield and quality data were evaluated. These trials have confirmed the tolerance of GlyTol + LibertyLink cotton plants to glyphosate and glufosinate ammonium. A summary of these results are presented here.

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