It’s the System that Makes the Difference
Key Reasons Demand for Roundup Ready® Xtend Crop System Expected to More than Double in 2018

- **Industry leading genetics** in Roundup Ready 2 Xtend® soybeans and cotton with XtendFlex® Technology

- **Provides more weed control** and added value than any other weed control system on the market

- **Spray with confidence** utilizing XtendiMax® herbicide with VaporGrip® Technology
  - Proprietary VaporGrip® Technology designed to significantly reduce volatility
  - Enhanced application requirements and label to support successful use of XtendiMax® with VaporGrip® Technology, a restricted use pesticide
  - Expert recommendations and incentives through Roundup Ready PLUS® Crop Management Solutions

Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower’s fields.
XtendiMax® herbicide with VaporGrip® Technology, a restricted use pesticide

97% of soybean growers surveyed who applied XtendiMax® with VaporGrip® Technology in 2017 were satisfied with weed control.

<table>
<thead>
<tr>
<th></th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans</td>
<td>64%</td>
<td>33%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North soybeans</td>
<td>64%</td>
<td>33%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South soybeans</td>
<td>64%</td>
<td>32%</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>56%</td>
<td>38%</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Satisfaction With Weed Control

XtendiMax® with VaporGrip® Technology Grower Survey – August 2017

All growers surveyed were required to have 50+ acres of Roundup Ready 2 Xtend® soybeans or cotton with XtendFlex® Technology and treat at least some acres with XtendiMax® with VaporGrip® Technology to qualify.
System comparisons: Weed Control at Canopy (7-13-17)

**Roundup Ready 2 Xtend® soybeans**
- PRE - Rowel® Herbicide 2oz + XtendiMax® with VaporGrip® Technology 22oz + Roundup PowerMAX® Herbicide 32oz
- Fb POST LibertyLink® herbicide 29oz + Warrant® Herbicide 48oz

**LibertyLink® soybeans**
- PRE - Valor® SX herbicide 2oz + XtendiMax® with VaporGrip® Technology 22oz + Roundup PowerMAX® Herbicide 32oz + Zidua® herbicide 2oz
- Fb POST Authority® MAXX herbicide 6.4oz + Liberty® herbicide 29oz

SIU Research Farm – Belleville, IL. Planting date 6/1/17
System comparisons: Pre-Harvest Weed Control (9-21-17)

Roundup Ready 2 Xtend® soybeans

PRE – Rowel® Herbicide 2oz Fb POST
XtendiMax® with VaporGrip® Technology 22oz + Roundup PowerMAX® herbicide 32oz

PRE – Rowel® Herbicide 2oz + XtendiMax® with VaporGrip® Technology 22oz Fb POST
XtendiMax® with VaporGrip® Technology 22oz + Roundup PowerMAX® herbicide 32oz

PRE – Rowel® Herbicide 2oz + XtendiMax® with VaporGrip® Technology 22oz Fb POST
XtendiMax® with VaporGrip® Technology 22oz + Roundup PowerMAX® Herbicide 32oz + Warrant® Herbicide 48oz

PRE – Valor® SX herbicide 2oz Fb POST
Liberty® herbicide 29oz

PRE – Authority® MAXX herbicide 6.4oz Fb POST
Liberty® herbicide 29oz
+ Zidua® herbicide 2oz

LibertyLink® soybeans

PRE – Authority® MAXX herbicide 6.4oz Fb POST
Liberty® herbicide 29oz

PRE – Authority® MAXX herbicide 6.4oz Fb POST
Liberty® herbicide 29oz
+ Zidua® herbicide 2oz

SIU Research Farm – Belleville, IL. Planting date 6/1/17
Plant for Yield. Plan for Profit.

Roundup Ready® Xtend Crop System vs LibertyLink® System

2017 Trial Results

Step 1:

5.7 Bu/A Yield Advantage¹ (Genetics + Weed Control)

x $9.75 /Bu Commodity Price

~$55.00 /A Revenue

Step 2:

~$13.00 /A System Cost Difference² (Seed + Herbicide)

~$42.00 /A Average Profit Advantage

5.7 Bu/A average advantage vs. LibertyLink® in 2017 herbicide system trials

✓ 13 locations
  - Monsanto Systems Trials
  - 3rd Party Trials
  - University Trials

Historical Performance

5.4 Bu/A average advantage vs. LibertyLink® in 2015 & 2016 herbicide system trials

✓ 2015 & 2016 Monsanto System Trials
  - 14 locations in 2015
  - 19 locations in 2016

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¹ Source: 2017 Monsanto Systems Trials (27 locations in 2017 reporting yield data). Significant at P ≤ 0.05 LSD of 1.6 Bu. Data as of November 13, 2017. Roundup Ready® Xtend Crop System data = Roundup Ready 2 Xtend® soybeans treated with dicamba, glyphosate and various residual herbicides. LibertyLink® system data = LibertyLink® soybeans treated with Liberty® herbicide and various residual herbicides. Performance may vary from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower’s fields.

