



Soybean R3 Fungicide Trial 2019 Site 14 Ralls County

Planting date: 6/4/2019

Seeding rate: 140,000 seeds/acre

Variety: Stine 36EB02

Previous crop: Corn

R3 fungicide spray date: 8/16/2019

Product: Stratego YLD

Scouted: 7/24 and 8/28/2019

Harvested: 10/9/2019

Replicates: 6

Original trial layout and as-applied map for an R3 fungicide application on August 16, 2019. Treated areas received the fungicide Stratego YLD. Aerial image was taken at 330 feet on July 24, 2019.



Final trial layout and scouting points. Final strip layout reflects areas of the field not affected by stand issues not related to R3 Fungicide application. Points were scouted on July 24 and August 28. Aerial image was taken at 330 feet on July 24, 2019. **Note on this location, we analyzed the low yield areas (Strip numbers 202-208) separately from the higher yield areas.**

Soybean R3 Fungicide Trial

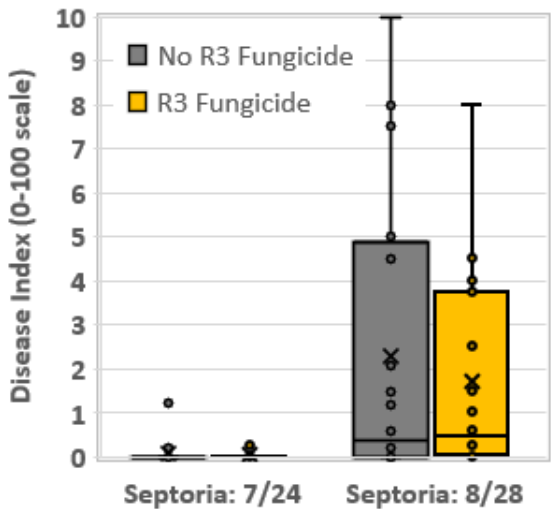
2019 Site 14

Ralls County

Summary of scouting data. Fungicide applied August 16, 2019. Only Septoria was identified at this location. There is no evidence that fungicide affected scouting results.

		Disease Index ¹ (0-100)			
Disease	R3 Fungicide	Number of points	Pre-Spray 7/24/2019	Post-Spray 8/22/2019	Delta
Septoria	N	20	0.07	2.3	2.2
	Y	20	0.04	1.7	1.6
Treatment Difference					-0.6

¹Disease index is calculated by multiplying the percent plants with disease (incidence) times the severity of the disease and adjusting the project to a scale of 0 to 100.



