



2015 Demonstration Report

MONSANTO LEARNING CENTER AT MONMOUTH, IL

Stair Step Soybean Management

Background

Achieving maximum soybean yield potential depends on increases in stress tolerance, environmental conditions, and management practices. Mitigation of stresses with fertilizer or inoculant, fungicide, and insecticide can help achieve maximum yield potential. A demonstration trial conducted at Monsanto Learning Center at Monmouth, Illinois was designed to investigate how different treatments for minimizing stress on soybean affected yield potential.

Study Guidelines

- 2.9 relative maturity (RM) soybean product.
- Soybean planted on May 18, 2015 at 130,000 seeds per acre in twin rows.
- Conventional tillage: Fall chisel plow followed by spring soil finisher to establish seed bed.
- Weeds were uniformly controlled using a residual/postemergence control program.
- 3 replications
- Plot size was 10 feet by 100 feet (0.023 acre).
- 30-inch rows – 4 twin rows per treatment
- Harvested on October 14, 2015.
- Treatments consisted of:
 - Untreated Control (UTC)
 - Rhizobium Inoculant (RI)
 - Foliar Fungicide at R3 (FF)
 - Rhizobium Inoculant + Foliar Fungicide at R3 (RI + FF)
 - Foliar Insecticide at R3 (FI)
 - Rhizobium Inoculant + Foliar Insecticide at R3 (RI + FI)
 - Foliar Insecticide at R3 + Foliar Fungicide at R3 (FI + FF)
 - Rhizobium Inoculant + Foliar Insecticide at R3 + Foliar Fungicide at R3 (RI + FI + FF)





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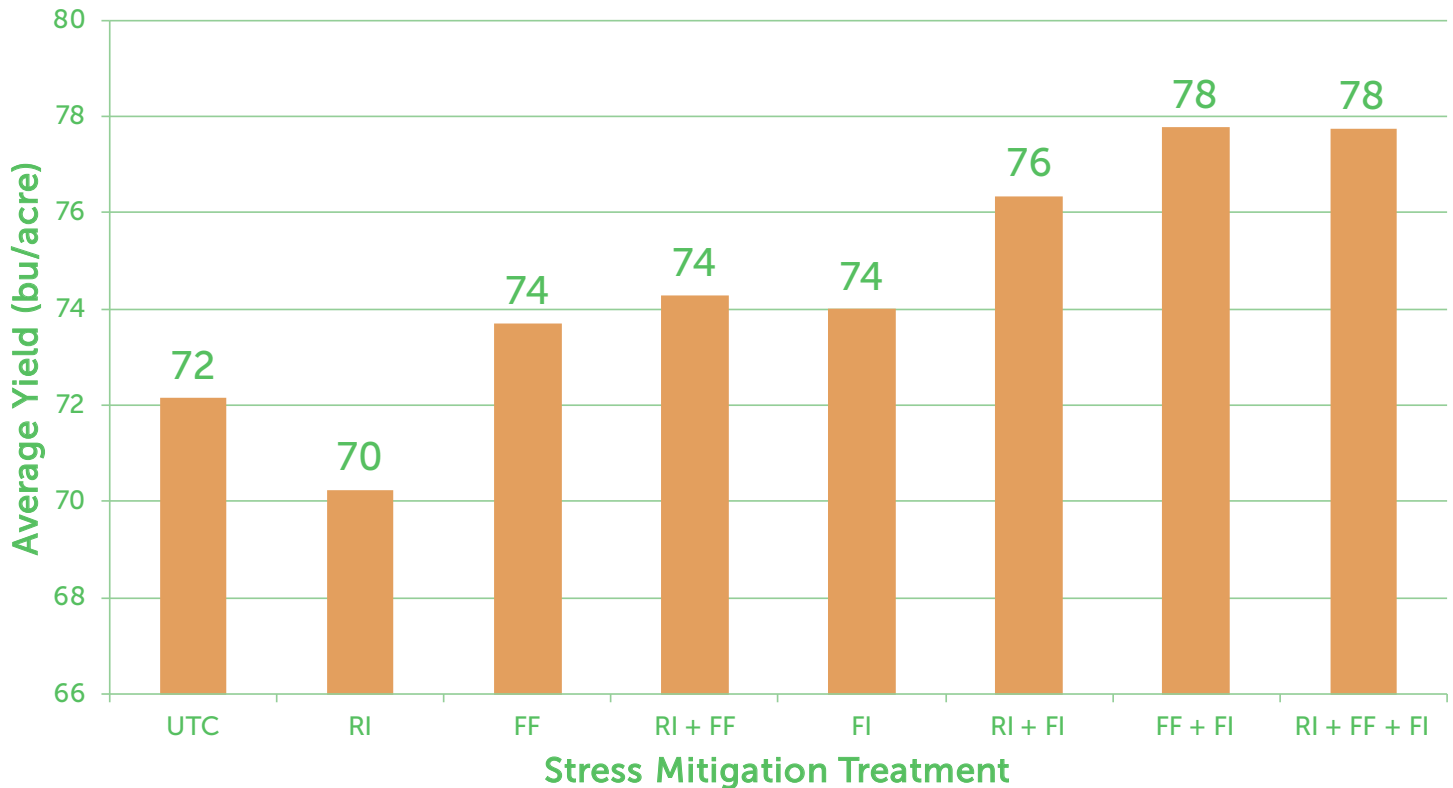


Figure 1. Effect of stress mitigation treatment on average yield.

Results and Takeaways

- A greater response with stress mitigation was seen when treatments were combined.
- Of the 7 management components studied, foliar fungicide + foliar insecticide applied at R3 growth stage showed the biggest yield response.
- Good agronomic practices such as row spacing, proper planting date, and population can help reduce environmental stresses.
- We will continue to look at decreasing stress on soybeans and its ability to increase yield potential.
- The Monsanto Learning Center at Monmouth will continue to investigate the yield effects of stress mitigation in soybean in the future.

Legals

The information discussed in this report is from a single site, 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.

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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