FUNGICIDE RESPONSE AND PLANTING DATE IN SOYBEAN

TRIAL OVERVIEW

- In many cases, the application of a foliar fungicide can protect plant health and help maintain the yield potential of a soybean product.
- In past Monsanto Learning Center studies, yield potential has been influenced by planting date and the amount of disease pressure.

RESEARCH OBJECTIVE

- This study was developed to help determine the impact of a foliar fungicide application on soybean yield potential with respect to planting date.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Monmouth, IL	Silt loam	Corn	Conventional	04/25/2016	10/17/2016	70 bu/acre	130,000 seeds/acre
Monmouth, IL	Silt loam	Corn	Conventional	05/23/2016	10/17/2016	70 bu/acre	130,000 seeds/acre

SITE NOTES:

- A foliar fungicide containing both a strobiluron and a succinate dehydrogenase inhibitor (SDHI) was applied at R3 growth stage and compared to an untreated check.
- Two replications were planted.

UNDERSTANDING THE RESULTS

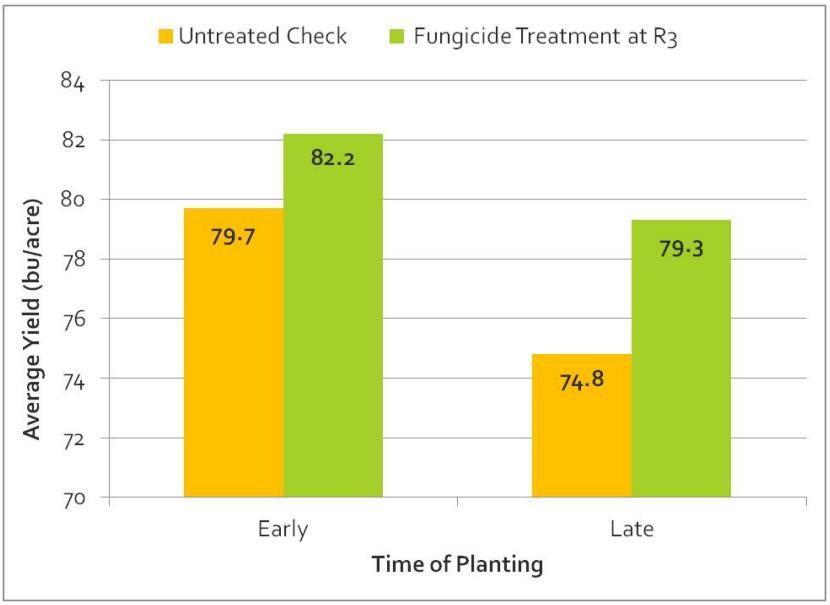

Figure 1. Average soybean yield based on the time of planting and fungicide application at R3 growth stage in 2016.

- Little disease pressure observed in the plots aside from Septoria brown spot (Septoria glycines) and very mild, late occurring sudden death syndrome (SDS) (Fusarium virguliforme).
- Early planting led to substantial yield advantages over late planting (Figure 1).
- Average yield response to a fungicide application was positive, even in the absence of major disease pressure.
- Average yield response to a fungicide application was similar for both planting dates (Figure 1).
- 2016 results mirrored 2015 results.

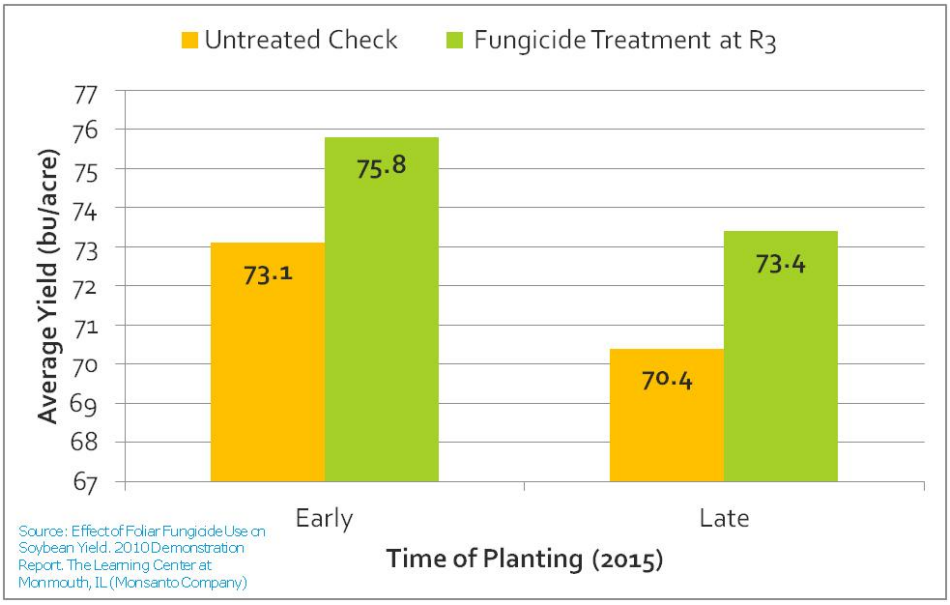

Figure 2. Average soybean yield based on the time of planting and fungicide application at R3 growth stage in 2015.

- May 14, 2015 planting date provided a yield advantage compared to the June 2, 2015 planting date across treatments (Figure 2).
- Adding a fungicide application at R3 growth stage increased yield potential. (http://www.monsanto.com/products/documents/learning-center-research/2015/fungicide%20application%20yield%20response%20by%20soybean%20planting%20dates%20-%20mlc.pdf)

- In 2010 at the Monsanto Learning Center at Monmouth, Illinois, the earlier planting demonstrated an average yield increase of 9.6 bu/acre compared to the later planting when a fungicide application was applied at the R3 growth stage. http://www.monsanto.com/products/documents/learning-center-research/2010/summary%20mlc%202010-effect%20of%20foliar%20fungicide%20use%20on%20soybean%20yield.pdf

WHAT DOES THIS MEAN FOR YOUR FARM?

- A rigorous crop scouting program is important for accurate and quick identification of developing diseases and determination of appropriate actions including the timely application of a fungicide.
- Fungicide applications have provided yield protection in the absence of disease pressure.
- Regardless of planting date, fungicide applications have helped to protect yield potential.