



# 2015 Demonstration Report

MONSANTO LEARNING CENTER AT MONMOUTH, IL

## Weed Management Systems in Corn

### Background

- Weeds compete with crops for water, light, and nutrients.
- Starting with clean fields followed by timely control of emerged weeds are essential components of maximizing yield potential.
- Use of residual herbicides as well as herbicides with multiple sites of action to control weeds can provide more effective weed control and minimize the risk of developing weed resistance.
- Preemergence (PRE) residual herbicides provide early-season weed control, more flexibility for timing of postemergence (POST) applications, and herbicides with different sites of action for managing weed resistance.
- Roundup Ready PLUS® Crop Management Solutions (RoundupReadyPLUS.com) provides excellent weed control recommendations that can help optimize corn production systems.

### Study Guidelines

- Fields were chisel plowed in the fall, followed by a soil finisher in the spring to prepare the seedbed and kill any germinated weeds.
- A Genuity® SmartStax® RIB Complete® corn blend product (112 RM) was planted on May 29, 2015.
- Weed management treatments included 9 different PRE herbicide products with residual weed control applied at planting.
- Each PRE-only treatment was compared to the same PRE herbicides followed by Roundup PowerMAX® herbicide applied at 32 fl oz/acre when weeds were 4 to 6 inches tall.
- Corn was harvested on October 15, 2015.
- Yields were adjusted to 15% moisture content and compared across treatments.



Figure 1. Advantage of PRE followed by POST herbicide program (right) over PRE herbicide only (left).



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### Results and Discussion

- Treatments with PRE only herbicide application averaged at least 9 bu/acre less than treatments with a PRE followed by a POST herbicide application.

### Take Aways

- With the exception of two anomalies (products G and H), yields were similar across all products.
- Treatments with a PRE followed by a POST herbicide application averaged 9 or more bu/acre higher than treatments with only a PRE herbicide application.
- These results demonstrate:
  - The reduction in yield potential that can occur from weed competition.
  - The importance of having a comprehensive weed control plan in place.
- The most effective weed management system includes both residual PRE herbicides and a timely POST application to control any emerged weeds.
- A good scouting program can help identify weed species present, level of weed pressure, and can enable timely application of a POST herbicide.

### Legals

The information discussed in this report is from a single site, non-replicated demonstration. This informational piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

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**IMPORTANT IRM INFORMATION:** Genuity® RIB Complete® corn blend products do not require the planting of a structured refuge except in the Cotton-Growing Area where corn earworm is a significant pest. See the IRM/Grower Guide for additional information. Always read and follow IRM requirements.

**Roundup Technology®** includes Monsanto's glyphosate-based herbicide technologies. Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.** Roundup Ready® crops contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Genuity®, Monsanto and Vine Design®, RIB Complete®, Roundup PowerMAX®, Roundup Ready 2 Technology and Design®, Roundup Ready PLUS®, Roundup Ready®, Roundup Technology®, Roundup® and SmartStax® are trademarks of Monsanto Technology LLC. LibertyLink® and the Water Droplet Design® is a registered trademark of Bayer. Herculex® is a registered trademark of Dow AgroSciences LLC. All other trademarks are the property of their respective owners. ©2015 Monsanto Company. 151104151111 111615JEH.

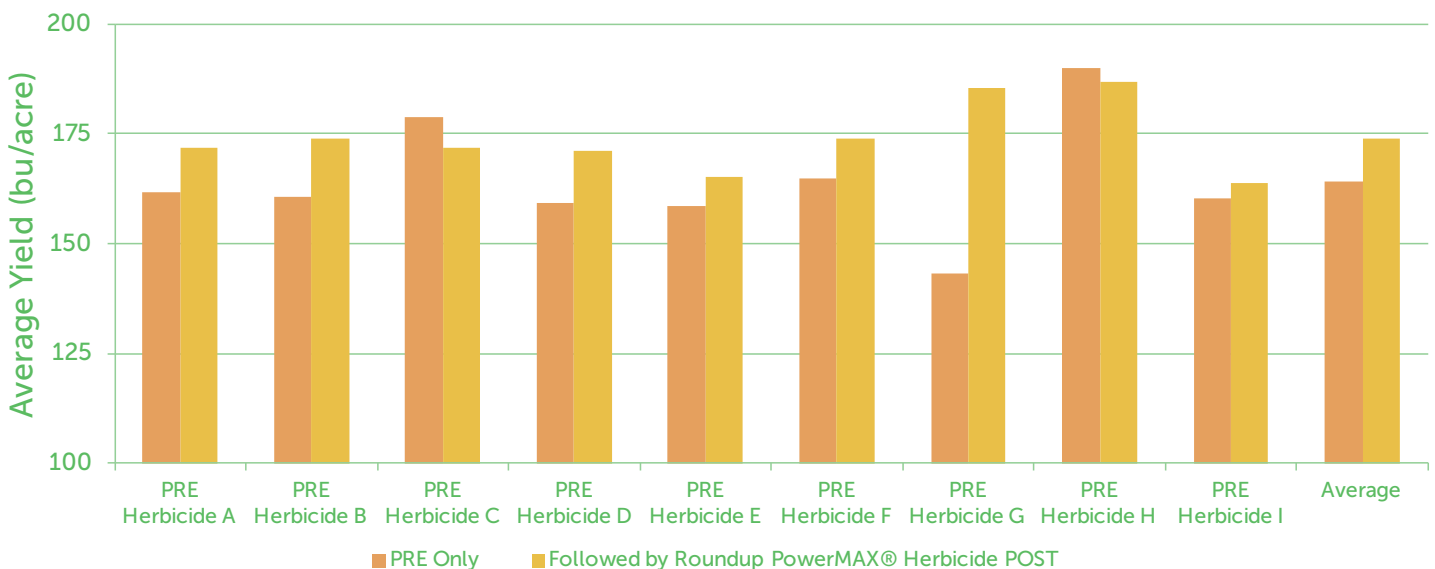


Figure 2. Corn yield potential advantage of PRE followed by POST herbicide program vs PRE herbicide alone.