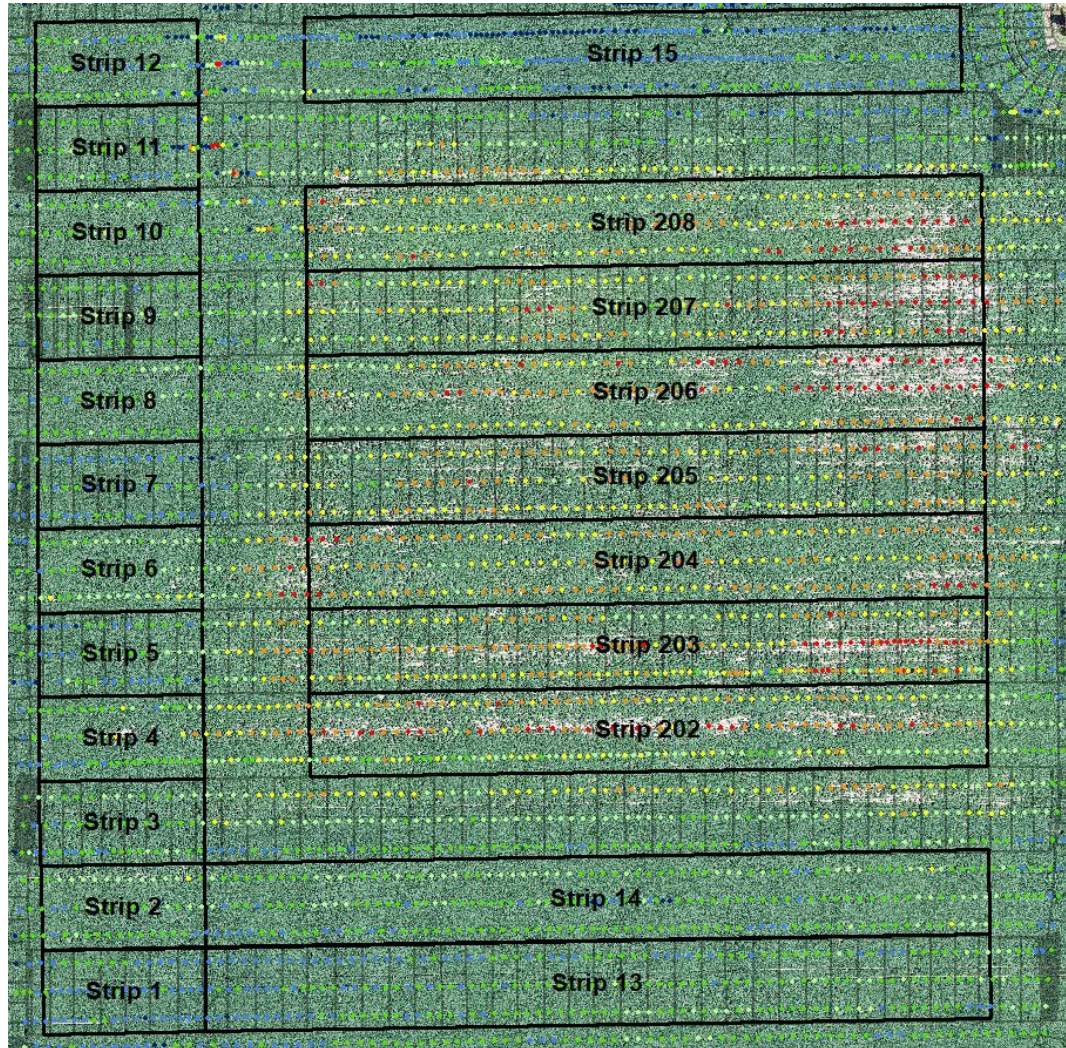
Soybean R3 Fungicide Trial 2019 Site 14 Ralls County

Edges: There is evidence that this difference was significant.

Treatments	Mean	Delta Control
	<i>bushels/acre</i>	
All strips	56.4	--
Control (N)	55.1	--
R3 Fungicide (F)	58.0	2.9

Middle

Treatments	Mean	Delta Control
	<i>bushels/acre</i>	
All strips	30.6	--
Control (N)	30.3	--
R3 Fungicide (F)	31.0	0.7



