

**ROUNDUP READY® XTEND CROP SYSTEM UPDATE****Katie M. Robertson****Joseph J. Sandbrink****Ty Witten****Monsanto Company****St. Louis, MO****Abstract**

Monsanto is currently developing the Roundup Ready® Xtend Crop System. Once approved, this system will comprise soybeans that are tolerant to both dicamba and glyphosate herbicides as well as cotton that is tolerant to dicamba, glyphosate, and glufosinate herbicides. The soybeans will be Roundup Ready 2 Xtend™ and cotton as Bollgard II® Xtend™ Flex. In addition, two new low volatility formulations will be developed to be utilized as an option in the Roundup Ready Plus® Weed Management Solutions System. These new formulations will contain Vapor Grip™ technology and will be branded as Roundup Xtend™, a premix of glyphosate and dicamba, and XtendiMax™, a standalone dicamba formulation for tank mixing. In laboratory testing, a significant reduction in volatility potential was achieved with formulations containing new VaporGrip™ technology.

This new technology facilitates effective control of many troublesome weed species, including some that have exhibited resistance to glyphosate. The Roundup Ready® Xtend Crop System has been extensively tested the last several years in the midwest and the south. Residual benefit from dicamba has also been evaluated across various soil types and environments. Dicamba can provide up to 14 days soil residual activity. The Roundup Ready® Xtend Crop System will utilize dicamba combined with other residual and diverse chemistries to provide a robust weed management program. Furthermore, Monsanto has developed anticipated application requirements to help growers and applicators keep dicamba and other herbicides on target. These application requirements include but not limited to the use of nozzles that produce very coarse to ultra coarse spray droplets, spraying when winds are between 3-10 MPH, and keeping the spray boom 20-24 inches above the crop canopy. In 2013, feedback from 87% of the growers that participated in Ground Breakers® Field trials under permit indicated that broader spectrum weed control was the most important system advantage. In addition, 100% of the growers polled said the Ease of Application Requirement Implementation met or exceeded their expectations.