



RESPONSE OF ASGROW® SOYBEAN PRODUCTS TO PLANTING DATE

2016 Learning Center Demo Report
Monsanto Learning Center at Scott, MS



BACKGROUND

- A demonstration was established to evaluate the yield potential response of new Asgrow® soybean products to different planting dates.
- This demonstration was designed to provide information about Asgrow soybean products with different maturities to help growers in the Midsouth with the following questions:
 - What soybean maturity group should I plant?
 - What soybean product should I plant?
 - When should I plant my soybean seed?
- The demonstration was also designed to provide local information about new Roundup Ready 2 Xtend® soybean products.



BACKGROUND

- The objective of this demonstration was to evaluate the yield potential of soybean products with maturity groups (MG) that ranged from MG 00 to MG 7.9 planted on three different planting dates, early, mid, and late.
- This demonstration also allowed for the evaluation of past and current production systems.

Response of Asgrow® Soybean Products to Planting Date



BACKGROUND

- Until the early 1990s, most soybeans in the Midsouth were planted very late (during June and July), and were later maturities (MG 6 and MG 7).
- The current typical production system in the Midsouth consists of MG 4 and MG 5 soybean products planted on dates ranging from late March to early July, with MG 4 and MG 5 soybeans planted in mid-April having the highest yield potential.

Response of Asgrow® Soybean Products to Planting Date



BACKGROUND

- As planting dates are delayed, growers may start to consider planting very early maturity soybeans late in the season.
- This demonstration addressed planting very early maturity soybeans at early, mid, and late planting dates.

Response of Asgrow® Soybean Products to Planting Date



STUDY GUIDELINES

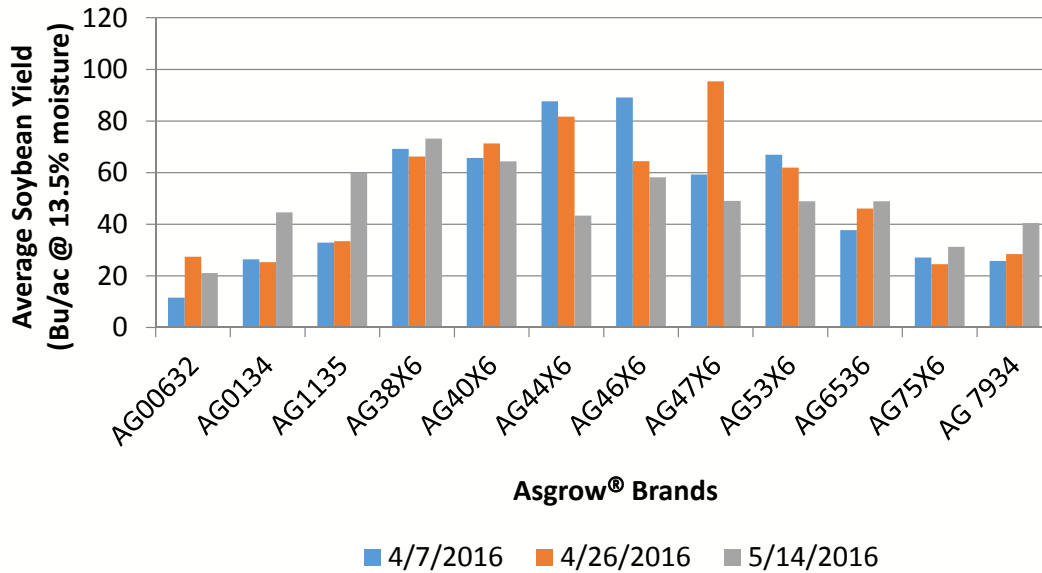
- 12 Asgrow® soybean products were planted with the following conditions:
 - Soil Type: Silt Loam
 - Previous Crop: Soybean
 - Tillage: Conventional
 - Row Spacing: Twin rows (7.5-inch x 38-inch)
 - Planting Rate: 140,000 seeds/acre
 - Yield Goal: 100 bu/acre
- Each product was planted on three different planting dates: April 7, 2016, April 26, 2016, and May 14, 2016.
- All other agronomic practices were standard for local conditions.
- Plots were harvested when ready and corrected to 13.5% moisture.

Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

Response of Asgrow® Soybean Products to Planting Date

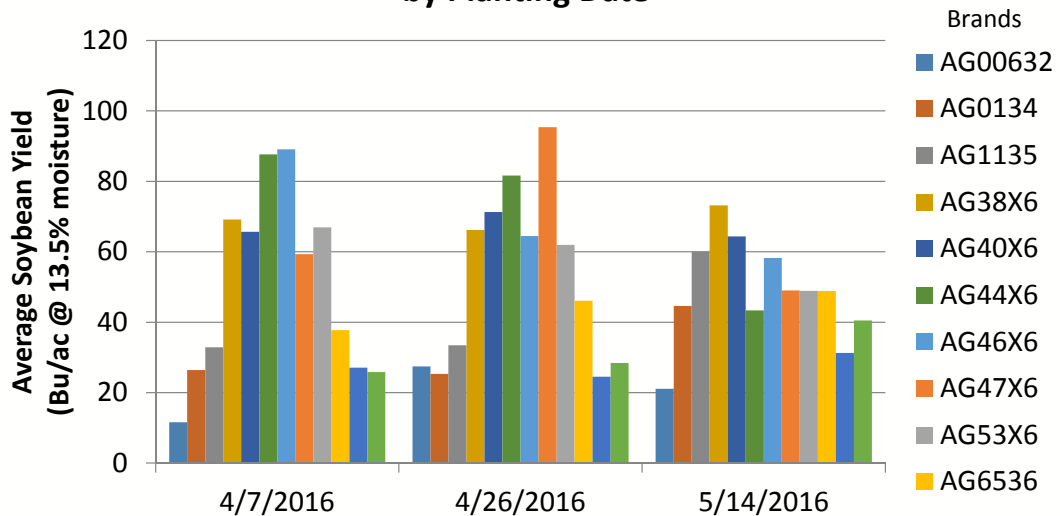


Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

Response of Asgrow® Soybean Products to Planting Date by Planting Date

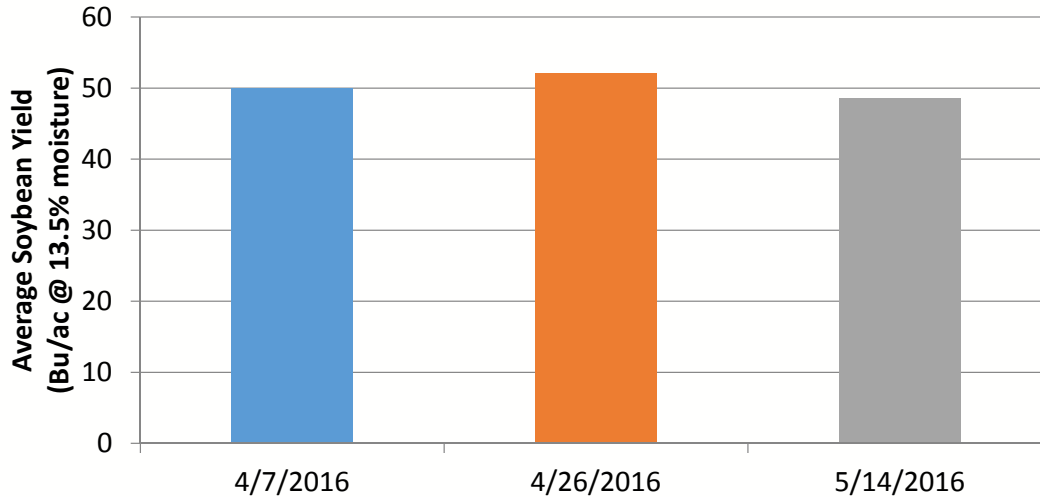


Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

Response of Asgrow® Soybean Products to Planting Date Across Soybean Products

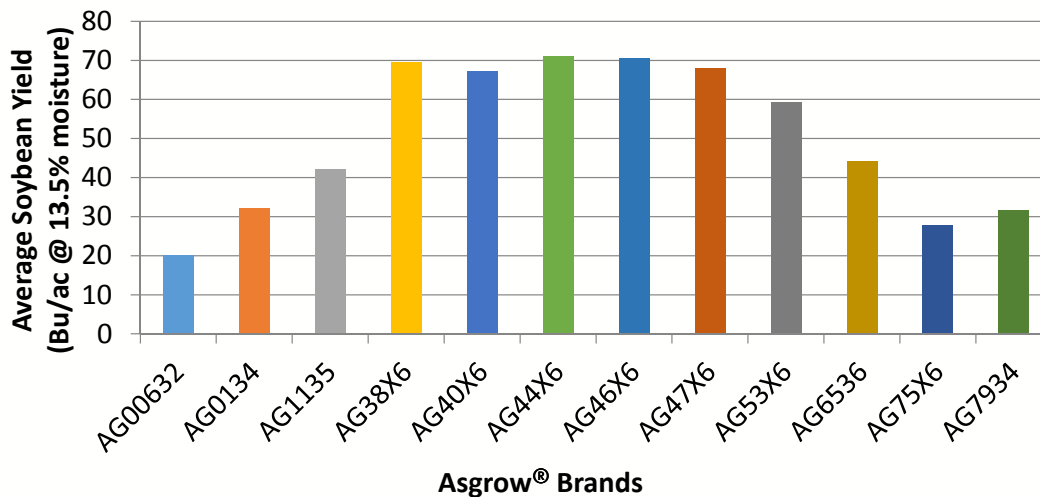


Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

Response of Asgrow® Soybean Products to Planting Date Across Dates



Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

- MG 00 through MG 1.1 soybean products planted on the early and mid dates had a maximum yield potential of around 30 bu/ac.
- The MG 1.1 soybean products planted on the later date had a small increase in yield potential, but this result should be considered with caution as it is radically different from the typical production system in the Midsouth.
- Early maturity soybean products can bloom prematurely in the Midsouth, which can lead to a short growing season and the inability to attain optimal yield potential.

Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

- MG 6 and MG 7 soybean products planted on the early or mid dates produced lower yields than when planted later.
- The later planting date most closely represents practices prior to the early 1990s in the Midsouth.
- When planted earlier, these soybean products tend to develop too much vegetation prior to blooming, which can lead to a reduction in yield potential. If the same soybean products are planted later, they tend to be shorter and have a higher yield potential.
- Planting MG 6 and MG 7 soybean products later in the season can double the yield potential when compared to early and mid planting dates.

Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