² Based on estimated Suggested Retail Price herbicide and seed costs minus calculated incentives from Roundup Ready PLUS® Crop Management Solutions Cash Incentives and LibertyLink incentives. Visit www.roundupreadyplus.com/soybean-profitability-calculator
Regional Weed Management Recommendations
For the Roundup Ready® Xtend Crop System
### Plains* (CO, MN, ND, SD and WI) Weed Management Recommendations for Roundup Ready 2 Xtend® Soybeans

<table>
<thead>
<tr>
<th>Herbicide Practice</th>
<th>Herbicide Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before Planting</strong></td>
<td></td>
</tr>
<tr>
<td>Burndown</td>
<td>Roundup PowerMAX® Herbicide (32 oz) + XtendiMax® herbicide with VaporGrip® Technology (22–44 oz) + labeled Drift Reducing Adjuvant (DRA)</td>
</tr>
<tr>
<td><strong>At Planting</strong></td>
<td></td>
</tr>
<tr>
<td>PRE At Planting</td>
<td>Valor® SX Herbicide (2-3 oz) or Warrant® Herbicide (3 pt) + metribuzin (0.3 – 0.5 lb)**</td>
</tr>
<tr>
<td>Note: Authority® brand herbicide products may be applied at this timing, see label</td>
<td></td>
</tr>
<tr>
<td>POST 1 (over-the-top)</td>
<td></td>
</tr>
<tr>
<td>POST 1* (&lt; 4” weeds and within 20-30 days after PRE application)</td>
<td>Roundup PowerMAX® Herbicide (32 oz) + XtendiMax® herbicide with VaporGrip® Technology (22 oz) + Warrant® Herbicide (3 pt) + labeled DRA</td>
</tr>
<tr>
<td>POST 2 (over-the-top)</td>
<td></td>
</tr>
<tr>
<td>POST 2 (up to R2 growth stage)</td>
<td>Roundup PowerMAX® Herbicide (32 oz) to control any broadleaf or grass weed escapes</td>
</tr>
</tbody>
</table>

**See state and local recommendation for XtendiMax® with VaporGrip® Technology application window**

*Check with your local Monsanto dealer or representative or U.S. EPA and your state pesticide regulatory agency for the product registration status and additional restrictions in your state.*
Important Notices

• XtendiMax® herbicide with VaporGrip® Technology is part of the Roundup Ready® Xtend Crop System and is a restricted use pesticide for retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator’s certification. ALWAYS READ AND FOLLOW DIRECTIONS FOR USE ON PESTICIDE LABELING. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. XtendiMax® herbicide with VaporGrip® Technology and cotton with XtendFlex® Technology may not be approved in all states and may be subject to use restrictions in some states. Check with your local Monsanto dealer or representative or U.S. EPA and your state pesticide regulatory agency for the product registration status and additional restrictions in your state. For approved tank-mix products and nozzles visit XtendiMaxApplicationRequirements.com

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ALWAYS READ AND FOLLOW DIRECTIONS FOR USE ON PESTICIDE LABELING. IT IS A VIOLATION OF FEDERAL AND STATE LAW to use any pesticide product other than in accordance with its labeling. NOT ALL formulations of dicamba or glyphosate are approved for in-crop use with Roundup Ready 2 Xtend® soybeans. ONLY USE FORMULATIONS THAT ARE SPECIFICALLY LABELED FOR SUCH USES AND APPROVED FOR SUCH USE IN THE STATE OF APPLICATION. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with Roundup Ready 2 Xtend® soybeans.

Roundup Ready 2 Xtend® soybeans contains genes that confer tolerance to glyphosate and dicamba. Glyphosate will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba. Glufosinate will kill crops that are not tolerant to glufosinate. Contact your Monsanto dealer or refer to Monsanto’s Technology Use Guide for recommended weed control programs.

All technologies and brands referenced may not yet be registered in all states. Check with your Monsanto representative for the registration status in your state.

Roundup Technology® includes Monsanto’s glyphosate-based herbicide technologies.

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Always read and follow IRM, where applicable, grain marketing and all other stewardship practices and pesticide label directions. Warrant® Herbicide and Warrant® Ultra Herbicide are not registered in all states and may be subject to use restrictions. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local Monsanto dealer or representative for the product registration status in your state. Roundup PowerMAX®, Roundup Ready 2 Xtend®, Roundup Ready PLUS®, Roundup Technology®, VaporGrip®, Warrant®, XtendFlex® and XtendiMax® are registered trademarks of Monsanto Technology LLC. Liberty® and LibertyLink® are registered trademarks of Bayer. Direx® is a registered trademark of E.I. Du Pont de Nemours and Company. Caparol® and Gramoxone® are registered trademarks of a Syngenta group company. Cobra®, Fierce® and Valor® are registered trademarks of Valent U.S.A. Corporation. Some of the product(s) discussed herein are restricted use pesticide(s) and may not be registered in all states. The distribution, sale, or use of an unregistered pesticide is a violation of federal and/or state law and is strictly prohibited. Check with your local dealer or product representative for the product registration status in your state. All other trademarks are the property of their respective owners. ©2018 Monsanto Company All Rights Reserved.