● ≤20 ● 21-30 ● 31-40 ● 41-50 ● 51-60 ● 61-70 ● >70 bu/A

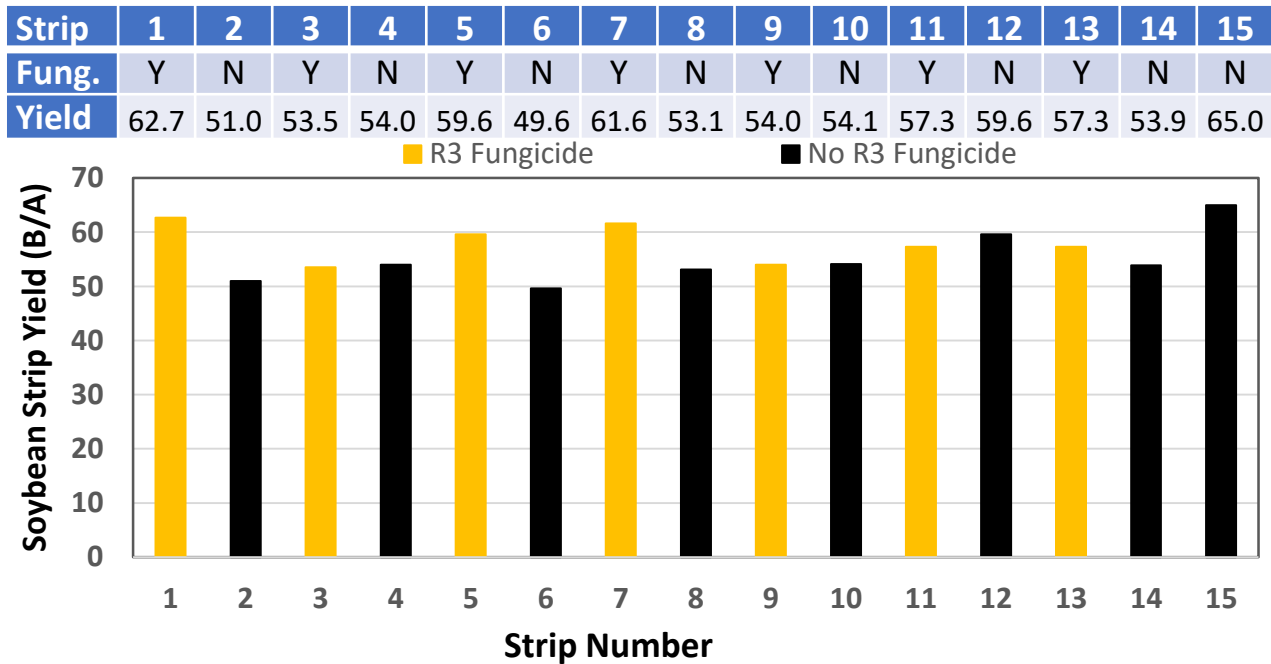
Soybean yield map harvested Oct. 9, 2019. Final strip layout reflects areas of the field not affected by stand issues not related to R3 Fungicide application. Aerial image was taken at 330 feet on August 28, 2019. **Note on this location, we analyzed the low yield areas (Strip numbers 202-208) separately from the higher yield areas.**

Soybean R3 Fungicide Trial

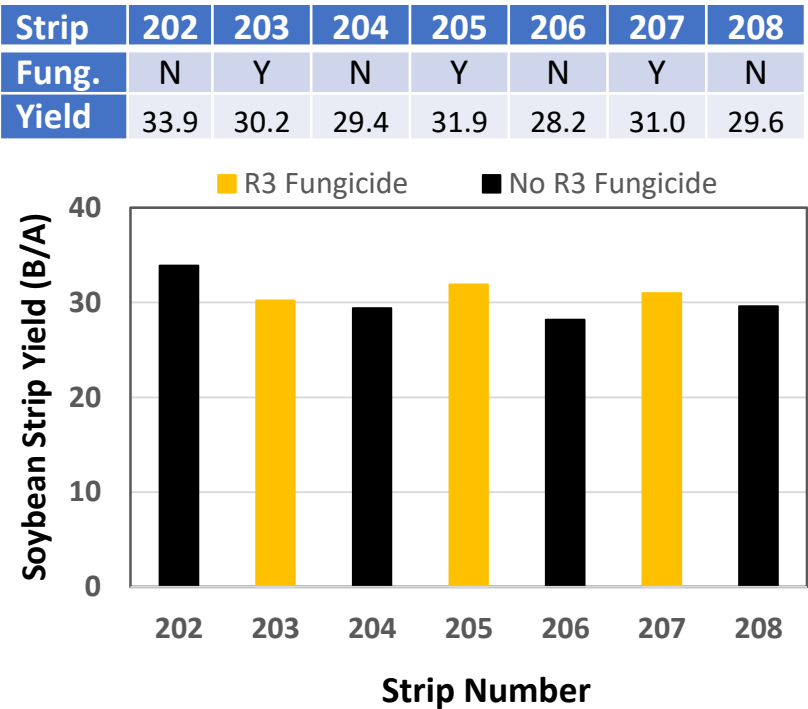
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Edges (high yield areas)



Middle (low yield areas)



Soybean R3 Fungicide Trial 2019 Site 14 Ralls County

July 24, 2019 (Pre-treatment)



August 28, 2019 (Post Treatment)