- But... this increase in yield potential with a later planting date cannot compete with MG 4 and MG 5 soybean products planted during the early and mid planting dates.
- The increase in yield potential with MG 4 and MG 5 soybean products lead to a shift to current production practices.
- Planting MG 4 and MG 5 soybean products earlier in the growing season also allows the crop to be harvested earlier in the season.

Response of Asgrow® Soybean Products to Planting Date



RESULTS & DISCUSSION

- Mid MG 4 soybean products planted on the early and mid planting dates had the highest yield potential in this demonstration.
- The Roundup Ready 2 Xtend® soybean products had very good yield potential and should be good options for growers in the Midsouth.

Response of Asgrow® Soybean Products to Planting Date



TAKE AWAYS

- Growers should be careful when selecting soybean products and base selections on local adaptation, expected planting date, and production system.
- Very early maturity group soybeans should not be planted in the Midsouth and are generally not good options for local production practices.
- Yield potential can triple when earlier soybean products (MG 4 and MG 5) are planted earlier compared to the past production practice of planting MG 6 and MG 7 soybean products late in the season.
- The Roundup Ready 2 Xtend® soybean products appear to have high yield potential when placed and managed properly.

Response of Asgrow® Soybean Products to Planting Date



LEGAL STATEMENTS

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

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.** May not be approved in all states. 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. Contact your Monsanto dealer or refer to Monsanto's Technology Use Guide for recommended weed control programs.

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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.

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