

Uniform Fungicide Trial-Soybean-Rock
Springs UFT_S_RS_2023



Year	2023
Location	Russel E. Larson Agricultural Research Center at Rock Springs
Field	27
GPS coordinates	40.713352, -77.940055
Soil type	Silt loam
Crop	Soybean
Previous crop	Corn
Variety	Xitavo XO 2832E
Seeding rate	150,000
Row space (in)	30
Reps	4
Tillage/Residue	No-till
Trial type	RCBD
Plot dimensions	10' x 17.5'
Herbicide	Pre: y Post: y
Foliar insecticide	n
Foliar fungicide	n
Fertilizer	n
Irrigation	n
Planting date	5/18/23
Artificial inoculations (y/n)	n
Inoculum type/density	N/A
Inoculation date	N/A
Rating 1 date	9/26/23
Rating 2 date	N/A
Rating 3 date	N/A
Harvest date	10/26/23

Map:



Protocol:

Trt	Product	Rate (oz/a)	Timing	Adjuvant	Rate	Spray Date 1
1	UTC					
2	Miravis Neo	13.7	R3	Induce	0.125%	8/16/2023
4	Trivapro	13.7	R3	Induce	0.125%	8/16/2023
5	Instigo, Carbose	16, 6	R2			8/16/2023
6	Adastrio	7	R3	NIS	0.25% v/v	8/16/2023
7	Lucento	5	R3	NIS	0.25% v/v	8/16/2023
8	Revytek	8	R3	NIS	0.25% v/v	8/16/2023
11	Lucento	5.5	R3	NIS	0.25% v/v	8/16/2023
12	Approach Prima	6.8	R3	NIS	0.25% v/v	8/16/2023
14	Delaro Complete	8	R3	Induce 90 SL	0.12% v/v	8/16/2023

Data by plot:

Plot	Trt	yield_bu_a	Test Weight (lb/bu)	Frogeye leafspot (%)	Septoria brown spot (%)	Bacterial leaf spot (%)	Soybean vein necrosis virus (%)	Moisture (%)
102	5	80.1	54.6	0	13	0.75	0	11.4
103	2	77.6	53.9	0.25	4.25	1	0	11.5
104	8	74.8	54	0.75	0.75	1	0	11.3
105	11	74.3	54.5	0	3.5	0.75	0	11.3
106	6	73.7	53.8	0	1.5	0.5	0	11.2
107	12	76.0	54.5	0	8	0	0.25	11.3
108	1	77.5	54.3	0	9.25	0.75	0	11.7
109	4	71.6	54.5	0	7.5	0.25	0	12.1
110	14	64.9	54.6	0	4.25	0.75	0	11.6
114	7	74.4	54.6	0	2.25	0.25	0	11.2
201	14	72.3	54.4	0	2	0.25	0	11.7
203	1	61.8	55	0	20.75	0.75	0	11.4
206	7	80.0	54.8	0	5.75	0	0	11.3
207	2	70.5	54.8	0	3.25	0.5	0	11.2
208	12	79.5	55.1	0.25	10.5	0.25	0	11.8
209	8	73.0	54.8	0.25	3.25	0.75	0	12.1
210	5	68.4	54.7	0	13	0	0	11.3
212	6	67.2	54.5	0	5.75	0.25	0	11.2
213	4	64.4	54.6	0	7.25	2.75	0	11.2
214	11	63.7	54.7	0.25	3.25	0	0	11.8
301	11	72.0	55.1	0.25	5.5	0.25	0	11.7
302	1	80.5	54.9	0	9.75	1	0	11.3
303	5	61.2	55	0.25	16.25	0.5	0	12
305	12	77.7	55.2	0	3.5	0.5	0	11.3
307	2	76.0	54.6	0.25	3.25	0	0	11.2
308	14	67.3	54.2	0	5.5	0.5	0	11.5
309	8	80.1	54.9	0	2.25	0.75	0.25	11.4
311	4	72.3	54.3	1.5	5.5	1.25	0.25	11.1
312	7	79.4	55	0.25	7	0.25	0	11.3
314	6	67.7	55	0	9.75	0	0	11.2
401	14	63.8	54.8	0	5.25	0	0.25	11.6
402	11	76.0	54.9	0	3.75	0.25	0	11.8
405	7	80.4	54.8	0	3.25	0.25	0	11.4
406	6	69.0	54.4	0.25	5	0.25	0	10.9
407	12	67.6	54.5	0.25	9.25	0.5	0	11.2