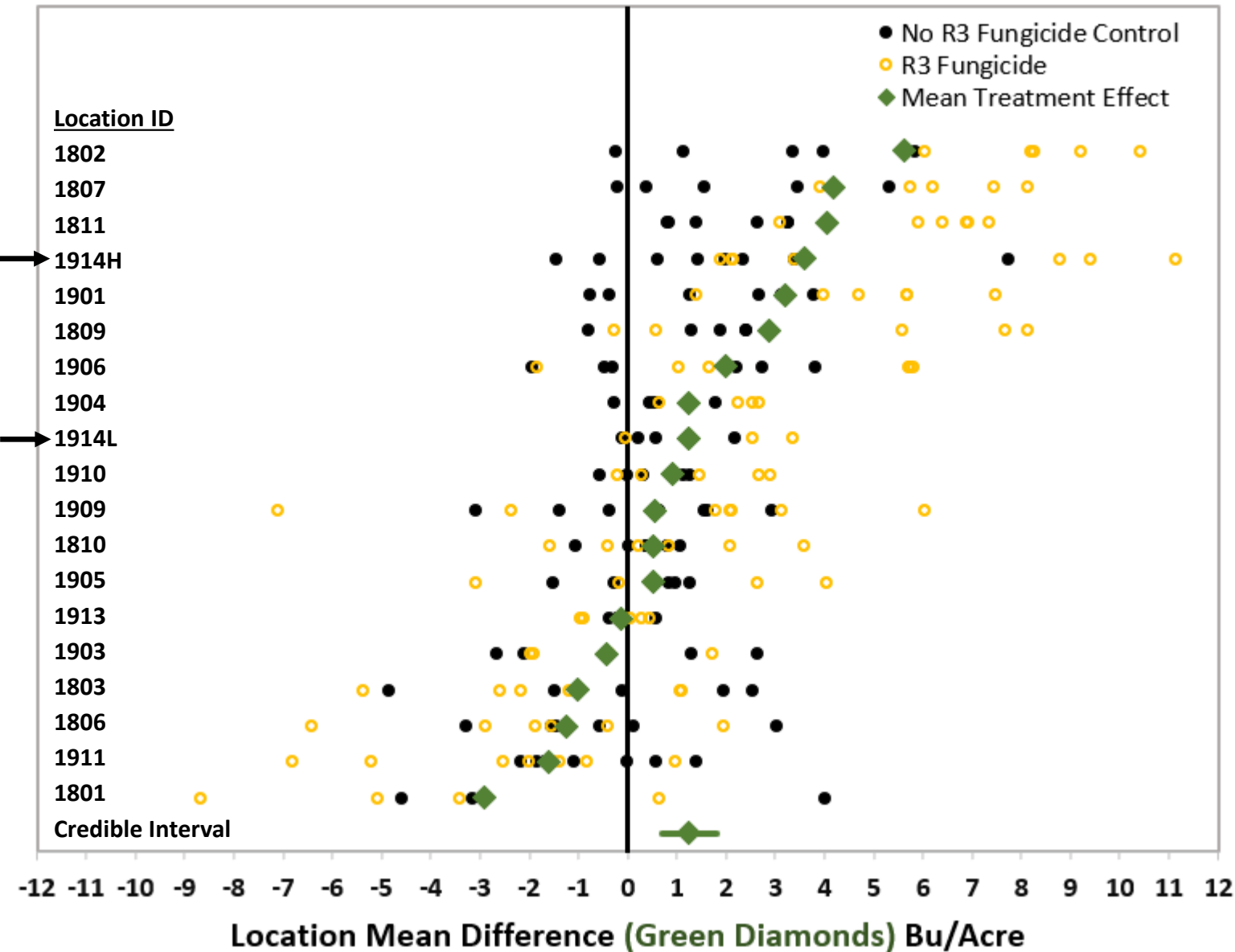
Control (no R5 Fungicide)

Treated (R5 Fungicide)



High resolution aerial imagery from treated and untreated strips. The top images were taken July 24, 23 days prior to the August 16 R5 fungicide application; the lower images were taken on August 28, 12 days after the fungicide application. Images on the left are from point 1 (untreated) and images on the right are from point 8 (treated) in Fig. 2. Scouting indicated low levels of Septoria at this location.

R3 Fungicide for Soybean: Effect on yield



Key Points:

- Across these 18 farms, R3 fungicide increased yield.
- The benefit was less than 2 bushels per acre.
- There was more than a 50% chance of a one bushel/acre response.
- Results by location suggested significant benefit a five of 18 locations.