

## **CHARACTERIZATION OF THE LEAD ROUNDUP READY® FLEX COTTON CANDIDATE**

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### **Abstract**

Roundup Ready herbicide-tolerant cotton (event 1445) was introduced in 1997. It provides excellent tolerance to over-the-top applications of glyphosate through the four-leaf stage. Foliar applications beyond this stage must be limited due to insufficient tolerance in male reproductive tissues in certain environmental conditions. To expand the window of topical Roundup applications and provide better flexibility to growers, transformation was initiated to identify cotton events with enhanced levels of reproductive tolerance. Multiple transgenic events were generated from a series of vectors. From these plants, an event was identified that met molecular, agronomic and glyphosate tolerance criteria. This event, MON 88913, has been fully characterized. It contains a single transgene insert with no vector backbone present based on Southern blot analysis. The flanking sequences have been isolated on both borders to cotton genomic DNA and suggest a simple insertion. No mutations were detected in the *in planta* T-DNA sequence.