408	4	70.9	54.9	0.25	7.75	0.25	0	11.7
409	2	76.3	54.4	0.25	5	0.5	0	11.5
410	1	62.4	54.5	0.25	36.25	0	0	11.6
411	5	60.9	54.9	0.75	18.25	1.25	0	11.4
412	8	75.1	54	1	4.5	0.5	0	11.2

Summary by treatment:

Trt	yield_bu_a	Test Weight (lb/bu)	Frogeye leafspot (%)	Septoria brown spot (%)	Bacterial leaf spot (%)	Soybean vein necrosis virus (%)
1	70.5	54.675	0.0625	19	0.625	0
2	75.1	54.425	0.1875	3.9375	0.5	0
4	69.8	54.575	0.4375	7	1.125	0.0625
5	67.7	54.8	0.25	15.125	0.625	0
6	69.4	54.425	0.0625	5.5	0.25	0
7	78.6	54.8	0.0625	4.5625	0.1875	0
8	75.8	54.425	0.5	2.6875	0.75	0.0625
11	71.5	54.8	0.125	4	0.3125	0
12	75.2	54.825	0.125	7.8125	0.3125	0.0625
14	67.1	54.5	0	4.25	0.375	0.0625

Discussion/Results:

This trial did not have high frogeye leafspot pressure, as hoped for. Most of the foliar disease rating was for lower canopy septoria brown spot, with occasional FELS and downy mildew. NDVI was also collected using a handheld greenseeker. Because of the low FELS severity, there were almost no significant differences in yield among the treatments. All R3 foliar applied products significantly reduced septoria brown spot, with Revytek and Miravis Neo having the lowest mean severities.

UFT-Soybean-Rock Springs

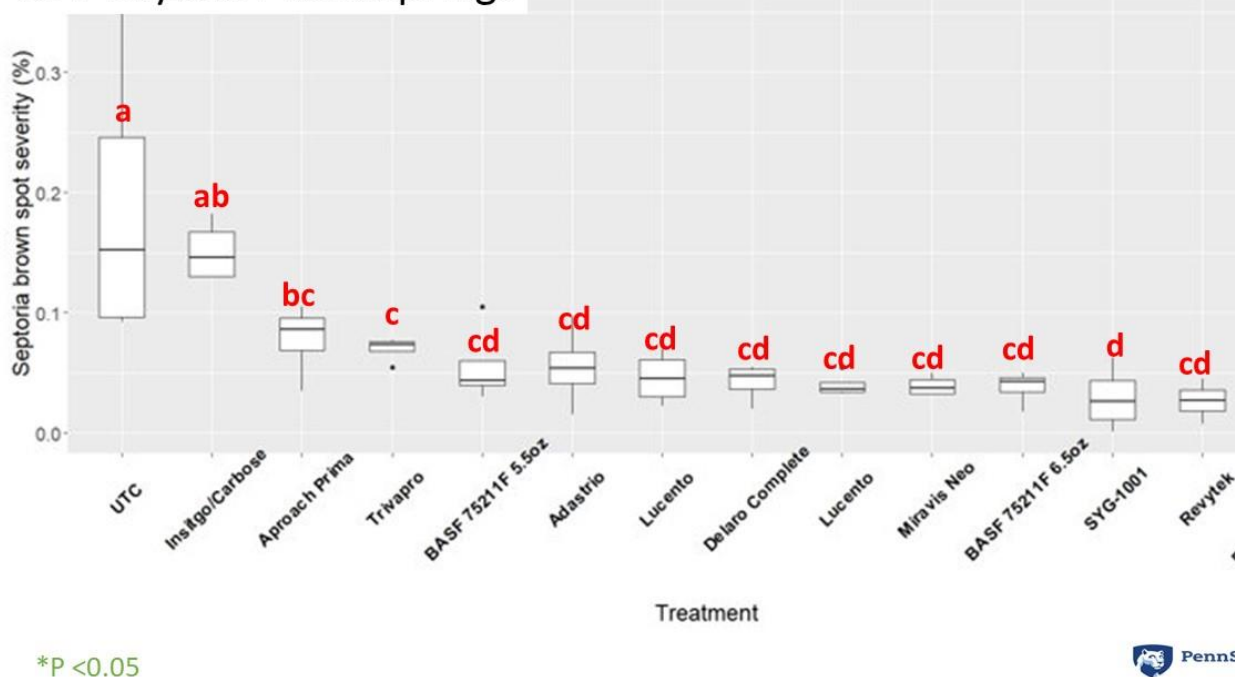
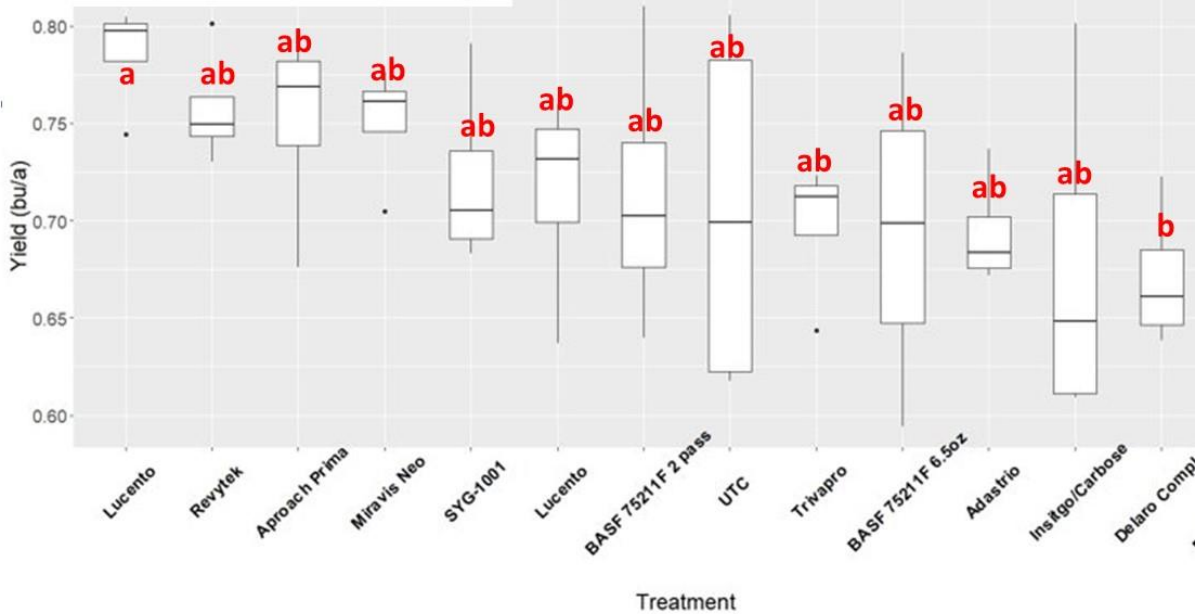


Figure 1. Boxplot showing septoria brown spot severity by treatment. All products significantly reduced disease severity.

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*P < 0.05



Figure 2. This boxplot shows the yield by treatment in this trial. Treatment 7 (Lucento @ 5oz) showed significantly higher yield, but when averaged with the other Lucento treatment (treatment 11), shows no significant difference.

Acknowledgements:

All products used in this trial were provided by BASF, Bayer- Crop Science, FMC Agricultural Solutions, and Syngenta.